Scoping the Dimensions of Visitor Well-being:

A Case Study of Scotland's Forth Valley

Declaration

I declare that the work contained within this thesis has been composed by myself and that it embodies the results of my own research and studies. I have listed below publications that have been, or are about to be, published from this thesis and papers presented at peer-reviewed conferences.

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Publications from this research

Elements of this thesis have been previously published in the following formats:

Walker, L. and Page, S.J. (2003), Risks, Rights and Responsibilities in Tourism Well-being, in Wilks, J. and Page, S.J. (eds.), *Managing Tourist Health and Safety in the New Millennium*, Pergamon, UK: 215-236

Walker, L. and Page, S.J. (2004), The Contribution of Tourists and Visitors to Road Traffic Accidents: A Preliminary Analysis of Trends and Issues for Central Scotland, *Current Issues in Tourism*, Vol 7 (3): 217-241. This article has also been published on the Eurorap (European Road Assessment Programme) website (http://217.174.251.13/).

The following paper was accepted for publication in Current Issues in Tourism on the 30th November 2006:

"The visitor experience of crime: the case of Central Scotland"

Peer reviewed conference papers from this research

Walker, L. (2004), *Visitor Well-being: Understanding the impact of crime on the visitor experience*, presented at the State of the Art II conference in Glasgow, June 2004

Walker, L. (2002), *Visitor Well-being: Understanding the impact of incidents on the visitor experience*, presented at the Tourism Research 2002 – An International Interdisciplinary Conference in Cardiff, September 2002

Dedication

I would like to thank my family and friends for their unfailing support. To my mum, who is always there for me, to Susie and her girls who always make me smile, to Lachie, to George and Judith, to Alex and Jackie, to Helen and Jim and all my family, I thank you for being you. To Moira, Russell and Fiona, I raise a glass. To Kath and Ron, I say thanks for all the cakes!

Most of all, I need to thank my loving husband Paul for always being there, even when I'm not very nice to be around and, of course, my gorgeous son, Stephen who lights up my life with his smile ☺

Abstract

The well-being of tourists or visitors within a destination has, until recently, received little attention. Issues relating to the personal safety and health of the travelling public have been highlighted by a number of high profile incidents of terrorist attacks, large scale natural disasters and life threatening epidemics. While such events are devastating in nature and of great concern, for the majority of travellers, health and personal safety are more likely to be impacted on by illness, being involved in an accident or becoming the victim of crime.

This thesis contributes to our existing understanding of how tourism can be affected by incidents by selecting a definable geographical area and investigating the available data from official sources to examine the dimensions, scale and nature of visitor-related incidents of crime, road traffic accidents and emergency health care. This audit was undertaken through collaborative research with the Central Scotland Police Force, the Central Scotland Road Accident Investigation Unit and the National Health Service Forth Valley. Primary research was then undertaken with visitors to the area. This in-depth approach looks beyond existing statistics to probe factors contributing to visitor-related incidents, in relation to existing tourism literature.

The results indicate that, visitors experience incidents that differ in nature and type from those experienced by local residents, and the times and places they were most at risk also varied. With visitors accounting for less than 10% of the total population, these differences are not apparent in the overall patterns and, therefore, the particular needs of visitors are unlikely to be met through existing measures. This research has the ability to form the basis of improved measures to benefit visitor health and personal safety. Although the nature of the visiting population presents challenges in relation to when, where and how such preventative measures are introduced. Visitors are not homogenous and distinct groupings based on perceptions, attitudes and behaviours were found. Therefore, there is a requirement to examine how incidents impact on visitors by distinguishing them from the overall incident figures, but measures to protect visitors also have to be tailored to take cognisance of typologies of visitors.

Contents

Chapter One: Visitor Well-being - Introduction to the Thesis

1.0 Introduction

This introductory chapter outlines the focus of the study and the justification for undertaking research in this area. The aims and objectives of the study are stated together with a short explanation of the research design and the chosen methodology. In order to provide context, a brief summary is presented with some key figures relating to tourism in the area. The introduction provides an overview of the thesis structure to guide the reader through the document.

This research aims to bring together a range of secondary data sources that have not previously been used in this context, and combine the analysis of this information with primary data sources to allow a multi-dimensional approach to be taken to the complex issues involved in understanding visitor well-being.

1.1 Focus and Justification for the Study

The links between holiday taking and well-being are a regular feature of holiday company marketing and there is a growing literature on the impact of holiday taking on subjective well-being and life satisfaction (see, for example, Gilbert and Abdullah, 2003). The argument that holiday taking enhances the level of happiness of individuals may not be surprising given that it is a discretionary use of leisure time that has seen continued growth through the twentieth and into the twenty-first century (see, for example, Page, 2003). Even the recent dips in international arrivals experienced due to the recent crises of recession, 9/11, SARS and Avian Flu are forecast to be short-term in effect (United Nations - UN-World Tourism Organization, 2003) and domestic tourism and day leisure trips are still substantial markets within countries such as the UK (for full details of UK tourism statistics see www.staruk.org.uk). The pursuit of leisure and leisure travel in particular, as a life enhancing aspect of modern life is not new and is prevalent in leisure and tourism literature. However, the well-being of tourists or visitors within a destination has, until recently, received much less attention. The recent experiences of the travel industry, with a wave of terrorist incidents, health risks and potential epidemics, have highlighted health and personal safety issues relating to the travelling public. These incidents, while devastating in nature and catastrophic in effect, are at the extreme end of the continuum of incidents that may affect visitors; it is much more likely that a

visitor may succumb to illness, be involved in an accident or become the victim of crime.

1.1.1 Visitor Health and Personal Safety

While there is evidence of a growing literature on issues relating to the health and personal safety of tourists (see, for example, Wilks and Page, 2003), the majority of research is concerned with a single aspect of visitor health and personal safety such as the effect of undertaking particular activities (e.g. Wilks, 1999a) or deals with an area at a point in time such as an event (e.g. Barker, Page and Meyer, 2002). The seminal nature of much of the research concerned with visitor personal safety issues (see, for example, Page and Meyer, 1996) is vital to the deeper understanding of specific aspects and activities of leisure and tourism participation but there is also a need to conceptualise the broad issues associated with visitor well-being at the destination. By developing the conceptual aspects associated with visitor health and personal safety at destination, applied research methods can be developed to assist those involved in providing for the needs of the visitor. This thesis contributes to our existing understanding of how tourists and tourism can be affected by health and personal safety issues through selecting a definable geographical area and investigating the available data from official sources through collaborative research with the Central Scotland Police Force, the Central Scotland Road Accident Investigation Unit and the Forth Valley National Health Service to examine the dimensions, scale and nature of tourist-related incidents of crime and accident. It is the first study to date, to select a specific geographical area and to audit the wide range of tourist health and personal safety issues. Rather than adopt a case study approach of a single issue (for example, Faulkner and Vikulov, 2001; Durrheim, D.N. and Leggat, 1999), it seeks to develop the knowledge base in a more holistic manner.

The thesis argues that the use of official statistics needs to be supplemented through primary data gathered by key agencies such as the Police and the National Health Service, to augment and supplement existing analyses of crime and accidents whilst relating the findings to available tourism data. Whilst inconsistencies inevitably arise through incomplete data and problems of data linkage and geographical coverage of data, it is evident that such research advances understanding through a multidisciplinary approach to a multi-faceted problem - namely the type of crime and accidents experienced by visitors in one part of the UK - Central Scotland. This in-

depth approach looks beyond existing statistics to probe and question what factors contribute to the visitor-related incidents, in view of the existing tourism literature (e.g. Barker, Page and Meyer, 2002; Brunt, Mawby and Hambly, 2000).

1.1.2 The Concept of Visitor Well-being

The health and personal safety of the visitor is a vital aspect of the tourism experience (Clift and Page, 1996) and thus integral to the overall success of the tourism industry at the destination. Where adverse conditions to tourism development are compounded by perception of extreme risk in visiting the destination, tourist health and personal safety may be a key 'tipping point' in destination decline and loss of competitiveness. This research proposes to map out this area of study.

Recent world events such as the attacks on New York and Washington in 2001, the Bali bombing in October 2002, the war in Iraq and the continuing terrorist threat have focussed world attention on this issue, an issue that has been growing in importance over recent years and is likely to continue to do so. The well-being of tourists and visitors is critical to the future development of tourism because the highly competitive nature of global tourism combined with the pressure by consumers, especially 'new tourists' (Poon, 1993), has increased the demand for quality experiences. Recent events have pushed the issue of tourists' health and personal safety up the political agenda and research in this field is critical in ascertaining the inherent challenges in ensuring the well-being of the tourist and the continued growth of this vital industry. Tourism is now widely recognised as being a valuable tool in developing local economies. Not only can it provide economic benefits in terms of employment and business opportunities, it can also be instrumental in developing cultural opportunities and can support local heritage by increasing recognition of its importance and/or providing income toward its preservation. Given this dual value to the local community, there can be a vested interest for the entire community to actively protect an area as a tourism destination.

There has been a great deal written on well-being in terms of personal safety and health issues while travelling to and from the destination, particularly in the field of aviation (for example, Yeung and Lingam, 2002; Huch, 1987; Barnett, Shumsky, Hansen, Odoni, and Gosling, 2001; Sachon and Pate-Cornell, 2000). There are also a variety of studies dealing with specific issues at a destination such as snorkelling

deaths in Australia (Edmonds and Walker, 1999) or the risk posed by wild animals in South Africa (Durrheim and Leggat, 1999); however, there has been little written on considerations for tourist health and personal safety at destination level in mainstream tourism literature. The experience of the tourist is clearly affected by the experiences that affect their well being such as crime or accidents. This is an issue in terms of return visits and the image of a destination. It also has implications for those providing health and personal safety services and providers of tourism facilities. While the tourist is visiting any destination, they are subject to the conditions prevailing at that destination and their well being is dependent on the provision at destination of local services such as health care, policing, and water supply. In these days of increased accountability and litigation, there is a need to appreciate and understand the issues affecting the visitor at destination level and to establish criteria for measuring visitor well-being and assessing responsibility for the overall well-being of the individual at a destination. Although health and personal safety issues will never be the attraction or 'pull' factor for a destination, they are aspects that, if not addressed, will discourage visits. With increasing global competition for tourism destinations, an increasingly sophisticated consumer plus a global media network that is constantly searching for dramatic stories, it is essential that destinations look after these 'hygiene' aspects of the visitor experience if they wish to remain competitive. Thus destinations must assess the well-being of visitors.

There have been attempts in the field of geography to measure well-being of the individual by using indicators, both specifically measurable such as income levels and other less tangible measures to make a 'quality of life' measurement (Pacione and Gordon, 1984). These measures though have been aimed at measuring the quality of life in specific communities and do not account for the transient community member – the visitor. Such methods of assessing well-being are not directly transferable to the visitor at destination as there are different criteria and implications for the individual in terms of the both expectation and responsibility. While there are currently no agreed definitions of visitor well-being, it is reasonable to surmise that risks to person in terms of increased susceptibility to crime, accident or illness will affect the well-being of the tourist. In order to develop an understanding of the impact on visitor well-being of such a wide range of issues, this thesis focuses on a specific destination: in this case the Forth Valley area of Central Scotland in the UK.

1.2 Study Area

Tourism in Scotland is reputed to be worth £4.4 billion and supports approximately 9% of employment (VisitScotland, 2004); in areas that are particularly dependent on tourism the employment figure will be considerably higher. It is clear that any loss to income from this source will damage local economies. As with any study, it is necessary for the empirical research presented to be set in context. The social and political environments within which a study was undertaken must be understood in order to fully appreciate the results. The study presented in this thesis is based on the experience of visitor well-being in the Forth Valley area of Central Scotland (see Figure 1.1). This area was chosen as it coincides with the boundaries of the Central Scotland Police Force, which agreed to cooperate and provide data to develop the background for an in-depth study of visitor well-being.

Figure 1.1: Map of Scotland indicating the Forth Valley Area
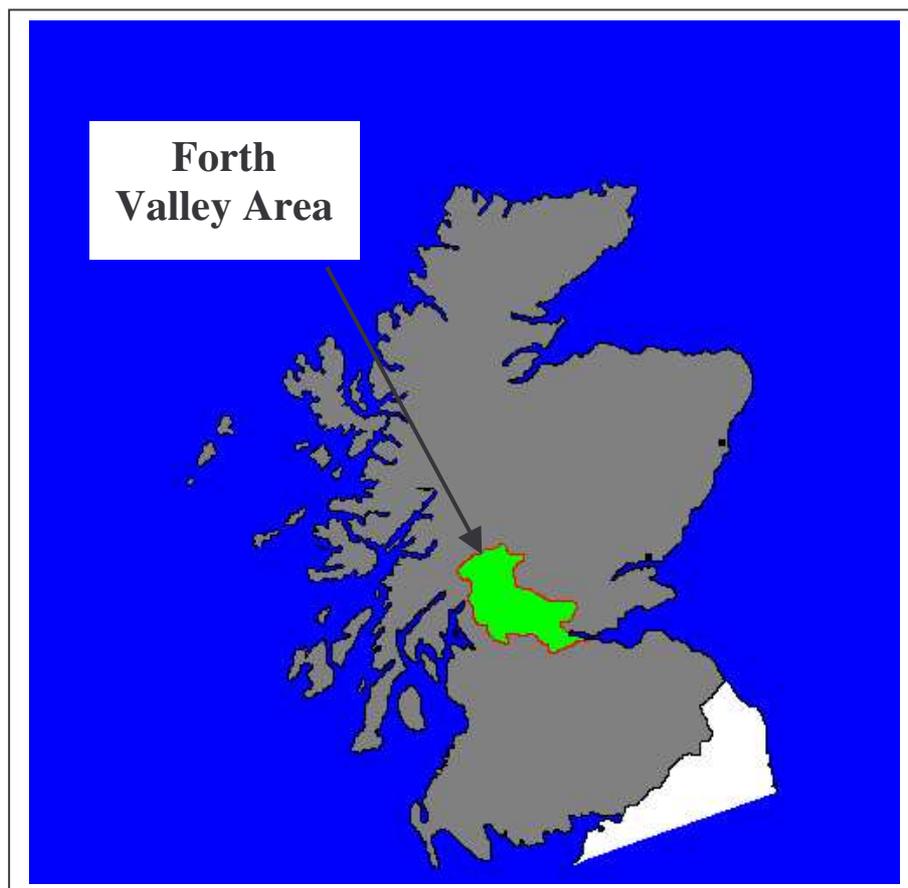
Source: Developed by the author

1.2.1 Information sources

In order to develop an understanding of the impact of such incidents as crime and accidents on the visitor, it is essential to gather sufficient information to identify if there are different patterns of incidents for visitors in comparison to the local population. Gathering such information by survey would be costly and would give an incomplete picture. Therefore, local agencies were approached to gain access to their databases on crime (the Central Scotland Police Force), road traffic accidents (the Central Scotland Accident Investigation Unit and the National Health Service) and other types of accidents and ill-health (the National Health Service), in order to build a comprehensive illustration of reported incidents in the Forth Valley area. However, actual incidents that are reported do not allow a full understanding of well-being issues as they are affected by perception and attitudes. Such information is not available through studying official statistics. This gap in the data will be, at least partially, addressed through the use of surveys of visitors and those involved in tourism.

1.2.2 Approach to data

While there is awareness that the incidents affecting tourists and visitors may be different and also require handling in a distinct manner, the efforts of the emergency services are guided by individual experience and reaction to specific incidents. In order for a coherent approach to be formulated, there is a need for systematic and rigorous research to allow decisions based on a sound knowledge base. Data from Central Scotland Police Force, the Central Scotland Accident Investigation Unit and the Forth Valley National Health Service records were analysed to assess the differences, and similarities, between incidents affecting local residents and visitors. The definition for local resident was a person residing in the postcode areas of Forth Valley, comprising the three council areas of Stirlingshire, Clackmannanshire and the Falkirk District. Visitors were those with postcode data that indicated they were resident outside the area covered by Forth Valley.

The term tourist and visitor have been used throughout this chapter but it may be pertinent to clarify what is meant by those terms for this study.

The field of tourism as a serious area of academic study is relatively new, coinciding with the rise in the mass tourism phenomenon of the 1960s. While there is still a difficulty in terms of reaching agreement globally in the way that tourism and visitor numbers are measured, there is wide agreement on what constitutes international tourism with the UN-World Tourism Organization (UNWTO) classification of travellers widely accepted to define international tourists and excursionists: -

> *"Any person who travels to a country other than that in which s/he has his/her residence but outside his/her usual environment for a period nor exceeding 12 months and whose main purpose of visit is other than the exercise of an activity remunerated from within the country visited"* (UN-World Tourism Organization, 2003).

This definition includes those staying at least one night (tourists) and those not spending the night (same-day visitors). Domestic tourists are often harder to identify, however the UNWTO uses a similar definition for statistic gathering purposes, describing a visitor as:

> **"***Any person travelling to a place other than that of his/her usual environment for less than 12 months and whose main purpose of visit is other than the exercise of an activity remunerated from within the place visited"* (UN-World Tourism Organization, 2003).

This is a very broad definition that can be used for overnight visitors (tourists) and same-day tourists (excursionists or leisure day visitors); also incorporating domestic and international visitors. This broadness of definition is clearly beneficial to ensuring that all those participating in activities outside of their normal sphere can be included but it does make it difficult to identify and quantify. The travel component is the aspect that separates tourism from other forms of leisure and authors may include a minimum travel distance in their definition (Pearce, 1989); indeed countries may use different criteria for measurement, however it is now broadly accepted that leisure day visitors, day-trippers or same-day visitors, whatever the terminology used, are a valid addition to tourism statistics.

VisitScotland, the National Tourism Organisation responsible for promoting Scotland as a tourism destination, use the following definitions:

> *"'A tourist trip' is defined as a stay of one or more nights away from home for holidays, visits to friends or relatives, business/conference trips or any other*

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purposes except such activities as boarding education or semi-permanent employment." (VisitScotland, 2004)

This is quite a wide definition that has broad similarities to the UNWTO definition; the definition for day visitors is slightly different as it only covers leisure visits.

"Leisure day visit' is defined as a trip made from home for leisure activities, not involving an overnight stay" (VisitScotland, 2004)

This may cause a little difficulty when assessing the information from database sources, as there may be some 'visitors' identified who are not in the area for purposes relating to leisure; this issue is discussed further in the methodology chapter.

As the study will be undertaken in Scotland, the VisitScotland definitions are the most appropriate to use. Given that the activities and facilities used by the overnight tourist and the same-day visitors are largely the same; these two groups are likely to have similar issues in terms of health and personal safety in the destination. For this reason, the generic term of 'visitor' will be used throughout this thesis, except where comparisons are being made between groups or when reporting other studies where definitions may differ.

Having established the study area and the terminology of the visitor, the aims and objectives of the thesis are briefly outlined in the next section.

1.3 Research Aims and Objectives

The information on, and appreciation of, the situation regarding the well-being of the visitor at the destination is incomplete and perfunctory. The overall aim of the thesis is to develop a framework for visitor well-being that will allow a conceptualisation of areas of concern and responsibility associated with tourism in destinations.

Within the broader framework of visitor well-being, the issue of visitor health and personal safety will be assessed to achieve the following objectives: -

> ➢ To identify the level and nature of incidents affecting visitors to the Forth Valley;
> ➢ To identify visitor perception of risk of incidents in the Forth Valley;
> ➢ To identify if visitor behaviour reflects a need for safety and security consciousness;
> ➢ To identify where responsibility lies for visitor well-being;
> ➢ To recommend actions that will improve visitor well-being.

1.4 Research Design and Methodology

In compiling this thesis, research will be undertaken in two main sections; secondary research in the form of literature review and database analysis; and primary research in the form of surveying visitors/tourists and personnel involved in their care. The literature review will involve studying and analysing existing documents pertaining to the subject. This evaluation will include published literature such as books, journals, newspapers, government papers, reports and studies. It will also seek to include information drawn from the Internet and from correspondence with organisations that have an interest in tourism/visitor well-being. With the permission of Central Scotland police force and the National Health Service, information will be drawn on crimes and incidents affecting tourists and visitors to the area. These sources will be used to assess the level of incidents involving visitors. The primary research will be carried out surveying tourists and visitors at selected sites in the police force area. This information can then be assessed to identify types of incidents experienced and perceptions of risk. The results of the primary and secondary research will then be assimilated to allow broad conclusions to be reached and recommendations on future action to increase/improve visitor well-being.

To summarise, the research will derive from a variety of quantitative and qualitative sources:

> ➢ Analysis of existing research and academic writing in relevant areas
> ➢ Analysis of raw data provided by Central Scotland Police and the Accident Investigation Unit
> ➢ Analysis of raw data provided by the National Health Service
> ➢ Analysis of background data from sources such as the Scottish Tourism Economic Assessment Monitor (STEAM)
> ➢ Analysis of empirical data collected from visitors, tourists and accommodation providers.

This information will then be utilised to address the issues being focussed on by the study.

1.5 Parameters of the study

The study will focus initially on examining what well-being means for the visitor and, by understanding what visitor well-being means, a conceptualisation of visitor well-being will be developed that can be applied to destinations. In developing a clearer

understanding of what is necessary for the well-being of the visitor, this information can be used to ascertain what actions and/or procedures have to be put in place to ensure the well-being of the visitor.

Various studies have investigated similar of issues in terms of transport provision and there have been specific studies on aspects of visitor well-being at destination level. There has, however, been little undertaken to establish what the parameters are, and where responsibilities lie, in terms of the well-being of the visitor.

As the overall aim of the thesis is to develop an understanding of visitor well-being, literature will be reviewed with empirical data collected. A framework of visitor well-being will be developed based on research and literature from sources such as standard VisitScotland definitions for tourists and visitors; human geography definitions of well-being and 'quality of life'; tourism experience literature and health and personal safety literature. This will be used to assist in the analysis of specific issues related to visitor well-being.

1.6 Thesis Structure

The thesis commences with a review of the literature to explain why this subject is worthy of research; the literature is used to conceptualise the main issues and to develop the foundation for the empirical research. A detailed discussion of methodological issues and data sources used is then presented before setting the context of the study. Attention then turns to hitherto unused data sources made available to the researcher - data supplied by Central Scotland Police Force, the Central Scotland Accident Investigation Unit and the National Health Service. These sources are used, in conjunction with empirical survey data, to explore the differences in the nature of incidents in the Forth Valley area for visitors and non-visitors. The results and findings are then critically examined in view of the existing literature and the context of the study area. Figure 1.2 presents an overview of the structure of the thesis.

Figure 1.2: Thesis Overview

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│        Introduction to Thesis        │
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│ Visitor Well-being – Developing the premise │
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│ Visitor Well-being - The Destination Context │
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│ Visitor Well-being – Developing the framework │
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│    Research design and methodology   │
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│     The destination and its visitors │
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| Understanding the impact of crime on the visitor | Understanding the impact of road traffic accidents on the visitor | Understanding Emergency health care and the visitor |

Visitor Well-being: Risks and responsibility

Visitor Well-being: Implications from the research

Source: Developed by the author

1.7 Summary

This chapter has given a brief overview of the subject area and its justification as a valid area of study. It has established that visitor health and personal safety is a critical issue for the tourism industry in the light of global events, and has identified visitor well-being as important. The themes relating to visitor well-being are explored in the following chapter, which examines the concept of visitor well-being and its importance to the tourism industry

The first step in addressing any issue is to develop a detailed understanding of the problem. Analysis of quantitative data held by Central Scotland Police, the Central Scotland Accident Investigation Unit and the Forth Valley National Health Service combined with empirical data from visitors to the area, will allow the key issues in terms of typology and scope of incidents affecting tourists to be better understood. Once there is an understanding of the issues, there will be the opportunity to address

these issues whether they are changing the behaviour of visitors; developing community based solutions or investing in security equipment. Whatever the outcome of the study, there will be a better understanding of visitor safety and security issues that will allow more informed allocation of resources and inform future research.

Having established visitor well-being as a legitimate area of research, the following chapters will explore the literature associated with the identified themes, building a foundation for the empirical research based on prior research and conceptualisation, to ensure a valid contribution to this field of study.

Chapter Two: Visitor Well-being - Developing the premise

2.0 Introduction

The subject of well-being, happiness or quality of life is not a new one, with discussion on concepts of 'Living Well and the 'Good life' dating back to at least the time of Aristotle (385-322 BC) (Aristotle, translated in Thomson, 1955). Well-being and issues of quality of life are complex concepts that incorporate both objective external factors and subjective internal factors; measures and perceptions of well-being and quality of life vary and change with time and circumstances, and so are neither easy to measure nor to gauge over time. Nevertheless, quality of life is considered a crucial aspect of modern life and there is a consensus by many governments that everyone is entitled to basic levels of well-being – personal safety, security, education and health – as a basis for life quality; although the levels considered basic will vary from nation to nation, culture to culture and community to community. In wealthier nations, expectations are likely to be higher in terms of the material aspects of quality of life and, therefore, a higher standard of living is required to satisfy the residents' perceptual levels of well-being.

It is easy to see how quality of life is connected to issues of health and personal safety, the Health and Safety Executive (HSE) stated that ill health 'can seriously affect an individual's quality of life' (HSE 2005). The UN-World Health Organization (WHO) has defined quality of life as 'an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns', and goes on to say that 'this is affected by an interaction of the individual's health, mental state, spirituality, relationships and elements of their environment.' (WHO, 1998).

Measures of well-being are concerned with the community and its members; within the community, responsibility and accountability are clearly designated. However, when community members travel and become transient members of a different community, there are less obvious lines of responsibility and accountability for their well-being. Nevertheless, still a key element of a community, and more significant if tourism is based upon consumption of pleasure and enjoying one's leisure time.

If the premise is accepted that visitors' health and personal safety is a prime consideration in maintaining the quality of the visitor experience, then one has to

consider what measures are required to ensure visitor health and personal safety and who should provide them. It could be argued that those on a package tour are the responsibility of the tour operator, however even in this very particular and increasingly less common method of holiday taking, the tour operator rarely controls all activities nor does the tour operator have control of the environment that the visitor lives and undertakes recreation in at the destination. In the EU, the 1992 Package Holiday Directive established 'duty of care' as a legal basis, a feature now gaining greater recognition and reflected in a rising litigation culture (Callander and Page, 2003); but even if, a tourist or day visitor may be 'in the care of' a single operator while in transit, destinations are rarely owned and operated by a single company. This makes responsibility for the visitor a more complex matter at the destination than generally is the case during transit. The variety of accommodation, facilities and activities used by the visitor during their visit to a destination make it difficult to allocate responsibility. This is compounded as tourists and visitors often use facilities and services that are not considered part of the 'tourism industry' such as the local newsagent or pharmacist.

This chapter seeks to provide a holistic approach to visitor well-being through developing the research and literature available on well-being and the visitor at the destination. In order to do so, the concept of well-being and its role in the everyday life of the community must first be explored.

2.1 Well-being

The nature of research into the health and personal safety of the visitor at destination has tended to be on very specific topics. While this research is necessary; it artificially separates the various aspects of the visitor, the destination and their interaction. It rarely achieves a holistic analysis rooted in the visitor as a consumer in a different environment.

Literature relating to visitor well-being extends across a variety of disciplines such as medicine (see, for example, Alder and Chisholm, 1991; Hargarten, Baker and Guptill, 1991); safety management (see, for example, Bentley, Meyer, Page and Chalmers, 2001); social geography (see, for example, Eyles and Smith, 1978), and, of course, tourism (see, for example, Clift and Grabowski, 1997; Brunt et al, 2000). In the main, the literature deals with very specific aspects such as the effect of undertaking specific

activities (see, for example, Wilks, 1999a) or deals with a very specific area at a point in time such as an event (see, for example, Barker et al, 2002). While much of this work has been seminal in nature (see, for example, Page and Meyer, 1996; Wilks, 1999b), there is a need to conceptualise the aspects affecting visitor well-being and develop applied research methods that assist the organisations involved in the provision of visitor services as the example of Barker et al (2002) suggests. This is needed to understand the specific requirements of the visitor and allocate, or seek additional, resources to provide for their requirements, particularly during special events such as the Olympic Games or the America's Cup.

Safety and security issues have, even prior to 9/11, been a consideration in destination choice for the majority of consumers. Even isolated incidents of crime or accidents can generate publicity damaging to a destination image and ultimately impact on the level of visitors. Understanding the needs of the visitor may then be critical in a destination's success, this requires an understanding of how health and personal safety issues impact on the visitor and their well-being.

2.1.1 What is well-being?

Dictionaries suggest that well-being can be defined as "*the state of being comfortable, healthy or happy*" (Pearsall, 2001: 1625). This describes the state of well-being but does nothing to indicate the requirements for a state of well-being to exist nor whether it is internal or external factors that affect well-being. Individual well-being is a concern very much associated with modern society and developed nations have come to appreciate that wealth alone does not ensure a high quality of life. Prior to the twentieth century, history was in the main concerned with the stories of nations and their rulers due to a lack of information on the everyday lives of everyday people, that changed with the introduction of statistic gathering at sub-national level on various aspects of life from the 20th century onwards (Caplow et al cited in Massam, 2002: 176). The gathering of social statistics provides a broader picture of life at different levels in a society and can allow some comparison of life quality between different communities and groups or individuals within those communities. Well-being or quality of life has differing meanings depending on the position of those seeking to measure it but normally it refers to either the physical environment such as water quality or housing conditions that people live in or it refers to aspects of the people themselves such as health or educational achievement (Pacione and Gordon, 1984: 1).

Due to its multi-dimensional nature, politicians, philosophers, psychologists, economists, and geographers have debated the meaning of quality of life and the methods required to improve quality of life and the related qualitative concept of well-being. For example, psychology views well-being from two distinct perspectives, the hedonistic approach which focuses on pleasure attainment and pain avoidance and eudaemonic approach which focuses on self-realisation and the degree to which a person is fully functioning (Ryan and Deci, 2001). Although economists traditionally are more concerned with the monetary aspects of well-being or quality of life focussing on Gross National Product, levels of disposable income and price indexes, they too recognise that there comes a level of development where private consumption concerns are overridden by 'collective satisfactions' (Pacione and Gordon, 1984). Public planners are concerned with creating or maintaining environments that allow continuation of, or improvements in, quality of life and increase well-being. Whichever approach, the theory of a hierarchy of needs (see Figure 2.1) developed by Maslow (see, for example, Maslow, 1943) would seem to underpin many of the fundamental assumptions in these debates, in that certain basic needs have to be met to allow individuals, and the societies in which they live, to develop social welfare systems and mechanisms leading to a quality of life above subsistence level. Although well-being cannot be said to be a function of these needs being met *per se*, it is unlikely that any recognisable quality of life will be achieved without food, shelter, safety and a level of good health.

Figure 2.1: Maslow's Hierarchy of Needs

Source: Based on Maslow (1943)
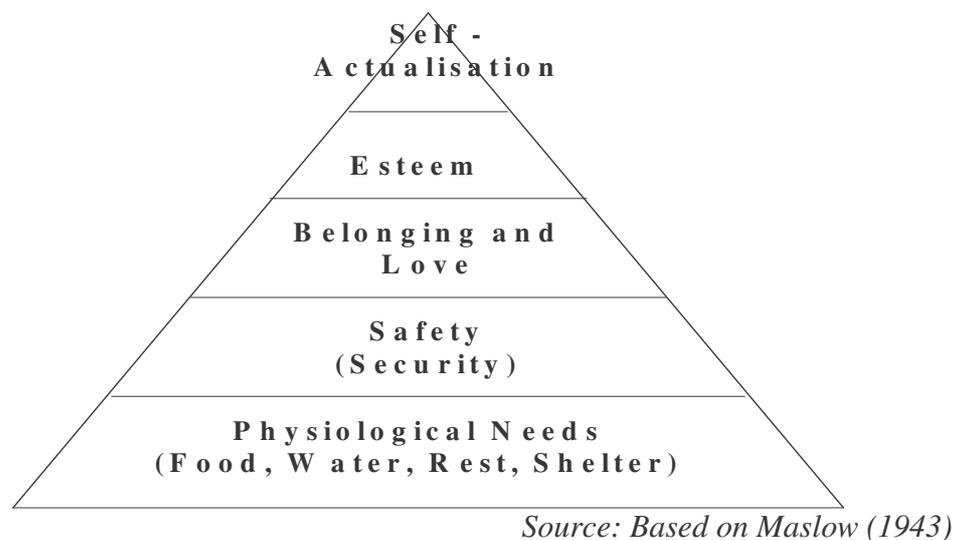
2.1.2 Well-being in the Community

Well-being may be seen as individualised but the delivery of policy measures by governments and agencies will be mainly at community level. Composite measures of quality of life and well-being take aggregate measures of individuals and derive geographical analyses of these measures in time and space. A community is a complex interaction of people that has evolved over time, where there is a recognisable consensus of being an entity, having social interaction and a level of local government. Well-being within the community covers a broad range of factors. Well-being can be considered in physical attributes and measured objectively, it can be considered subjectively in terms of a person's attitude toward their life or a mixture of objective and subjective criteria can be combined to develop a measure of well-being. Due to the relative ease of measuring well-being objectively, this has been a much favoured method for governments throughout the world to measure the well-being of their population. However, well-being is about more than simply the physical aspects of life such as standard of housing, income and access to facilities; well-being incorporates the less easily measured aspects of life such as freedom from fear, good health, quality of social relationships and feelings of belonging. These more subjective aspects, which are more difficult to measure, are no less important if a true understanding of well-being is to be developed.

2.1.3 Changing Perceptions of Well-being

Well-being for the individual may vary in view from the objective measures of well-being used by governments and researchers. Time and changing external factors may mean that despite improvements in living, working and social conditions, people within a community may feel that their quality of life or levels of well-being have dropped. Their perception of well-being may not match the improvements apparent by objective measurements. This may be for various reasons such as raised expectations or individuals feeling that their quality of life has not improved as much as that of others. This disparity in expected improvements against actual improvements may make individuals feel that their life quality has, at best, remained static or they may even believe that it has dropped (Dean, 2001). There may be other reasons why a rise in 'actual' life quality according to official measures does not equate with a rise in perceived quality of life. Community/family breakdown may lower feelings of social belonging or media emphasis on aspects of life, such as crime,

may lead people to believe that it is less safe to live in the community. Well-being for the individual does not equate then to the objectively set external measures. It may be subject to a variety of internal processes that produce individual subjective responses to a given situation. Well-being can then be seen as both objective and subjective in nature. Human geographers have explored concepts such as quality of life and welfare in some depth in particular the subjective aspects of well-being. Subjective well-being (SWB) is an area that has seen a re-growth in interest in recent years (Smith, Langa, Kabeto and Ubel, 2005) with the recognition that well-being is based not only on actual conditions of a person's situation but also how such conditions are perceived. The availability of international data has allowed some comparability to be made across countries. Interestingly but perhaps unsurprisingly, health is the single most important contributory to SWB scores rating far higher than aspects such as income or job satisfaction (Smith et al, 2005).

2.1.4 Subjective well-being

The objective measures of well-being of the individual in the community have largely been seen as having relatively easily measured factors such as housing quality, school standards, facilities available, disposable income, access to education. How then can we measure subjective well-being? Subjective well-being by its very nature implies that it is dealing with a response to factors rather than the factors themselves and this response is dependant on the individual, their personality, experience and circumstances, making a prediction on their response as an individual difficult to ascertain and this is made more difficult as this response may vary according to mood and situation at any given time.

As external forces can affect an individual's well-being, any agencies that have control over these forces have a great deal of influence. Government and its agencies, social structures, media influence, employment circumstances and other factors combine to influence quality of life. There is no easy formula to ensure quality of life and well-being but there are controllable aspects that can help. Although Maslow's "hierarchy of needs" model (see Figure 2.1) has been widely criticised as over simplistic, it is still often used to illustrate the basic needs of man. Food, shelter and safety are basic human needs; humans are naturally social animals and so love, comfort and relationships with others are vital too. Naturally it is difficult for an agency to ensure that each individual is loved and socially accepted, however steps

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can be taken to encourage social structures that are accepting of the individual and encourage family life, hence legislation and public information against discrimination are often supported by governments and voluntary organisations. Aspects that affect well-being such as food, shelter and safety are easier, although not easy, to ensure. Equity in income distribution, good sanitation, clean drinking water, provision of affordable, good quality housing, provision of policing and fair legal systems, provision of affordable health care and education are some aspects of well-being that can be influenced by external agencies. Well-being, though can be seriously reduced by incidents such as crime and accidents. The risk of these incidents happening and/or the perception of the risk of these incidents happening can reduce well-being due to physical results from the incident and/or strain on mental health either from an incident occurring or fear that it may. In some cases in tourism (e.g. adventure tourism in Scotland), a regulation culture via policy intervention and legislation may in fact reduce the enjoyment of the visitor in an attempt to reduce risk.

Well-being therefore can be seen from a variety of perspectives with governments tending to favour the more 'objective' measures of well-being incorporating the external environment of the individual's life. These cover issues such as pollution, housing standards, level of green space available for recreation, crime rates and road accidents. However, there is an argument that this may not account for the actual well-being perceived by the individual. The things that 'make life worthwhile' or 'quality of life' may owe as much, or more, to the pattern and setting of personal relationships than the external circumstances and environments experienced (Andrews and Withey, 1976). Well-being, therefore, can be seen to constitute physiological and psychological aspects. There is general agreement in the literature surrounding quality of life and well-being issues that subjective rather than objective measures of conditions have most influence: As van Kamp, Leidelmeijer, Marsmann and de Hollander (2003) state;

> *"The objective conditions do not convey true quality: thinking about quality is not determined by the objective environment but the perception that people have of this environment."* (van Kamp et al, 2003: 7)

This idea of personal interaction with the community and surrounding environment being affected by aspects of self and personal circumstances, is perhaps best illustrated conceptually. Figure 2.2 illustrates that quality of life can be seen as the

degree of 'fit' between a person and their environment and the influence that a range
of component parts to the environment and the individual has on that 'fit'. Although
comprehensive in its approach, this does not attempt to prioritise factors in terms of
their relative influence nor does it give an indication of causality of factors in life
quality.

Figure 2.2: Domains of (human) livability and (environmental) quality-of-life
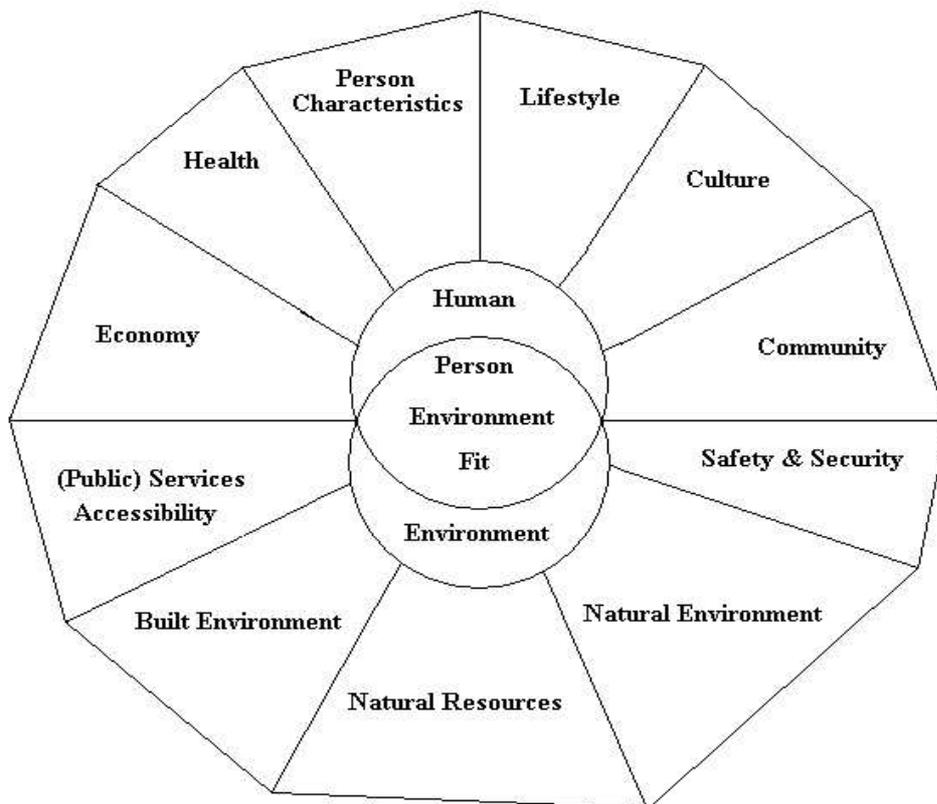
Some studies have attempted to develop associations between various indicators for
example Veenhoven (1999) found GDP, freedom and equity to be strongly associated
with a happy life. So, while non-economic factors may be important, developments to
improve quality of life/ well-being tend to result from economic welfare. This can be
seen as true up to a certain point but depends not only on a basic level of wealth but
also on its distribution (Veenhoven 1999). In the USA, and in other developed
countries, there has been a drop in perceived levels of well-being despite overall
improvements in living standards by any objective measures. This would support the

hypothesis that base line community wealth is required to meet the basic needs such as those identified by Maslow as the lower needs (see Figure 2.1); after that other, less economically linked, requirements are necessary to further increase levels of perceived well-being.

Research in behavioural geography suggests that environments are not only physical but also perceptual; they exist not only in an objective, solid state but also as part of our imagination. Therefore, the environment in which we live in will vary according to the attitude and behaviour of those within it. Lowenthal (1967) presented the idea of a geography having three realms: the nature of the environment itself; the way we feel and think about the environment; and the way we behave in and alter the environment. People, therefore can be seen as bringing the environment to life and giving it meaning, with the environment reflecting the belief and values of those interacting with it. People can change an environment, but this will be within the constraints of the structures of their lives; cultural, political, psychological, social and economic.

This idea that the physical and imagined world combine to produce the environment as the individual perceives it has implications for the way people behave within that environment and, to an extent, explains differences in approach, attitude and behaviour in a given situation by each individual. This perception of the environment will also influence behaviour when faced with any hazard and, therefore, the degree of risk which that hazard represents.

2.2 Hazards, risk and risk perception

Although this thesis is not concerned with risk perception and behaviour as such, it is helpful to have a grasp of the basic issues in order to appreciate how they affect visitors and how they may impact on visitor well-being. As with any service encounter, visitors, when choosing between alternative choices, will evaluate a potential destination in terms of risk. Risk may take a number of different forms and all are relevant to destination choice. Lovelock, Vandermerwe and Lewis (1996) categorise risks associated with purchasing services into seven categories, these categories are tabulated below with examples (author's own) relevant to destination choice (see Table 2.1).

Risk in this thesis is considered in terms of the causes of crime, illness or injury and their likelihood of impacting on an individual. Therefore, although destinations must take cognisance of all the risk factors that may influence a visitor or potential visitor; this thesis is concerned mainly with physical and psychological risks impacting on the visitor at time of consumption.

Table 2.1: Perceived risks in purchasing services adapted for destination choice

Type of risk	Meaning	*Example of customer concerns*
Functional risk	Unsatisfactory performance outcomes	• Will this break allow me to relax? • Will I be able to undertake the activities that I want to do?
Financial risk	Monetary loss, unexpected costs	• Will I incur additional, unexpected costs while visiting this destination? • Will I lose money as a result of my visit?
Temporal risk	Wasting time, consequences of delays	• Will I have to wait in queues? • Will service be slow at the facilities I use?
Physical risk	Personal injury or damage to possessions	• Will I get injured if I go there? • Will I fall ill while visiting the area?
Psychological risk	Personal fears and emotions	• Will I be victimised? • Will I be made to feel it is my fault if things go wrong?
Social risk	How others will think and react	• Will my friends think this is a good choice of destination? • Will my partner/family be happy with the choice of destination I have made?
Sensory risk	Unwanted impacts on any of the five senses	• Will the place be as attractive as I hope? • Will my fellow guests be too noisy, smoke too much, drink too much ….?

Adapted from Lovelock et al (1996): 133

Behavioural geography challenges the assumption that people will make the 'rational' choice in decision-making and choice behaviour (Golledge, 1967). Human response to hazardous environments is a vital aspect of risk assessment as behaviour patterns of those exposed to environmental risk is based on subjective 'knowledge' of the situation. This will in part at least be an emotional response to the place we are in. This emotional response to place, explored by Amedeo (1993), may assist in explaining our perception that a place is 'safe' or 'unsafe' when we do not always have a full range of information on which to 'objectively' judge. Nevertheless, if we

are affected by adverse incidents such as illness, accidents or crime against property or person, then we are likely to have a negative reaction that will impact on our perceptions of a place although levels vary from community to community. Accidents, illness and crime are a part of the society that we live in; this section discusses the links between hazards and risks and how risk or the perception of risk can affect well-being.

2.2.1 Differences between hazard and risk

Hazards can be distinguished from risk as being a specific danger as expressed by Sharp,

> *"Hazards are defined in absolute terms (for example cliff faces, avalanche prone slopes, fast moving water, electricity, sharp knives) …"* (Sharp, 2001: 10).

Risk though is particular to the person that confronts the hazard and the context in which the hazard exists at that time; the degree of risk presented by the hazard will vary from individual to individual and the context of the hazard. For example, a cliff face on a clear day for an experienced climber with appropriate equipment will not represent a high level of risk; however the same cliff face on a different day and/or with an ill-equipped, novice climber could represent a very high level of risk.

Risk can be defined as "*a situation involving exposure to danger*" (Pearsall, 2001: 1235). This would imply that, logically, we would always seek to avoid risk; however it may be argued that risk is an inherent part of life and that a degree of risk can enhance an experience. Therefore, in most circumstances, a degree of risk is an accepted, or even sought, part of an activity. Given that most activities contain a degree of risk, then the question moves to what is an acceptable level of risk for an activity. Before the acceptability of risk is decided upon, the risk first has to be assessed.

2.2.2 Measuring and assessing risk

Levels of risk can be estimated using mathematical formulae that assess the historical data and differing factors of variance to allow a numerical value to be attributed to the likelihood of an incident/set of circumstances occurring. For most activities, estimating risk is fairly straightforward with past experience used to predict likely chances of any particular outcome occurring again. The first stage in any attempt to manage risk must be to identify potential risk (Tchankova, 2002) and then assess its

likely impact in terms of probability of occurrence and consequences in the event of it actually occurring. Assessing risk level for a given incident can be achieved through risk assessment software such as the one illustrated in Figure 2.3.

In the Risk Assessment Programme a calculation is made between the probabilities of an incident occurring, the exposure time of that incident occurring (in weeks, days or hours) together with the likely consequences of such an incident (insignificant, minor, major, severe consequences, fatality or multi-fatalities). This produces a scale on which to measure incidents against each other and can allow an evaluation on how to allocate resources to optimum effect. This is a relatively easy exercise for an individual organisation but more problematic for a destination covering a variety of businesses and environments. However, if the destination is a contained area, assessment should be possible.

Figure 2.3: Risk Assessment Programme

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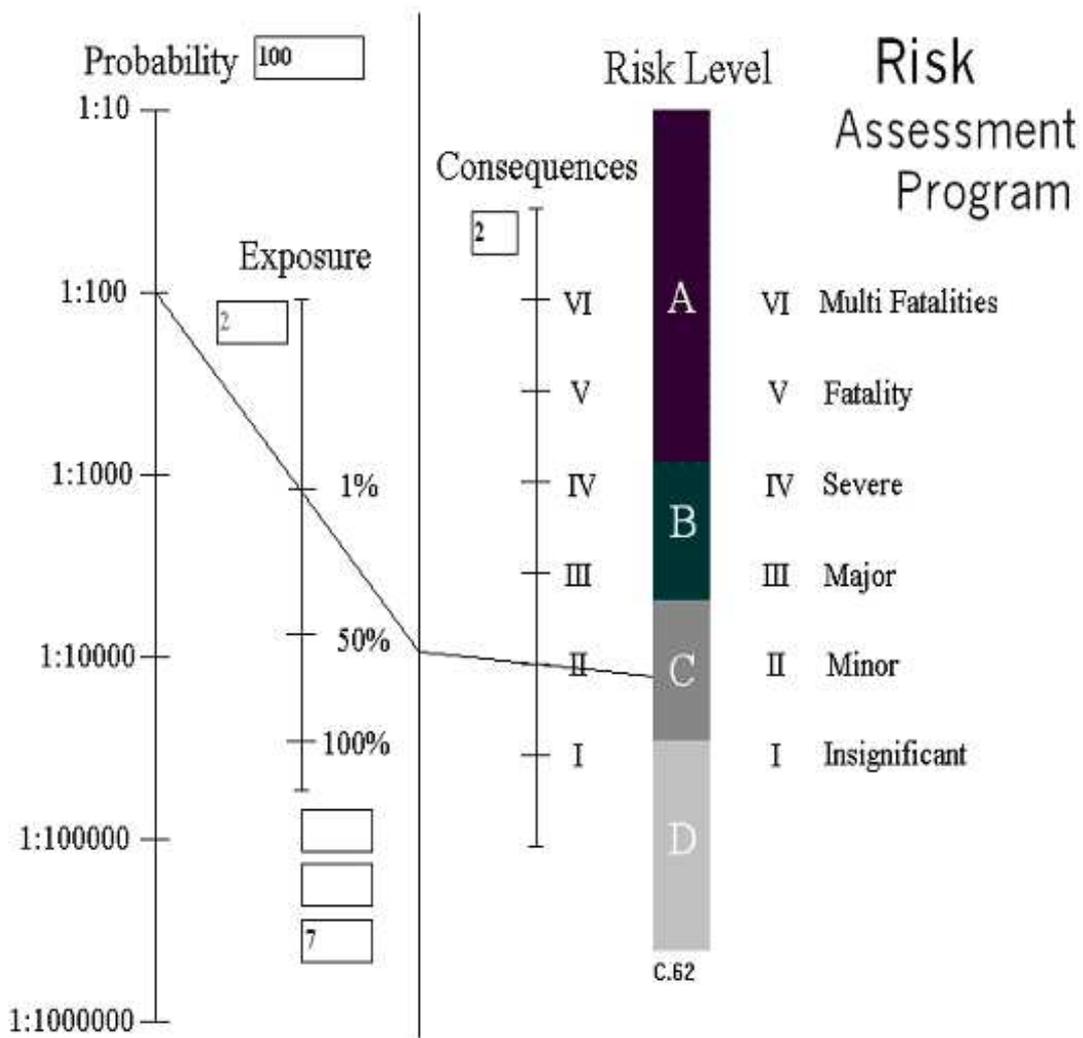
2.2.3 Acceptability of risk

At an individual level we can choose the level of risk we wish to expose ourselves to, but this 'choice' requires that we have knowledge of the hazards that we will face and our ability to cope with these hazards. Only where sufficient information is available in an accessible format can we make an informed choice. In our everyday life within our community we are surrounded by information sources both formal and informal on which we judge the relative hazards of our environment. These sources may not always be totally accurate and research has shown that even with access to statistical information on relative risk that people will still make decisions that do not seem objectively logical. However, access to wider information sources at least allows that choice. Not only do we look to organisations such as the police force to deliver a secure environment, we also use our own knowledge and experience of the area to take appropriate action to reduce risk. This may still be assessed poorly due to incomplete information or due to a misunderstanding of the degree of risk attached to an activity. For example the risk of road accidents are generally underestimated but the risk of being attacked by a complete stranger tends to be overestimated. However, as a general rule, local residents in an area have access to a wide range of <u>formal</u> sources (such as newspapers or local radio/TV alerts) and <u>informal</u> sources (such as neighbours' gossip or personal experience) that allow a broad assessment of potential risk to personal safety. Information on hazards in a local area whether it is unsettled weather or criminal activity in a particular area is often communicated through local media (newspapers, local radio and television) but also within informal communications such as discussion with friends or neighbours. This type of local knowledge is rarely available to the visitor as they are not involved in the day-to-day life of the community and, as they are in a different mindset, they are less likely to seek out such information.

Individuals may be content to accept a certain amount of risk in order to visit certain destinations (see, for example, Carter, 1998) or participate in certain activities (see, for example, Walle, 1997); indeed in some circumstances a level of risk may not only be acceptable but may actually be desirable. This desirability of, at least the feeling of, taking risks is clearest in the growth of extreme sports where the attraction is the feeling of testing skills to the limit; the danger element is an essential part of the

attraction (Page and Meyer, 1996). This willingness to take risk for potential rewards can also be seen in some destination choices (see, for example, Carter, 1998); travel choices (see, for example, Elsrud, 2001) and the growth in adventure tourism (see, for example, Bentley and Page, 2001), where knowledge of risk can be offset by the challenge of environments or the opportunity to explore interesting cultures. Yet equally important to the selection of destinations, particularly since 9/11, is the information supplied by government sources. Information supplied by the media (such as news items and travel programs), advice given by travel agents and consultants and testimonials from friends, together with personal experience, also affect a person's destination choice. Increasingly such sources are supplemented by the Internet; official site, commercial sources and peer review sites are all accessed for information.

Risk and the acceptability of risk are, to a large extent, influenced by environment and knowledge of that environment. Visitors enter a less familiar environment and their knowledge of that environment will be different to the knowledge of those living within the host community. Therefore, visitors may be less able to fully assess hazards faced and make informed choices on their acceptability.

2.3 Summary

Issues affecting quality of life are clearly important aspects of everyday life in developed societies with governments seeking ways to improve the well-being of its citizens. Such well-being is dependant on a number of different factors and include both easily measured aspects such as mortality rates with more difficult to measure aspects such as perception of personal safety. The concept of well-being is difficult to define and, yet there is an intuitive appreciation of its components, particularly if there is an aspect that is impacting negatively on overall well-being. Issues of health and personal safety impact on well-being in all areas of our lives but while we are in our own community, we have communications that make us aware of local hazards.

Although personal safety is an important aspect of well-being, there is a dichotomy in that some element of risk may be seen as acceptable or even desirable. Motivation for undertaking tourism activities is often identified as a desire of escape from the mundane (Ryan, 1995). Seeking the excitement of different places, people and

activities inevitably brings with it levels of uncertainty and hazards not normally encountered in their day to day life.

However, differences in knowledge of hazards will affect the level of risk faced by an individual. This difference in knowledge is likely to be exacerbated in the case of visitors, making them more vulnerable to risk and less able to make informed choices. Visitors are, then, likely to be more at risk from hazards than local residents. Although many issues concerning individual well-being within communities will be similar to those visitors to an area, there are some fundamental disparities in terms of knowledge, behaviour and exposure that may make the experience of visitors different from that of the local resident. The next chapter focuses on such disparities and how they may impact on the visitor in the destination.

Chapter Three: Visitor Well-being in the Destination Context

3.0 Introduction

Tourism can be seen as an indicator of quality of life. The number of people free to participate in tourism can be seen as an indicator of the economic prosperity of specific social groups, freedom of movement and distribution of wealth all generally thought of as criteria that are necessary for a good quality of life. The feelings of well-being associated with tourism activities, in developed countries, are increasingly being seen as a 'right' and necessary for relaxation and recuperation from the stress of everyday life. However, this beneficial aspect of tourism may be lessened, or even negated, by a bad experience on holiday, this leads to the question of well-being in the destination context and how this may affect the visitor both at the time of the visit to the destination and subsequently.

Griffin (1986) asserts that the theoretical context will impact on the notion of well-being. Well-being in the destination cannot be directly equated to well-being within the 'normal' resident community. Indicators used to assess the well-being of community members may not be directly relevant to the 'transient community member' – the visitor – as many issues important to permanent community members are not applicable to visitors, for example housing conditions. However, there are many aspects that still apply to visitors, for example health and safety measures. There have been various articles and studies relating to leisure tourism and the health of individuals (for example, Steffen, deBernardis and Banos, 2002; Bauer, 2001; Evans, Shickle and Morgan, 2001) and leisure tourism and safety (for example, Barker and Page, 2002; Wilks, 1999). However, although there is evidence to suggest that each individual component within the leisure trip experience will impact on an individual's life satisfaction (Neal, Sirgy and Uysal, 1999), there has been no overall evaluation of well-being of the visitor at the destination and how health and personal safety issues affect that well-being. If a visitor's experience of leisure travel can be said to impact on their overall life quality as advocated by Neal et al (1999), then negative experiences must have a negative effect on overall life quality, or at least the visitor's well-being at that time. This lack of evaluation of visitor well-being represents a gap in knowledge of visitors and how they interact with the destination environment.

This Chapter seeks to identify the variance between residents in the community and visitors in the destination; and how this variance impacts on the experience of the visitor.

3.1 Visitors and destinations

Daily lives are lived in recognised societies or communities and, the residents within these communities are subject to a 'normalisation' with recognised systems and behaviours (Haralambos and Holborn, 1995) both as individuals and in conjunction with others including official agencies. However, when the individual ventures into a different place for short durations for the purpose of tourism or day visits, they then become visitors within a different community with its own norms, systems and behaviours. The terminology used and the definitions that are accepted for this phenomenon called tourism were discussed in chapter one; here the implications of those definitions are explored further.

Tourism can be viewed in various ways; it can be seen as a social phenomenon, an industry or an economic activity. Leiper (1990) describes tourism as a system where people can move through various areas of the system – this is appealing as not only does it allow a sensible separation of the various aspects of the tourist industry but also it implies the movement of people, a vital aspect of tourism. Leiper's model of tourism encapsulates the basic elements of tourism seen as a system (see Figure 3.1, below), a generating area, a transit area and a destination area.

Figure 3.1: Leiper's Model – Basic tourism system
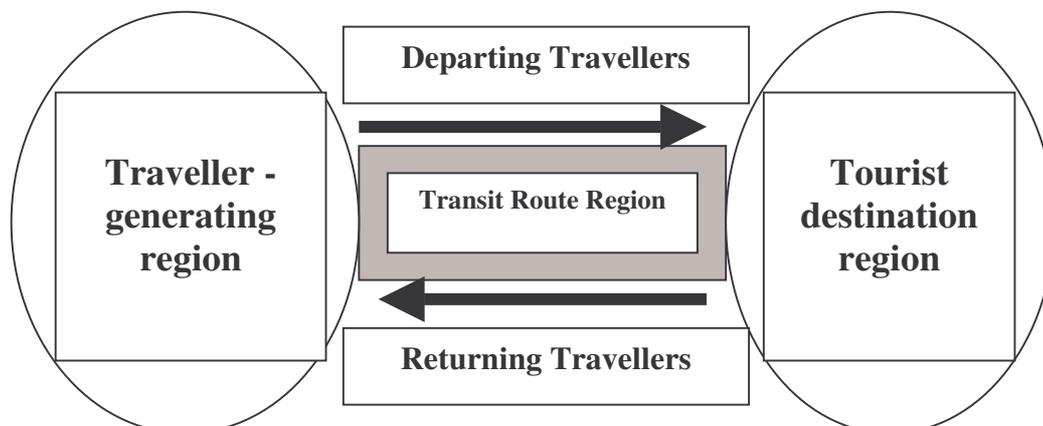
Departing Travellers

Traveller - generating region

Transit Route Region

Tourist destination region

Returning Travellers

*Environments***: Human, socio-cultural, economical, technological, physical, political, legal.**

Location of travellers, visitors and of the travel and tourism industry

Source: Leiper (1990)

Prior to travel, the traveller or visitor will actually be a resident in his or her community and only becomes a 'tourist' on commencement of his/her trip. In principle then, the only difference between a resident and a visitor should be geography. Visitors and residents in the destination should only be differentiated by the relative level of leisure time available, assuming the visitor has few constraints on leisure at the destination and the residents have the normal constraints of work and personal commitments that restrict leisure; any cultural differences; and differences in relative wealth and discretionary income. However, the tourism literature would suggest that this is not the case and that we appear to go through a fundamental shift in psyche, particularly in terms of risk behaviour (Clift and Page, 1996), when we 'transform' into tourists; this is illustrated in the adapted Leiper model below (Figure 3.2).

Figure 3.2: Adaptation of Leiper's Model – The Tourist in the Basic Tourism System
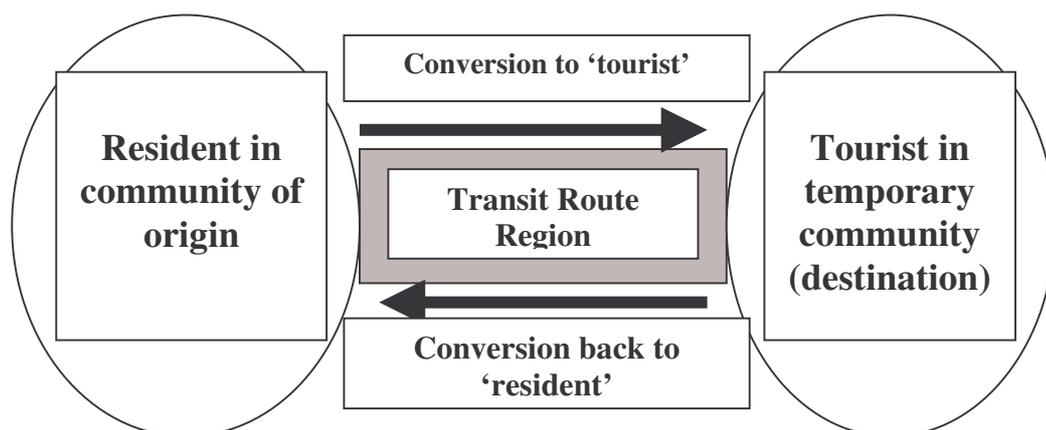
Environments: Human, socio-cultural, economical, technological, physical, political, legal.

Location of travellers, visitors and of the travel and tourism industry

Source: Adapted from Leiper (1990)

There has been considerable work undertaken in each of the areas identified in Leiper's model (see Figure 3.1) to assess aspects such as economic implications and, particularly more recently, other aspects of tourism such as ecological or socio-cultural impacts. The majority of research on visitors to destinations has been concerned with *the impact of the visitor on the destination*. For example, research into the value of tourism-related employment, damage to wildlife or the impact that incidences may have on visitor numbers, such as terrorist activity or health scares and

how this will affect the destination. There has been a great deal published on well-being in terms of personal safety and health issues while travelling to and from the destination; however, there has been little published research at destination level in mainstream tourism literature concerning the overall health and personal safety of the visitor at destination. The experience of the visitor is clearly affected by such incidents that affect their health and personal safety. This presents an issue in terms of moral obligation, but also in terms of return visits and image of a destination. It also has implications for the providers of services designed to cope with health and safety provision and providers of tourism facilities.

Using Leiper's model (Figure 3.1), it can be seen that when travelling, a visitor is moving from the conditions prevalent in their place of origin to the situations prevalent at the destination area. In some cases this may be very different, particularly where there are large differences in the relative wealth and values of the two areas. However, even where there are relatively few differences between the place of origin and the destination, there can be considerations that affect the visitor in terms of health and personal safety issues even within the same country or region. The differences may be influenced by the quantity of visitor influx and the attitude and behaviour of the visitors to the area; but are also a function of the destination conditions in terms of geography, local service provision and type of destination.

3.1.1 The Destination

Destinations can be seen as the focal point of the activities of the visitor. Like communities, the destinations are a complex interaction of people and organisations that have, generally speaking, evolved over time. The main difference occurs in relation to the continuous influx and departure of large numbers of the "community" population. This movement of people can change the nature of the environment as large numbers arrive with their own perceptions and behaviour patterns. This continuous, rapid movement of people characteristic of a destination can make health and safety provision more difficult due to the changing nature of the population base and the difficulty reaching them, for example, to provide information.

In some cases the destination can be totally artificial, normally these artificial destinations are in countries where crime is perceived a high-risk problem, there is a high level of poverty or there are political reasons for segregating visitor and local.

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Examples of this 'ghetto' approach to tourism can be seen in countries such as Jamaica, the Dominican Republic and Cuba. Theme parks, traditional holiday camps such as Butlins in the UK, or their more recent counterparts, the holiday villages such as Oasis, provide a similar artificial environment where the holidaymakers and visitors are separated from the local community.

However, most tourist areas are open to locals, tourists and visitors and all are subject to local conditions. While tourism is at a low level or in areas where high numbers of visitors can be absorbed without undue strain such as in urban areas, the well-being of the visitor is likely to be at least on a par with that of the local resident. However, as tourism develops, it can begin to impact on local provision and will require specific investment to deal with the demands of the additional population.

Doxey (1975) posits that the local population, who may have at first welcomed the visitors, may begin to resent the intrusion of large numbers of strangers to their homes. The visitors themselves, as 'temporary residents', may feel little compunction to act responsibly within the community. Even where they are endangering themselves and others, they may not wish to be restricted in their activities.

Destinations are as variable as communities and can be very different in conditions, services and facilities available to the visitor. However, they can be classified into general categories to aid their study.

3.1.2 Destination Typology

The term destination covers a wide range of typologies. At its simplest level; a destination is the place that visitors visit. Destinations vary in type, scale, level of development and attributes; they can be urban or rural. However in order to be a destination they must attract visitors, have transport systems that enable visitor to visit, have accommodation and support services to allow visitors to stay and overarching, they must have infrastructure that allows these other aspects to function (Pearce, 1989). This is illustrated in Figure 3.3.

There are 'destinations' that only attract day visitors but these areas are really attractions and normally have an associated 'resort' with the facilities and services to cater for the visitor. For example Ayers Rock can viewed as a destination as it is the main attraction in the area but the main facilities associated with tourism are to be found in Alice Springs.

Figure 3.3: The Basic Destination

**Functioning
(Infrastructure)**

**Attracting
(Attractions)** → **Enabling
(Transportation
Systems)** → **Catering
(Accommodation
& Support Systems)**

**Functioning
(Infrastructure)**
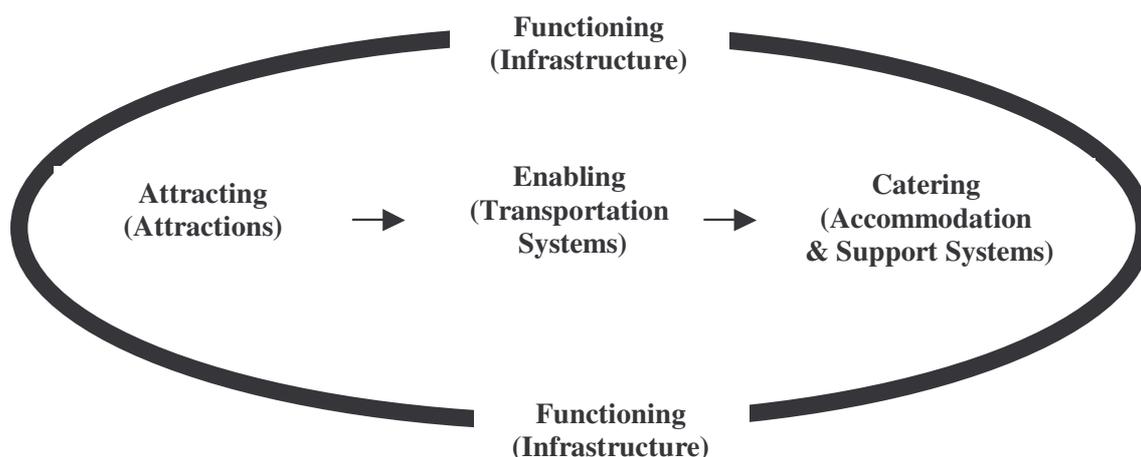
Source: Developed by the author based on Pearce (1989)

Table 3.1: Destination Types

Destination Type	Description	Examples
Custom destination	Purpose-built self-contained destinations	Commercial destinations with accommodation, facilities and attractions combined on one site designed so that the visitor does not have to leave for the duration of visit
Tailored destination	Built or reinvented with the main purpose of cater for the visitor	Often seaside destinations or former fishing villages but can be purpose built or developed around a small original settlement in an area suited to tourism activity
Event destination	A destination only for the duration of the event (may lead to establishment as a destination in its own right)	Large events requiring infrastructure and superstructure to cater specifically for the influx of people for the event
Developed destination	A high level of tourism but not designed to cater particularly for their needs	Often towns or cities with particular attraction for tourists and day visitors
Developing destination	A low level of tourism and little provision for specific needs of visitors	Often towns or villages close to a main destination receiving 'spill-over' visitors (mainly day trips) or attempting to develop tourism
Latent destination	Very little tourism and little or no attempt to cater for their needs	Out with the recognised 'tourism areas' but occasionally visited by day trippers or tourists with a particular agenda (VFR/ business)

Developed by the author from literature sources

Previous work on destination development and typologies was used to develop seven categories (see Table 3.1). Miossec's model of tourist development, Butler's lifecycle model and Gormsen's Schematic representations of the spatio-temporal development of international seaside tourism (see Pearce, 1989, for more detail) represent the developmental aspects of tourism areas but can be used to illustrate the various 'states' that a destination can be at, at any point in time.

Although some resorts may go through a fairly linear process from being an area with no tourism to a fully tourism-oriented destination as a gradual progression, this is not always the case. Many destinations skip stages, for example custom-built destinations, such as Disneyland or Oasis, while others may never fully realise their potential as a resort, either through choice or through insufficient drawing power. For custom-built destinations, the services are set up specifically with visitors in mind, ensuring that they are visitor centred and designed to suit the visitors' needs. Although there may be a reliance on external agencies to provide some aspects of visitor health and personal safety, the majority will be dealt with in-house. The influence of the destination in terms of scale, importance to the local economy and job provision coupled with singular control by an organisation, will ensure that the external agencies focus on the needs of the visitor too. There may be an element of this complete focus in other tourist destinations where visitors are recognised as the main income source and as vital to the local economy. Where this is the case, a similar model to the self-contained/'owned' destination may occur for example in Thailand where they have introduced 'tourist police' and areas such as the Algarve where many health centres are operated specifically to deal with the needs of the visitor. Areas where tour operators have high numbers often have staff instructed to recommend specific doctors and health centres that will deal with the clients in their own language. In this scenario there is a higher likelihood that the visitor can influence the level and type of health and safety provision in the destination. However, in the less developed destinations, which often attract independent travellers, there are fewer facilities designed to cater for visitor needs. The visitor is then subject to the same provision for health and safety as the local residents. This is often characteristic of areas that are undeveloped or at the initial stages of development. Destinations vary in characteristic over time. Lifecycle models such as Butler's model of the hypothetical evolution of a tourist area, illustrate a progression

from little tourism through to a developed tourism product that may later stabilise, decline or re-invent itself (Butler, 1980).

The typology of a destination will then influence the hazards encountered and the health and safety facilities and services available to the visitor, the external factors. However the internal factors, the visitor's knowledge and behaviour, will also influence their risk level in a destination.

3.2 The Visitor

Tourism can be seen as an enhancer of life quality and in terms of motivation and psychology, tourism can been seen as fulfilling the 'higher' needs of belonging, esteem and self-actualisation. If tourism is to fulfil these needs, then the visitor must feel a sense of belonging and have their needs fulfilled. This should not be at the expense of the local community but within it as Poon's (1993) 'new tourists' are purported to be seeking. Well-being is likely to be enhanced through maximising the social inclusiveness of a community. By seeing the visitor as a community member, the community will derive the economic benefits of the transient community member but also maximise the social benefits of including the visitor within the community, albeit temporarily.

Well-being is normally examined within the context of a community or a specific group within the community such as senior citizens or the disabled with indicators used to measure various aspects of the community members' lives as a quality of life or well-being 'score' (Massam, 2002). The focus of such research on the community, therefore, excludes any transient element. Visitors are by their nature transient and, their well-being cannot be measured in the same way. However, the visitor exists within the community, albeit temporarily. There are elements of the community environment that will affect their experience and, therefore, their well-being 'within that community' i.e. 'at their destination'. The visitor destination (the tourism environment) interacts with the local community to varying degrees but is normally partially or completely contained within the normal living and working environment of the community (as illustrated in Figure 3.4), and hence relies on community facilities and services, even where the destination is physically removed from the community residencies.

Figure 3.4: The Tourism Environment – A destination within the community

The Tourist

The Tourism Environment (Destination)

The Residential Environment (Community)
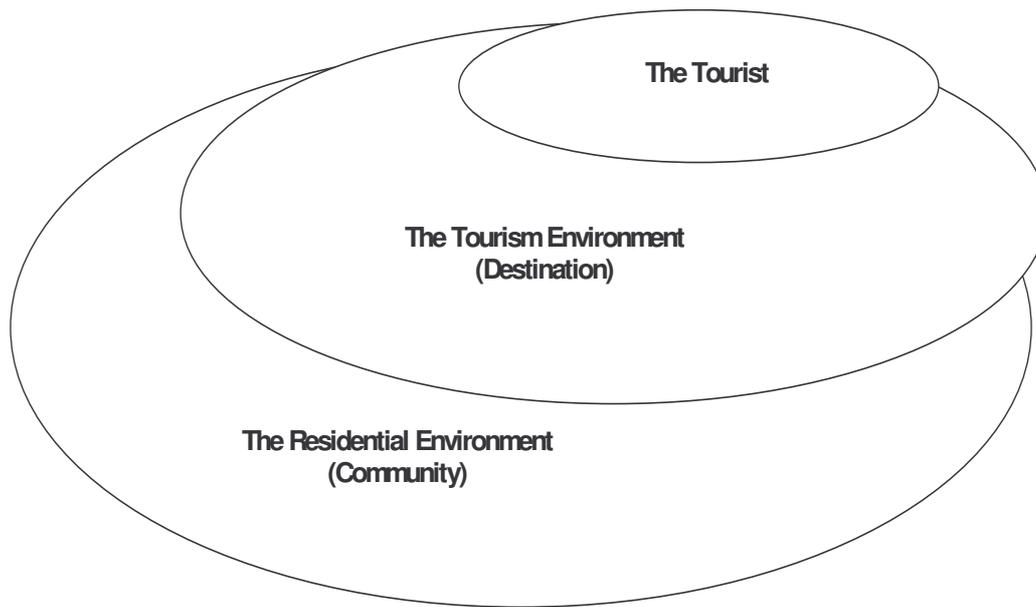
Source: Developed by the author

Appreciating the basic rights of the individual to a level of well-being and putting in place systems and processes to measure and develop methods of improving well-being is considered an inherent part of modern, developed society. Alongside social and economic arguments, there are also clear ethical arguments for ensuring the well being of the individual in the community. These same arguments should apply to ensuring the well-being of the transient community member, 'the visitor', particularly as the destination is seeking to profit from these individuals.

As discussed earlier, well-being in the community is an area that many governments have tried to deal with, as there is a general acceptance that everyone is entitled to a minimum level of well-being. This is reflected in agreements such as Agenda 21. Agenda 21, developed in 1992 from the Rio Earth Summit, was a document agreed by over 178 countries committing them to progressing toward a more sustainable planet (Keating, 1994). The first principle was that:

> *"Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature."* (United Nations, 1992)

Although there cannot be a direct comparison made between resident well-being needs and those of the visitor, many issues are the same such as freedom from undue fear of crime, warning of, and protection from, potential hazards and access to clean air and water. However, despite these similarities, there are distinct differences in

ensuring the well-being of the community member to that of the visitor to an area. There are some situations where visitors are at risk purely *because* they are visitors; for example, terrorists may target visitors to gain international attention or thieves may see visitors as 'easy' prey. However residents and visitors in an area generally experience similar hazards, but they represent different levels of risk to each group with different mechanisms required to protect and inform each group.

In examining visitor well-being in terms of the destination, it is necessary to assess the level of tourism visitation and the types of visitors as this will, in part, determine risk.

3.2.1 Visitor typology

People behave in different ways in any given situation but, however much they like to believe they are unique individuals, there is evidence to suggest that people can be categorised into broad types demonstrating specific characteristics. Several typologies have been developed in an effort to predict the behaviour of groups of tourists; wider typologies that cover all potential tourists developed with researchers such as Plog, Pearce and Cohen with more specific typologies (for example, Uriely, Yonay and Simchai, 2002), based on one or more of these seminal works. There are a variety of means of categorising tourist, such as holiday type, destination, spending patterns, or behaviour. The 1970s saw a development of theories in sociological features of tourist roles, with Cohen being particularly influential (Cooper et al, 1998) and Plog, in his seminal work, developed 'typologies' of American people and used these typologies to explain the appeal of holiday destinations to different people. Plog's original work undertaken in 1976, suggests that tourists can be categorised along a continuum from allocentrics who are adventurous and constantly seek new experiences to phychocentrics who seek familiarity and 'safe' options. Most people fall between the two extremes in the mid-centric range. This psychographic scaling of travellers has been further developed by Plog with an adjustment of terminology from 'allocentrics' to 'venturers' and 'phychocentrics' to 'dependables'. In this work he emphasises the need to satisfy the more adventurous types (allocentrics/venturers), as they have become a larger and more active part of the market (Plog, 2001). It could be argued that this will, at least in some part, be offset by the ageing population in Western society and the tendency for people to become diffident in destination choice and travel less as they get older. Although these tendencies may also change with

succeeding generations (Oppermann, 1995), it is likely that travellers will continue to seek new destinations to explore particularly if air travel continues to become more economically accessible. Changes in the global economy and wealth distribution, coupled with opening up of borders will also bring travel possibilities to a new, and in some cases, younger population base. Thus, not only are demographics changing in global travel, there are also likely to be cultural differences in the travel markets of the future. Tourism behaviour has been linked to cultural values, which affect the degree of adventure sought in leisure travel (Wong and Lau, 2001); it is also likely to affect health issues such as the level of services expected at the destination and the precautions taken prior to, and during, the visit by the visitor. These differences in typologies will influence the provision required, however this may not always be easily discerned by identifying the behaviour of such groups within their own cultural environment as people often behave differently when they are not in their normal environment. The main point that can be taken from the attempts at developing an all encompassing typology is:

> *"that there is no such thing as the universal tourist, or a universal tourist experience, but rather numerous varieties of tourists and experiences"* (Watson and Kopachevsky, 1996: 281)

Typologies do however allow indications of likely attitudes and behaviours of a given group of visitors visiting a destination area which is helpful in assuring that marketing messages are aimed at the type of visitors most appropriate to a particular destination and that the subsequent provisions made for their well-being are suitable.

3.2.2 Visitor Behaviour

Aside from basic differences in typologies and cultural influences, there does seem to be evidence to suggest that people behave in a much less rational manner while on holiday. This change in behaviour, expressed in terms of likelihood of victimisation by Tarlow (2000), often leaves the visitor open to hazards they would otherwise avoid (see Table 3.2). Although Tarlow is referring to crime, similar characteristics are evident with regard to other potential hazards. For example, reports on accidents in National Parks in America (for example, Danyliw and Loftus, 1997) and reports from ski areas (for example, Marchant, 1999) show that visitors often fail to take heed of advice and put themselves in unnecessary danger in order to seek more thrilling experiences (Page, Bentley and Walker, 2005). Lack of common sense exercised by

some visitors has led to the nickname used by some US park attendants of 'tourons' –
half tourist/half moron (Whitman, 2000).

Table 3.2: Tarlow's six characteristics of the tourist

Issues of trust	The tourist may believe that his destination choice is safer than the normal place of residence resulting in behaviour that is more 'naïve' than that of the local residents
Alienation from place	The tourist will be unfamiliar with the area and may have few connections to it. He/she may also seek higher levels of adventure further separating him/her from the local populace
Anomic behaviour	The tourist may lack the usual social or ethical standards as he/she consume his/her 'holiday experience'
Cerebral hygiene	As part of the holiday experience the tourist is often seeking to clear the mind and in doing so may relax normal defence mechanisms
Lowering of inhibitions	For many people being out with their normal environment releases them from their normal constraints and inhibitions, leaving them vulnerable to victimisation
Stress	In the desire to relax, there may be less care taken of valuable items with tourists often leaving articles such as bags or cameras in public places

Adapted from Tarlow (2000:140-141)

The implications of such fundamental changes in the attitude and behaviour of people
when they become tourists are that they will be more prone to risk from any hazards
met at a destination and they may require more 'looking after' than local residents.

3.3 Visitor Risk at the Destination

The levels of risk at a destination are determined by four key factors: the inherent
destination hazards; the effectiveness of precautions taken to reduce the risk
represented by such hazards; the behaviour of the visitor; and the effectiveness of
communication channels that warn visitors of potential hazards. The levels of each
will ultimately determine the overall risk factor for the destination. The level of
hazards at a destination will push up the risk factor; likewise reckless behaviour on
the part of the visitor will increase risk. Steps taken to reduce the risk factor of
hazards in the destination and effective communication of potential dangers to the
visitor should reduce risk; this conceptualised in Figure 3.5.

Reducing risk factors can be achieved by, for example, fencing-off dangerous areas
then communicating to the visitor the dangers inherent in that area. However, if the

visitor fails to heed warnings and decides to cross the fence then the risk for that individual will remain high. There is little that can be done to prevent this type of voluntary risk-taking behaviour. This is exemplified in the level of off-piste skiing that takes place; despite steps taken to prosecute those who put their own life, and those of others, at risk.

Figure 3.5: Key factors Determining Risk

Intervention to reduce hazards

Intervention to heighten tourist awareness of hazards

Risk
Risk
Risk
Risk
Risk
Risk
Risk
Risk
Risk
Risk
Risk
Risk
Risk
Risk

Destination Hazards

Risk-related behaviour

Developed by the author

The destination hazards, for any given visit, can be seen as fixed dangers such as snowfields prone to avalanche with precautionary measures reflecting the severity of the risk prediction such as prohibition of off-piste skiing or unsafe drinking water with precautionary measures being to ensure that hotels and restaurants use bottled water to wash salad for visitors. The precautionary measures will ameliorate some of the negative aspects of the original hazard. Following the same scenarios, a visitor may venture off-piste inadvertently however, warning signs and leaflets in accommodation on the danger areas for avalanche may deter the visitor from skiing in the most hazardous areas. In the case of unsafe drinking water, a visitor may automatically assume that water from taps and public drinking fountains is safe;

warning signs at outlets and information through facility and accommodation providers would allow the visitor to appreciate the need to purchase bottled water.

3.4 Summary

While there are currently no agreed definitions of tourism well-being, it is reasonable to surmise that risks to person in terms of increased susceptibility to crime, accident or illness will affect the well-being of the visitor. Visitor well-being highlights the interaction between the host, visitor and destination area, where there is synergy between those who visit, those who host and those responsible for managing their interaction. Although there can be some anomalies in viewing the tourism as a system, for example in the case of particular transportation systems that may be seen as the destination in its own right (for example the Orient Express or Cruise ships), this separation of regions is useful in examining the health and personal safety issues for visitors. The health and personal safety issues of transit passengers may have some commonality with those at the destination, however, for the most part, the issues involved are different.

The attempts in the field of geography to measure the welfare of the individual by using indicators, both specifically measurable such as income levels and other less tangible measures to make a 'quality of life' measurement are not directly transferable to the visitor at destination as there are different criteria and implications for the individual in terms of the both expectation and responsibility.

The way in which tourism is planned for, developed, grown and controlled can make a considerable difference to the ultimate well-being of both the local resident and the visitor. As the destination is, generally, incorporated within a community it is, to quite an extent, subject to the circumstances prevalent within that community. The environmental hazards within the community are dependent on aspects such as the physical environment, the affluence of the area, the attitude of the residents, the level of security measures, the size of community and prevalent social conditions. Due to the overlapping nature of most visitor destinations with the local community, the general environment for each is, to a lesser or greater extent, a shared environment and therefore, any negative aspect in either will affect both.

Visitor behaviour will play a role in the well-being at a destination and the visitor must accept a degree of responsibility for actions taken. Behaviour is a result of

inherent personality factors and information accessed. Thus information must be a key aspect of the visitors' ability to take action to ensure their own well-being. A recent survey by a UK insurance company highlighted this when it reported that 89% of respondents had their holiday spoiled by factors "*that could have been avoided with more planning*" (TravelMole, 2003).

The visitor's well-being is also likely to be affected by the way in which the local population feel about the visitors being there. With issues of resentment and hostility likely to make visitors feel unwelcome. Feelings of acceptance may impact on the feelings of well-being of the visitor but, perhaps more fundamental to well-being, are issues associated with health. Therefore factors that impact on health either on a physical or psychological basis, will impact on well-being for the visitor.

While the visitor is at any destination they are subject to the conditions prevailing at that destination and their well-being is dependent on the provision at destination of local services such as health care, policing, and water supply. In these days of increased accountability and litigation, there is a need to appreciate and understand the issues affecting the visitor and to establish criteria for measuring visitor well-being and assessing responsibility for their overall well-being while at a destination.

As this chapter, has demonstrated, ensuring the well-being of visitors is not a simple task. The complexity of the concept of visitor well-being incorporates both external factors pertaining to the environment and internal factors pertaining to the visitor. It must take account physical factors of the environment as well as the cultural and social issues associated with the temporary movement of large numbers of people into a different community. As suggested by much of the literature explored in these chapters, there is a need to understand the nature and type of incidents impacting on the visitor and the way in which their requirements may differ from the local residents. The aim of this thesis is to conceptualise the health and personal safety concerns that impact on visitor well-being, so having explored the literature, the next chapter will develop these ideas more fully.

Chapter Four: Visitor Well-being: Developing a framework

4.0 Introduction

Reviewing the literature has demonstrated that there has been little empirical research into the well-being of the tourist despite a growing interest in the way the visitor is handled, accommodated and managed in the destination in terms of their well-being. Previous chapters have developed the premise of visitor well-being and examined various issues relating to visitor well-being and responsibility evident in the literature. This chapter seeks to weave the many disparate aspects of the literature together before developing a framework that conceptualises visitor well-being in the destination. In order to develop the framework, some questions regarding the nature of visitor well-being must be addressed: Where does concern for health and safety issues fit within existing literature? Is it about providing a safe environment for the visitor? Changing visitor behaviour? Providing facilities in the event of incidents occurring? Maybe combining these elements will be effective in ensuring visitor well-being or perhaps we have to look wider to develop this concept further.

Prior to this, there is a discussion on the way in which visitors choose a destination, including the initial motivation to take a leisure trip, which is a necessary precursor to destination choice. An appreciation of the factors affecting the decision to travel to a particular destination can assist in understanding the impact that well-being issues may have on the visitor.

4.1 Motivation to Travel

The available literature concerning motivation to travel is vast, with every introductory book on tourism covering this area. Travel motivation is fundamental to tourism; while there are factors that can prevent individuals being able to travel, without motivation to travel, tourism would not exist. Despite this underlying importance to tourism and the amount of previous research into motivation, it is still an important study area. While this thesis does not deal directly with issues of motivation, as Page (2003) states;

> *"If we understand what prompts people to leave their home area and to travel to other places, then we may be able to develop approaches that will help us to manage these visitors and their impacts"* (Page, 2003: 50).

A basic understanding of motivation may also assist in providing for their health and personal safety in a manner that takes cognisance of their differing needs and desires.

Destination choice can be seen as the motivation for an individual to travel to a specific place for leisure. However before any meaningful discussion can take place on how a destination is chosen, there must be an appreciation of the motivational factors that encourage travel. Even prior to appreciating motivational factors for travel there must be an understanding of the determinants of travel. Although motivation for participating in tourism may vary, the one thing that all participants will have in common is the ability to participate. Without the prerequisite conditions determining demand, there would be no substantial tourism market. While the fact that tourism is an economic activity and automatically excludes those with insufficient funds from participating, lack of finance is not the only factor that will prevent participation; they include;

  ➢ Economic limitations – tourism is a relatively expensive discretionary item that requires a certain level of affluence;

  ➢ Temporal limitations - participation in tourism requires relatively large chunks of free time;

  ➢ Physical limitations – disability and ill-health can constrain the ability to travel;

  ➢ Family responsibilities – those in the position of carer within the family may find they are limited in their ability to participate;

  ➢ Government restrictions – lack of freedom to travel through restrictions on visas or currency may prevent travel;

  ➢ Infrastructural limitations – were there is limited development of transport and communication networks it will restrict movement;

  ➢ Personal restrictions – fear of travel or a lack of interest may act as a barrier to travel.

Although same-day leisure trips may require less money, time, freedom, etc., the ability to undertake leisure trips will still be tempered by the same restraints. With perhaps the exception of the personal restrictions, the destination can do little overcome these restrictions. However, in the context of this study, effective tourism demand, the actual number of people able and willing to participate in tourism, can be taken as a precondition to attracting and caring for them within the destination. Motivational factors can be seen as 'push' factors – the intrinsic motives that encourage an individual to travel (Dann, 1977). These intrinsic factors can be diverse ranging from a need to escape the crowds to a desire to socialise; from a need for

prestige to developing new skills; from discovery and learning to relaxation; from thrill-seeking to escape. These intrinsic factors do not however dictate the place a person will travel to, although there will be a link in terms of the type of motivation influencing the type of destination sought. These intrinsic factors may be tempered by the needs of travelling companions, for example a couple with a young family may wish to seek thrills and adventure but may choose a more conventional resort to cater to the needs of the children or a person more suited to a sedate holiday may bend to peer pressure and visit a 'clubbing' destination. Intrinsic motivation, nonetheless, will be an important factor in influencing demand. A fuller discussion on motivation and demand can be found in general tourism management texts (see, for example, Page, 2003). The main concern, in terms of this study, is, given that an individual has the means to travel, the ability to travel and the wish to travel, how will the choice of destination be made? The motivational factors that encourage a person to seek opportunities to travel can be described as 'push' factors but they do not explain or dictate the place that they will choose to travel to. Destinations provide the 'pull' factor, the features that attract those motivated to travel to visit that particular place. The destination features will form an image in the mind of the potential traveller that will dictate whether they are likely to visit a location.

4.2 Destination Image

Destination image is generally agreed to play a central role in decision-making leading to destination choice (Beerli and Martin, 2004). Destination image can be described as the interpretation of all messages received about a destination. This has two key features that must concern anyone involved in trying to market a destination: the process is affected by all the messages concerning the destination, not only those commercially produced, and individual's perceptions of the messages received. Therefore, in assessing the possibility of a place as a potential holiday destination, there will be a variety of external and internal factors influencing this appraisal. These messages {information sources} are influenced then by the characteristics of the person receiving them {personal factors} (Beerli and Martin, 2004). Health and personal safety issues, and the way in which information on such issues is perceived, have also been shown to impact on the image of a destination.

Destination image is a complex mix of reality and perception developed from a wide variety of sources. The image of the destination will, therefore, not be constructed

solely through the deliberate marketing messages actively promoted by, or on behalf of, the destination. Despite promotional activity that may be produced by local tourism organisations and/or local businesses, the image will be assembled through a variety of sources such as personal experience, word of mouth or media representations. Although there is evidence to suggest that potential visitors may be willing to 'trade-off', or indeed welcome, a degree of risk in order to visit an exotic destination (Carter, 1998), personal safety is still a major concern for the majority of tourists (Goodrich, 2002). Given this concern for personal safety and the variety of potential information sources that a potential visitor may use, it is vital to understand the sources used and how they are used if a destination wishes to get a particular image across to potential visitors. Understanding the use of information sources can assist in improving well-being only where this understanding is combined with an appreciation of the aspects that affect visitor well-being in the context of that destination for that visitor type. This will then have to be combined with an instigating of procedures to look after the well-being at the destination in order for the system to become self-perpetuating. If the destination does not live up to the standards promised in the image portrayed, then the image will be damaged. The sources used, other than the official propaganda, will give out a poor image of the destination and the visitors will be deterred from repeat visitation and giving recommendations.

4.2.1 The Role of Media in Destination Image

The image of the destination is often different to the reality and may be affected by aspects that are not directly attributable to the tourism industry.   The role of the media in visitor well-being is largely connected with the way incidents are portrayed by the media and how this affects both the visitor and the destination. Media coverage for different types of incidents or incidents in different localities varies not according to the seriousness of the incident, but more due to its relative 'sensation'. For example, coverage of a fatal road accident in Nepal is likely to receive less coverage than a similar incident in Australia; destinations may, paradoxically, become victim of their good safety record.

Often the destination itself may have a bad reputation in terms of murder rates but may still be relatively safe for tourists, for example New Orleans had a problem with drug related murders that were, in the main, about local disputes and only involved

local people. However, despite the factual evidence that tourists were relatively safe in comparison to other American cities, the perception was that New Orleans was a dangerous place to visit. In order to try and counteract the bad press received, the Mayor's Office issued statements to emphasis how few tourists had actually been killed (Economist, 1994).

The media can play a vital role in informing and educating a population on the hazards and necessary precautions. Articles advocating safety measures appear in print and on television and are not a new phenomenon, there are guidebooks, and the Internet is a source of a great deal of advice and safety tips on travelling. However, news reports are, by their nature, temporal and thus only hit a small target audience, while travel books and Internet sources have to be actively sought out. Any media warnings that are not 'front-page' sensational articles are unlikely to reach the appropriate population of potential travellers and holidaymakers in any great numbers and, therefore, are not an effective communication channel for warning messages. Those that could actively and effectively promote health and safety advice are at the destination (for example, front of house staff in bars, restaurants, attractions and hotels, police officers or transport staff) or the gateways to the destination (for example, staff in airports, car hire outlets or bus and rail stations).

Although the importance of media and its particular issues have been identified here, there are many influences on the decision-making process. Information sources can cover a wide variety of communications from informal, non-commercial sources such as word of mouth and experience, through 'impartial' sources such as guide books and holiday programmes on TV or radio, through to commercial advertising of the destination in the form of TV advertising and brochures. Messages associated with the destination through other products, for example, food, computer games, literature, will all have an influence but it difficult to ascertain the impact of these factors and the destination is unlikely to have any degree of control over these images. There have been a number of studies undertaken regarding information sources and their impact on the decision-making, and ultimately, destination choice.

4.2.2 Information Sources

Information sources are not only of importance when deciding which destination to choose, they also influence decisions about activities and behaviour at the destination

post purchase decision. For example, a degree of information seeking may have decided the visitor to choose Destination A, but they may have only purchased a limited number of services such as the accommodation. There will be subsequent decisions to be made on other aspects of the trip such as transport to, and within, the destination, activities to be undertaken at the destination such as visiting attractions, eating out or participating in activities. Information gathered subsequent to the decision to travel to Destination A could alter not only the purchase/participation in other aspects of the destination but also the approach to the destination, influenced by what we believe we may encounter there. This will include risk behaviour depending on how safe it is believed that Destination A is. This post purchase information may encourage the visitor to believe that the destination is either safer or less safe than is actually the case; either perception being unwelcome for the destination. Maintaining a balance between giving adequate warning of potential dangers and over-emphasising the risk is a difficult task but one that is essential to foster visitor well-being. If perception of risk is over-emphasised then visitors will behave defensively and are unlikely to fully participate in the activities available at the destination (at the extreme end of this scenario, cancelling their trip); thereby reducing income accrued to the area. By contrast, where the visitor is made to feel that there is no risk to their safety, they may behave in inappropriate ways and leave themselves open to incidents occurring: for example if they believe that there is no crime at a destination, they may not use hotel safes or look after their valuables.

Bieger and Laesser (2004) suggest that three theoretical streams can be identified when exploring the subject of information search behaviour research:

> ➤ Psychological/ Motivational - Linked with travel motivational theory, this approach focuses on the idea that we are pushed by internal forces and pulled by the destination attributes;

> ➤ Cost: Benefit/ Economics - This is based on the idea that we can reduce risk by efficiently utilising information sources;

> ➤ Process - This approach suggests that, where there is a high-involvement purchase, the information search will be a phased process with specific stages.

Information sources will be used to make decisions on which destination to choose from the wide variety available. Some sources will be actively sought such as opinions sought from friend, relatives, travel agents, guide books, etc and some will

be simply the result of advertising, news coverage or chance conversations that have an influence even though they are not actively sought as sources.

Although information sources are important in choosing a destination, further sources are often sought after the initial purchase decision has been made. Although the initial image may be based on an emotional response to particular aspects of a destination, "always wanted to see the land of the pharaohs" "I want to feel what it is like to swim with dolphins" or similar initial thoughts, once a trip is booked, then there may be a desire to ascertain further details on activities available, the nature of the area or the people. Again, sources may be sought actively such as guidebooks, Internet searches or asking prior visitors but they may also be passively found, particularly with the heightened sense of awareness of the area after booking.

Sources of information on a destination can, not only assist with destination choice, but also influence behaviour at a destination. Information can come from a wide variety of sources, both formal and informal; it may be sought on a conscious level or may infiltrate in a more subliminal manner. In terms of official information sources, national and/or local tourist organisations often have a vital role. Although increasingly potential visitors seek the opinions of others through peer to peer review sites on the Internet. This gives them information from 'credible' sources rather than commercial sites.

4.2.3 National Tourism Organisations and Information

Although marketing and promotion of the destination may be the primary function of the tourist organisation representing the destination, they often are responsible for providing additional information designed to enhance and improve the visitor experience and as Cooper et al (1998) states:

> *"The ability of tourists to express their demands depends upon their awareness of the facilities available"* (Cooper et al, 1998)

The tourist organisations can influence the behaviour of the tourist both prior to visit by, for example, controlling the contents of tour operator brochure material or en-route, for example, through in-flight information videos and in the resort, for example, through tourist information campaigns designed to explain the criteria for acceptable behaviour.

This is only likely to be effective if it is undertaken in conjunction with other organisations in the destination and does not contradict the image of the area. Marketing messages are only part of the whole process leading to destination choice and behaviour, such external factors influence but there are internal factors that influence decisions and subsequent behaviour. The type of person involved, his personality and motivations, will influence these internal factors and this will be tempered by what has happened to the individual.

4.2.4 Internet/electronic sources

The internet has become a major source of information for all potential travellers. Not only are an increasing number of people booking aspects of their holiday through the internet, by-passing traditional travel intermediaries, they are also seeking information on destinations. Although some information may come from official sites and commercially sponsored sites, increasingly the power of review sites is becoming evident.

4.2.5 Commercial promotions

While official sources of destination marketing organisations may have an influence on destination choice, increasingly destinations are being influenced by large commercial organisations. While traditionally tour operators have been influential in destination development for the package holiday industry,, the main influences in making and breaking destinations is now often the availability of low-cost flights. The low-cost airlines such as Easyjet and Ryanair operate out of smaller regional areas and this has had the effect of opening areas not previously heard of.

4.2.6 Past Experience

The image of the destination, as alluded to earlier, depends not only on the external messages received but the way in which these messages are received. The personality and motivation of the individual will impact on their receipt of the message and adjust the image presented to him from external sources. As an individual develops, they are influenced by the factors that have affected them in the past. According to Beerli and Martin (2004), an individual will be inclined to place more value on their past experience than on external sources; past travel experience will strongly influence destination image. It could be assumed then that negative incidents may impact not only on destination image associated with the place where the incident occurred but

may also impact on the whole decision making process for any subsequent trip. The image received and how it is subsequently processed will then lead to decisions on whether a particular destination is chosen.

4.2.5 Typologies

The concept of visitor typology was introduced earlier; typologies have been, and are, developed to gain a better understanding of the consumer, their motivations, attitudes and behaviour. Plog, for example, sought to explain the reasons for changes in popularity of individual destinations related to how they were viewed by his psychographic types (Plog, 2001).

4.2.6 Culture and Destination Choice

Culture may be a key component in assessing whether a destination is 'safe'; and the types of holiday offered in that destination may influence whether particular cultural groups are 'comfortable' for example, there is evidence to suggest that Chinese nationals prefer to travel in groups. This may not be possible in areas where there is inadequate infrastructure. Other cultural groups may wish to use certain types of accommodation not available or travel unrestricted in a way that is not appropriate in a particular destination.

In a study by Pizam et al (2004) it was found that there were distinct differences between the choices and behaviours when taking leisure trips of respondents that corresponded to their Risk-taking and Sensation-Seeking (RSS) index placement.

> *"..if other studies will confirm the differences in RSS among nationalities, it would be reasonable to assume that certain nationalities would be more interested in relatively risky and high sensation-seeking tourist activities while other nationalities may be more interested in nonrisky and low sensation-seeking activities."* (Pizam et al, 2004:259)

Those who scored high on the RSS index preferred: -

- ➢ Active, fast-paced activities and out-door pursuits;
- ➢ Spontaneous trips with little regard for comfort;
- ➢ Travelling with friends;
- ➢ Organising the vacation without travel agent help;
- ➢ Gathered information from the internet, articles, documentaries and from news items;
- ➢ Booking and paying for their vacation on the Internet direct with providers.

While those scoring low on the RSS index preferred: -

- ➢ Passive, indoor pursuits such as shopping and sightseeing;
- ➢ Advance planning and comfort;
- ➢ Travelling with family or friends;
- ➢ Booking 'packaged' trips;
- ➢ Planning on the basis of recommendations from travel agents or advertisements;
- ➢ Booking and paying for their vacation through travel agents.

Pizam et al (2004) speculate that, given the results of their study and its correlation with findings from other studies, that Plog's suggestion of a normal distribution from allocentrics/venturers to psychocentrics/dependables does not hold true for all societies and cultures; this is supported by Smith (1990a; 1990b) (see earlier discussion in chapter 3.2.1). Cultural differences suggest that some nationalities are predisposed to having a stronger skewing to the venturer or dependable tendencies to use Plog's terminology.

Cultural differences impact on decision-making (Decrop, 2006) and in evaluation of services (Mattila, 1999) and will affect holiday-making patterns, attitudes and behaviour in the destination. Given these differences, the provision for the safety of visitors from different countries/cultures are likely to require approaches tailored to their particular needs and concerns.

4.2.7 Travelling Companions and Destination Choice

The choice of travelling companions may temper the choice of destination visited, where consideration may be given not only to the motivation and personality of the individual but that of the group. Individual considerations may be superseded by the needs of others in the group, particularly if there are vulnerable members in the travelling group, for example a couple travelling with a young child may put the needs of the child above their own, and this may be influenced by issues such as safety.

4.2.8 Transport

Changes in regulation of transport, in particular the airline industry, have brought about major changes in available destinations. The low-cost or budget airlines have not only utilised smaller (cheaper!) airports close to the main cities, they have also opened up new destinations close to regional airports. Their power in marketing destinations combined with the increased access can make them the main instigators in developing destinations and their image.

4.2.9 Relative cost

While cost of getting to the destination may be influential, potential visitors will also be influenced by relative cost of a destination. Issues such as exchange rates and cost of living will affect the 'value for money' that the visitor will perceive and change visitor travel patterns.

4.2.10 Other Factors Influencing Destination Choice

Once an individual has processed the image of a place, it becomes one in a variety of factors, physical and psychological, that will impact on the final choice of destination. While the image of the destination may be appealing, it may be necessary to consider other things before a place is chosen. For example, place of origin can influence destination choice. Quite simply from a geographical perspective, it may influence the destinations that are accessible. Other restrictions, similar to the determinants of travel discussed earlier, will have bearing on destination choice such as disposable income, freedom of movement, or mobility. These and other factors may not allow travel to a particular destination despite a very positive 'pull' factor and cause the potential visitor to choose an alternative.

The range of factors that influence destination choice are extensive with issues of health and personal safety being one of many but an important factor and one which is likely to increase in importance as world events continue to trouble the travelling public.

4.3 Safety and the visitor

There is evidence to suggest that safety concerns are a major consideration when deciding to take a holiday but, more importantly, in deciding on the destination for that holiday, for example in the 1980s and 1990s potential travellers to the United

States identified personal safety as a 'major deterrent' to visiting (Smith, 1999). Although there has been little research in this area concerning leisure day visits, it would seem likely that considerations of a similar nature would be undertaken when seeking any recreational experience. This then can be seen as a major issue for all visitor-related businesses in a destination not purely those serving the needs of the overnight tourists. There has been a growing number of books, many post Sept 11th, that focus on the safety of tourists (for example, Glaesser, 2003; Hall, Timothy, and Duval, 2003). However, even before the understandable increase in publications relating to Sept 11th and the increased media attention given to terrorism, there were a number of publications concentrating on aspects of tourism safety. Books such as "Tourism and Health" edited by Clift and Grabowski (1997) or journals producing special editions such as Tourism Economics' issue on Tourism Safety and Security (2000). Like later works concerned with tourism safety found in both the tourism and non-tourism literature, the themes are widespread even where a particular strand has been chosen, for instance in Clift and Grabowski, the theme of health. The wide range of issues involved in assuring safety for visitors makes the task a complex one. This complexity is made more difficult by the need to make visitors feel safe but not feel as if there is no 'adventure', as the idea of the new and exotic can be part of the appeal and for some destinations the edge of danger is the reason for the destination choice. This can be likened to the adventure tourism market where the appeal is the apparent danger but this is mixed with the rather paradoxical belief that the visitor would not be allowed to participate if there was any real danger.

Tourism destinations abound and the visitor has a choice of any number of places in which to enjoy his or her free time. Given this degree of choice, there is no reason that a visitor should choose a destination if there is any doubt of its safety; whether these doubts be rational or otherwise (Litvin, 2004). Where a destination is perceived as unsafe, the visitors themselves do not suffer, they will simply spend their recreational time in an alternative place.

> *"When tourism ceases to be pleasurable due to actual or perceived risks, tourists exercise their freedom and power to avoid risky situations or destinations"*
> (Sönmez, Apostolopoulis and Tarlow, 1999)

The consequences are suffered by the tourism industry, the operators and workers, at the spurned destination (Litvin, 2004; Sönmez et al, 1999).

4.4 The impact of crises on the visitor

Tourism is susceptible to natural and man-made crises. Whether it be hurricanes, earthquakes, tsunamis, war, riots or terrorist attacks, the consequence is likely to be a reduced tourism flow to the affected area and often the surrounding areas, even when they are unaffected. Often the results of a disaster whether man-made or natural are much the same but the perceptions of them may be different in the mind of the public and they may be less sympathetic to man-made crises (Sönmez et al, 1999). The negative images caused by the disaster can linger long after the actual physical damage has been repaired (Sönmez et al, 1999).

4.4.1 Terrorism and the visitor

The impact of terrorism on travel patterns and destination choice is not a new phenomenon. The 1980s witnessed a score of highly publicised terrorist attacks involving airlines - for example, the 1985 hijacking of TWA flight 847 in Athens or the PanAm flight bombed over Lockerbie in 1988; airports - for example, Frankfurt's Rhein-Main airport and Tokyo's Narita Airport were both bombed in 1985; and leisure and tourism related targets such as cafes, discos, hotels and cruise ships. As Pizam and Fleischer (2002) suggest, it is the sustained nature of such attacks that succeed in reducing tourism demand rather than the severity or nature of individual attacks. This is further supported by Sönmez et al (1999), who emphasis the role of the persistence of attacks in tarnishing a destinations image. Although such attacks will affect specific destinations, for example in 1985 Mediterranean countries suffering a 50% decrease in tourism and Egypt a 65% decrease. There was also an overall decrease in propensity for some to travel overseas with a Gallup Poll indicating that 79% of Americans would reject an opportunity to travel overseas due to fear of terrorism and a survey of travel agents indicating that nearly 48% of cancellations were due to terrorist attacks (Sönmez and Graefe, 1998).

Terrorism is treated separately here as it tends to be sudden and catastrophic in nature but such attacks are at the extreme end of a continuum of crime. Although acknowledging that terrorism is difficult, if not impossible, to prevent, Sönmez et al (1999) suggest that terrorism can be planned for, saving resources and lessening the negative impact of media coverage. Similarly natural disasters can have a sudden and devastating impact that is hard to predict or prevent.

Although Sönmez et al (1999) suggest that natural disasters impact less severely on tourism flow than terrorism risk, this will largely depend on the nature and extent of the crisis. Similarly to crime, there is a continuum of natural 'disasters' that can range from fairly minor, possibly avoidable aspects of nature such as bad weather conditions increasing hazards in a climbing area to the devastation witnessed when the Tsunami hit the shores of much of Asia on Boxing Day 2004 (BBC News, 2005). Although there may be steps that can be taken to plan for such events, they are difficult to predict. Any false alarms will serve to bring accusations of scare mongering and preparation of systems to prevent such events may affect the image of the destination in an adverse way. As with the terrorism threat, it is easy to assess in hindsight what could have been done to prevent an event happening or reduce its impact, but it is often not practical or 'acceptable' to put such measures in place until events have proved them necessary. Yet, as with terrorism, good planning and crisis management procedures can reduce the impact of any crisis by dealing with the event and its aftermath in a way that provides efficiently for those affected in a timely and effective manner. Events that hit areas can have a devastating impact not only on the specific places hit, but on the surrounding region. The Asian tsunami was a prime example of this with main markets such as China withdrawing, not only from the areas directly affected, but from the whole region. Chinese tourists now perceive Southeast and South Asia as dangerous (Zhang, 2005). The Chinese outbound market demonstrated a marked movement away from holidaying in Southeast and South Asia but it did not experience a downturn in outbound tourists, merely a redistribution of where these tourists planned to holiday. Zhang (2005) reports of an online survey undertaken by one of China's largest online travel agents which indicated that 80% of tourists who were planning to go to Southeast and South Asia during Spring Festival intended to change their plans and that many of those who still intended to visit the region, expected to pay lower prices. So, along side the loss of income, even to areas not directly affected, brought about by the reduction in visitor numbers, there will be a reduced income from those tourists who do decide to continue with their visit.

Although Scotland has a temperate climate and as such, is unlikely to experience natural disasters such as tsunamis or serious earthquakes, events such as landslides, floods and avalanches could potentially cause havoc on tourism areas. There has been

evidence that such events are becoming more widespread (Crichton, 2005), and it is likely that they will present more of a hazard to visitors due to a lack of knowledge of where they are likely to occur.

The destination image and perceptions of relative safety will be influenced by major events. However Beerli and Martin (2004) suggest that personal experience is the most important influence, therefore incidents that impact on the individual will affect their choice of destination more than large-scale events that have not been experienced directly. While cognisance is taken of the devastating effects of such events, due to their relative rarity for this destination and their very specific nature, they are not discussed in detail in this thesis.

4.5 Categorising Health Risk

Although some aspects of health are part of the individual, such as lifestyle choice, susceptibility to illness or genetics, many aspects that affect health are environmental. Environmental factors can affect both resident and visitor, however it is possible that the incoming visitor may be more susceptible to various environmental factors due to lack of immunity or knowledge of hazards that the local populace have. Hazards are faced in everyday life and can result in accidents, illness or other adverse events, but unfamiliarity with the area, lack of knowledge or uncharacteristic behaviour, may increase the risk from potential hazards for the tourist or visitor.

Alder and Chisholm (1991) give a comprehensive guide for the requirements of US citizens travelling abroad. Their advice begins: -

> *"Travellers should seek health advice at least six weeks before departure to allow adequate time for receiving immunizations, filling prescriptions and obtaining public health information"* (Alder and Chisholm, 1991: 10).

Simple and sensible perhaps, but it does not address the problem that very few travellers seek advice within that timescale. It is likely that those who do seek advice are more cautious travellers who are less likely to put themselves at risk (Evans, Shickle and Morgan, 2001) and likely to be a small percentage of total travellers.

Health risks for visitors will be dependant on a variety of factors as discussed by Steffen, deBernardis and Banos (2002): -

> *"The risk depends on the degree of endemicity in the area visited, the duration of stay, individual behaviour and the preventative measures taken."* (Steffen, deBernardis and Banos, 2002: 1)

There are various steps that can be taken to reduce the health risks for visitors in unfamiliar destinations; education prior to travel to encourage visitors to take precautionary measures such as immunisation or anti-malaria treatment; improving infrastructure to mitigate environmentally derived diseases and other risks to health; controlling movement in particularly high risk areas and improving information on communicable diseases such as AIDS (Inskeep, 1991). These measures may require action by the authorities responsible for the destination, such as the provision of safety barriers and/or warning signage in dangerous areas, or action by businesses operating in the destination area such as ensuring guides have adequate health and safety training. Measures taken by authorities and businesses in the destination area are much more likely to be effective if they are instigated in a co-operative and co-ordinated manner. However, one can see problems in acting on these issues such as lack of resources, different organisations responsible for each aspect, or fear of discouraging tourism by emphasising these matters.

There are many risks that may affect the health of the visitor; these can be categorised into three broad areas;

> *Environmental Health Risks* – These can best be described as inherent dangers (sometimes only to non-locals with a lack of immunity or limited knowledge of a particular hazard) within the destination such as unsafe drinking water, an outbreak of Legionnaire's Disease, earthquakes, dangerous driving conditions or areas of high crime.

> *Behavioural Health Risks* – There are a number of risks that can be directly attributed to the behaviour of the visitor such as contracting sexually transmitted disease through unprotected sex, skiing off-piste, ignoring warnings of areas to avoid, failing to wear a seat belt, participating in illegal activities such as drug taking or sunbathing without suitable protection.

> *Pre-existing Health Risks* - Not all risks are specific to the destination and visitors may arrive at the destination with health problems that either first become apparent or flair up during the course of their stay such as a heart condition, allergies, mental health problems, fear of crime from past experience or viruses caught prior to travel.

These are broad categories and it may be difficult to differentiate some risk types, for example, a high crime area can be classed as an environmental risk if a visitor accidentally finds himself there but there may be a behavioural element if the visitor decides to go there despite adequate warning of the potential dangers. Any of the above risks may adversely affect the experience, particularly if the visitor has difficulty in procuring the appropriate medical attention or avoids seeking treatment

locally due to concern over the quality of services and facilities. According to Albrecht et al (2000), health and illness are social constructions influenced by, and influencing, the society and culture within which it arises. This would imply that health and its consequences will be viewed differently, and therefore, treated differently depending, not only on the resources available at the destination but also the way in which a health matter is viewed within that society. Similar social constructs influence other aspects of safety such as cultural definitions of crime. Views on such matters by the destination stakeholders may vary considerably from the views held in the tourism generating area and consequently those of the individual seeking treatment.

> *"How individuals define and experience their health problems has immediate consequences for what forms of help are sought; how the individual, the family, and social networks cope with ill-health; and how much benefit is obtained from interventions received."* (Albrecht et al, 2000: 5).

Although the above quotation pertains to the social science view of health within communities, it helps to exemplify the difficulties that may arise when a tourist or visitor enters a different society with attitudes that may not match with his social background; compounded by the visitor's lack of social networks, and possibly family, while in the alien community.

Those suffering from a pre-existing illness may be more cautious in their destination choice and the type of holiday undertaken. Even those who would normally be more adventurous, and may still have a desire to be so, may find themselves curtailed by travel inhibitors such as mobility, treatment needs of their illness or by their inability to find adequate, affordable insurance. Hunter-Jones (2000) found that package holidays were perceived as more secure by those travelling with a pre-existing illness, also considerations such as language and distance tended to be quite significant compared to their pre-illness travel behaviour; the authors suggest this confidence in package holidays may be misplaced. Those with pre-existing illness may have similar issues and needs to those with disabilities and often all that may be required from a destination to cater for such groups is clearer communications in the tourism media. Hunter-Jones (2005) found that confidence to travel was a distinct issue for many of those experience illness. It is likely similar issues affect those with disabilities, either due to actual difficulties in mobility or issues regarding what other

people may think. The availability of specific information on facilities and services may assist in allaying fears in many instances.

Figure 4.1: Visitor Health Risks

Environmental Health Risks

Behavioural Health Risks

Pre-existing Health Risks
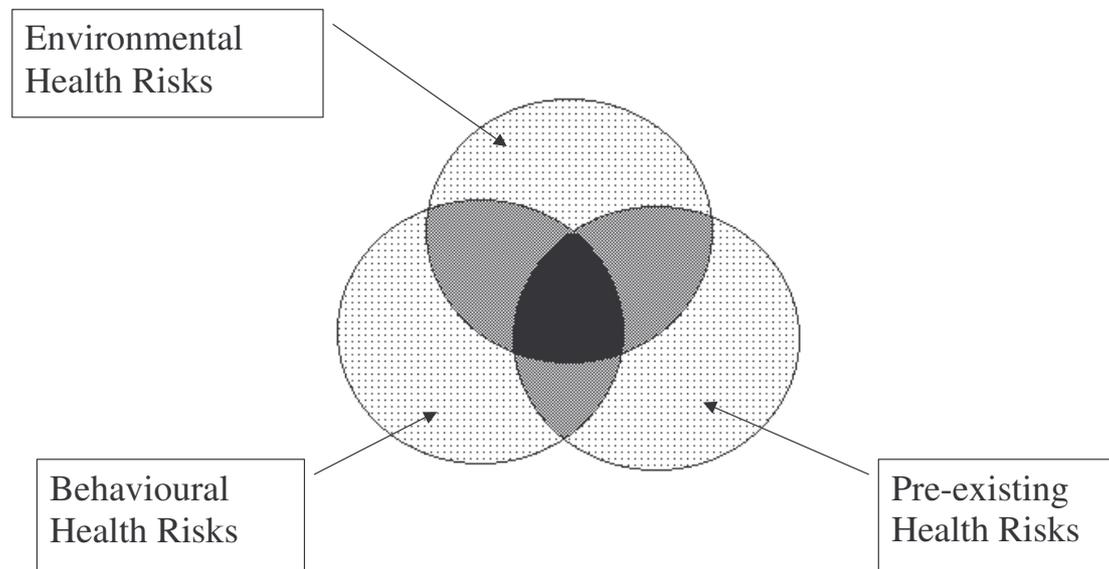
Developed by the author

Figure 4.1 illustrates how these three risk types may combine to increase further the risk of health and safety related problems. The circles represent each of the risks; the darker areas show how two or more may combine with an interaction of the three being represented by the darkest area posing the highest potential risk, for example, a visitor may visit a ski resort prone to avalanche (Environmental), choose to ski off-piste (Behavioural) and may suffer an asthma attack (Pre-existing); each aspect combining to increase the level of risk within a given situation. Of course the relative risk from each aspect will vary according to the individual and circumstances in which they find themselves. Therefore the circles representing each health risk type in Figure 4.1 will vary in size. For example a 20 year old on his first holiday with his peers to Ibiza is more likely to be affected by behavioural health risks; a 70 year old on holiday in the Lake District may be more likely to be affected by pre-existing health risks and a 30 year old exploring rural areas of Nigeria may be more prone to environmental health risks.

Whatever the reasons for a visitor contracting an illness, becoming involved in an accident or being victim of a criminal incident, the result may be a need for assistance from the authorities, in the form of emergency service intervention. If such assistance is required, there are three possible scenarios:

1. The visitor may not show symptoms or discover the incident until after returning to his or her home environment;
2. The visitor may choose, if they are able, to wait until their return home before seeking assistance;
3. The visitor may seek assistance at the destination.

The first two options do not immediately impact on the destination even though their long-term effects may reduce future visitor numbers. The third option will however have clear and immediate implications for the destination.

Figure 4.2: Health Risks within the Context of the Destination and Community Facilities and Services Available
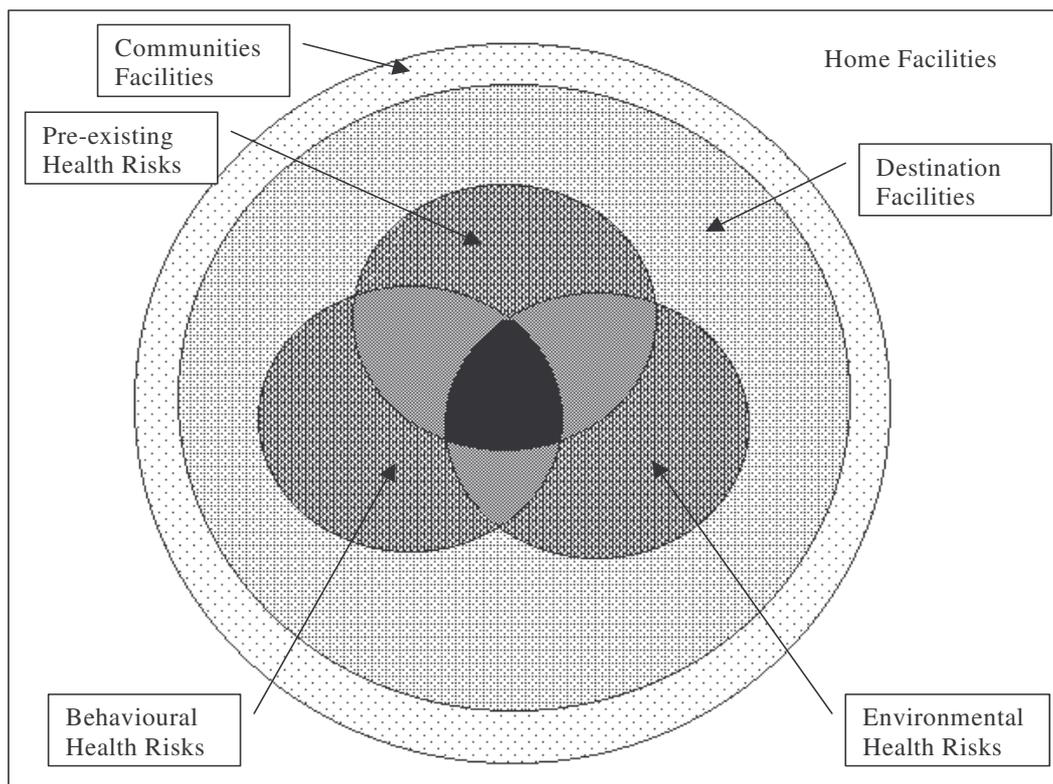
Source: Developed by the author

The resulting problems from such health risks will vary depending on aspects such as, level of resources in the community, the degree to which community resources are available to the visitor, and specific resources made available for visitor use.

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Therefore the health risk, illustrated in Figure 4.1, can be seen in the context of the facilities and services available to them (see Figure 4.2) such as policing, medical facilities, road safety advice, etc.

Limited health provision at the destination may result in inadequate or inappropriate treatment, thereby increasing the overall health risk to the visitor. Not all destinations will demonstrate this pattern; in some destinations the provision for visitors may outstrip the facilities available to the community residents. The level of health and safety provision will be very much dependent on the level to which those in a position to provide services value tourism. Other factors will affect the level of provision such as the level and type of tourism. In a destination that is popular with the package market there is likely to be a level of pressure by the tour operators for the destination to provide facilities specifically for the visitor. An extreme example of this would be cruise ships where 'destination' health care is provided specifically for the visitor. Bilateral agreements can affect the level and extent of 'free' health care provided by the destination, for example, within the European Union (EU) travellers from other countries within the EU will receive medical care on production of an E111 form (Department of Health, 2004). Level and provision will also be determined to quite an extent by the ethos within the destination, for example, within the UK there is very little private health care, by contrast the USA has a high level of private health care. This may impact in several ways; in countries where private health care is the main source of health provision, visitors may have to prove they have adequate cover before treatment commences; in countries where public health care is the norm, visitors may not receive the level of care they would expect if they where in their home country. Similarly, the way in which a destination deals with crime will impact on the level of service expected and received from the authorities. This situation is particularly likely in less developed countries where tourism demand for policing and health care may further stretch already overburdened resources.

4.5.2 Mitigating the risk

Many of the possible destination hazards can be avoided but may require measures, often prior to travel. The provision of such measures may require collaboration between the host and generating areas in terms of pre-visit information and precautions such as raising awareness of hazards, cautionary warnings of high crime areas or programmes of immunisation. It may be in the interest of the place of origin

to actively finance and/or support such campaigns or programmes as the consequences of problems experienced by visitors may continue beyond the time the spent at the destination and result in consequences for provision in the visitors' normal place of residence.

Some aspects of travel related health risks might be overlooked due to long incubation periods or a delay in discovery, for example, HIV infection. There can be, on the other hand, over-estimation of risk where viruses are present in an area, and highlighted by press reports, but where there is little risk to the visitor (Steffen et al, 2002). This will impact negatively on destination image but may also encourage those who travel there, and their advisors, to concentrate on this relatively low risk factor at the expense of precautions against higher risks.

Clearly, many of the issues of very basic health provision are not perceived as a problem in the more developed countries of the world where there are facilities, controls and legislation in place to ensure adequate standards, for example, water quality. However, the more developed countries may still have particular problems concerning health and safety issues coupled with a higher expectation on the part of the consumer.

Developing criteria to assess risk for an individual will depend on the background of that person, the type of destination being visited, the activities undertaken and the way that these activities are undertaken, as an example, when deciding on a programme of vaccinations a physician must assess the potential travellers medical history, his current physical fitness and the planned itinerary (Alder and Chisholm, 1991). This knowledge of the requirements is not new, however the necessity for this procedure and issues of responsibility for its instigation are very much current issues as more people travel widely.

The mitigation of the risk demonstrates how complex the relationship is between hazards and visitor well-being, and this interaction is explored with the development of a framework of well-being.

4.6 Developing a framework for visitor well-being

If we accept there is a need to look after the well-being of the transient community member - the visitor, then the aspects that will affect the visitor well-being must be established. In examining the literature that deals with the well-being of the visitor,

four main areas became apparent - illness, accidents, natural disasters and crime. Health issues whether through illness or accident will clearly impinge on the visitor experience, however victimisation may also affect the mental well-being of the visitor and thus their health. The actual and perceived risk of illness, accident and crime will all impact on the visitor and affect the physical or psychological well-being of the visitor. The framework developed here conceptualises the forces affecting visitor well-being within the destination area. In order to facilitate a clearer understanding of the tourism well-being issues for the destination, the main issues are categorised and used to develop the framework. Prior to discussing these issues, it is pertinent to review the concept of tourist well-being, based on the studies published by Page and Meyer (1996), Page (1997) and Bentley and Page (2001).

4.7 Visitor Well-Being: A New Concept for the Tourism Industry

The term 'tourist safety' equates to concerns for the well-being, welfare and wider safety of the visitor not only while travelling from the origin area to the destination area, but particularly, the way in which their personal safety is affected by their activity patterns in their own action space. This raises notions of well-being and satisfaction, which few studies seem willing to acknowledge because it requires a holistic assessment of the tourist event; yet if one of the principal objectives of the tourism industry is to facilitate positive experiences, then visitor well-being must surely be a major objective. There is accumulating evidence that adverse experiences (e.g. accidents, injuries and health problems associated with visiting unfamiliar environments) may pose a major problem for the tourism industry, particularly given its image as a business selling positive holiday experiences to improve quality of life. For tourist destinations, only a few studies have examined the effect of health related problems among tourists upon local health services. In extreme cases, public perception of the destination may affect the volume of tourist visits, where visitors report a high incidence of health problems during their visit.

One of the problems of developing a wider conceptualisation of tourist safety to incorporate notions of well-being means moving towards a more holistic assessment where a new research paradigm based on well-being is necessary. This places the visitor as the focal point of the research and requires a wide range of multidisciplinary skills to assess the wider context of safety issues and how they impact on visitor well-being. The concept of well-being has been used and recognised within human

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geography for over two decades (see Smith's 1977 seminal study in the area). What Smith's (1977) study highlights from a welfare geography perspective is that to understand human well-being and the factors which impact upon it in different contexts, such as the leisure environment, requires the contribution of different disciplines to be synthesised to contribute to analyses about specific outcomes in time and space. In a tourism context, this perspective can be applied to understand how their well-being is conditioned and affected by what they do, where they stay and the risks they are exposed to. In other words, one needs to understand the interaction of the visitor and tourism industry in a particular locale and how the safety issues impact upon their well-being. For example, from a tourism perspective it is possible to understand the context of the tourist visit, motivation for the trip and their preferred activity patterns. In geographically-informed research (see Hall and Page 2002) one can understand why tourists do what they do where (e.g. adventure tourism) and thereby the impacts they generate, particularly the incidence of adverse experiences. Research on outdoor recreation can help in understanding the factors which affect the decision-making of tourists to choose activities in the natural environment that involve physical risk such as adventure tourism. In health-related research that is informed by the discipline of psychology, it is possible to uncover the tourists' cognition of warnings and risk associated with adventure. Safety management research can also assist in assessing risk and in the investigation of accident causation to assess what chain of events contributed to specific tourist accidents. In addition, the combination of the statisticians' skills in modelling data on tourist safety combined with the use of geographical information systems (GIS) can assist in identifying the scale, magnitude and spatial distribution of accidents and risk. Yet the conceptualisation, analysis and discussion of the factors that may be negatively or positively impacting upon the tourists' well-being are diverse and need to be viewed against their dynamic role as transient elements in destination areas who arrive and depart and do not have the same stakeholder role in the area as residents and businesses.

This idea that visitor well-being is overarching makes any conceptualisation a challenge. An appreciation of the visitor's decision-making process, including aspects such as information search and the way in which the visitor is likely to interpret such information is a useful starting point. There are a variety of models that

seek to conceptualise the decision-making of vacationers (Decrop, 2005). A complex issue in its own right, it seemed more appropriate to utilise a more general decision-making model as a base. The Theory of Planned Behaviour is widely recognised in the field of psychology; it was developed to try to understand the discrepancies between attitude and behaviour. This model has been extensively used in a variety of choice situations such as in health behaviour and social marketing (for example, Albarracin, Fishbein, Johnson, and Muellerieile, (2001); Conner, Kirk, Cade, and Barrett (2003)). However, it has also been applied to behaviour in leisure and tourism activities (for example, Bamberg, Ajzen, and Schmidt (2003); Daigle, Hrubes, and Ajzen (2002); White (2007)). As an opening position for the building of the well-being framework, the theory of planned behaviour will be examined and aspects of this will be used in the development of the new framework.

4.8 Destination choice and the theory of planned behaviour

In order to develop a more useful framework it is first necessary to illustrate the component aspects of a full framework. Before continuing to develop the framework for visitor well-being, the process of being a visitor is re-examined in the light of planned behaviour. The theory of planned behaviour would suggest that our actions are guided by three beliefs outlined in Table 4.1.

Table 4.2: The three considerations guiding human behaviour

Belief	Consideration
Behavioural beliefs	Beliefs concerning the likely result of behaviour and how that result is evaluated.
Normative beliefs	Beliefs concerning the normative expectations of others are believed to be and the motivation to comply with such expectations.
Control beliefs	Beliefs concerning the factors that may be present to facilitate or impede performance of the behaviour and the perceived power of these factors.

Based on Ajzen (2002)

Ajzen conceptualised this theory with a version of the model (Figure 4.3). The model indicates that there are three sets of beliefs; behavioural, normative and control beliefs. These beliefs combine to form an intention that can then lead to a particular behaviour, mitigated by actual behavioural controls. This theoretical understanding of

how planned behaviour occurs would indicate that past experience and the opinions of others are very important.

Figure 4.3: The theory of planned behaviour
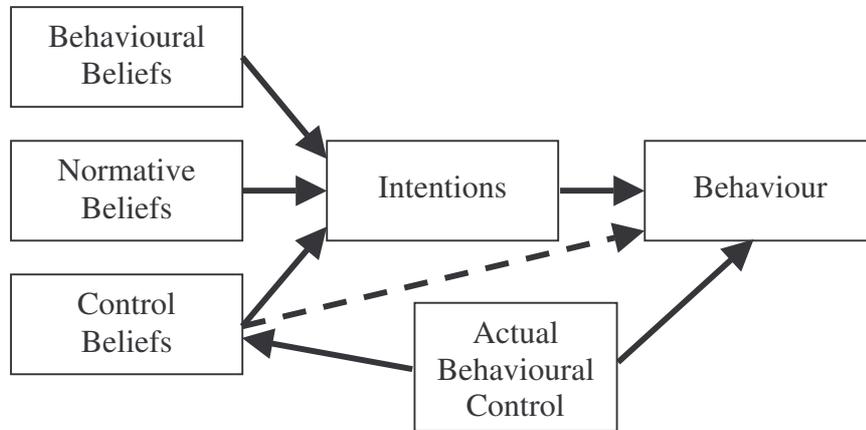
<div align="right">Ajzen (1991)</div>

This theory has been adapted to indicate the way this could be applied to destination choice. The three beliefs as with Ajzen's model, lead to intention, which can then lead to destination choice. These beliefs that lead to behavioural intention are processed within the home environment. As discussed earlier (Chapter 3.1), there is evidence to suggest that people undergo a transformation when they travel to a destination and become a visitor. Therefore it is important to acknowledge that the circumstances of the decision-making process may be specific to the home environment. Figure 4.4 illustrates the theory of planned behaviour model as it relates to destination choice.

Figure 4.4: The theory of planned behaviour adapted to destination choice
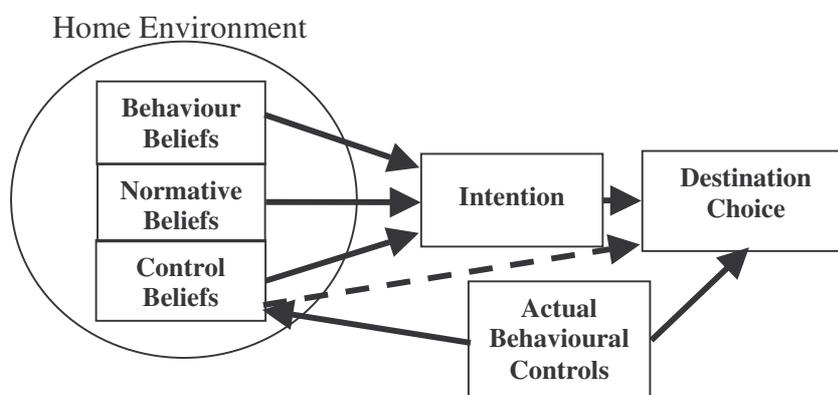
<div align="right">Developed by the author</div>

Destination choice and the subsequent experience from consuming the destination will be instrumental in developing a new image of the destination. The importance of destination image was established earlier in the thesis with the various components that establish an image in a person's mind being explored. By taking the adapted theory of planned behaviour model and combining it with the movement indicative in Leiper's model (see Figure 3.1 in Chapter 3), a model can be developed that highlights the way the visitor experience influences beliefs when undertaking future decision making processes for destination choice (see Figure 4.5).

This model is helpful in appreciating the role of experience in the decision-making relating to destination choice. It give an indication of the importance to a destination in the role of experience in to promoting beliefs about the destination affecting return visitation and word of mouth recommendations, both regarded as important in destination success.

Figure 4.5: Role of destination experience in destination choice
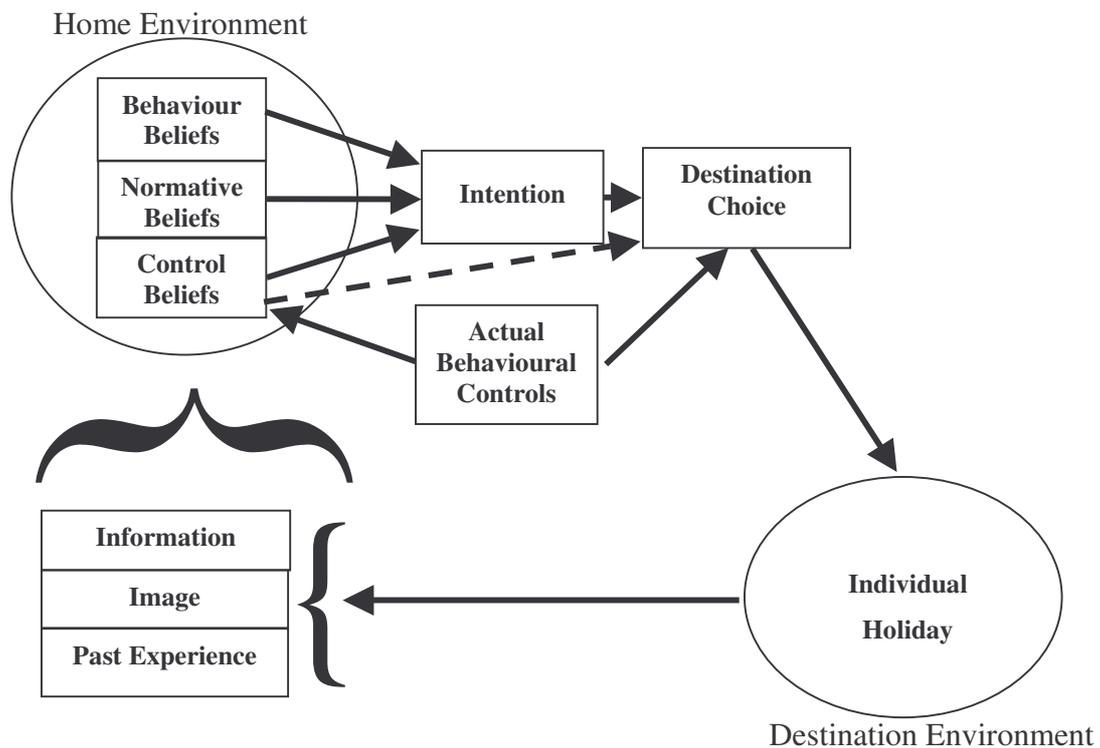
Developed by the author

Leiper's model (see Figure 3.1) is useful in visualising the system of tourism but it implies a circular process for the visitor where they begin at the generating region,

travel to the destination then return to through the same process. While this is appropriate for Leiper's model of the tourism system, it requires an adaptation to illustrate the changes that occur when the resident travels to become a visitor to a destination. While this is illustrated in the adaptation of Leiper's model for this purpose (see Figure 3.2 in Chapter 3), it perhaps needs a more fundamental shift. Examination of literature concerning the tourist or visitor experience (for example Ryan, 2002) would suggest a more linear process with the holiday experience having an impact on the individual both while at the destination and after their return (arguably prior to the visit too).

Figure 4.5 is based on the theory of planned behaviour and indicates the way in which the individual moves through the process of deciding on a destination and how that experience will become the past experience that feeds into the decision-making process for the next holiday. It also illustrates how behaviour can be affected at the destination depending on the relative beliefs held and the actual behavioural controls in place at the destination and, perhaps to a lesser extend, in the visitor-generating area. Although it is important that the destination is seen in the context of the wider sociological phenomenon that is tourism, the focus of this thesis is the destination. While visitor experience and well-being are not interchangeable concepts, well-being issues will impact on the visitor experience, therefore it will be an issue for the destination in terms of ensuring positive experiences.

4.9 The impact of health and safety issues on visitor well-being

Is visitor well-being synonymous with the visitor experience? Certainly any well-being issues would impact on the experience of the visitor. However, if the 'visitor experience' is seen as what actually happens in the destination, well-being issues have a wider scope. Well-being – or the visitor's view of how their well-being may be affected, is an element when choosing a destination and may also impact on the way in which they plan their trip even after a destination has been chosen. For example, potential visitors to India may be concerned about traveller's diarrhoea and may choose a more expensive hotel to ameliorate the risk. The nature of well-being provision could be seen as much more holistic, it will impact on any potential visit, the visit itself, and future decisions on destinations and how they are viewed. The well-being of the visitor is not a 'bolt-on' or 'optional extra' but is part of the overall vacation experience and must be seen in this context. Even if a destination chooses to

do nothing to ensure the well-being of the visitor, the visitor experience will still be affected by issues of well-being.

This notion that visitor well-being is overarching, developed from the literature, makes any conceptualisation a challenge and any attempt at conceptualisation must have a basic understanding of the visitor. An appreciation of the decision-making process, including aspects such as information search and the way in which the visitor is likely to interpret such information is a useful starting point. However, the visitor's actions and behaviours do not occur in isolation but in the context of the chosen destination.

The reasons why people travel for leisure, the way they source information and the aspects of a destination that are important to them when choosing a destination are key to understanding the propensity of visitors to choose a destination and how they are likely to behave while there. Such aspects of the tourism phenomenon are fundamental to understanding the issues associated with well-being.

4.10 Developing a visitor well-being framework

The theory of planned behaviour is informative with regards to destination choice, and the adaptation shown in Figure 4.5 demonstrates that the individual holiday experience creates beliefs that have an affect on destination choice, therefore a framework of that holiday experience and its interaction with the destination needs to be developed. Lewin (1935) expressed the idea that behaviour is a function of a person's behaviour and the environment. Therefore, the visitor's experience will be determined by their interaction with the destination. Any framework of visitor well-being should account for the interaction of destination and the visitor to create events that impact on well-being (see Figure 4.6).

Figure 4.6: The interaction of the visitor and the destination to create events
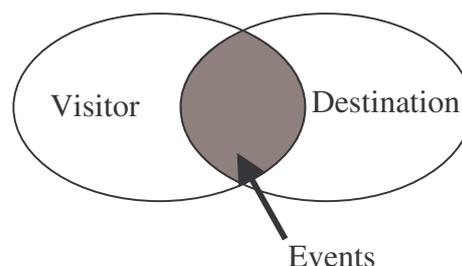
Developed by the Author

A visitor has a distinct personality, therefore from Lewin (1935), it follows that they will have a distinct behaviour pattern and their reaction to events will also be individual. Behaviour will also be affected by the visitor's perceptions of what they expect from a destination. Factors such as the 'group dynamic' of other visitors that they are holidaying with, what their expectations are and past experiences will have an effect on the visitor's perception. As well as perception of the destination, personal factors such as the visitor's skill set, their 'needs and wants' and their resources will also affect behaviour.

Visitors will undertake a variety of activities at the destination and this will impact on what elements of the destination environment that they come into contact with. This will be influenced by the facilities and services available at the destination and it is likely that this will have been, at least in part thee reason for choosing a particular destination i.e. the destination was selected because it was possible to undertake certain activities.

The visitor's perception of danger may affect their behaviour, for example if they perceive that a destination has a high level of crime it may make them more careful in their social interactions or where they go within the destination. Visitors, being individuals, will also come with their own attitudes towards who are responsible for their safety, some will believe it is up to the individual to keep themselves safe, others may believe that authorities such as the police, or government has the responsibility to keep them safe. The perceptions that a person has regarding a destination may also have an effect on their attitude to responsibility. For example if a place is perceived to be very civilised then one may take the attitude that the authorities will take responsibility, whereas in a country with a reputation for lawlessness one may have the attitude of taking responsibility for oneself.

Figure 4.7 shows how these elements combine to form a framework of the interaction between the activities visitors undertake and the perceptions and attitudes they hold to culminate in visitor behaviour. Therefore the visitor's behaviour results from their individual nature, perceptions and attitudes. The behaviour of the visitor then interacts with the destination.

Figure 4.7: Framework of the visitor

```
                         ┌─────────────────────────────────┐
                         │             Visitor             │
                         └─────────────────────────────────┘
                            │           │            │
                            ▼           ▼            ▼
              ┌────────────┐   ┌────────────┐   ┌──────────────┐
              │ Perception │◄─►│ Activities │◄─►│ Attitudes to │
              │            │   │            │   │ responsibility│
              └────────────┘   └────────────┘   └──────────────┘
                     │              │               │
                     ▼              ▼               ▼
                    ┌──────────────────────────────┐
                    │      Visitor Behaviour        │
                    └──────────────────────────────┘
```
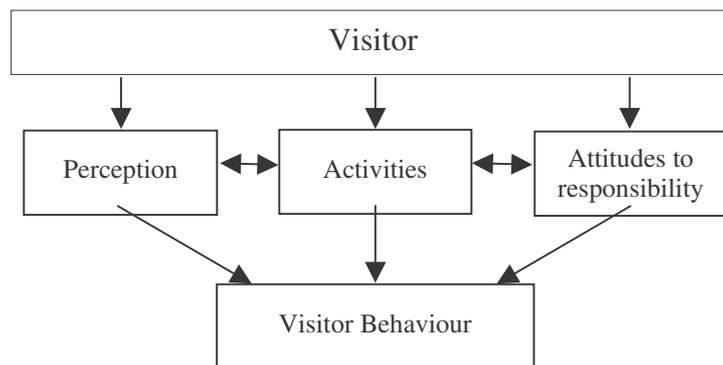
Developed by the Author

4.10.2 The Destination

The destination can be seen as the physical environment of the area visited. As discussed earlier (see section 3.1.2), in order to be a 'destination', it must have something that is attractive to visitors. This may be natural features such as beaches or mountains; built heritage such as castles or temples; or purpose-built facilities for leisure such as artificial reefs or theme parks. In order to develop a substantial tourism market such features must be supported by suitable infrastructure such as roads, communication systems, transportation and facilities.

While such physical aspects may attract the visitor initially, this must then be supplemented by services specific to the visitor such as accommodation or catering; and more general services such as banking or waste disposal. The physical aspects of the destination and the services combine to provide the activities available to the visitor whether these are passive activities such as sightseeing or sunbathing; or more active pursuits such as paragliding or mountain climbing (see Figure 4.8).

Figure 4.8: Destination activities

```
        ┌────────────┐        ┌──────────────┐
        │ Activities │        │   Physical   │
        │ Available  │        │ environment  │
        └────────────┘        └──────────────┘
               │                     │
               ▼                     ▼
        ┌─────────────────────────────────────┐
        │             Destination             │
        └─────────────────────────────────────┘
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Developed by the Author

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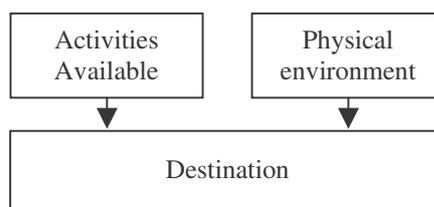
These aspects will affect the experience the visitor has in the destination but they will also be affected, particularly in terms of well-being issues, by measures taken to protect the visitor and services and facilities available to the visitor should they suffer negative events such as an accident or a criminal incident. This aspect of the destination can be attributed to the attitudes and beliefs of the local stakeholders toward the visitor. These attitudes and beliefs will affect the resources and level of provision for visitor welfare made by the destination. When the physical environment, the services available and the attitudes of the local stakeholders combine, they form the attributes of the destination, as shown in destination framework shown in Figure 4.9. It is these destination attributes that combine with the visitor behaviour to create the events experienced by the visitor.

Figure 4.9: Destination framework
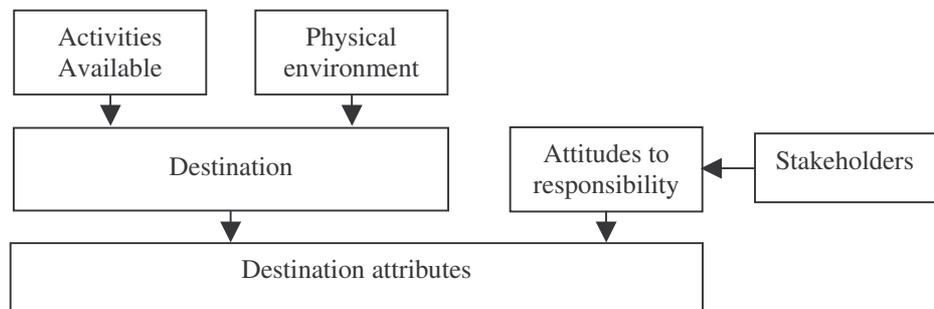
<div align="right">*Developed by the Author*</div>

4.10.3 Events

An event occurring, whether positive or negative, will alter a person's perception of the destination; depending on the type of event, how it is handled, and their attitude toward who was responsible for their safety. Events can be seen as incidents and their pre and post cursors whether positive or negative. It is highly likely that a change in perception will generate a change in behaviour (Lewin 1935). The events box shown in the framework is where well-being is formed, Figure 4.10 is an exploded view of the event box.

Events that occur can be, to varying degrees, either positive or negative and it is the summation of these events that give rise to the level of well-being. The individual weighting of each event will depend upon the personality of the visitor, their perceptions and attitudes. For example, some visitors may find that having property

stolen from their car will have a less traumatic effect on them than it does on others; hence it will have a different effect on levels on well-being for each visitor.

Figure 4.10: Framework of Events

Where:
    +ve = positive
    -ve = negative
    Σ = summation
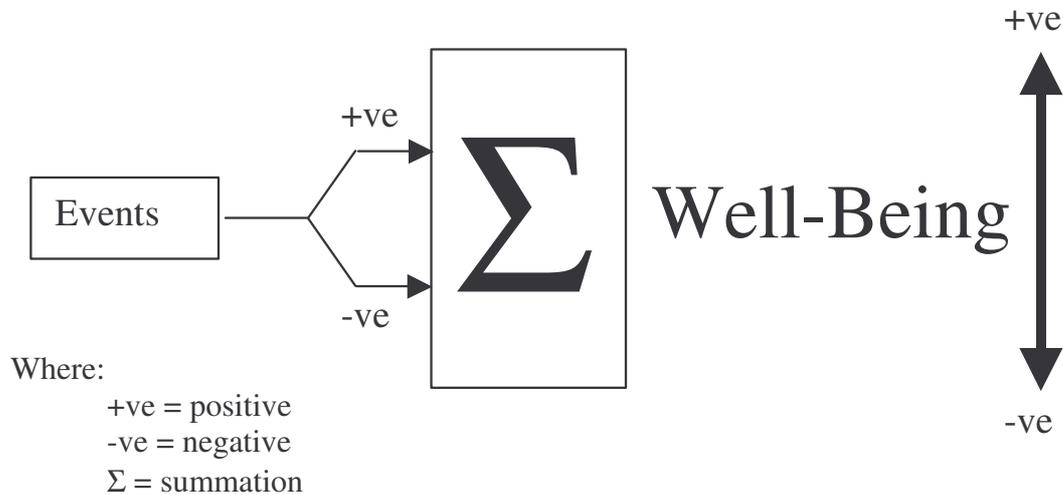
Developed by the Author

4.10.4 Visitor and destination interaction

The combination of factors that result in the destination attributes will determine the hazards facing the visitor to a destination area but the risk will result from the combination of the destination attributes and the behaviour of the visitor. Issues of risk were discussed earlier but in a destination context the difficulties of evaluating and controlling risk becomes even more complex where the destination involves a large and variable environment. In order to fully address issues of safety for visitors to a destination, regard must be taken to the way in which visitors interact with local residents, the tourist industry, the environment and each other. The proposed framework of well-being, Figure 4.11, shows that it is the interaction of the visitor's behaviour (Figure 4.8) with the destination attributes (Figure 4.9) that create the context within which events can occur. The events box shown in the framework is where well-being is formed (see Figure 4.10 for an exploded view of the event box).

Researching whether such negative events that may be preventable within reasonable budgetary resources is perhaps of more value to policy-makers and agents involved in tourism at the destination. This requires an appreciation of the nature and type of incidents experienced by visitors to a destination area and how these incidents are perceived. .

Figure 4.11: Framework of visitor well-being
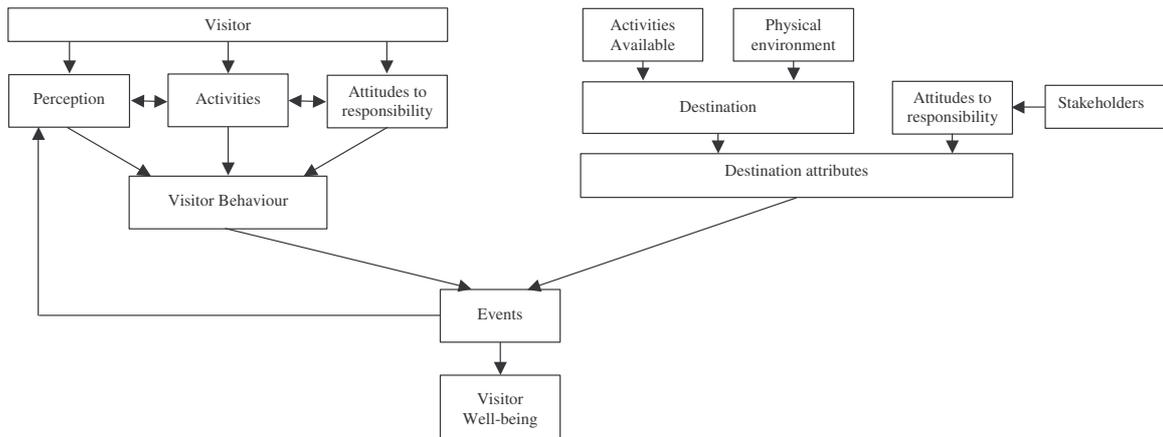
Developed by the Author

The thesis explores how incidents impact on visitors to a specific destination in order to gain insight into how the conceptualisation of well-being may actually be applied in practice. The next chapter will examine the issues pertaining to the methodology employed in the research before assessing particular issues relating to well-being

Chapter Five: Research Design and Methodology

5.0 Introduction

This chapter presents the research approach taken to achieve the set objectives, the choice of research design, data collection methods and the constraints under which the research operated. The Central Scotland Police Force (CSPF) played a pivotal role in providing data that was used as the baseline for the research through the provision of their database of criminal incidents in the area and the provision of road traffic crash data through the Central Scotland Accident Investigation Unit (CSAIU). This data was very useful in obtaining a reliable source of underlying statistics and in providing a context within which to analyse the findings of the surveys undertaken. Baseline data, provided by the National Health Service (NHS) was included; this gave details of hospital admissions within the Forth Valley area (the same area covered by the Central Scotland Police Force). This information was used in conjunction with existing literature, and surveys of visitors and accommodation providers, to develop a comprehensive analysis of visitor wellbeing within the geographical area of the Forth Valley, Scotland. The chapter begins by exploring the research question in detail, and then examines the contribution of the gathered research data to the overall project methodology.

5.1 The Context of the Research

The increasing awareness of the importance of tourism to the local and national economy has focussed attention on ensuring that the visitor, as the consumer of the product, has an experience that encourages repeat visits and recommendation to others. While tourism agencies have been concerned with improving the quality aspects of visitor service and experience at accommodation and attractions, the issues of visitor safety have, to-date, not been fully addressed. Incidents and any subsequent mishandling of the situation will undoubtedly have a negative impact on the visitor experience; dealing with these issues is problematic due to matters such as responsibilities, including that of the visitor, not being clearly defined. Therefore, knowledge of the types of incidents experienced by visitors has to be understood before the impact of these incidents on the visitor can be ameliorated.

This study identifies ways in which primary and secondary sources can be combined to provide an analysis of the situation facing visitors in relation to incidents that may

affect their experience of the destination. The literature available would suggest that not only will the actual or experienced risk of incidents be a factor, but that perceptions, media representation, availability of data and characteristics of the individual traveller will also play an important role in visitor behaviour and the extent to which their experience is affected. This study is therefore designed to address these issues and allow recommendations for strategies that deploy resources more effectively, reducing incidents and their negative impacts on the visitor experience.

5.2 Designing the Research

When undertaking any kind of social research, there are two basic questions: what is going on? and why is it going on? – descriptive and exploratory research (de Vaus, 2001). Although often underrated, good descriptive research is a necessary prerequisite to exploratory research as it is necessary to appreciate what is going on before we can ask why it is going on. As de Vaus states, "*good description provokes the 'why' questions of explanatory research*" (de Vaus, 2001:2).

This research seeks to assess the nature and level of incidents experienced by visitors and, so is an example of descriptive research. It seeks to develop an in-depth appreciation of the differences between visitors and local residents in terms of well being to allow further research into why this is so.

> *Descriptive research can very easily deteriorate into a collection of trivial information that does not promote further discussion (Mills, 1959) and in order to avoid such denigration it is vital to approach issues of design that allow information sources to be used in a focussed way. By bringing together a variety of sources, and observing their outcomes, inductive reasoning can then be used to develop theories as to why this is occurring that can be tested in later, exploratory research. Due to the paucity of research in this area, evidence should collected with as few preconceptions as possible, which can then used to induce a theory of the situation and why it is happening.*

As datasets that have not previously been available to examine in this context were made available, it allows for 'discovery' of what reported incidents are affecting visitors and to what extent these vary from incidents affecting the local residents of the same area. Before choosing the methods of data collection, the initial design of the study was explored. As Yin (1989) states, research design "*deals with a logical problem and not a logistics problem*" (Yin, 1989:29), therefore in designing research, the first question is not 'how am I going to get the information I need?' but 'what question am I seeking to answer?' and then 'what evidence do I need to collect?'

Once it is clear what evidence is required, then issues of collection methods can be more easily addressed.

5.3 Research Methods

The complexity of the issue being studied meant that one data source would be inadequate to reveal insights into visitor well-being, so a variety of data sources were sought to overcome the inadequacies of individual data sources. Each data source could only provide insights into particular aspects of the situation. As several of the data sources were from external agencies with different agendas in gathering the data and different methods of doing so, each contained information in different formats. While each had the capability of adding to the information sought, there were issues of deficiencies and overlap. Therefore the results were triangulated in order to develop a fuller and more valid picture of the situation.

5.3.1 Triangulation – benefits and challenges

Triangulation, a term taken from surveying, is where an area is divided into a series of triangles in order to measure distance and relative position of a point (Oxford concise dictionary, 2001). When translated to research, this term can mean seeking to use different methodologies in the same study, or to use various sources, to develop an understanding of different facets of a research problem.

There are critics of the use of triangulation; it can be seen as an attempt to improve validity by using variety in research methods with little logic to the approach and a tendency to create confusion and a loss of focus (Clark, Riley, Wilkie and Wood, 1998). However, Greene, Caracelli and Graham (1989) argue that it can allow any, or all, of the following: convergence of results; complementary overlapping, but differing, facets to emerge; sequential information to be gathered; the emergence of contradictions and fresh perspectives; and expansion where the different elements can add depth and scope to a study. Maxwell also has a more positive view:

> *"Triangulation reduces the risk of systematic distortions inherent in the use of only one method, because no single method is completely free from all possible validity threats"* (Maxwell, 1998: 93).

Fielding and Fielding (1986) also emphasis the need to design strategies that overcome the fallibility of any one method. Although triangulation is a term most commonly associated with combining qualitative with quantitative data in a mixed

methods approach (Cresswell and Clarke, 2007), it is a useful approach to use when faced with datasets that, as individual entities, do not contain sufficient information to draw conclusion, but each offer a window to shed light on the situation under scrutiny.

In cases such as this, where all sources are lacking in respects, the use of triangulation can allow a more complete picture than would not otherwise be possible through the use of a single data source. As this research was conducted in a single phase and each dataset is treated as having equal weight in the interpretation of the results, this can be seen as a convergence model of triangulation (Cresswell and Clarke, 2007). The main data sources brought together for this research are; the crime files from the local police force (Central Scotland Police Force); the road traffic accident data provided by the police through the Central Scotland Road Accident Investigation Unit (CSRAIU); and emergency admissions data on the Forth valley area supplied by the Information Services Department (ISD), the statistical arm of the National Health Service. Data from these sources is further illuminated by empirical results from three surveys; a visitor survey of people in the area on a temporary basis (excluding those working in the area); a survey of tourists staying in a selection of accommodation in the area; and a survey of accommodation providers in the area. STEAM figures are used to provide a background source of visitor figures to contextualise the research. The sources used are now discussed in more detail.

5.4 Data sets

Three main sets of data from secondary sources were used to develop a picture of the nature, type, and extent of incidents affecting visitors to the Forth Valley area. Road traffic accident data was obtained from the Central Scotland Road Accident Investigation Unit (CSRAIU), data on crime in the area was provided by the Central Scotland Police Force Intelligence Unit (CSPFIU). The Information Services Department (ISD) of the National Health Service provided additional data on emergency hospital admissions. Table 5.1 summarises the datasets used.

Table 5.1: Summary of datasets

Source	Data type	Date	No of records	% visitors
CSPFIU	Crime figures	2001-2002	9055	7.7%
CSRAIU	Road accident figures	1999-2002	2841*	N/A
ISD	Emergency admission figures	2000-2003	82712	4.1%

* Number of accidents: these involved 4842 vehicles and 7384 casualties

5.5 Data sources used

As discussed, the research utilises a range of sources to triangulate information relevant to the research aims. Figure 5.1 illustrates the variety of sources and how they are used within the thesis. The sources can be split into two types: the datasets and the surveys. Each is discussed in further detail.

Figure 5.1: Overview of sources used within the thesis
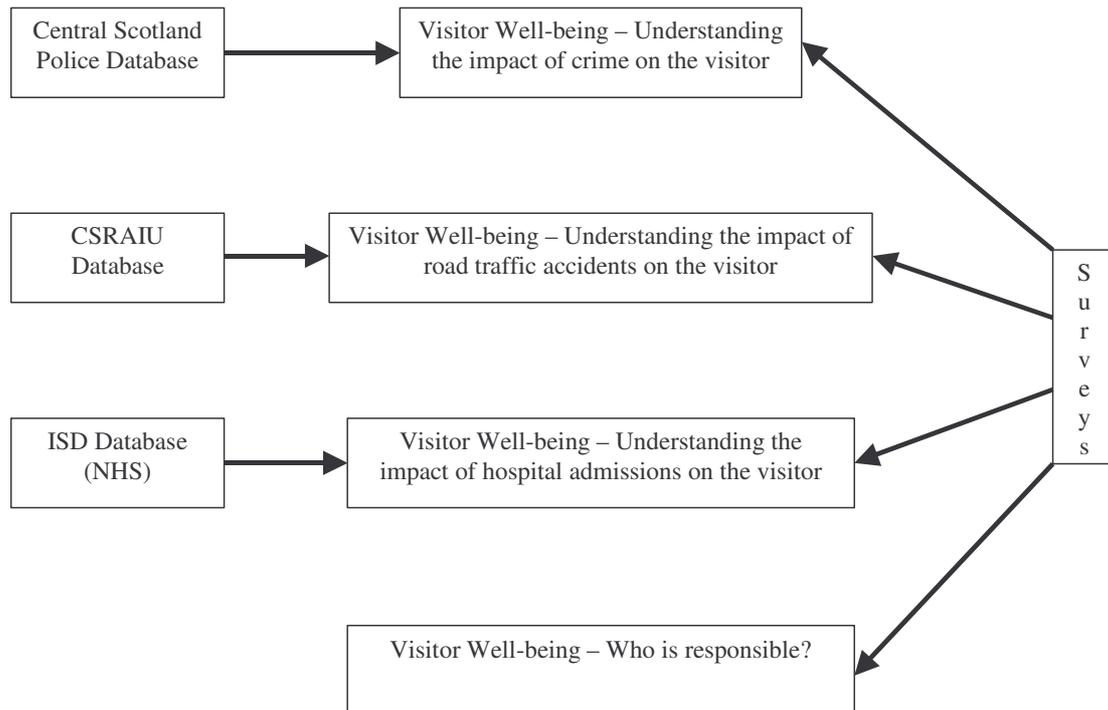
Central Scotland Police Database	→	Visitor Well-being – Understanding the impact of crime on the visitor
CSRAIU Database	→	Visitor Well-being – Understanding the impact of road traffic accidents on the visitor
ISD Database (NHS)	→	Visitor Well-being – Understanding the impact of hospital admissions on the visitor
		Visitor Well-being – Who is responsible?

Surveys

Estimates of tourists and day visitors for the region of Central Scotland are taken from STEAM figures, a supply based assessment of visitor numbers to the area, commissioned by the Regional Tourist Board and public sector to measure visitor activity. The STEAM data is consistent with the Forth Valley area as the Area Tourist Board (Argyll, the Isles, Loch Lomond, and the Trossachs Tourist Board) operational at the time of the research, had several sub-regional STEAM reports providing estimates of tourism activity at a local level. The information from the relevant sub-sections was combined to produce visitor figures for the area. Visitors were estimated as 7,370,550 (Scottish Enterprise, 2003). In order to allow as much parity between the datasets as possible, the STEAM figures used relate to the main period of the research (2002). The STEAM figures are discussed in further detail in Chapter six (The destination and its visitors). STEAM figures do not include people

travelling through the area or commuters, but those identified as 'visitors' for the purpose of this study may include these groups. Thus care must be taken in assessing proportion representations against the other datasets based on these figures.

As the data from each of the datasets are quite disparate in nature, the chapters on crime, road traffic accidents and health discuss the individual datasets in more detail. There were some general issues and these are discussed here.

5.5.1 Limitations of the datasets

In each dataset, the data did not distinguish between visitors and those living and working in the area. Although not ideal postcode information was used to distinguish 'locals' i.e. those living within the Central Scotland Police Force Area and 'visitors' i.e. those living outside the Forth Valley area. One of the main limitations was due to issues of data protection, and in order to protect identities of those involved full details of incidents were not always available. The type of information withheld varied for each database.

This data will not show the extent of incidents in the area as incidents may not be recorded for various reasons, such as the minor nature of incident or due to those involved not wishing to notify the authorities. In some cases the data set also suffered from incomplete or inaccurate records. One further complication that may contribute to under-recording is that there are likely to be a number of overseas visitors entered using their temporary UK postcode leading to an underestimation of the number of non-UK people in the data. Similar problems have been encountered in previous research (e.g. Sharples and Fletcher, 2001).

Human error will also be a limiting factor as the data has been through a lengthy process consisting of many stages; the individual recording the incident, different staff may undertake computer input and data needs to be processed through a separate system to be put into a useable format for analysis. Each stage adds the opportunity for errors.

The main limitation of the three data sets supplied by CSRAIU , CSPFIU and the ISD was that the information was not collected for the purpose of this research. This lessens its value in that the categories were not set with the purpose of this study in mind, nor were they necessarily appropriate to this study. Blaikie (2003) identifies five disadvantages to using such secondary, or arguably tertiary, data:

1. *Differing aims* –the collection of the material was to fulfil aims and research questions different from those of the current study and the underling assumptions may not be consistent with those of the author;

2. *Areas not covered* – as the information was gathered for a different purpose it may not comprise all the areas that the author would have included had the information been gathered empirically for this study;

3. *Coding issues* – the coding of the data may not be consistent with the authors coding system and may cause difficulty when using with other data;

4. *Quality issues* – it may be difficult to assess the quality of the data provided;

5. *Time lag* – data may take time before it is archived, published and available, potentially delaying the author's access to material and lessening the impact of data by introducing already quite historic information.

Each point will be explored in relation to this particular study;

➢ *Differing aims* – although information for the three databases was gathered for other purposes, this was not considered a great concern as much of the information was fairly basic in nature (demographics and categories of incidents) and the data was given to the researcher in a relatively raw format.

➢ *Areas not covered* – this was an area were there were limitations of the data for the study as due to the sensitive nature of some of the information, full descriptions of incidents were not always available. Also, there was not always sufficiently detailed information to compare the databases in all aspects, leaving more possibilities of overlaps, duplication and disparities in the overall results.

➢ *Coding issues* – this was not generally an issue but there were some areas that proved problematic when comparing databases.

➢ *Quality issues* – as discussed in more depth in the chapters covering the assessment of the individual databases, there were issues of quality in some respects due to the difficult situations that some of the original information was collected under. Also, quality is lowered by the number of processes that data is subject to, as errors become more likely with each procedure.

➢ *Time lag* – the issue of the age of the material and the length of time between the information being collected and its availability to the researcher was quite problematic. Given the dynamic nature of tourism, the older the material used to assess the situation, the greater the likelihood that events would have superseded the research. This is, in part, ameliorated by the nature of this study where it is designed to be a holistic approach to an issue that is currently distinctly under researched and by the fact that the author is using the information from the databases to provide an indication of the situation in a place and time rather than to provide a definitive assessment of visitors and incidents.

Even given the constraints outlined, the advantages of having such rich data sources to underline the research outweighed any disadvantages.

The use of all three data sets together will produce benefits and disadvantages for example the overlap of the sources. The datasets are not mutually exclusive and there are areas of overlap such as an individual involved in a road accident, subsequently being taken to hospital and appearing in those statistics. The data sets only contain 'reported' incidents; that is incidents that have come to the attention of authorities due to self-reporting or reporting by others. However, use of all three data sets will allow more incidents to be identified as some incidents that could have been recorded in one dataset may appear in another i.e. a person assaulted may not report the incident to the police but may present themselves for treatment at the local accident and emergency unit. Although these issues may make the data sources cited less than ideal and add additional limitations to the study, their beneficial qualities far outweigh these disadvantages. The data sources used are a relatively 'pure' form of secondary data in that although they were collected for a different purpose than that of this study, they are in raw form and collected by a reputable organisation in each case. The term 'raw' refers to data that has not been previously processed or analysed. The data was in the form that it was collected in and had not been interpreted or manipulated by another researcher prior to use in this study. This reduces the layers of potential distance between the author and the data source allowing a cleaner, clearer interpretation of the results. Each data source will have its own particular anomalies and these are discussed more fully as each dataset is introduced.

Although the datasets will have the unavoidable limitations discussed above, this will be offset by the overlapping and complementary nature of parts of the datasets, allowing a degree of cross checking, the literature in some cases deals with particular aspects, again allowing a degree of cross checking and the empirical data collected through the three surveys will also improve on the body of evidence to provide a more robust picture of the situation. Whilst inconsistencies inevitably arise through incomplete data, problems of data linkage and geographical coverage of data, by using a combination of sources an understanding of the nature and type of incidents experienced by visitors can be achieved.

The use of official statistics from these datasets needed to be supplemented through primary data to augment and supplement the analyses of incidents whilst relating the findings to available tourism data.

5.6 Primary Research Data

The collection of primary data was undertaken in three main parts; a street survey of visitors to the area (Visitor survey); a short self-completion survey of accommodation providers (Accommodation provider survey); and a self-completion survey of overnight visitors in their accommodation (Tourist survey). The main aspects of each are shown in Table 5.2

Table 5.2: Summary of surveys

Population base	Questionnaire name	Collection method	Sample selection	Respondents (n)	Response rate (%)
Accommodation providers in the Forth Valley	Accommodation Provider survey	Postal	Census	140	35%
Overnight visitors to the Forth Valley	Tourist survey	Self-administered	Self-selecting	187	37%
Visitors to the Forth Valley	Visitor survey	Administered 'face-to-face'	Random sample	268	N/A

The key to any data collection method is that it must be able to answer the research questions (Bouma & Atkinson, 1999). The data collected for this research used surveys to assist in interpreting. This was used to expand on the information gained from analysis of the datasets, by collecting information directly from the people that this research concerns (Leung, 2001).

The majority of the questions used for this research are closed questions, but some of the data collected used open questions. Closed questions allow for answers within a finite set and are used to both collect factual information, such as gender and age, and also data on attitudes and opinions thus providing a high-level of control over the questionnaire (Oppenheim, 1996). This control also aids in the analysis of the questionnaire, as there is uniformity across all the responses. It is also easier to input the data into a software package therefore reducing errors (Newell, 1995). The use of closed questions also reduces the effort needed by the respondent to complete the questionnaire and therefore can increase the response rate. However closed questions can only be used when the set of potential answers is already known; therefore some open questions were asked within this research to provide guidance for the potential

responses to some of the closed questions. Stacey's (1969) comments on the use of open and closed questions highlight the use of these two methods.

> *"closed questions should be used where alternative replies are known, are limited in number and are clear-cut. Open-ended questions are used where the issue is complex, where relevant dimensions are not known, and where a process is being explored"* (Stacey, 1969)

When closed questionnaires were used to seek an opinion or attitude a Likert scale was implemented, with the scale balanced around the mid point.

The questionnaires were designed to reduce demand characteristic bias, which can occur when respondents want to be good participants and try to give the answers that they feel the researcher wants (see for example Orne & Scheibe, 1964). To eliminate this bias, where practical, the exact purpose of the questioning was not given to the participants.

5.6.1 Rationale for survey use

In order to develop a better understanding of the relationship between the visitor and incidents and to contribute to the available literature, it is necessary to interact with the visitor directly. Various methods could have been selected, such as focus groups or in-depth interviews, however it was felt that this would considerably reduce the scope of the study and present difficulties in selection and timing of the study. The option of a visitor survey would allow a larger base for what is essentially descriptive research. Given that this study is seen as the basis for further research, the argument for volume over depth is strong. The statistical base can then be further developed, if required, to produce the deeper understanding that can be achieved by qualitative research. As the styles for the three different surveys varied according to audience, purpose and circumstances for completion, each are dealt with separately below.

5.7 Visitor survey

The visitor survey was a face-to-face administered street survey undertaken at a number of locations in the Forth Valley. The intention of this stage of the research was to ascertain the attitudes and self-assessed behaviour of visitors to the area. The Forth Valley area receives approximately 8,8 million visitor days per annum (Scottish Enterprise, 2004). In order to ensure a representation of this population a random sample of 300 visitors was taken. Every third person was chosen and the first question ascertained if the person was 'local' (living and/or working within the

Central Scotland Police Force Area) or 'visitor' (living and working outwith the Central Police Force Area). Only visitors were selected for the survey.

5.7.1 Visitor survey questionnaire design

The street survey of visitors was an administered questionnaire undertaken on a random sample basis. The questionnaire for this survey was designed to last for no longer than ten minutes, as this was felt to be the limit of acceptable time for people to be standing in the street being surveyed. The majority of the questions were closed or in the nature of a scaled response as this reduced the time needed for each questionnaire to be completed, while still allowing for a variety of responses.

This survey was designed for visitors to the area, and only those who were from outwith the Forth Valley area were asked to complete it, hence gaining insight into their experience of the Forth Valley area.

5.8 Survey of Accommodation Providers

The third key stage to the research design was to survey tourists actually staying in the area. It was considered that the most uncomplicated way to access these tourists would be through the accommodation providers, even though this did put some limitations on the study in terms of excluding a potentially large population of tourists who were staying in the area with friends or relatives, however the benefits of ease of data collection was considered to outweigh the limitations of such a methodology. To this end, the cooperation of the accommodation providers was sought. It was felt that the potential knowledge held by accommodation providers was also an important asset and so a short questionnaire was sent to the accommodation providers in the area together with a request that they participate in further research by allowing questionnaires to be left in accommodation areas for guest self-completion.

A census approach was taken in approaching accommodation providers in the area. Assessing the number of accommodation providers in an area can be problematic as there is no overall register of such information. Even where such registers are available, there is a tendency for any such information to date very rapidly i.e. businesses cease to trade and new businesses can open for business. This is particularly true in areas such as tourism where there is a large percentage of small and micro business. While the national tourism organisation for Scotland, VisitScotland, do operate a grading scheme for accommodation businesses, there is no

compulsory registration and, although a large percentage of accommodation providers do register with VisitScotland, there are other classification schemes such as the AA and the RAC schemes that may be preferred. Many operators do not register for any scheme, therefore although the most recent local visitor accommodation guide for the area was used as a source to develop a database of accommodation providers in the Forth Valley, this information was supplemented with information from the local Yellow Pages and Thomson guide telephone directories. This combination produced 390 businesses (see Table 5.3). While this will not reveal the full population of accommodation providers due to reasons of dated information and those who do not advertise apart from with a sign on the road side, it was felt that reasonable steps had been taken to reach as many accommodation providers in the area as possible to constitute a census.

Table 5.3: Accommodation providers

Type of accommodation	Hotels, Inns, Restaurants with rooms	Guest house/B&B	Self-catering	Hostels	Caravan and Camping Parks	Total
Stirling	24	79	36	1	2	142
Trossachs and Breadalbane	31	65	79	7	4	186
Falkirk	14	27	5			46
Clackmannanshire	5	8	3			16
Total	74	179	123	8	6	390

A single page survey form was produced (see Appendix A) and incorporated with a letter explaining the purpose of the research and a stamped address envelope. The design of the questionnaire for the accommodation providers concentrated on being as short as possible, as this was felt to be vital to keep response rates as high as possible. This was particularly important as the accommodation providers were being asked to cooperate in further research. The survey was posted to all identified accommodation providers in the Forth Valley area of Scotland; to increase the response rate a prepaid envelope was included (Fink & Kosecoff, 1985).

Table 5.4: Response rates by area and accommodation provider type

	Hotels, Inns, Restaurants with Rooms	Guest house / B&B	Self-catering	Hostels	Caravan & Camping Parks	Total
Stirling	33%	39%	32%	0%	0%	36%
Trossachs & Breadalbane	32%	26%	35%	75%	14%	32%
Falkirk area	27%	39%	20%			33%
Clackmannan-shire	20%	38%	33%			31%
Total	31%	34%	33%	38%	17%	34%

In total 133 responses were received equating to a response rate of 34%. This was approximately the same for each area and for each accommodation type with the exception of the Camping and Caravan Sites where only one establishment responded of the eight surveyed. Table 5.4 details the response rates.

5.9 Survey of tourists in accommodation

As discussed earlier, the co-operation of accommodation providers was sought in order to access the views of those staying in the area as tourists. A selection of those providers who indicated a willingness to participate was selected and questionnaires were given to the owners/managers for placement in the accommodation area. This proved more fruitful in some establishments than others, possibly dependent on the level of contact and encouragement given by the owner/managers, but also depending on the type of visitor and the amount of time actually spent in the establishment. Five hundred questionnaires were distributed. A total of 47 accommodation providers agreed to participate in further research - representing 12% of the overall population. Twelve accommodation providers were selected, with batches of questionnaires commensurate with the size of the accommodation being provided to be placed in the guest accommodation. Arrangements were made with individual providers for collection of any responses left with them. An addressed envelope was attached to each questionnaire and the instructions gave the respondents the option of leaving completed questionnaires with the accommodation providers or posting them directly to the author.

In total 500 questionnaires were distributed and 187 were returned, a response rate of 37%. This high figure disguises large variances in the rates for different

accommodation providers. Some accommodation providers were more proactive in encouraging their guests to complete the questionnaire.

5.9.1 Tourist self-completion survey questionnaire design

The questionnaire for the tourist self-completion survey was the most extensive of the three surveys, this survey was designed for self-completion and was more complex than the other questionnaires. It was hoped that, as the questionnaire was to be administered within the accommodation, tourists could complete it at their leisure and would not be too concerned with its relative size. In order to enhance response rates a stamped addressed envelope was provided and the incentive of entry into a prize draw was given.

When questionnaires are self-administered, there may be problems in the data collection itself that cause errors in the data as the respondents are not monitored therefore allowing for dishonesty in answering questions such as misreporting age or gender (Dillman, 2000; Schmidt, 1997). Another reason that respondents may not always give honest answers because they may want to be seen to conform to what is socially desirable (Social Desirable Response Bias). Although this bias cannot be eliminated completely, neutral wording of questions and assurances that all responses are anonymous can reduce it (Nunnally, 1978). With unmonitored surveys, there is a risk that people may respond more than once (Schmidt, 1997), but there are also advantages of the respondent not being monitored, as there is time to consider responses (Levinson, 1990).

The sample is the fraction of the population that answer a questionnaire (Fowler, 1988). The purpose of surveys is to generalise from the sample to the population so that suppositions regarding behaviour, attitudes, and the like, can be made (Babbie, 1990), therefore how respondents are selected is important. The sample for this survey could be considered a 'random self-selecting' sample (McQueen & Knussen, 1999) of a sub-population of overnight visitors to the Forth Valley area. By its very nature, the participant are self-selecting and therefore may not be representative of the full study population. However self-selection can be suitable when researching a particular group (Coomber, 1997).

Prior to being administered, each survey was piloted to correct any mistakes in understanding and to check if any questions were unsuitable.

5.10 Other sources

In addition to the main data sources discussed above, various other secondary and tertiary sources were used to support and inform the study including previously published articles, books and reports related to the subject area. These sources are generally used in the literature review chapters to develop the arguments that are the foundation for the empirical research. They are also used as a check on the data produced, both from the survey material and the secondary data sources discussed above. This should assist in highlighting anomalies, to discern if there are likely to be problems brought about by study limitations or genuine variances in the data. This is particularly important given that much of the data was not gathered specifically for the purpose of this research (i.e. the datasets).

5.11 Processing and analysis of data

Given the variety of source data gathered for the research, issues of processing and analysing the data have to be addresses. This section discusses the way that the data was processed to allow as much comparability as possible between the data sets and the survey data before discussing the way in which the data was analysed.

5.11.1 Data processing

The datasets were translated to an SPSS format for processing. SPSS is a versatile computer package able to perform a wide variety of statistical procedures (Voelkl and Gerber, 1999). This method of data processing was chosen due to the volume of information and records. The results from the three surveys were also entered and analysed using SPSS, which allowed easier comparison of the data analysed through each collection method. SPSS provides a relatively easy and efficient method of analysing large quantities of data with a wide range of statistical tools available to fully explore the data. SPSS has proven itself as a reliable tool for this type of data exploration.

The majority of statistical analysis was carried out using SPSS for Windows, version 11, Microsoft Excel was also used for some preliminary data screening and creating visual outputs. Apart from basic analysis, such as frequencies, means and standard deviations, cross-tabulations of variables were also carried out (Dancey & Reidy, 2004). In order to further clarify underlying groupings within the survey responses, the technique of factor analysis was applied to various aspects of the data.

5.11.2 Factor analysis

Factor analysis is often used to simplify interrelated measures and classifying similarities, therefore aiding in making sense of a complex situation (Child, 1970). However factor analysis does not reveal the underlying cause for specific behaviours. Within this research, factor analysis was carried out using the function within SPSS (Dancey & Reidy, 2004). Factor analysis is improved upon by using a rotation programme; in this case Varimax rotation is used. Rotation of the factors allows for a more defined analysis of the results. The output from the SPSS factor analysis function was examined and only variables with a loading that exceeded a magnitude of plus or minus 0.40 were considered to be significant (Gorsuch, 1983). Within the SPSS dataset new variables were created to reflect each factor, these were constructed using an unweighted summation method (Hair, 1992; Maxwell, A. E., 1961). For an in-depth discussion of factor analysis, including the various methods of rotation please refer to Child (1970).

5.12 Research Objectives

In chapter one the research objectives were briefly outlined, this section will explore each objective, and describe how they will be achieved in this thesis. The objectives were derived from assessment of the existing literature, where there appeared to be a lack of conceptualisation of the well-being of the visitor at the destination. There was also evidence to suggest that visitors have different risk levels, with the nature, type and level of incidents varying between visitors and the local residents. These differences are largely unnoticeable in the wider reporting of statistics as the visitors often are, at any given time, a relatively small percentage of the total population. This is certainly the case in the Forth Valley study area with visitors only representing approximately 7% of the total population[1]; thus the existing data had to be analysed in a way that would allow differences to become apparent even though they would not be obvious in the overall statistics.

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[1] This figure is based on local population figures provided by the three local authorities and the STEAM 2003 figures provided by Scottish Enterprise.

Crucial to developing any understanding of visitor well-being is gaining an appreciation of the nature and type of incidents affecting visitors. Understanding the incidents faced by visitors, and how these may differ from incidents impacting on local residents, is a first step in being able to identify ways of prevention or the amelioration of impacts. A variety of sources were brought together to inform this element of the research. Several sources were used to increase the validity of the findings where there is likely to be gaps and inconsistency in the data.

Firstly, three databases from local organisations pertaining to incidents were accessed; these were the Central Scotland Police Force database on reported crime; the Central Scotland Accident Investigation Unit database on reported road traffic accidents and the Forth Valley National Health Service database on emergency hospital admissions. A more detailed description of the databases used is given in the relevant chapter utilising that database. The three databases, taken together, give a clear indication of the actual level of reportable incidents of crime and accidents for visitors and for local residents. This will give an approximation of the level and nature of such incidents and will allow a crude comparison of visitors and local residents.

Even taking these databases together, they will not give a true picture of the actual situation as the databases deal solely with reported incidents. Therefore the visitor will have had to seek help from the police or the emergency services to appear in this data. Reasons for none reporting are discussed in more detail for each database in the relevant chapters. The main reasons are likely to be similar to non-reporting for local residents. For example, the victim may consider the incident as too minor, they may have little faith in the authorities, or they may have been involved in illegal/immoral behaviour at the time of the incident. Some visitors may seek assistance from other agencies for example breakdown services, local GP clinics or site owners which will mean they do not appear in the statistics generated here. There will also be overlaps and other limitations that are explored more fully in the relevant chapter. Therefore, in order to develop a clearer understanding of well-being issues affecting visitors, surveys were undertaken to establish the views of visitors and their experience of incidents.

The information taken from the database and the surveys, combined with local statistics on population and visitor numbers, give an indication of actual risk that visitors face in the local area. However, as indicated in chapter two, actual risk is only one aspect of well-being; the degree of risk felt by an individual in a place will also impact on their feeling of well-being.

Objective 2: To identify visitor perception of risk of incidents in the Forth Valley

Perception of risk is perhaps as important as actual risk as where an individual feels at risk of criminal activities, accident or illness, they are likely to have heightened levels of anxiety, and lower levels of well-being. Although there are some issues in calculating actual risk, it is quantifiable; perception is less easy to assess as it is not an 'objective' measure but one that varies with the individual, the situation, and time.

The levels of risk perception were measured through surveys of visitors to the area, both through the accommodation survey and on the survey carried out on the streets of the area. Two surveys dealt with visitors, one of overnight tourists and one of all visitors, both of these surveys contained questions designed to give an indication of the level of risk visitors felt here compared to their home environment. Although this may bring in some issues concerning the place of origin of the visitors, it will allow an indication of how safe visitors feel.

Objective 3: To identify if visitor behaviour reflects a need for safety and security consciousness

One of the issues relating to risk and risk perception is how that impacts on behaviour. Visitors may feel that they are in a very safe environment and proceed to take fewer precautions than they would at home; this is undesirable as it may result in the visitor being unduly at risk from a negative incident. However, if the opposite is true and the visitor feels they are more at risk than they actually are, it will result in negative images of the destination which may not allow the visitors to participate fully in the activities in the destination, this may result in negative word of mouth recommendations and a lack of repeat visits.

This was also assessed through the surveys undertaken with questions relating to behaviour, thus allowing for an exploration of behaviour and visitor attitudes to a range of health and personal safety issues.

Objective 4: To identify where the responsibility lies for visitor well-being

Having identified risk, perceptions of risk and visitor behaviour, the issue of responsibility arises, that is, who should be responsible for the visitor at a destination? By reviewing the literature, and comparing it to the views of visitors and accommodation providers, some of the issues surrounding responsibility can be assessed.

Objective 5: To recommend actions that will increase visitor well-being

Once the literature, databases and survey data have been analysed, then recommendations can be made regarding ways of reducing incidents involving visitors and ameliorating any negative impacts when such incidents occur, thereby improving visitor well-being.

5.13 Summary

This chapter has explored the possible research paradigms that could have been used and explained the choice of a quantitative approach to this research. The quantitative approach provides a tried and tested methodology particularly suited to the descriptive nature of this research, which seeks to form a baseline from which a conceptual map of the area can be traced. Within this research paradigm, the methodological tools chosen are the use of three databases not previously available to researchers, with further empirical data being extracted by the use of three surveys aimed at differing audiences within the tourism debate. These sources were further informed through examination and analysis of previously published sources of secondary information in the form of previous research, reports, website material and informed opinions. This meshing of sources and information should allow sufficiently comprehensive recommendations to inform, not only future research questions, but also have implications for management of destination.

Primarily, the research into the visitor incidents could allow the police force and emergency services to develop effective mechanisms for the reduction of incidents and the effective handling of those incidents that do affect the visitor. The wider implications of the study will however assist in realising ways of enhancing the welfare of the visitor in terms of health and personal safety. This study should assist in the wider area of destination management and allow an informed decision-making process with regard to issues of visitor safety. However, the main contribution

anticipated from this study is to stimulate further research into this area, extending and expanding the understanding of the wider issue of visitor well-being.

The thesis continues in the next chapter by examining the characteristics of the area based on secondary and primary data collected. This will provide baseline data and context to the findings on specific aspects of visitor well-being presented in the remaining chapters.

Chapter Six: The destination and its visitors

6.0 Introduction

This chapter reviews the area of the Forth Valley in detail, with information on levels of tourism and population to assist with understanding the background to the study; it then proceeds to examine the type of visitors attracted to the area from the information derived from surveys undertaken. Three chapters will follow this more general chapter, each dealing in detail with a key aspect of health and personal safety.

Destinations and the nature of the visitors that they attract are very individualised; therefore the Forth Valley area and the visitors that it attracts are now explored in more detail.

6.1 The Forth Valley as a tourism destination

The Forth Valley covers three local authority areas (Stirling, Falkirk and Clackmannanshire) and ranges from the industrial centres of Grangemouth and Falkirk, through the ex-mill towns of Clackmannanshire to historic Stirling and the rural highland areas beyond. The population base is approximately 279,480 consisting of:

Clackmannanshire	48,077
Stirlingshire	86,212
Falkirk District	145,191
Total	**279,480**

Figures taken from the local authority websites (www.clacks.gov.uk/ www.stirling.gov.uk / www.falkirk.gov.uk) based on 2000 census data

The three local authority areas have very different characteristics as tourism destinations, with Stirling and the surrounding area having a fairly extensive and developed tourism product, Clackmannanshire having a few 'tourism areas' and the Falkirk area beginning to develop its tourism potential. The Forth Valley could almost be seen as a microcosm of Scottish tourism: Stirlingshire is the most visited, not only does this area include Stirling with its Castle along with its medieval associations with William Wallace and Robert the Bruce, it also includes popular mountain climbing areas and parts of the new Loch Lomond and the Trossachs National Park; Both Clackmannanshire and Falkirk district have attempted to integrate the development of tourism into their economic profile with mixed results by

seeking to build a tourism product based on its own attractions; for example the mill heritage of Clackmannanshire and the Falkirk Wheel, a state-of-the-art boat lift on the Forth and Clyde Canal at Camelon, within Falkirk District. This mixture of a heavy industrial past, historic attractions and rural areas could be viewed as fairly representative of Scotland as a whole.

6.1.1 Who are the visitors and where do they come from?

The Forth Valley attracts over seven million visitors a year, worth in excess of £400 million (Scottish Enterprise, 2003); STEAM figures would indicate that 56% of visitors are overnight tourists and 44% are day visitors to the area (see Table 6.1). A rough estimate based on average numbers of visitors per day being just 20,193 (7,370,550/365) against the resident population base (279,480) would suggest that over the course of a year, visitors account for approximately 7% of the population.

Table 6.1: Visitor Figures for the Forth Valley Area

Overnight visitors	Day visitors	Total visitors
4,095,960	3,274,590	7,370,550

Visitor figures taken from the STEAM 2003 Report commissioned by Scottish Enterprise (see chapter five for further details of this source)

According to the national tourist organisation, VisitScotland, the profile of visitors to the wider area covered by the Argyll, the Isles, Loch Lomond, Stirling and the Trossachs Tourist Board area, now part of the VisitScotland network, would indicate that the majority of the overnight visitors to the area were from the UK (over 92%) and of these UK visitors, 55% were Scottish (VisitScotland, 2003). This information was not available for the Forth Valley separately, but is likely to be similar, although the Stirling area may have a slightly higher percentage of non-Scottish visitors due to the presence of the University of Stirling and the international reputation of the area.

The profile of tourists visiting the area were explored using two surveys: A survey of tourists by using a questionnaire placed in tourist accommodation; a Visitor survey that was carried out by approaching people at locations known to be frequented by tourists. There follows a presentation of the results from the surveys of tourists and the visitor survey.

6.1.2 Who are they?

The tourist survey responses demonstrate that the majority of the respondents were from England (68%), Scottish respondents accounted for just under 10% of the total,

with other UK respondents accounting for 3%; if all UK respondents are taken together they account for 81% of all respondents, which is lower than would be expected against the VisitScotland figures. This may be due to the central position of Stirling that makes it within easy reach for the majority of the Scottish population for a day visit, reducing the need for overnight accommodation. The self-completion form was aimed at tourists, but some Scottish visitors may not classify themselves as tourists and may have felt that the survey was not applicable to them. The Visitor survey demonstrates a higher percentage of Scottish visitors (41%) and all UK taken together accounting for 69% of those surveyed, which is considerably lower than that suggested by VisitScotland; this may be partly due to the surveys taking place at attractions which may have a higher profile of international visitors.

According to VisitScotland statistics, Scottish residents make up 34% of all bednights in Scotland, and 44% of trips (see Table 6.2), therefore, it may have been expected that there would be a higher percentage of Scottish respondents in the surveys. However, the figures reported by VisitScotland incorporate those using friends and relatives' homes as well as commercial accommodation. UK residents are more likely to use friends and relatives for accommodation (40%) compared to overseas residents (30%), and it is likely that this is proportionately higher amongst the Scottish residents; reflected in their relatively low average spend on a night's accommodation of £51.80, against an average spent for the English residents of £62.24 and the rest of the UK of £65 (figures extrapolated from Table 6.2).

Table 6.2: Bednights, trips and expenditure levels of overnight visitors to Scotland in 2003

Country of origin	Nights (m)	Nights (%)	Trips (m)	Trips (%)	Expenditure (£m)	Expenditure (%)
Scotland	26.0	34%	8.0	44%	1,347	30%
England	33.4	43%	7.8	43%	2,079	47%
Rest of the UK	2.6	3%	0.7	4%	169	4%
Total UK	62.0	81%	16.5	91%	3,596	81%
Total Overseas	14.9	19%	1.6	9%	839	19%
Total	76.9		18.1		4,435	

Adapted from VisitScotland (2003)

According to STEAM figures, commercial accommodation providers accommodate 71% of overnight visitors to the area (Scottish Enterprise, 2004) leaving a large minority that utilise unpaid accommodation, such as staying with friends and family, while in the area.

6.1.3 Demographics of Respondents

There was a slightly higher percentage of females (53%) than males (47%) in the tourist survey results, with the majority of the respondents (54%) being in the over 55 categories.

Table 6.3: Age Groups against Gender for all Respondents in the Survey of Tourists by percentage

Age Group	Male (%)	Female (%)	All (%)
15-24	1.2%	5.3%	1.2%
25-34	15.5%	3.2%	15.5%
35-44	9.5%	10.6%	9.5%
45-54	20.2%	22.3%	20.2%
55-64	22.6%	34.0%	22.6%
65+	31.0%	24.5%	31.0%
Total	*100%*	*100%*	*100%*

The visitor survey demonstrated a similar gender split, with females representing just over half of the total respondents (54%), but more evenly spread over the age groups with respondents over 55 representing only 23% of respondents. This is likely to reflect the mix of day visitors and those visiting friends and relatives, having a younger profile and younger respondents being less inclined to respond to self-completion surveys.

6.2 Visitor characteristics

While demographics may be a factor in how visitors think and behave, more important will be their characteristics in terms of the type of vacation they wish to have and their typology in terms of views, attitudes and behaviours.

Respondents were requested to place themselves in a category according to the type of tourist they were, with the 'other' category mainly covering those here for work or to visit friends or relatives in the area. As can be seen in Table 6.4, by far the majority were independent holidaymakers; this may be a reflection of the average size of accommodation in the area, with only four of the establishments participating in the survey being of sufficient size for packaged tours.

The age profile of the respondents in the tourist survey is skewed very much to the older age groups with 77% over 45; a pattern that is even more pronounced in the inclusive/package tourists with 96% being over 45 (although care must be taken with such small numbers).

Table 6.4: Category of Tourist of all Respondents in the Tourist survey

Category of tourist	Number	Percentage
Inclusive/package	26	14%
Independent	138	74%
Other	15	8%
Total responses	*179*	*96%*
No response	8	4%
Total	*187*	*100%*

As described earlier, the results from the Visitor survey indicates that overnight visitors have an "older profile" with over 67% being over 35 and, although numbers are quite low inclusive/package holidaymakers, this split in age is particularly marked (see Table 6.5).

Table 6.5: Category of visitor from Visitor survey by age

	No of respondents		Percentage of respondents	
	15-34	35 plus	15-34	35 plus
Day-tripper	63	77	45%	55%
Inclusive/package	4	19	17%	83%
Independent	37	63	37%	63%
All categorised respondents	104	159	40%	60%

Around half of those surveyed described themselves as 'day-trippers'. This is slightly higher than would be expected from the STEAM figures, presented in Table 6.1, which indicate that 44% of visitors to the area are day visitors.

Table 6.6: Category of visitor for all Respondents in the Visitor Survey

Category of visitor	Number	Percentage
Day-tripper	140	49%
Inclusive/package	23	8%
Independent	100	35%
Other	21	7%
Total	*284*	*100%*

Day-trippers are more likely to be in the under 45 age group (66%) than overnight visitors (51%). This older profile, for overnight visitors, is more pronounced in the tourist survey data with 77% aged over 45, this may be due to older people being more likely to fill in surveys of their accord.

6.2.2 How did they get here?

According to VisitScotland, the majority (72%) of UK tourists used the car as their main method of transport when visiting AILLST. This is above the average for Scotland as a whole (65%) but this not surprising for a mainly rural area. When compared to the whole of Scotland, train (6%) and plane (6%) were also less popular, which can be attributed to the limited rail and air connections in the AILLST area. The majority (85%) of overseas trips to AILLST had arrived in the UK by air, with the remaining 15% arriving by sea or tunnel.

The information gathered through the survey reflected the main mode of transport used while *in* the area, rather than the main mode of transport *to* the area as collected by VisitScotland. Even so there were marked similarities with regard to the differences between transport for UK visitors against non-UK visitors, with private vehicles being more favoured by UK residents (see Table 6.7); this is likely to be a reflection of non-UK visitors arriving in Scotland by air or sea and then either using a hired vehicle or public transport.

Table 6.7: Main mode of transport used by Visitor survey respondents

Main mode of transport	UK residents	Non-UK residents	Total
Private vehicle	60%	19%	48%
Public transport	18%	30%	22%
Organised coach tour	12%	18%	14%
Hired vehicle	4%	23%	10%
Motorcycle	2%	8%	3%
Other	3%	1%	2%
Bicycle	1%	0%	1%
Total	*100%*	*100%*	*100%*

6.2.3 Who are they with?

Travelling companions may influence the views and behaviours of visitors, and although there were no direct questions relating to this, information was sought on the number of adults and children in the party. The street questionnaire reflected more families (mean party size of 2.60 adults and 0.54 children) than the tourist questionnaire (mean party size of 2.36 adults and 0.17 children), this may reflect the mix of day visitors, and those visiting friends and relatives, being more likely to be families than those staying in commercial accommodation.

6.2.4 Other holidays

The initial questions set in the tourist questionnaire were designed to gauge the holiday history of respondents and to assess the types of holiday destinations also chosen by those visiting this area of Scotland. This information was included to give an indication of the experience and relative 'adventurousness' of the respondents.

The mean average number of holidays (including short breaks) was 3.87 ($\sigma = 2.2$) and the modal was similar at 4. Although the range of answers given was between 1 and 13, the distribution was a curve skewed to the lower end of the scale with 80% taking 5 holidays or less (see Figure 6.1).

Figure 6.1: Number of holidays taken by respondents in the past year
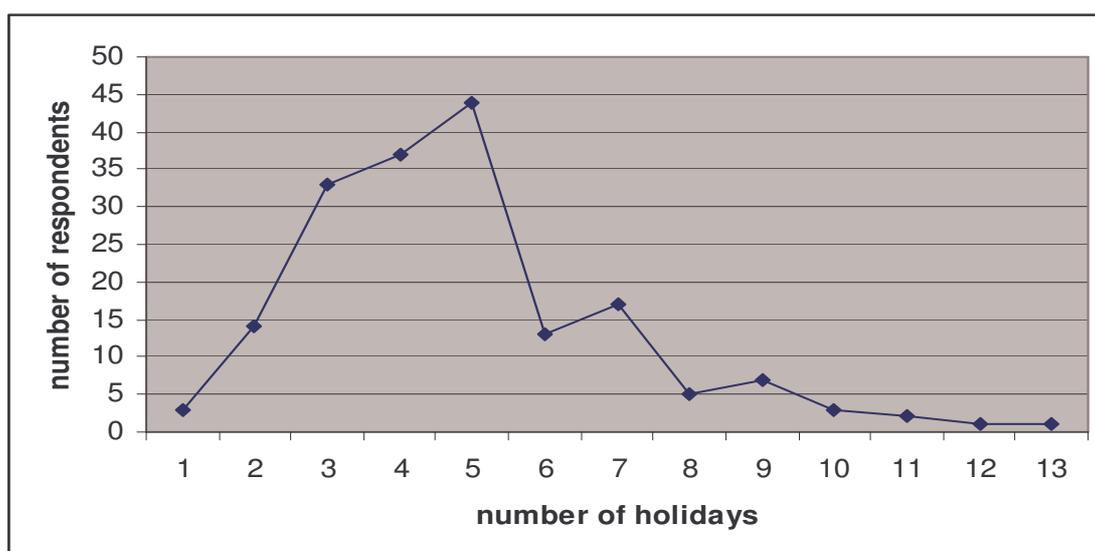
In analysing holiday taking patterns, it became apparent there was a difference in those choosing to take domestic holidays; respondents were classed as taking 'domestic' holidays if they put their corresponding country of origin (or place therein) as a holiday destination i.e. France for French respondents and England for English respondents. Excluding Scottish respondents (due to the survey being undertaken in Scotland), 56% of respondents had taken a domestic holiday in the past year. If the UK respondents are separated from the rest of the world, this figures drops slightly to 52% for UK respondents and up to 69% for respondents from the rest of the world. There may be an element of underreporting in this sample as often individuals may not count breaks that are relatively locally or where they are staying with friends or relatives as 'holidays' – it does still indicate that a large percentage of the respondents are seeking holiday experiences further afield.

6.2.5 Destinations

The variety of destinations mentioned in response was wide ranging. In order to make some sense of the responses given, the countries were allocated categories taken from the UN-World Tourism Organization (UNWTO) groupings. The UK was removed from the 'Northern European' listing as the study was undertaken in the UK and, therefore, would have skewed the data as all respondents were having had a UK holiday by nature of the survey. The listings for the countries included in each category can be found on the UNWTO website (www.world-tourism.org). The UK

respondents are presented separately in Table 6.8, partly due to the relative size of this group but also as it is easier to assess this information in terms of levels of 'adventure' this represents to a UK market.

Table 6.8: Holiday Destinations by UNWTO Area

UNWTO Area	UK Respondents (n=152)	All respondents (n=187)
North Europe	7%	9%
West Europe	23%	23%
Central/Eastern Europe	3%	4%
Southern Europe	29%	29%
East Mediterranean Europe	5%	4%
Europe total	*66%*	*69%*
North America	7%	12%
Caribbean	1%	1%
Central America	0%	0%
South America	1%	1%
The Americas	*9%*	*14%*
North-East Asia	1%	1%
South-East Asia	1%	1%
Oceania	4%	6%
South Asia	1%	1%
Asia and the Pacific	*6%*	*8%*
North Africa	1%	1%
West Africa	0%	1%
Central Africa	0%	1%
East Africa	1%	1%
Southern Africa	1%	1%
Africa	*3%*	*4%*
Middle East	*0%*	*1%*

Although the groupings are broad and there will be a corresponding variance in the relative actual and perceived risk, for example the 'Middle East' includes Egypt and Iraq, with very different levels of risk. This can give a general indication of the type

of destinations chosen and, with care, can be used as an indicator of the typology of the respondents. This can then be compared to other responses given to gauge the level of adventurousness or self-reliance the respondent has. Although destination choice can often be tempered by access issues and cost implications, there is clearly a tendency for the majority of holidays to be taken relatively locally within Europe.

6.3 Factors of importance in destination choice

Respondents were given a list of factors and asked to grade them on a five-point scale from "Very important" to "Not important". Each response was then allocated a numeric value, with "Very important" scoring 5, "Quite important" scoring 4, ""Important" scoring 3, "Not very important" scoring 2 and "Not important" scoring 1. The list of factors was compiled through reading a variety of literature to give indications of attitudes that may be considered by different tourist types so, for example, the less adventurous tourist may be more concerned with familiar features that remind them of home and the more adventurous may be more concerned with unfamiliar features that give them a sense of being somewhere different. This would correlate to Plog's psychological types discussed earlier. However, the need for reassurance of safety may be abnormally high due to the relative proximity of major world events such as September 11th, the Bali bombings, the war in Iraq and the high level of media attention given to terrorism at the time of the survey. By grouping together those elements associated with the "Venturers" and the "Dependables", to use Plog's terminology, then, as a group, the respondents can be classified along Plog's continuum. This should give an indication of the general attitudes of the tourists.

The medians are displayed in Table 6.9, and clearly show that the top two are a "safe reputation" and the "excitement of a new place to explore" both receiving very similar scores which would place them in the "Quite important" range for the respondents as a whole.

Table 6.9: Factors of Importance in Destination Choice

Important Factors	Median
Safe reputation	3.79
Excitement of a new place to explore	3.75
Recommendation from friends	3.17
Opportunity to meet new people	3.13
Different cultures	2.94
Lots of attractions	2.80
Familiar sights/places/people	2.68
English spoken	2.66
Lots of activities available	2.44
Recommendations from TV, magazines, etc.	2.33
Similar culture	1.99
Don't have to fly to get there	1.90
Close to home	1.53
Average	_2.70_

In order to develop a clearer indication of the characteristics displayed by respondents the results were analysed using factor analysis.

It was found that four components accounted for over 60% of the variance; the results were then rotated using the Varimax method that produced the results shown below in Table 6.10 (see Appendix F for details of loadings).

Although there are obvious similarities in the first two identified 'types' with authors such as Plog and Cohen, the Activity seekers and the Security seekers are slightly different. Both exhibited a negative correlation with 'Don't have to fly to get there', which although not strong enough to appear as a factor in the author's opinion, it does imply that they are quite adventurous but seeking slightly different aspects from a holiday. It may also be influenced by the growth in the UK of low-cost airlines that allow inexpensive air travel within the UK and further afield. This may have two effects; people can fly and still be holidaying in familiar areas and it has taken much of the 'strangeness' out of destinations further afield. Destinations that are considered

'familiar' have also expanded over the years due to package holidays, growth in travel programmes and a more experienced travelling public.

Table 6.10: Type of holiday-maker

Type of Holiday-maker	Characteristics
Familiarity seekers	Similar culture English spoken Don't have to fly to get there Safe reputation Close to home Familiar sights/places/people *{Different cultures} – negative correlation*
Excitement seekers	Excitement of new places to explore Different cultures Opportunity to meet new people Recommendation from media sources
Activity seekers	Lots of activities available Lots of attractions
Security seekers	Recommendation from friends Recommendations from media sources Familiar sights/places/people

The four groups identified may be useful as a general indicator of the type of visitor to the area but there are likely to be a variety of different types within these groupings. The literature would indicate that those on an inclusive/package holiday would be more likely to be at the "Dependable" end of Plog's psychographic scale and independent holiday-makers would be more likely to be at the "Venturer" end. Older respondents are also more likely to be at the "Dependable" end of the scale (see chapter 3.2.1). Plog's identification of countries visited as being reflective of different typologies has only limited usefulness in this research as his work was undertaken from an American perspective and, as the majority of the respondents are from the UK, the relative view of citizens from other countries will differ due to factors such as geographical location and historic cultural associations.

6.3.1 Recreational motivation

Kabnoff's scale of leisure needs was used to categorise visitors and to explore their motivation for holidays to understand what they sought from the holiday. This understanding of the type of holiday sought should act as an indicator of the type of activities likely to be undertaken in the destination, which will in turn affect their

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level of risk. From the results, presented in Table 6.11, it can be seen that the items that are of most importance to the respondents as a group are 'A change from daily routine', 'Getting a way from responsibilities' and 'Organising own itinerary/activities' with the least important items being 'Gaining positions of leadership', 'Organising activities of teams/groups' and 'Being involved in competitive pursuits'. This would imply that the respondents as a group were more interested in rest and relaxation than competitive and challenging activities.

Table 6.11: Items of importance on holiday

Items of importance on holiday	Mean
Having a change from daily routine	4.18
Organising your own itinerary or activities	4.01
Doing things you find personally meaningful	3.97
Getting away from the responsibilities of normal life	3.96
Giving your mind and body a rest	3.82
Relaxing and taking things easy	3.77
Having new and different experiences	3.74
Health	3.37
Excitement and stimulation	3.18
Enjoying people's company	3.10
Keeping physically fit	2.85
Enjoying family life	2.84
Making new friends	2.72
Bringing family closer together	2.69
Using your skills and abilities	2.52
Developing new skills and abilities	2.30
Gaining the respect and admiration of others	1.82
Testing yourself in difficult & demanding situations	1.65
Showing others what you are capable of	1.62
Being involved in competitive pursuits	1.49
Organising activities of teams or groups	1.38
Gaining positions of leadership	1.26
Average	*2.83*

The results were analysed using factor analysis to reveal underlying groupings. Seven components accounted for 71% of the variance; the factors were rotated using the Varimax method to reveal the groupings in Table 6.12 below (see Appendix F for details of loadings).

Table 6.12: Groupings from factor analysis of Kabnoff's scale

Type of recreation sought	Characteristics
Challenge	Gaining positions of leadership
	Organising activities of teams or groups
	Testing yourself in difficult & demanding situations
	Being involved in competitive pursuits
	Showing others what you are capable of
	Gaining the respect and admiration of others
Relaxation	Getting away from the responsibilities of normal life
	Enjoying family life
	Bringing family closer together
	Giving your mind and body a rest
	Relaxing and taking things easy
Socialising	Enjoying people's company
	Making new friends
	Showing others what you are capable of
	Gaining the respect and admiration of others
Physical Well-Being	Health
	Keeping physically fit
Family Relations	Enjoying family life
	Bringing family closer together
Stimulus	Excitement and stimulation
	Having new and different experiences
Self-Actualisation	Doing things you find personally meaningful
	Organising your own itinerary or activities

Such analysis on motivation factors driving the respondents would indicate that there are distinct groups that may need to be treated differently when seeking to protect and/or warn them about hazards in the destination. Those seeking 'challenge', 'stimulus' or 'physical well-being' will have different needs as they will want to participate in more active pursuits, which may bring them into contact with more environmental hazards, such as mountain terrain; while those who seek 'socialising' or 'relaxation' may be more prone to criminal activity. Understanding of motivation

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may assist in choosing where, when and how to inform visitors of potential hazards. Although motivation may impact on destination choice and activities undertaken, the channels through which visitors gain information on the destination will impact on their choice of destination and their behaviour whilst there.

6.3.2 Preferred information sources

Respondents were asked to rate the importance of different information sources when choosing a destination. The three sources rated as most important were 'Own experience', 'Guidebooks' and 'Recommendations from friends' and the three least important were 'TV holiday programmes', 'Recommendations from travel agent/tour operator' and 'Reports in the news'. However, even the lowest score (TV holiday programs) had a mean of 2.34 indicating that this source still held a reasonable amount of importance for many respondents (see Table 6.13). The importance of experience and word-of-mouth for destinations is clear from this research, this puts greater emphasis on the destination to ensure that the visitor's expectations are met or exceeded. The other important sources for the visitor (guidebooks and articles) suggest that such information is regarded as reliable and trustworthy and may indicate that the destination marketing communication messages should be targeted to the authors of such material.

Table 6.13: Importance of information sources

Information source	Mean
Own experience	3.87
Guidebooks	3.48
Recommendation from friends	3.31
Articles	3.10
Government sources	2.76
Reports in the news	2.75
Recommendation from travel agent/tour operator	2.62
TV holiday programs	2.34
Overall average of importance of information sources	*3.03*

Factor analysis of this information revealed three underlying groupings accounting for 65% of the variance (see Table 6.14 below). Due to the high scoring in components,

the characteristics were counted where they scored 0.5 or over (0.3 being used for the majority of other factor analysis scoring). See Appendix F for details of loadings.

As would be expected, there is a similarity in the categories for information seeking and those for the factors that are important when choosing a destination. The factor analysis suggests that there are those who seek information from a variety of sources and can be seen as being influenced by media; those who rely heavily on the opinions of others; and those who are quite self-reliant and only seek information sources that are felt to be independent from the destination itself.

Table 6.14: Groupings from factor analysis of information sources

Type of information seeker	Characteristics
Media reliant	Reports in the news Government sources TV holiday programs
Opinion seeker	Recommendation from friends Recommendation from travel agent/tour operator
Independent thinkers	Own experience Guidebooks

Having examine a variety of factors that shed light on the type of visitors attracted to the area, the following sections reviews the findings of the surveys in relation to general visitor incidents before examining specific incident types in more detail in the following chapters.

6.4 Visitor incidents

In examining the statistics provided by the Central Scotland Police Force and the National Health Service, it was found that, when assessing incidents per 100,000 over the course of a year for visitors and local residents, there were substantial differences.

While the details of these differences is explored in the following chapters, it worth noting that incidents of crime are approximately 14% higher for visitors, although the crimes are generally less serious in nature, the incidents of emergency health treatment , which might have been assumed to be higher given the lack of alternatives for visitors in the form of local doctors, was actual substantially lower (29% lower) but incidents of RTAs was substantially higher, increasing by a massive 486% (see Table 6.15 for details).

Table 6.15: Incident type per 100,000 per annum for visitors and local residents

Incidents of reported crime per 100,000 per annum		Incidents of emergency health admission per 100,000 per annum		Incidents of road traffic accident casualties per 100,000 per annum	
Local residents	Visitors	Local residents	Visitors	Local residents	Visitors
305	349	946	673	35	205

The degree of contact that an accommodation provider has with his or her guests will vary according to the type of establishment and the style of management of the individual manager/owner. However they should be in a prime position to be aware of incidents that impact on their guests' experiences, hence their opinions on these matters were sought.

6.4.1 Incidents affecting guests

When asked what was the last incident (car accident, mountain accident or crime against property or person) that one of their guests had been involved in, only forty-eight (34%) respondents named an incident. Of the remaining ninety-two, two did not respond and ninety stated that none of their guests had ever been involved in an incident as far as they were aware (or words to that effect). Although it was assumed from the dearth of incidents reported in the survey pilots that the percentage of guests affected by incidents would in fact be very low, with the volume of guests that accommodation providers cater for every year, it was expected that this figure would be higher. This could be due to one of three reasons; incidents happed to an extremely low percentage of tourists, the accommodation providers may be unaware of the incidents that are affecting their guest or the provider may not wish to highlight problems. It would be difficult to determine the answer to this and, indeed, it may be a combination of one or more elements. However, by combining this information with other survey material and available research, the most likely scenario may be revealed. However, as stated earlier, direct comparison between the two surveys should not be made in terms of actual numbers as the Tourist survey referred to all holidays wherever in the world they were taken, whereas the Accommodation survey by its nature dealt only with incidents in Forth Valley area of Scotland.

6.4.2 Type of incidents

Using the responses gained from the accommodation providers, the incidents involving guests were described by the respondents and categorised into six different categories:

  ➢ Road Traffic Accidents;
  ➢ Crime against person;
  ➢ Property crime – personal;
  ➢ Property crime – vehicular;
  ➢ Climbing/Walking incidents; and
  ➢ Other/unknown.

Using this form of categorisation, Road Traffic Accidents were the most common type of incident with nineteen of the forty-eight respondents reporting an incident indicating this was the type of incident their guests were involved in (see Figure 6.2).

Figure 6.2: Visitor incidents by type from accommodation provider survey
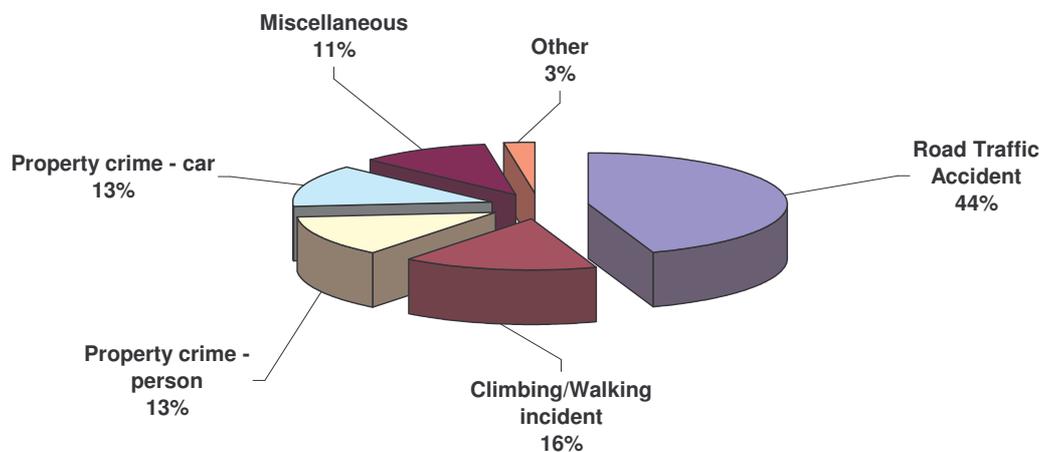
However, if all the crime categories are amalgamated then they account for fifteen of the forty-eight reported incidents. So, Road Traffic Accidents (RTAs) may be the most prevalent but guests were almost as likely to be victim of a criminal incident, although care must be taken when dealing with such small numbers of respondents. The prevalence of RTAs, higher than the official data, should be understood in the nature of some of the RTAs. Many were minor incidents with little or no injury, and

therefore such incidents would not normally be included in the official statistics as most will be dealt with by the car owners and/or their insurance company. This differs from the reporting of crime where there is more likelihood of reporting, particularly property crime as it is usually necessary to gain a police report to make an insurance claim or where they may feel there is a possibility of stolen items being returned if the perpetrator is apprehended. Data collected from the Forth Valley National Health Service and the Central Scotland Road Safety indicate that RTAs are the largest source of trauma experienced by the visitor; this corroborates evidence from previous research reported in the literature review and is further articulated in the accommodation providers survey. While there are likely to be environmental issues that make visitors more likely to be involved in RTAs, descriptions given by some of the accommodation providers regarding RTAs suggest that some could have been avoided had the visitor been more attune to local conditions.

6.4.3 Reporting of incidents

The majority of incidents were reported to the authorities with only eight (17%) of the forty-eight not being reported. This level of non-reporting would seem low given that tourists have been found in previous studies to have a low rate of reporting incidents or it may be indicative that only the more serious incidents, or those where the involvement of the authorities was inevitable, came to the notice of the accommodation providers in question.

Twenty-eight respondents (58%) indicated that the guest was satisfied with the way the incident was dealt with. Six respondents stated that the guest was unsatisfied and the remaining fourteen did not know.

The numbers were too small to analyse but there appeared to be no relationship found between the type of incident and the guests' satisfaction level on the way the incident was dealt with; the six cases where the accommodation provider felt the guest to be unsatisfied included two RTAs, two victims of crime, a guest who was reported late returning from hill-walking and one guest who filed allegations against a staff member. In the 'satisfied' category, there were nine RTAs, two incidents where guests are lost on the hills, three illnesses, two injuries from activities, and eleven victims of crime (see Table 6.16).

Table 6.16: Satisfaction levels for how incidents were dealt with

Satisfaction	Satisfied	Not Satisfied	Unknown	Total
Road Traffic Accident	9	2	9	20
Climbing/Walking incident	5	1	1	7
Property crime – person	3	1	2	6
Property crime – car	7	0	0	7
Miscellaneous	2	1	1	4
Other	1	0	1	2
Crime against person	0	1	0	1
Unknown	1	0	0	1
Total	28	6	14	48

The questionnaire given to the accommodation providers concentrated on two aspects; their view on who is responsible for visitors during their stay and on what incidents had been experienced by visitors during their stay. The results from specific aspects of the questionnaire are reported in the relevant chapters. Accommodation providers were invited to make comments on any aspect of visitors and incidents. Comments were only recorded for eleven of the hundred and forty responses (8% of respondents). Of the eleven comments; four of these related to the length of time without an incident, four held further information on the incident reported, and two related to issues of responsibility. Only one contained a comment on action they felt necessary to protect the visitor that "Hire cars should have stickers stating they are visitors to our country". This view on prevention actually runs contrary to practice now in many American states where hire cars are not identified overtly to avoid drawing attention to them. This was due to the numbers being targeted for criminal activity, whereas, presumably the respondent felt that identification, in a similar way to learner drivers, may alert other drivers that the driver of the identified car may not have experience driving on the local roads.

Having discussed the incidents affecting their guests from the perspective of the Accommodation providers, the next section discusses the findings from the survey of tourist in their accommodation.

According to the results of the Tourist survey, the majority of respondents (75%) indicated that they had never been affected by crime or accident while on holiday (including their present trip to Scotland and other previous holidays either in Scotland or elsewhere), forty-five respondents (24%) reported an incident; this was based on all their holidays not this specific holiday. Of the forty-five respondents stating that they had been involved in an incident, twenty described it as 'serious' or 'quite serious', and twenty-five described the incident as 'minor' or 'very minor'.

6.5 Visitors' view of destination safety

The Visitor questionnaire asked questions relating to how safe the tourist at home and while as a visitor, as the questionnaire was only administered to those who were visitors to the area the question was phrased as 'How safe do you feel at home?' and 'How safe do you feel here?' The results were recorded on a five point Likert scale from 'very safe' coded as 1, to 'very unsafe' coded as 5.

Figure 6.3: How safe a visitor feels
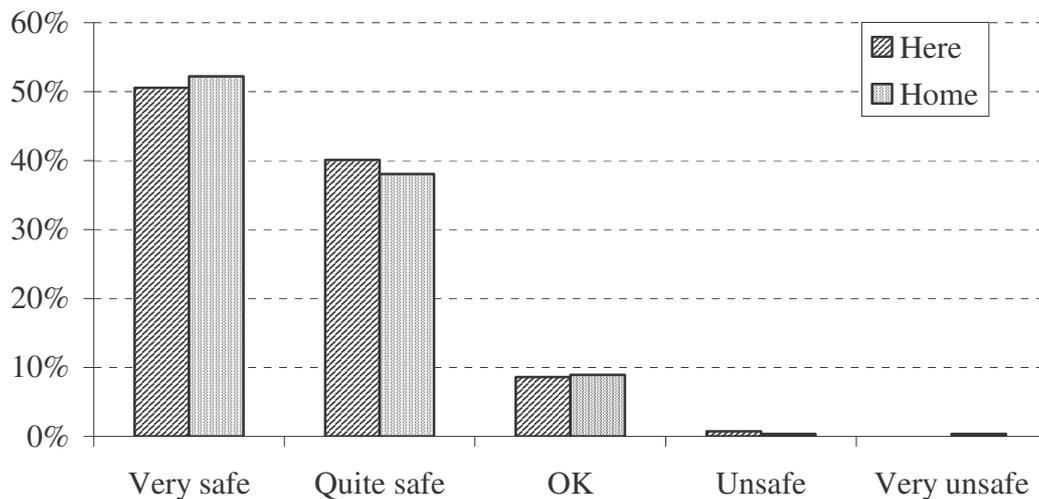
This shows that there is very little difference between how safe visitors felt 'here' and 'at home' with 90% saying that they felt safe or very safe at both locations. This is further shown by looking at the mean answer to the questions, for the at home the mean answer was 1.59 (n = 267), and for visitor was 1.58 (n = 268), both between very safe and quite safe.

6.6 Summary

The image portrayed by a destination can have an impact on the type of visitor attracted. The image will be made up of a combination of different messages from a variety of sources, not all concerned with the impact such messages may have on visitors or potential visitors to the area. Visitors may seek information but will also 'come across' information on the destination that will influence their decisions making but this will be tempered by personal experience, travelling com[anions and personality.

The Forth Valley area of Scotland is a diverse destination containing urban and rural areas, traditional tourism areas and areas seeking to develop tourism, and it can be seen as fairly representative of Scotland as a whole. Tourism income is a substantial element in the economy of the Forth Valley, and the tourists make up a sizeable part of the population throughout the year.

An analysis of the type of visitors and their characteristics would suggest that this is an area that predominately attracts British visitors, and more likely to be over 35 years old. The majority of people staying in commercial accommodation class themselves as independent travellers, whereas those interviewed in the Visitor survey were more likely to be day-trippers, but still with a significant number of independent visitors. This is reflected in the mode of transport that was used to get to the destination, with the majority of visitors using private vehicles. The average visitor takes nearly four other holidays a year, mainly in European locations. This shows that there is a complexity to the demographics of those visiting the Forth Valley area of Scotland.

Factors of importance in destination choice also sheds light on visitors, with the main factor of importance being a safe reputation, and can be further explored by carrying out factor analysis on data from the questionnaires, demonstrating four types of holiday-maker: those that seek familiarity (similar culture, etc); excitement seekers (different cultures, etc); activity seekers (lots of activities, etc) and security seekers (recommendation from friends, etc).

The profile of the visitor in terms of information sources and the type of things that are important to them when choosing a destination is vital in appreciating their likely views, attitudes and behaviours while in the destination. It is clear that the general view is that the Forth Valley is a safe destination, but that when visitors are assessing

personal safety, they are inclined to focus on aspects relating to crime with little cognisance of any increased risk in the form of accidents.

This Chapter has set the context of the study area and drawn together statistics to give a background to the research. The incidents types are fully explored in the following chapters, with a review of the literature pertaining to each, followed by a detailed analysis of the data supplied by the local agencies before exploring the survey data procured from accommodation providers and visitors to the local area.

Chapter Seven: Understanding the impact of crime on the visitor

7.0 Introduction

Even prior to the events of September the 11[th] 2001 in the USA, there has been a plethora of literature dealing with the impacts of terrorist attacks on visitors and tourist destinations (for example, Leslie, 1999; Pizam and Smith, 2000); but since 2001 there has been an increase in literature on the subject (for example, Hall et al, 2003; Goodrich, 2002; Blake and Sinclair, 2003). The nature of terrorist attacks tends to be political (Aziz, 1995) and related to activities such as civil unrest or war and, therefore, is unlikely to be within the control of an individual destination. While concern for such situations is justified in relation to world events, this thesis is concerned with less traumatic criminal activities, such as theft and assault: incidents that are more likely to impact on a visitor and in terms of size and volume (Walker and Page, 2003).

The main findings of major previous studies are presented in tabular form below (see Table 7.1) to give a brief synopsis of the nature and type of issues that have been explored in this area.

Table 7.1: Examples of studies, which consider the visitor-crime nexus

Author	Year	Nature of study	Findings
Barker, Page and Meyer	2002	An investigation into the impact of an event on destination crime rate using data from a survey of 1003 non-resident visitors to the area.	The findings indicate that there is no significant differences between victimisation rates for domestic and overseas visitors; but rates were affected by ethnicity and type of accommodation used. Overseas visitors were more likely to experience theft from places such as casinos or campervans while domestic visitors were more likely to experience smaller losses as a result of theft from their cars.
Barker, Page and Meyer	2003	An exploratory study of visitor perceptions of crime and safety during the hosting of a special event using factor analysis and a structural equation model.	Ethnicity, age, accommodation choice, communication skills, and the number of travelling companions affect perceptions and concerns regarding crime and safety. These factors similarly affect risk of victimisation suggesting a relationship between risk, fear and victimisation.
Brown	1999	A discourse on the plight of female tourists who become victim of sexual assault and rape in Nepal.	Identifies the plight of tourists raped by men working in mainstream tourism. Urges the recognition of sex crimes against tourists and action to be taken that does more than pay lip service to protection of women and prosecution of the men involved.

Brunt, Mawby and Hambly	2000	Based on a postal survey of 514 "Holiday Which" readers.	The findings indicated a higher rate of victimisation as tourists compared to home but this is not perceived as a major issue by respondents and has not translated into a tourism and crime problem.
De Albuquerque and McElroy	1999	An analysis of police reports of crime in Caribbean destinations.	The paper concludes that residents are significantly more likely to be victimized by violent crime while tourists are significantly more likely to experience property crime and robbery.
Dimanche and Lepetic	1999	A case study approach to crime in New Orleans	The study found that, despite improvements in the past 3 years, the fragmentation of the industry meant there is not a planned, cooperative approach to crisis situations including crime – identified as a main threat to tourism in the city.
George	2003	A survey of 438 visitors to Cape Town to establish how they perceived safety and security in Cape Town.	The respondents generally had positive perceptions of safety but felt unsafe going out after dark and using public transport. Personal factors such as nationality and previous experience influenced perceptions of safety and security.
Gill, Moon, Seaman and Turbin	2002	A qualitative exploratory study into the role of the security manager in the UK hotel sector.	The findings indicate that the role of the security manager is perceived to have undergone a process of transformation with traditional roles of guarding and loss prevention being broadened to include health and safety, IT security, disciplinary action, fire safety and insurance.
Groenenboom and Jones	2003	Based on semi-structured interviews of security managers of eight London hotels.	Key issues identified were; security staff focus on all aspects of health and safety not simply criminal activity; it is a fine balance between providing hospitality and ensuring security; there is no consensus as to whether uniforms make guests feel more secure; and security staff follow different procedures in assuring security. Consensus was found in two areas – the sharing of information and intelligence both with agencies such as the police and each other and that technology is a great asset although capital expenditure on equipment such as CCTV tends to be hampered by the attitude of the general managers.
Hall, Timothy and Duval (Eds.)	2003	A collection of papers by experts in the field of travel and tourism safety and security issues.	Although this compilation concentrates on the impact of terrorism, papers such as that by Michalkó and Lovelock deal with issues of crime and general perceptions of safety.
Jarrell and Howsen	1990	Modelling crime with level of 'strangers' in an area	Using a standard model of criminal behaviour, it was found that an increase in the number of strangers (tourists, college students, and shoppers) into an area has a positive effect on crimes of burglary, larceny, and robbery, but very little effect on assault, murder and rape.

Kathrada, Burger and Dohnal	1999	A modelling of tourism crime using factors identified through expert opinion and 'common sense'	Identifies the need for a holistic approach aimed at prevention rather than symptomatic treatment in order to encourage sustainable tourism. Advocates the need for strict law and enhancement of core values to provide a stable environment conducive to tourism.
Levantis and Gani	2000	Annual time-series data is used to build a simple model of the impact of crime on tourism.	The results confirm the importance of crime levels as a hindrance to demand for tourism. The authors state that this infers that deteriorating law and order situations are successfully disseminated to tourists despite inaccessibility of up-to-date crime statistics.
Mawby, Brunt and Hambly	2000	A survey of British holidaymakers on their experience of crime and perceptions of safety based on their most recent holiday.	Findings would indicate that while many people took notions of safety into account when choosing a destination, few saw crime as a problem while on holiday. Despite relatively high victimisation rates, risk of crime exceeded fear for holidaymakers, in contrast to the normal results in communities where fear usually exceeds actual risk.
Michalkó	2003	Analysis of police crime statistics	A spatial-temporal analysis of the main offences committed against foreign tourists showing that trends in criminality are closely related to the number of tourists rather than the general criminal conditions. Cars, valuables and wallets are particularly vulnerable. Tourist information and police controls are considered to be the most effective measures to prevent crime.
Muehsam and Tarlow	1995	Researches police attitudes to tourism	Develops a 'tourism quotient indicator' to aid practitioners in choosing officers most likely to be sympathetic to the tourism industry. It was found that greater positive attitudes to tourism were to be found in male officers, older officer, and those who spoke a foreign language.
Pizam	1999	A review of case studies of criminal/ violent incidents at tourist destinations reported in English-language newspapers, weekly magazines, and professional tourism periodicals over a period of 10 years.	The paper develops a comprehensive typology which can be used for classifying acts of crime and violence that occurred at tourist destinations around the world with the objectives of classifying the acts of crime and violence, to analyse the differential effects that such attributes have on tourism demand, to examine the effectiveness of methods used for prevention and recovery from such acts, and to identify parties responsible for prevention and recovery.
Pizam and Mansfeld (Eds.)	2005	An edited collection of papers on issues of safety and security for tourists	This book comprises four sections: tourism and security; tourism and safety; tourism crisis management and tourism and crime. The section on tourism and crime has contributions by McElroy; Harper; Holcomb and Pizam; with an introduction by Mansfeld and Pizam. The subjects covered concerning crime are the implications of the growth of the nacroeconomy in the Caribbean; patterns of street robbery and whether incidents of theft have a negative impact on destination choice.

Tarlow and Santana	2002	Built on a previous study, this paper sought to determine the way in which culture influences the interactions between the police and the tourism industry.	A large number of similarities were found between the paired cities in the way that police departments and the tourism industry work with police departments reflecting the attitudes of the local tourism organisations as to the levels of safety offered.
Wilks, Pendergast and Leggat	2006	An edited collection of papers on issues of affecting visitor health, security and safety	A wide collection of papers concerning issues relating to all aspects of health, safety and security affecting the visitor including a paper in crime and tourism by Peter Tarlow.
Wood Harper	2000	A qualitative study of informants/erstwhile offenders to examine how criminals target tourists for robbery.	The paper argues that if predators target tourists and a pattern of strategy, tactics and location is discerned, then there is tentative support for the notion that tourist robbery reflects a rational process; based on tourist behaviour and the body of knowledge possessed by the predator.
Wood Harper	2001	A comparative study of crime rates in five destinations of tourist and resident populations (A research note).	Findings indicate that the crime experience of tourists and non-tourists is significantly different but the rate of crime against tourists is comparable to rates against residents. Theft is the main crime committed against tourists.

The above Table, although not an exhaustive list, illustrates the nature of studies pertaining to visitors and crime; their contribution are discussed further in the following sections while also drawing upon non-tourism literature and researchers to develop the area of research (e.g. sociologists and criminologists)

7.1: Perception and fear of crime

Studies on the sociology of crime have demonstrated that fear of crime can impact on subjective well-being, but social integration into the local community can reduce feelings of vulnerability and the fear of crime significantly (Adams and Serpe, 2000). Visitors are, by their temporary status, not integrated into the local community and therefore they are likely to feel more vulnerable and have a heightened sense of fear regarding crime although the quasi-community created amongst the visitors themselves may temper this.

Visitors may not express a fear of crime per se but if questioned further they may indicate that they are not comfortable in certain situations, for example George (2003) found in a survey of visitors to Cape Town that although they felt quite safe, they were wary of going out after dark and of using public transport; this implies that although safety issues may not prevent these visitors coming to the area, it influences their behaviour.

The study by Barker et al's (2002) into perceptions and concerns regarding issues of crime, found that factors such as demographics, type of accommodation used and the number of travelling companions had a considerable impact on fear of victimisation and that these factors affected actual risk of victimisation in a similar way; this suggests that there is a relationship between fear of crime and risk of victimisation.

7.2: Visitors as victims of crime

Criminal victimisation, whether to person or property, can have implications for physical and mental health and therefore impacts upon visitor well-being. Mental trauma may occur due to fears of reoccurrence, destruction of trust increasing feelings of vulnerability, lack of control and reducing feelings of security.   There may also be physical harm, as in the case of assault, bringing with it the issues of health and well-being.   While crime at any time for a person is likely to be a distressing experience, being the victim of a crime outside your own community can be even more traumatic, particularly if you are unsure of where to go to report the crime and the procedures used in the area you are visiting. This situation is more problematic when one considers that tourists and visitors to an area are easily targeted, or targeted for particular types of crime, as they are easy to identify by dress and behaviour; also their unfamiliarity with the area and local people makes it easier for the perpetrator to escape and harder for victims to identify their assailant (Harper, 2000 and Harper, 2001). Tourists also may be more prone to victimisation than the local populace (Harper, 2001) and this may be due to the nature of destination areas:

> *"The tourism industry creates a unique environment whereby the presence of tourists alters the characteristics of the population at risk of crime and thereby the nature of criminal opportunities available and those subsequently taken."*
> (Barker and Page, 2002: 275)

For destination areas, criminal acts perpetrated against visitors are likely to receive more media attention within the destination's neighbouring areas and the home region of the visitor, this negative publicity can impact not only on tourism, but also may give a wider negative publicity affecting the attraction of new residents and businesses to the area. Therefore the issue of crime against visitors can be seen not only in the context of potentially reducing visitor income but also in the context of the wider economy.

Destinations have the opportunity to take measures to improve safety and security and influence the type of visitors attracted to the area through targeted marketing and image control. Where visitors are specifically targeted by criminals, there may be feelings of anger that they had not been warned of the potential danger, for example the reaction of visitors robbed in a popular attraction in South Africa when they discovered that theirs was not an isolated case, was one of fury (African Eye News Service, 2001). These types of incidents, and a lack of official response, can damage the way the destination is perceived not only by the visitors victimised but also by potential visitors who see the media coverage. Even where criminal activities or violent incidents are not specifically targeted at visitors they can still seriously impact on destination image, for example the case study by Dimanche and Lepetic's (1999) on crime in New Orleans. It can be argued that the pull of specific attractions and unusual destinations can outweigh the risk perception for some high crime areas (Dimanche and Lepetic, 1999), but it does make the promotion of these destinations more challenging as well as making it harder for the travel professional to give positive advice to potential visitors.

7.3: The extent of crime against tourists and visitors

There are a number of reasons as to why visitors may be more at risk from crime than local residents, even in an area where the hazards may be equal for each. Local residents generally have access to a wide range of sources of information, such as local newspapers, radio and television reports as well as less formal sources, such as word-of-mouth. Within the tourism population there may be different levels of risk; in the Barker et al's (2002) study of the America's Cup event there appeared to be no significant differences in victimisation rates for overseas and domestic visitors, but they did experience different types of crime, with overseas visitors more likely to experience theft in casinos and from campervans; domestic visitors experienced smaller losses from their vehicles. Victimisation rates were however affected by ethnicity and the type of accommodation used (Barker et al, 2002).

Calculating crime perpetrated against tourists and visitors can prove difficult, in the main because the information gathered by the police is not specifically designed for this purpose. Although information such as postcode is collected, there is no

procedure to identify reasons for the complainers[2] visit to the area therefore causing anomalies, such as a person is working in the area appearing to be a visitor. Not all crimes are recorded, and the transient nature of the visitor or tourist may encourage a higher degree of under-recording where a complainant, or officer, feels that no further action will be taken. Under reporting of crime is a recognised phenomenon, but is higher for visitors (Barker et al, 2002), due to issues such as lack of time in their schedule, lack of knowledge of where and how to report an incident or because they do not wish to return for any resulting court procedures. Michalkó (2003) concurs with these ideas: -

> *"In the case of foreign victims it might be presumed that to avoid time loss involved in legal procedures they make complaints in serious cases only or in cases when a police record is necessary for insurance affairs or to replace missing documents"* (Michalkó, 2003: 161)

The British Crime Survey that gathers information on reported and non-reported crime for the UK populace, to an extent, ameliorates this under-recording for the British population, but this does not gather non-recorded information for those from outside of the UK nor does it record the circumstances or place of the non-reported crimes for UK residents. This lack of detail may suit the authorities, as it may not be politically desirable to place emphasis on victimisation issues relating to tourism.

7.3.1: The nature of visitor crime

Culture has been an emergent theme in criminology (Karstedt, 2001), linked to globalisation and global consumption. The socio-cultural environment and the relative power base of those experiencing the 'crime' may affect the notion of crime. Crime is a culturally defined concept and different societies have their own views on what constitutes crime. Visitors may not report crime as defined by our social structures as they do not see it as crime, or they may believe that something they consider criminal will not be seen as such by the host nation, for example the harassment of tourists in the Caribbean (de Albuquerque and McElroy, 1999) or female tourists being raped in Nepal by men in the tourism industry, prompting little action from the authorities (Brown, 1999).

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[2] 'Complainers' is the term used by the area police force to denote those formally reporting a crime to the police authorities.

Several studies have shown a higher degree of crime perpetrated against tourists in mass-market destinations (for example, Chesney-Lind and Lind, 1986; de Albuquerque and McElroy, 1999) with such crime tending to be property crime or robbery rather than violent assault or murder (Jarrell and Howsen, 1990). Paradoxically, some crimes may be over-reported by visitors, for example, reporting the theft of an item or over-estimating its value in order to perpetrate insurance fraud. However, over-reporting of crime is likely to be more than balanced by the levels of underreporting, though it may skew results on the apparent nature of crime perpetrated against visitors.

7.3.2: Dealing with crime against the visitor

Various studies have examined the role of the authorities and tourism service providers in dealing with issues of crime in the destination (for example, Gill, Moon, Seaman and Turbin, 2002; Pizam, 1999); and the need for a co-ordinated and co-operative approach to dealing with visitor crime is a recurrent theme (Dimanche and Lepetic, 1999; Groenenboom and Jones, 2003)

Kathandra, Burger and Dohnal's (1999) modelling of tourism crime suggests that there is a need to provide an environment conducive to tourism by concentrating on preventative measures; Levantis and Gani (2000) agree that crime levels can influence tourism demand and that even if the actual statistics are unavailable to the visitor, there will still be a dissemination of this information. Muehsam and Tarlow (1995) suggest that visitor-friendly police officers should be chosen to deal with visitors, to this end they developed a 'tourism quotient indicator' to allow such officers to be successfully identified. This idea of having visitor-friendly policing has been implemented in several places more overtly by actually setting up 'tourism police'.

There is a perception that public security issues are a particular problem in less-developed countries, but crime rates are actually higher in developed countries (Michalkó, 2003). Although care should be taken in assessing countries against one another due to the differing methods of collecting and recording information; this is an issue that should be considered when developing tourism wherever the destination is situated.

7.4: Tourism as a Catalyst for Crime

There has been an on-going debate since the 1970s (Mathieson and Wall, 1982; 2006) as to whether tourism generates crime or crime is attracted by tourism. Tourism often is perceived as being a catalyst for increased crime rates, but, if this is the case, does tourism increase crime rates simply in proportion to the rise in population or does it attract more criminal activity due to its nature? Models of impacts, such as Doxey's Irridex (1975), highlight increased levels of antisocial behaviour, including increased crime rates, as part of the negative social impacts brought about by tourism development but research evidence produces conflicting views on this. Barker et al (2002) found that increased rates of crime for the 2000 America's Cup event in Auckland, New Zealand, were actually lower than would be expected given the relative increase in population. Events though may not be representative of a 'normal' tourist destination as they are likely to have a higher level of policing and awareness, making it difficult for criminal activity to flourish. Events may also be unrepresentative due to restrictions on movement caused by ticketing arrangements, supervised car parking or high levels of pseudo-official event staff discouraging criminal activity. This more managed environment designed to reduce criminality was certainly apparent during the America's Cup event discussed by Barker et al (2002).

Although events may not be completely representative of 'normal' tourism, tending to be more intense due to the large influx of people to a limited space within a short timeframe, they share similar characteristics of an increased population unfamiliar with the local environment and its potential dangers, presenting opportunities for criminal victimisation.

The study by de Alberquerque and McElroy (1999) looked at patterns of crime in different islands of the Caribbean and found that, in some mass-market destinations, crime increased in tandem with the growth in tourism numbers but in other resorts, despite high levels of tourist arrivals, this was not the case; crime did not have a statistical relationship with tourist arrivals. They suggest that, together with low overall crime rates inherent in the destination areas, proactive measures and community involvement is key in ensuring that increased levels of tourism do not translate to increased levels of criminal activity.

Brunt et al (2000) argued, based on a sample of "Holiday Which" readers, that tourists do experience higher levels of crime, though this of course may reflect the simple fact that respondents were keen to reply and tell their stories. The Brunt et al (2000) study compared victimisation rates of UK residents travelling abroad to those one would experience in the UK; this may not be an appropriate comparison when seeking to identify if tourists are being victimised. Logic would suggest that any comparison should be made on the domestic crime rates for the country/destination visited but comparison to home rates is how the judgement is likely to be made by the potential holidaymaker in terms of deciding if a destination is safe i.e. am I safer at home or in the destination? Therefore, a major error in the survey design, analysis and interpretation can give rise to dubious interpretation of crime and tourism when inappropriate measures or comparisons are used. However, the logistics of developing such a comparison for incoming visitors to a particular destination is difficult, so in order to evaluate whether crime against visitors varies in nature, type and frequency, data for this study was sought from the police force responsible for the destination area being studied, in this case the Forth Valley area of Scotland.

7.5 Methodology/Data Source

Chapter five features a full discussion on thesis methodology, however due to the disparate nature of the different data used, it was felt that an explanation of the methods used for each chapter that deals with a specific dataset should be detailed within that chapter in a little more depth. This section then deals with the methodological issues relating to this chapter. The data used was supplied by the Central Scotland Police Force; due to changes in data processing, it was only possible to use two full years of data in the analysis – 2001 and 2002. The data does not allow tourists to be specifically identifiable, however, one of the fields captured in the data is postcode information. This information can then be used to distinguish 'locals' i.e. those living within the Central Scotland Police Force Area and 'visitors' i.e. those living outside the Central Scotland Police Force Area; from this information 692 complainers were identified as visitors, of which 14 were identified as overseas visitors, and 8363 were identifiable as locals, a ratio of 12 locals for every visitor. From these official statistics, visitors account for 7.7% of complainers, only slightly higher than their estimated share of the population base. The following diagram

(Figure 7.1), adapted from chapter four, presents pictorially the various data collection methods and how these relate to the findings presented in this chapter.

Central Scotland Police are currently in the process of centralising their information centre to develop a knowledge-based proactive approach to policing in the region. While proactive policing has long been an ideal there has, in the past, been difficulty in retrieving information in a usable format. The recent installation of a new user-friendly computer system has made this a possibility. The ability to record and, more importantly, retrieve information in a format that allows a fuller picture of crime and reportable incidents (such as car accidents and mountain rescue incidents) is a vital first step in producing the information that will achieve the aim of knowledge-based, proactive policing.

Figure 7.1: Methodology for Chapter Seven
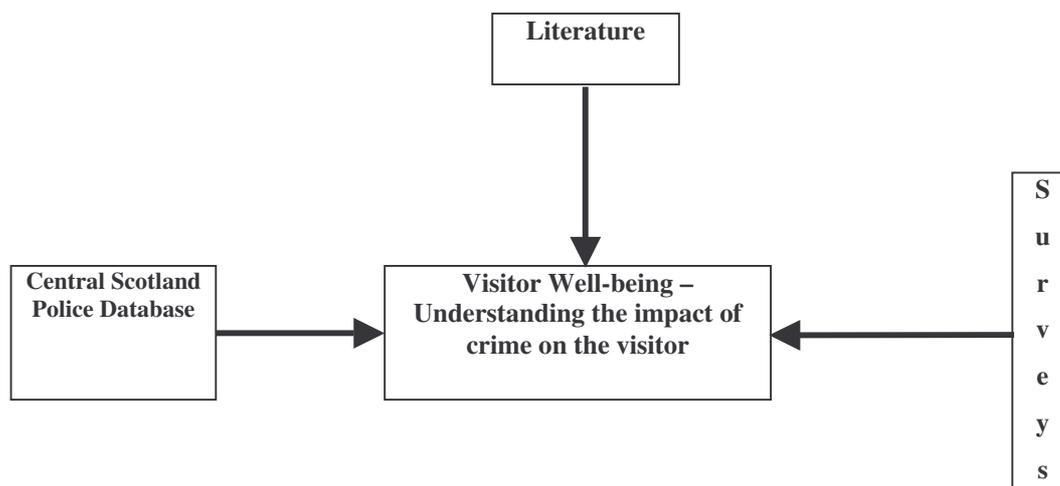
7.5.1 *Limitations of the crime data*

There were a number of limitations associated with this dataset, such as the lack of importance attached to fully filling in the form and the number of processes the form had to go through before the final data set was forwarded to the author. One of the main limitations specific to this data set was due to issues of data protection, which meant that a third party, employed by the police force, had to sift through the data prior to it being obtained and full details of incidents were not always available.

This data will not show the entire extent of criminal activity in the area as incidents may not be recorded for various reasons, such as the minor nature of incident or due to those involved not wishing to notify the authorities. The data set also suffers from

incomplete or inaccurate records on postcode fields but these were minimal in the complainers' records. One further complication which may contribute to under-recording is that there are likely to be a number of overseas visitors entered using their temporary UK postcode, similar problems were encountered in utilising road traffic accident data (see Chapter Eight) perhaps leading to an underestimation of the number of non-UK people in the data.

Estimates of tourists and day visitors for the region of Central Scotland are taken from STEAM figures, a supply based assessment of visitor numbers to the area, commissioned by the Regional Tourist Board and public sector to measure visitor activity. The STEAM data is consistent with the Police district in the main since the one area Tourist Board region has several sub-regional STEAM reports providing estimates of tourism activity at a local level. However STEAM figures do not include people travelling through the area or commuters, but those identified as 'visitors' for the purpose of this study may include these groups. Thus care must be taken in assessing proportion representations based on these figures.

Human error will also be a limiting factor as the crime data has been through a lengthy process consisting of many stages; the individual officers recording the crime, then input into the computer by separate staff, before being reprocessed through a separate system to put into a useable format for analysis. Each stage adds the opportunity for errors.

Interrogation of the Central Scotland Police Force database and survey data

In 2002 the police recorded 427,000 crimes in Scotland with 18,300 in the Central Scotland Police Force area. Although arguments can be made for comparing the crime numbers to either the destination area or the visitor's place of origin, the logistics of comparing crime rates to the latter would be virtually impossible, even if it had been desirable. It may also be counterproductive to make comparisons to the British Crime Survey (BCS), and its Scottish equivalent, as it is based on reported and unreported crime figures, but the CSPF figures relate only to reported incidents. The BCS figures are based on UK citizens and incorporate those outside of their normal environment i.e. visitors, therefore, it is more appropriate to present these findings against overall figures for the area, comparing against local residents to assess the differences between crime types and circumstances.

7.6: Profile of Complainers

To enable visitors to be compared to locals with regards to criminal incidents complainers were identified by their postcode details. As expected, locals make up the majority of complainants, accounting for just over 92% of complainants. The visitor complainer figure, of 7.7%, correlates with the estimated ratio of visitors to residents discussed in chapter five. There were only 14 identifiable overseas complainants and this was not considered large enough for any separate analysis. This figure seems low, but it may also be affected by recording of the UK postcodes where visitors are staying as discussed in the limitation section. Previous studies have indicated that factors such as age and gender may impact on crime experienced.

7.6.1: Demographics

There is a difference in the demographics of complainers, with 60% of visitors being over 35 years of age compared to only 52% of locals. This is may be due to the relative demographic profiles of the two populations with the area tending to attract the more mature visitor (VisitScotland 2003). Direct comparison is impossible due to differing compilation methods used by VisitScotland and local authorities as VisitScotland do not include under 16s in their categories and the three local authorities use different age groupings from each other and from VisitScotland. This difficulty on comparison between public sector agencies and Quangos could easily be rectified to allow easier comparison of data.

When examining age against gender, visitors and locals follow similar patterns with the exception of visitor males who evidence a distinct dip in the 25-34 age group (see Figure 7.2). This may be due to the nature of male visitor composition rather than a specific lack of crime per head of population for this group, as such visitors may be less exposed to the violent crime that is associated with males in this age group.

The gender split of complainants varied with visitor females (31%) being proportionally lower than for locals (36%); this may be due to when a crime affects joint property, such as a vehicle, men may be more inclined to file the report.

Figure 7.2: Complainants by Age Group and Gender for Local and Visitor Complainants
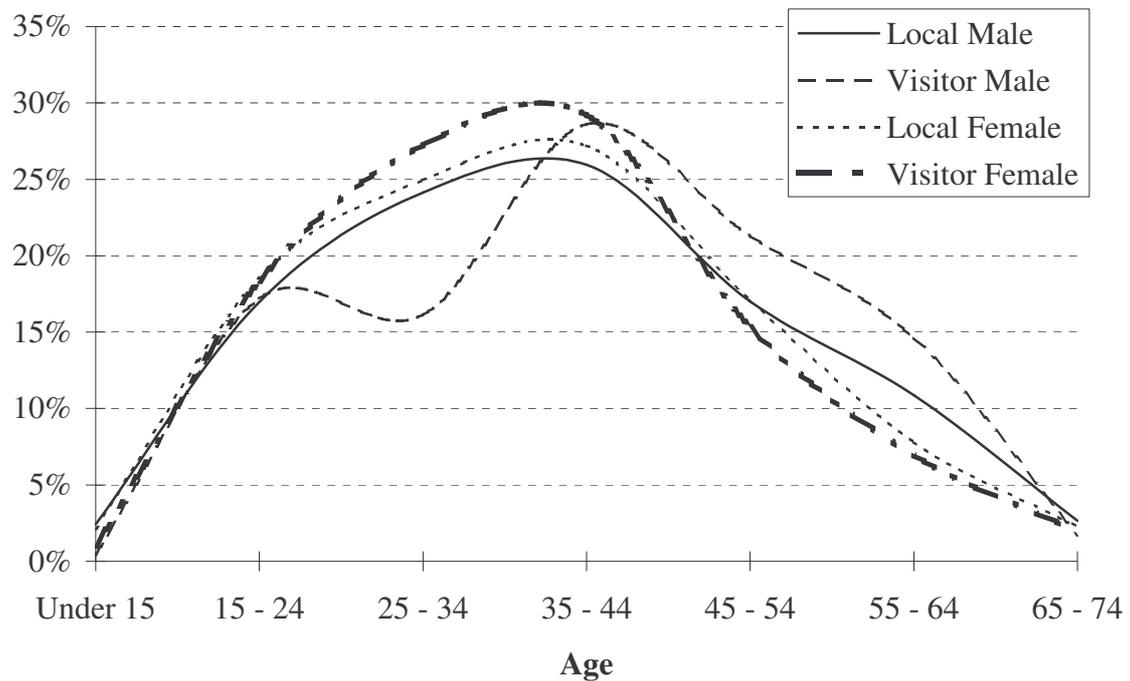
7.6.2: Types of Crime

Crimes of dishonesty, such as theft, are proportionately higher amongst the visitor complainers, 56% compared to 38% of locals. Conversely visitors reporting vandalism is low, 30%, compared to 46% of local residents. The lower proportion of visitors reporting vandalism would seem logical as vandalism is rarely targeted against an individual therefore visitors may not feel it is their place to report such crimes. Crimes of dishonesty were split into crime type groups, with types that only affected locals ('theft by finding', 'hamesuchen', 'attempted robbery') or that has an extremely low number of complainants ('allow to be carried in a stolen vehicle') being removed to concentrate on crimes particularly affecting visitors. Here there were distinct differences with vehicle-associated crime, such as theft of vehicles and theft from vehicles, being twice as likely to be reported by visitor complainers, this corresponds to the findings of Barker et al (2002). Theft from vehicles was the largest crime type within the dishonesty category; accounting for 59% of all dishonesty crimes against visitors but only 41% of dishonesty crimes for locals. However, not

only were there differences in the types of crimes experienced by visitors, but also in when and where these crimes occur.

7.7: Temporal Patterns of Crime

In order to ascertain what, if any, differences there were between when incidents occurred for visitors against local residents, comparisons were made of when crimes took place for each group; including time of day, day of week and season of year.

7.7.1: Time of day

Analysing incidents on an hour by hour basis shows a pattern of crime for residents that bears little resemblance to patterns in crimes with visitor complainants, with the risk period for visitors being between one in the afternoon and eight in the evening. Similar results were found with road traffic accidents (Walker and Page, 2004), and therefore this is likely to reflect exposure rates due to the behaviour of visitors. Analysis of types of crimes committed at different times of day, shows that crimes of dishonesty are almost three times more likely to occur against visitors between midday and eight in the evening. "Conveyance locus" (vehicles) was the most common place for crimes to be committed correlating with the higher levels of vehicle related crime experienced by the visitor; there were distinct differences in the time these incidents occurred. This may reflect different exposure, with visitors' vehicles being in-situ more in the daytime than at night due to the high number of day visitors to the area.

There were distinct differences relating to age and time of day that crime took place (Figure 7.3), but there was a consistency with visitors being more likely to be victim of crime between two o'clock in the afternoon and eight o'clock in the evening.

Older visitors and those in the 15-24 group had the highest rate of victimisation in the 20.00hr to 02.00hr time slot, this may be due to a higher likelihood that older visitors are overnight tourists changing their main exposure times and those in the 15 to 24 age group more likely to be participating in activities such as visiting pubs and clubs which takes place predominantly during this time period. {Under 15, 55-64 and 65-74 age groups have been removed due to their statistically low numbers in the visitor category}
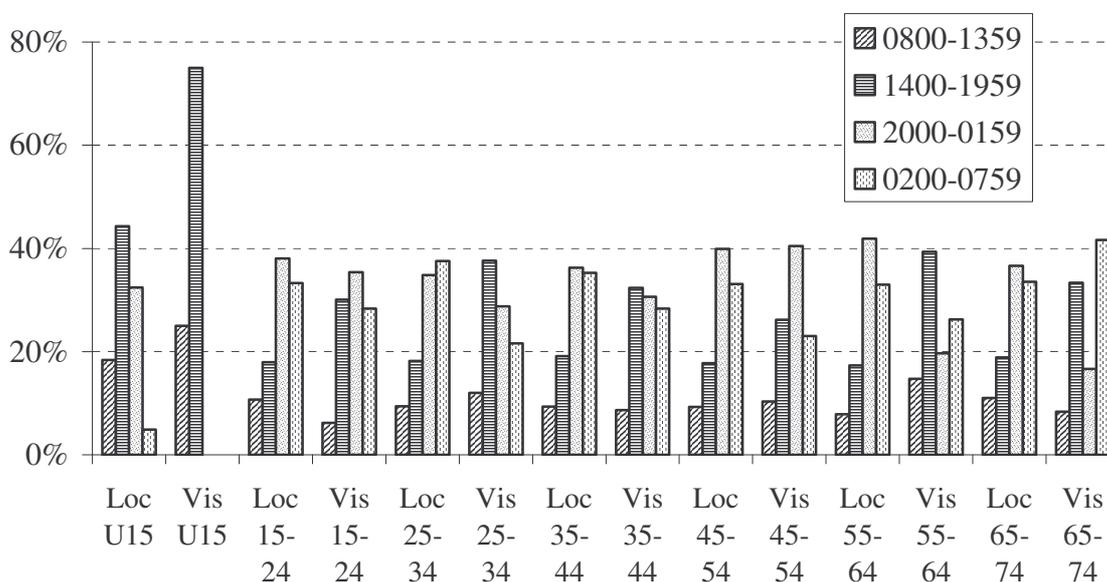
7.7.2: Day of week

There was little difference in terms of days of the week with Saturday being the peak time for incidents for visitors and locals, with the exception that visitors seem to be more likely to be reporting a crime on a Tuesday. It is difficult to conceive of reasons that may account for this and yet there are sufficient cases to demonstrate that there are a high number of visitors experiencing crime on a Tuesday (Table 7.2).

Table 7.2: Crimes by Day

	Locals	Visitors
Sunday	15.5%	13.7%
Monday	12.1%	10.5%
Tuesday	11.9%	17.7%
Wednesday	12.2%	11.5%
Thursday	12.0%	12.2%
Friday	17.1%	15.1%
Saturday	19.2%	19.3%
n	8330	688

Only two categories had enough visitor samples group to produce meaningful results regarding day of week; dishonesty and vandalism, both demonstrating a similar peak on Tuesdays.

7.7.3: Season of year

In terms of seasonality, visitor crime mirrors general holiday taking trends, with the highest peak being in June, the main Scottish school holiday period, and remaining higher than local incidents into September when the main summer holiday period ends. In addition to examining differences in temporal aspects, geographical characteristics were also investigated.

7.8: Location of crimes

There were few differences between visitors and local residents in terms of where incidents had taken place; for both groups, conveyance was the largest category. Visitors were more likely to have the incident occur in conveyance than locals and they were also more likely to have incidents occur at public utilities and to a lesser extent in commercial locations. This relates to the type of incident experienced by visitors with theft from vehicles and crimes of dishonesty being the key incident types. An examination of age groups showed similar patterns.

7.9: Detection rates

Apart from vandalism, the detection rates for visitors were lower than that for local residents (Figure 7.4); with the higher likelihood visitors being victims of crimes of dishonesty, the particularly low levels of detection in this area will have a proportionately higher impact on visitors, supporting Harper's findings that visitors may be victimised for crimes of dishonesty due to a lower likelihood of detection (Harper, 2000; 2001). Also local female complainants experience a slightly higher detection rate than males yet visitor female complainants have a much lower detection rate (35%) compared to visitor males (46%).

Figure 7.4: Detection rates for crime types for visitors and locals
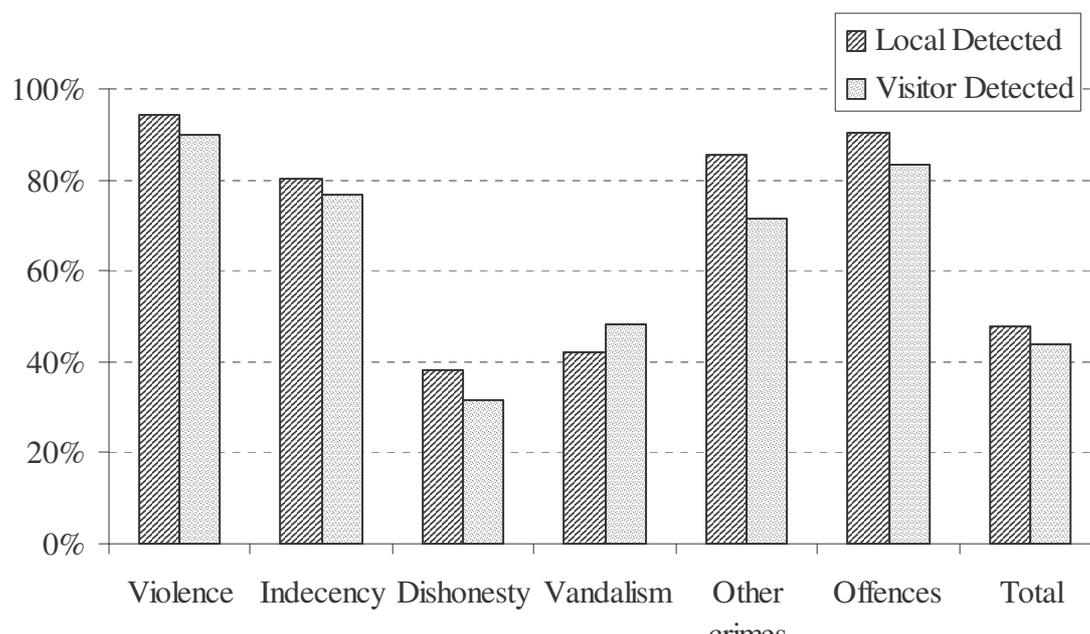
7.10: Synopsis of Central Scotland Police Force database results

The above results taken from the police records are a factual representation of the visitor, albeit incomplete due to only reflecting reported crime. However it does still reveal various anomalies associated with visitor crime compared to crime perpetrated against local residents. Most significant are the differences in the type of crimes and when and where they take place. Crimes against visitors are predominately property crimes, with a high proportion of thefts from vehicles; with crimes more likely to occur in daytime hours and to take place at public utilities. Many of these differences are likely to be a result of exposure (Walker and Page 2003) rather than specific targeting of visitors i.e. visitors are more likely to be in public spaces during the day. Such differences would not be evident from the overall crime statistics due the relatively low number of visitor compared to local residents and is only evident when the visitor crime statistics are extrapolated as above. The relatively low detection rates particularly for female visitors is a concern as it may give visitors a perception that crime perpetrated against them is taken less seriously than for local residents.

While interrogating data sources such as those held by the Central Scotland Police force is useful in developing an appreciation of the impact of crime on the visitor, it does not, in itself, develop insights into the way that visitors are affected. The

limitations of the data sources have been described above, perhaps the most significant of these being that it does not include all incidents and, moreover, it does not allow for any diagnoses of perception of crime or fear of crime, topics that are considered to be of importance in the academic literature but also in UK government statistics, produced in the British Crime Survey and the Scottish Crime Survey.

7.11: Accommodation Providers' views on crime against tourists

As indicated in the methodology chapter, information from a census survey of accommodation providers in the area produced responses from 140 operators, a response rate of approximately 35%. This section reports on the findings from the accommodation providers regarding their knowledge of criminal incidents experienced by their clients.

7.11.1: Incidents affecting guests

When asked what was the last incident (car accident, mountain accident or crime against property or person) that one of their guests had been involved in, only forty-eight (34%) respondents named an incident. Of the remaining ninety-two, two did not respond and ninety stated that none of their guests had ever been involved in an incident as far as they were aware (or words to that effect). Although it was assumed that the percentage of visitors affected by incidents would in fact be very low, with the volume of guests that accommodation providers cater for every year, it was expected that the accommodation providers would all have at least some experience of guest involvement in some type of incident. These lower than expected numbers could be due to one of three reasons; incidents happened to an extremely low percentage of tourists; the accommodation providers may be unaware of the incidents that are affecting their guest; or the provider may not wish to highlight problems. It would be difficult to determine the answer to this and, indeed, it may be a combination of two or more elements.

7.11.2: Type of incidents

The incidents were described by the respondents and categorised into Road Traffic Accidents; Crime against person; Property crime – personal; Property crime – vehicular; Climbing/Walking incidents; and Other/unknown. Using this form of categorisation, road traffic accidents (RTAs) were the most common type of incident with nineteen of the forty-eight respondents reporting an incident indicating this was

the type of incident their guests were involved in. However, if all the incidents identifiable as crime are amalgamated then they account for sixteen of the forty-eight reported incidents. So, although RTAs seemed to be the most prevalent, the guests were almost as likely to be victim of a criminal incident. Other types of incident are analysed within the relevant chapter but here we focus on the reported incidents relating to crime.

Although the descriptions of the incidents were not always detailed enough to distinguish the exact nature of the crimes that occurred, they were mainly property crimes. There were individual incidents of assault; disturbance of the peace; drunk and disorderly and an unnamed allegation against a staff member but the other twelve incidents concerned theft with two clearly identifiable as theft of personal property; three thefts of an unidentifiable nature and the remaining seven clearly identified as property theft from cars.

Of the sixteen incidents of crime, fifteen were reported to the authorities with only one incident not being reported. In the case of the unreported incident, the accommodation manager had encouraged the guest to report the incident to the police but the guest declined. This may be reflective of the percentage of incidents reported but may indicate that generally only the more serious incidents and/or those involving the authorities came to the notice of the accommodation providers in question.

Eleven of the respondents indicated that the guest was satisfied with the way the incident was dealt with only three stating that guests were unsatisfied (the remaining two respondents indicated that they did not know whether the guest was satisfied or not). However within the eleven respondents indicating that the guests were satisfied with the way the incident was dealt with, comments ranged from complementary such as 'the police dealt with the incident quickly and efficiently' and 'arrived within half an hour and were pleasant and efficient' to less positive responses such as 'adequately' and 'ok', suggesting that within this category of 'satisfactory' there were differences in levels of satisfaction.

7.11.3: Synopsis

These respondents represent approximately a third of the accommodation providers in the area but due to the small numbers actually indicating that their guests have experienced an incident, it is difficult to make any realistic generalisations from this

material. There are though opportunities to use this information as an additional
source of material that may assist in illuminating other data sources, treating it in a
similar way to anecdotal evidence as a base point to exploring this area further. The
next section examines the results of a survey of tourists staying at a selection of the
accommodation participating in this initial survey.

7.12: The tourists' view on crime against tourists

Tourists staying in the local area were surveyed through a self-completion
questionnaire placed in a selection of the accommodation providers who had agreed to
participate in this aspect of the research. For further details of this survey please refer
to chapter four. This questionnaire was less concerned with identifying actual
incidents on this particular holiday, as with identifying the experience of the tourists,
elements of their behaviour, their attitude towards various aspects of holiday taking
and whether they had been involved in an incident on holiday. As indicated in the
methodology chapter (see chapter four), this survey was undertaken through the co-
operation of accommodation providers. Accommodation providers were asked to
place questionnaires in their guest accommodation. The guests were given a
questionnaire with a covering letter explaining the reasons for the survey and an
addressed envelope, which they could either return to the accommodation provider or
post to the University. A prize draw was incorporated to encourage response. Of five
hundred questionnaires distributed to providers, 187 were completed by visitors and
returned – a response rate of 37.4%.

The information presented in this section deals specifically with tourists, staying
overnight within the Central Scotland Police Force area. The main limitation to this
approach is the limited response certain accommodation types and the nature of the
data collection precludes a large proportion of tourists who stay with friends or family
in the area (see chapter four for a more detailed discussion of limiting factors).

7.12.1: Tourist experience of crime

Respondents were asked whether they had been involved in an incident on holiday;
this was designed to give an indication of their experiences as it was felt that their
history in terms of incidents may impact on their perceptions and attitudes.   Of the
187 respondents from this survey, forty-five reported having been involved in an
incident on holiday. This should not be compared to the information gained from the

accommodation providers as they refer to incidents guests experience here, whereas due to the low levels of response on the pilots for incidents taking place on this holiday, the tourist questionnaires was adjusted cover to incidents experienced on any holiday. This allowed a higher level of response than would have been gained for experience of incidents here and the attitudes and difficulties could still be acquired from this data. Of the 187 respondents, forty-five (24%) indicated that they had been subject to an incident of crime or accident on holiday and twenty-seven of these were categorised as crime. All twenty-seven (14% of respondents; 60% of incidents) were categorised by respondents as 'crime against property'.

When examining the seriousness of the incident, fifteen were described as minor or very minor and twelve as serious or quite serious on a five-point likert scale. Although with so few respondents reporting incidents it is unwise to make any inferences to the general populace, the limited information we have here would suggest that the degree of seriousness with which the respondents viewed the incident did not influence there inclination to report the incident to police authorities with nine of the fifteen 'minor' incidents being reported and six of the twelve 'serious' incidents. This may be a little skewed by the need for police reports in the case of insurance claims but it may have been expected that those viewing an incident as 'serious' would be more inclined to officially report the incident but that is not apparent from this data set. These incidents occurred in a variety of countries with five occurring in the United Kingdom (only one in Scotland to a French national), and of the remaining twenty-two, European countries were the location of twenty with one occurring in Israel and one in Malaysia. This is likely to be more due to exposure rates than any specific issue regarding a country or place (i.e. a reflection of holiday-taking patterns). Ten respondents indicated reasons why they did not report the incident; the respondents were invited to give multiple responses to this question, as it may not be simply one aspect that discourages reporting of crimes. The results would indicate that while three respondents cited the minor nature of the incident and two indicated lack of time in timetable as reasons (i.e. aspects that were more to do with the circumstances and nature of the actual incident) of more concern was that five respondents did not have sufficient confidence in the authorities; five were unsure of procedures and four cited language difficulties – clearly aspects that could be addressed by the destinations.

Respondents were also asked what factors they felt contributed to the incident occurring; although it should be reiterated that these numbers are small, twenty-two (82%) of the respondents felt that their being a tourist/visitor had been a contributory factor to being victimised. Even if this was not actually the case, this perception being held, should be a concern for the destination.

7.12.2: Type of tourist

As discussed earlier in the thesis, different typologies of tourists exist and they are likely to have different attitudes and behaviours; although it is a rather crude way to differentiate tourists, respondents were asked to categorise themselves as an 'inclusive/package holiday-maker', an 'independent holiday-maker' or 'other'. Using this as an indicator, those in group tours or packages i.e. the 'inclusive/package holiday-maker' are likely to be less adventurous and veer toward the 'psychocentric' side of Plog's typology and the independent holiday-makers to the 'allocentric' side. Therefore, it would be expected that the 'psychocentrics' would be more concerned with issues of safety and, perhaps, that they would be more adversely affected by incidents of crime. Although, as stated earlier, care must be taken with lower numbers of inclusive/package holiday-makers in the sample, there does seem to be a higher level of concern with over half (54%) stating that a 'safe reputation' was 'very important' compared to just over a quarter (27%) of the independent holiday-maker respondents. There was, however, very little difference in the percentage affected by crime with 15% of those in the 'inclusive/package' group experiencing crime against 14% of the 'independent' group. The 'inclusive/package' group who had experienced crime on holiday were more likely to rate a 'safe reputation' as 'very important' (75% against 54% of the overall group) a rise far higher than for the 'independent' group (32% against 27% of the overall group).

7.12.3: Impact of Demographics in the Tourist Survey

Unfortunately due to the lack of data from tourists staying in accommodation other than serviced accommodation and self-catering cottages, there was no way to test from this data if it followed the patterns seen in Barker et al's study of the America's Cup event where accommodation used impacted on crime experienced (2002: 2003), nor was there sufficient data to indicate any patterns relating to ethnicity, although the data that was gleaned did not suggest any ethnic differences. With only 27

respondents indicating that they had been victim of a crime on holiday, there is little to be gained from an in-depth interrogation of the data, making it difficult to ascertain if there are patterns of significance. There were some apparent differences although, as stated the numbers are low. In terms of gender, it seems that females were marginally more likely to be targeted with 60% of those reporting crime being female despite accounting for only 52% of the overall respondents. There were also evident differences in age groups with those in the 25-34 and 35-44 brackets seemingly twice as likely to be victim of crime than would be expected from their representation in the respondents. The over 65 group though were very underrepresented with only one respondent reporting a crime despite the 65 and over group representing 31% of the overall respondents.

7.12.4: Synopsis

The numbers affected by criminal incidents was low (only 14% of the overall respondents), making any analysis subject to cautionary interpretation. There does appear to be distinct differences in attitude between independent and packaged holiday makers in terms of their reaction, but overall most felt that being a visitor was a contributory factor to their victimisation. These findings would suggest a need for destinations to review the way that visitors are dealt with in the event of an incident and that it may be prudent to offer additional reassurances to packaged holiday makers to destinations. This should be aided by the fact that packed holiday makers are easier to target given that they travel in groups and are attended to by a tour operator, allowing them to funnel messages directly to them on-mass. The above findings have been based on a selection of visitors staying in commercial accommodation in the area, below the findings from a Visitor survey of all visitor types to the area is presented.

7.13: Visitors' view of crime

A random sample of three hundred visitors was taken to ascertain their views on various aspects of holiday destinations. For full details of the methodology associated with this survey and details of those surveyed, please see chapter four. The data presented here relates to the views on crime, safety and security of those interviewed in this Visitor survey. Respondents were asked to respond to a variety of statements designed to gauge their beliefs regarding various aspects of the destination area.

These respondents were given the options of agreeing, slightly agreeing or disagreeing with the statements, so it could be said that there would be a natural skewing to the positive (for further details of limiting factors, please see chapter four) for this reason analysis will concentrate on the 'absolutes' of agreeing or disagreeing, treating those in the 'slightly agree' category as being neutral. While this may revert the skewing to the negative, it should give a fairer indication of the beliefs and attitudes of the respondents.

7.13.1: Crime in the area

Overall, the majority agreed that this was a safe destination with over 78% of respondents actively agreeing to this statement and only four respondents (1.5%) disagreeing – this issue of general safety was dealt with in chapter six but it was felt pertinent at this juncture to establish the general feelings of safety as these feelings are regularly linked directly to criminal activity. The respondents in this survey fell into four categories – day-trippers (52%); inclusive/package holiday-makers (9%); independent holiday-makers (37%) and 'other' (2%). The literature would suggest that those in the 'inclusive/package holiday-maker' category would show higher levels of concern over issues such as crime. Unfortunately those in the inclusive/package holiday-maker category numbered only twenty-three respondents, so care must be taken with any inference taken from such a small group.

Aside from the possible differences related to visitor typology, other factors that may influence the attitudes and beliefs of the respondents are age, gender and ethnicity.

7.13.2: Demographics

It is recognised that demographic factors can have an influence on views and beliefs held, and it may also affect the likelihood of becoming victim to crime (Barker et al, 2002). The demographic information gathered in this survey was very basic – age group, gender, and ethnic group; which limits analysis. Also there were a high percentage of white, UK-based respondents. While this will in part be due to the actual mix of visitors, it is also likely to be partly due to bias on the part of the interviewers whose language skills were limited, making them perhaps less inclined to approach visitors they had identified as potentially 'foreign', thereby biasing the sample (see chapter four for a fuller discussion on limitations and potential bias).

7.13.3: Ethnic group

In total, twenty-seven respondents placed themselves in the non-white categories; although not ideal, this allowed some comparison of the attitudes and perceptions sought in the questionnaire. The most direct question pertaining to crime related to the likelihood of the respondents becoming victim of crime 'here' (the destination) and at home. In the sample overall, generally respondents were more positive about crime 'here' with 83% stating that it was 'unlikely' or 'very unlikely' that they would be victim of crime here against 77% for those 'unlikely' or 'very unlikely' to become victim of crime at home. When looking at the differences between those who placed themselves in the white and those in the non-white categories, it can be seen that while those placing themselves in the white category are overall less likely to believe they may become victim to crime, those in the non-white category were more likely to have an extreme view on the matter with a higher number placing themselves in 'very unlikely' category (see Table 7.3).

Table 7.3: Likelihood of becoming a victim of crime

	Victim of crime here		**Victim of crime at home**	
Likelihood	**White**	**Non-white**	**White**	**Non-white**
Very unlikely	45%	56%	37%	44%
Unlikely	39%	19%	41%	26%
Possibly	14%	19%	21%	30%
Quite likely	2%	7%	1%	0%
Very likely	0%	0%	0%	0%
Total	*100%*	*100%*	*100%*	*100%*

7.13.4: Age Group and Gender

Age seems to affect perceptions of an area with those agreeing with the statement 'Crime against tourists is low' in relation to the destination decreasing steadily through the age groups. This pattern changes when gender is separated with younger males showing quite strong agreement that increases as they get older, peaking in the 35-44 group then decreasing again as they get older.

Females display an opposing pattern in the earlier age groups, with high levels of
agreement in younger age groups decreasing for the 35-44 group. Through all the age
groups, females have a stronger tendency to agree (see Table 7.4)

Table 7.4: 'Crime against tourists is low' by age group and gender

Male	15-24	25-34	35-44	45-54	55-64	65 plus
Agree	68%	71%	81%	42%	44%	25%
Slightly agree	27%	19%	10%	53%	44%	50%
Disagree	5%	10%	10%	5%	11%	25%
Female	**15-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65 plus**
Agree	72%	64%	56%	78%	67%	44%
Slightly agree	20%	24%	33%	15%	22%	39%
Disagree	8%	12%	11%	7%	11%	17%

Although perception of safety from crime may be higher amongst the female
respondents, this may not relate to risk taking behaviour, for example 43% of males
felt that hitch-hiking was safe against 27% of females. This is reflected in other
similar 'risk-related' statements such as 'I feel safe to walk the streets at night'.
Perhaps surprisingly, despite the fact that overall females demonstrating a lower level
of agreement to the statement 'travelling alone is safe'; older females were more
inclined to agree with this statement than their male equivalents (see Table 7.5).

Table 7.5: 'Travelling alone is safe' by age group and gender

Male	15-24	25-34	35-44	45-54	55-64	65 plus
Agree	68%	56%	52%	70%	39%	25%
Slightly agree	27%	34%	30%	20%	56%	38%
Disagree	5%	9%	17%	10%	6%	38%
Female	**15-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65 plus**
Agree	42%	60%	30%	46%	67%	39%
Slightly agree	42%	16%	41%	21%	28%	28%
Disagree	15%	24%	30%	32%	6%	33%

Although not specifically related to crime, the idea of safety is often bound up in
issues of crime and fear of crime. Older respondents were more likely to agree that

they were more security conscious at home; although there was little difference between the genders overall, there were some wider differences within the age groups (see Table 7.6).

Table 7.6: 'I am more security conscious at home' by age group and gender

Male	15-24	25-34	35-44	45-54	55-64	65 plus
Agree	45%	35%	43%	45%	67%	63%
Slightly agree	45%	39%	22%	45%	22%	0%
Disagree	9%	26%	35%	10%	11%	38%
Female	**15-24**	**25-34**	**35-44**	**45-54**	**55-64**	**65 plus**
Agree	27%	36%	33%	61%	61%	53%
Slightly agree	23%	32%	30%	11%	17%	16%
Disagree	50%	32%	37%	29%	22%	32%

7.13.5: Synopsis

There were a number of differences in the responses of visitors to questions relating to crime and personal safety linked to demographics. Such differences may reflect a need to target specific types of advice at different age groups and genders as these views are likely to correlate with subsequent behaviours.

7.14:Summary

The results of the survey of tourists and visitors would suggest that although incidents of crime are not high, the issues associated with a safe environment are important for all visitor types. Although it is acknowledged that the information from the police database is basic and cannot, in itself, expose and explain the difference in nature between crime against locals and crime against visitors, the results presented above from the analysis of police data would indicate that there are distinct differences between locals and visitors, in terms of both types of incidents and when these incidents occur. The implications from this would be that visitors have differing needs in terms of protection from crime. While further research is required to fully appreciate these different needs and how they should be implemented, it is likely to require at least some reallocation of resources and, more likely, additional resources to fulfil these needs. The additional information gleaned from the three surveys concerning issue of crime help to illuminate particular aspects of the database

information. For example there is a slight anomaly between the collected police data and the reported crime from the accommodation providers and the tourist survey. This is likely to be due to high numbers people who live on the periphery of the area being treated as 'visitors' for the purpose of the study (i.e. they live outside the geographical boundary) but may be more subject to 'local' crime. Also, the tourists were recounting their last holiday incident experience, not necessarily in this country, and there may be differing patterns of crime in the countries visited. What is clear from the police database analysis and the various survey data, is that the anecdotal evidence is correct - visitors are subject to specific types of crime and that car crime is very prevalent. This confirmation of the nature of crime against visitors is a necessary first step in research wishing to explore the differing needs of visitors from local people.

Life satisfaction, an indicator of subjective well-being, can be affected by crime, fear of crime and perceptions of vulnerability that decreases a person's sense of control over their own life (Adams and Serpe, 2000). This reduction on levels of well-being may have policy implications at community level but similar fears amongst visitors and tourists will reduce the attractiveness of a destination (Michalkó, 2003), affecting return visitation, recommendation and ultimately the image of the destination.

Failure to adequately inform and protect visitors and tourists may have more immediate financial implications over and above the loss of income from reduced future visitation; visitors and tourists may seek compensation if they become victim of crime, for example a British tourist attacked last year in Australia has filed a claim for up to £20,000 as compensation for her ordeal (AOL, 22.08.02). Costs involved in any prosecution are likely to be higher where victims have to be returned to the area to appear in court; increasing both the financial costs as well as extending the ordeal for the victim and their families. Insurance companies eager to reduce potential payouts may refuse to cover destinations labelled as high risk causing mainstream tourists to stop visiting. These reasons, combined with the moral obligation to protect visitors, should encourage policy provision to adequately meet the safety requirements of the visitor.

Recognition of the distinct issues that face tourists and visitors to an area is evident in some destinations with the development of tourist police. Although in some cases the tourist police may be more concerned with actually policing the behaviour of the

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tourist, in the main they are there as a reassuring presence with specialist training in dealing with tourists.

Lack of coordination within a destination can leave the visitor at undue risk of crime, as even a single unpleasant incident can leave an overall negative impression of a destination (Ryan, 1996), which will affect destination image, particularly if resulting publicity highlights the incident. Therefore, ensuring the visitor is safe from crime must be a priority if maintaining an area as a preferred destination is important.

Although frequent police controls would appear to have an effective role in crime prevention (see, for example, Michalkó, 2003), there may be some difficulty in prioritising resources to protect visitors from, and informing visitors of, the danger of crime. Beck, Boni and Packer (1999) in a study of Australian police and the public found that even within the community there are disagreements on priority levels between the police and the public on police activities, particularly where there is a lack of knowledge of the activities that make up police functions. According to Beck's study, the public felt that all functions, with the exception of traffic policing, should be given higher priority than at present. This implies that the public feel there is a need for additional resources rather than a simply reallocation of budgets. Given that many countries, as in this case, are trying to contain policing budgets (Beck et al, 1999), the availability of additional resources is unlikely. If then the idea that visitors require specifically targeted services is broached then it raises the issue of where resources are to come from; from within already strained budgets or from additional allocation from central funding? Beck et al (1999) state that community cooperation is vital to effectively fight crime, if this is the case then there would have to be at least some tacit approval from the community that these resources should be found. Allocation of resources for this purpose may become a contentious issue particularly if the community do not feel they benefit from tourism.

Planning has been seen as a key area in reducing crime and fear of crime. There have been moves toward 'planning out' of crime i.e. creating an environment that reduces the likelihood of crime in tourist areas with planners working closely with local law enforcement agencies to produce safer areas. However, the idea of 'designing out' crime by planning can detract from addressing the social causes of crime and associated fear (Koskela and Pain, 2000).

It would be wrong to give the impression that the Central Scotland Police Force were unaware or unsympathetic toward the different nature of crime against visitors, indeed their enthusiasm, co-operation and support for this research is, in itself, testament to their concern. Formal and informal discussions with various members of the Central Scotland Police Force and other agencies reveals that although they may not have detailed or fully accurate knowledge of the issues due to lack of research in this area, there was a wealth of anecdotal evidence based on the experience and observations of officers that has led to particular steps being taken to give visitors and tourists additional security for example car parks popular with hill walkers and climbers are often subject to additional surveillance as they often attract criminal gangs from outside the area, targeting those leaving their car for long periods of time. Also, additional sources are often allocated to popular holiday areas such as Callander in the peak holiday period. Such steps are on an ad-hoc basis and are not necessarily enshrined or prioritised, depending very much on the successful advocacy by onsite officers or the views of the ranking officers for the force that such measures are appropriate and resource efficient. The value of the data presented here then can be seen in terms of its ability to form the basis of a distribution of resources that maximises results in terms of visitor safety.

The results indicate that visitors are not only more susceptible to crimes of dishonesty, in particular car-related theft, but also that the times they were most at risk varied from that of the local residents. With visitors accounting for less than 10% of the total population, these differences are not apparent in the overall patterns and, therefore, the particular needs of visitors are unlikely to met through existing measures. There are apparent implications in terms of policy for resource allocation and preventative strategies.

This chapter has examined the issues relating to criminal activity within the destination but not all negative incidents impacting on visitors have criminal intent, the following chapter explores that issues associated with road traffic accidents and the visitor.

Chapter Eight: Understanding the impact of road traffic accidents on the visitor

8.0 Introduction

Tourism and transport are inextricably linked. Transport is used not only to allow individuals to move between their place of residence and the destination; it also allows movement within and between destinations to access attractions and activities. Despite the emphasis often put on air travel, road transport is still the way in which most tourists and visitors access destinations and move within destinations; and yet there is a difficulty in accessing data pertaining to road traffic accidents (RTAs) and the visitor. This chapter selects the same definable geographical area used for the other aspects of the research (see chapter three for details). By investigating the available data from the Central Scotland Police force the dimensions, scale and nature of visitor-related RTAs should become apparent and how these may differ from those relating to the local residents. This will be information source will be used in conjunction literature sources and data collected from accommodation providers, tourists and visitors to the area in order to develop a fuller depiction of road traffic hazards for visitors. This in-depth approach looks beyond existing statistics to probe and question what factors contribute to the visitor-related RTAs, in view of the existing tourism literature (e.g. Wilks and Watson, 1998; Page, Bentley, Meyer and Chalmers, 2001) and the views of the visitors and those involved with the visitors. The section commences with a brief review of the RTA literature to explain why this issue is worthy as part of research into visitor well-being, followed by presentation of data acquired from the "STATS19" forms supplied by Central Scotland Road Accident Investigation Unit (CSRAIU) and surveys taken from accommodation providers, tourists and visitors. These are used to explore the differences in the nature of accidents in the Central Scotland Police Force area for visitors and non-visitors. The results and findings are then critically examined in view of the existing literature and the context of the study area.

Within the cognate area of travel medicine, there are a plethora of studies on disease and disease prevention for the traveller (e.g. Moore, Grant, Armstrong, Stumpfle and Behrens, 2004; Lopez-Velez, 2003; Steffen et al, 2002). Yet the paradox is that disease accounts for less than 5% of deaths abroad. Separate studies on US citizen travellers (Hargarten et al, 1991) and Scottish travellers (Paixao, Dewar, Cossar,

Covell and Reid, 1991) dying abroad demonstrated in both cases that the two major causes of death abroad were cardiovascular disease and trauma/injury (see Table 8.1).

Table 8.1: Cause of death abroad for US Citizens and Scottish Citizens

Hargarten et al., study (US citizens)		Paixao et al., study (Scottish citizens)	
Cause of death	*Percentage*	*Cause of death*	*Percentage*
Cardiovascular Disease	49.0%	Cardiovascular	68.7%
Injury (unintentional)	22.0%	Trauma	20.7%
Infectious Disease	1.0%	Infection	3.6%
Cancer	5.9%	Other Disease	6.4%
Suicide/Homicide	2.9%	Not stated	0.6%
Medical	13.7%		
Other/Unknown	5.5%		

Source: Extracted from Hargarten et al., (1991) and Paixao et al., (1991)

Although there must be some care in translating the results of these studies to an international context, they do highlight the importance of trauma and injury as a contributor to morbidity, even though both studies only deal with deaths actually occurring abroad. Disease undoubtedly causes a large number of deaths and prolonged illness for travellers both while abroad and on return to their home country, and may lead to spread of the infection in the generating country. Disease amongst travellers therefore should not be trivialised. However, there are clearly a large percentage of deaths through injury in both studies. According to Paixao et al., (1991), those dying through trauma are more likely to be younger (32% in the 20-29 group and 80% were under 50) and male with road traffic accidents accounting for a large number of these deaths. In fact

> *"It is probably not surprising that most injuries and accidents occur in the younger age groups who are often involved in more active pursuits. However, traumatic deaths such as road accidents do seem to be a major hazard for younger tourists (especially male) and more attention should be drawn to this."*
> (Paixao et al., 1991:115)

Hargarten et al., (1991) produced similar results and attributes 26.8% of injury deaths to motor vehicle accidents. Hargarten et al., (1991) also compare death rates from injury per 100,000 males of travellers against the US mortality rates; this demonstrates a considerably higher risk of death by injury amongst travellers in all age groups, with the exception of the over 75 group. In some cases the mortality rates

for travellers are three times greater than the US rates. The majority of deaths would appear to be caused by cardio-vascular disease, however this is mainly in the over 50 groups; in younger age groups, traumatic deaths such as road traffic accidents are the main hazards particularly for males. Death from cardio-vascular disease is likely to be to be a pre-existing condition and, although it may be exacerbated by local conditions at the destination, it is likely that such deaths would have occurred wherever the person was. Traumatic deaths through accidents may have more scope for prevention, reducing costs both financial and personal. The 'everyday' nature of road traffic accidents combined with our reliance on, and relationship with, road transport, particularly cars, tends to encourage us to trivialise the associated risks (Mitchell, 1997) despite road traffic accidents being a major cause of death and injury for visitors and non-visitors alike.

8.1 Road Traffic Accidents in the UK: The context

The Stirling Visitor Survey, commissioned by Stirling Council, suggests that 85% of visitors use road transportation as their main mode of transport. The most popular mode of transport is the private car (48%) with a further 15% using a hire car (Tourism Resources Company, 2001). This is comparable to the findings by VisitScotland (2003) that 63% of all UK tourist trips (67% of all UK holiday trips) to Scotland use a car as the main means of transport. Unfortunately, as the information only covers transport _to_ Scotland, the mode of overseas tourist transport is not clear as 81% arrive by air and 19% by sea or tunnel. Presumably many of those arriving by 'sea or tunnel' bring their own vehicle while it is likely that a large percentage of those arriving by air hire a car during their visit. This predominance of the car as a mode of transport has clear implications on the exposure visitors are likely to have to risk of road traffic accidents.

8.1.1: UK Drivers

As the majority of usable data in the study pertained to United Kingdom residents, background data from the DTLR (2001) is presented here to develop a clearer understanding of possible differences in behaviour between visitor and locals. There are several fundamental differences between general 'everyday' travel patterns and holiday/day trip patterns. Holiday trips tend to be longer than average trips; 44.2 miles against an average for all purposes of 6.6 miles. Unsurprisingly, as distance

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increased so did the likelihood that a trip was for holiday purposes, with visiting friends being the most likely reason for trips over 50 miles.

Car journeys for holiday or day trip purposes have the highest level of occupancy compared to other purposes with an average of 2.3 passengers; compared, for example, with commuting trips with an average of 1.2 or shopping trip average of 1.6 (DTLR, 2001). This is likely to have implications for casualty numbers in the event of an accident. Theoretically at least, there is likely to be a higher number of casualties per accident for visitor driven cars due to higher car occupancy levels.

UK data suggests that men are more likely to travel longer distances by car (DTLR, 2001) and are more likely to hold a driving licence, particularly in the older age groups (DfT, 2003). This will make their exposure rates to accidents higher than those of women. Although there is no clear evidence to suggest that men drive more on holiday than women, as tourists visiting Scotland tend to be in the older age groups (VisitScotland, 2003) then there is likely to be a correspondingly high proportion of male drivers.

Britain has a good record of road safety, with death rates from road traffic accidents (RTAs) among the lowest in Europe (EuroRAP, 2002). Indeed in Scotland, mortality rates from car accidents more than halved from 1980 to 2002 both in actual numbers and in standardised rates; emergency admittance rates to hospitals as a result of RTAs demonstrate a similar pattern (ISD Scotland, 2003). Despite these decreases, road traffic accidents are still the main cause of accidental deaths in the under 45s in Scotland (ISD Scotland, 2002). Recent research by EuroRAP, however, is interesting because it not only looks at road safety and injuries in an European context but also provides detail at a road level and therefore, is worthy of discussion.

8.1.2: EuroRAP and road safety

According to Lynam, Sutch, Broughton and Lawson (2003), EuroRAP established a pilot programme in 2001 to examine three themes at a European level: A comparison of death rates on road networks in different European countries; Mapping and analysis of fatal and serious injury accident rates in Great Britain, the Netherlands, Sweden and Catalonia; Inspection of the safety quality of the road networks and extent to which the infrastructure protects road users from death and serious injury when accidents occur (the technical report which outlines these approaches can be accessed

at http://www.eurorap.org). One of the outcomes of the detailed analysis is risk rate maps as shown in Figure 8.1.

Figure 8.1: EuroRAP Risk Rate Map of Roads in Great Britain, 2003
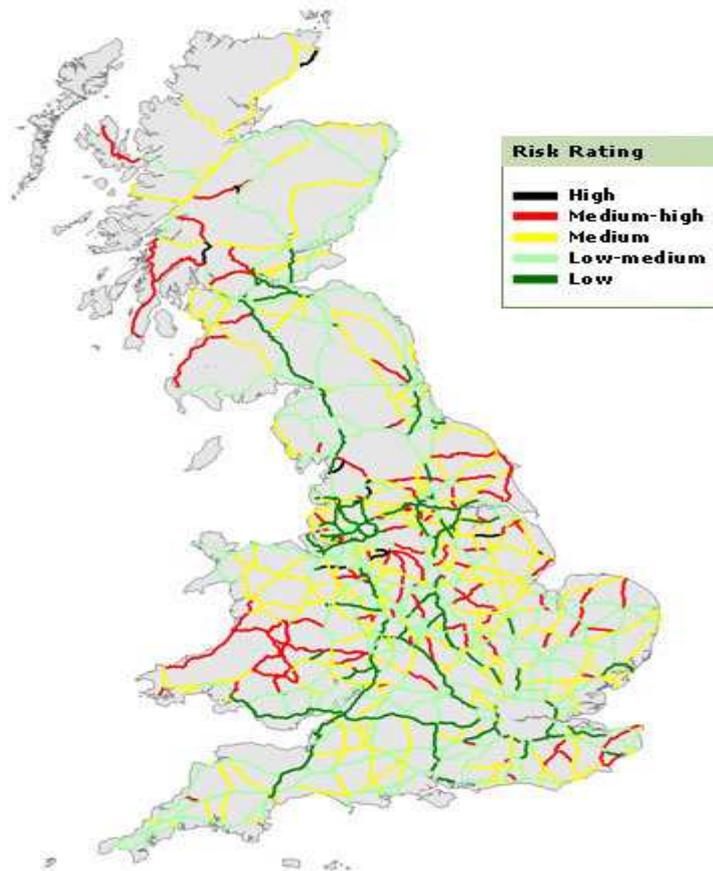
© Automobile Association Developments Limited 2003, http://www.eurorap.org; Crown Copyright

Key for map:
Risk rate maps
Part of the programme is to map road networks according to the fatal and serious accident rate per billion vehicle kilometres (bvkm). This highlights the risk to a driver of death or injury (adjusted to be comparable across Europe*) as:

⬛ High
\> or =180 fatal & serious accidents / bvkm

🟥 Medium-High
106-<180 fatal & serious accidents / bvkm

🟨 Medium
61.6-<106 fatal & serious accidents / bvkm

🟩 Low-Medium
15-<61.6 fatal & serious accidents / bvkm

🟩 Low
0-<15 fatal & serious accidents / bvkm

What the research by EuroRAP suggests is that '9% of deaths outside built up areas are on motorways, 19% on dual carriageways, 38% on single carriageways of national or regional importance and 34% on other single carriageways. The fatal and serious accident rate of the A road network is '*about four times that of the national motorway network*' (Lynam et al., 2003:170).

Figure 8.1 derived from the most recent EuroRAP research illustrates that Scotland has a much less dense road network at the motorway and A –road (trunk road) than England and Wales. This is partly a function of population density, the rural nature of the environment outside of Central Scotland and the geographically dispersed nature of settlement in the Highlands and Islands of Scotland and Borders area (south of Glasgow and Edinburgh). In terms of the risk rating of the roads by EuroRAP, it takes a stretch of road and calculates the incidence of serious injury according to previous recorded incidents. Although Figure 8.1 indicates that the Central Scotland area has only two routeways with medium risk (e.g. the M9, A9(M) and A9, A811 and A84) these are major transit routes through the region to the Highlands of Scotland. Within Figure 8.1 accident blackspots are not identified, although these are more localised in terms of their accident rating, such as the Dunblane roundabout at the end of the M9, which has among the most accidents for a roundabout in Central Scotland. What the EuroRAP data is also useful for is the identification of stretches of road with poor safety performance that leads to high levels of death and serious injury, complementing much of the work of local authorities and road safety groups.

8.2 Visitor-related RTA research

There have been a number of studies examining the relationship of the visitor and RTAs, although there are difficulties in comparing 'like with like', the main results of the research is presented below in Table 8.2.

Table 8.2: The visitor motor vehicle accident literature: Key research findings

Year	Author(s)	Sample	Findings
1993	Hargarten and Bouc	796 cases of American tourists transported back to the US by emergency medical air transport services over a 3 year period	Injury accounted for 44% (n = 351) of the total cases, with motor vehicle crashes (n = 157) being the most common cause of injury. Almost half of all flights (41%) from Mexico were for multiple vehicle collisions (n = 82). Motor vehicle crashes were also the leading cause of transports from the Caribbean and South and

			Central America.
1985	Hargarten and Baker	185 Peace Corps volunteers who died during the period 1968 to 1983	Motor vehicle crashes (n = 67) were the single most common cause of death of Peace Corps volunteers (PCVs). They accounted for more than one third of all deaths and more than half of all unintentional injury deaths. Motor vehicle death rates were slightly higher for men than for women, accounting for 67% of the motor vehicle deaths. Half of the motor vehicle fatalities occurred in the African region. Motorcycles accounted for 12% of all PCV fatalities and 33% of all motor vehicle deaths.
1990	Purkiss	926 patients attending a hospital emergency department in Bermuda with an injury following a motorcycle or moped accident	Tourists were involved in 48.3% of the accidents. The average monthly incidence for the tourist population over the 6-month study period was 1.57 accidents per thousand people. There were 16 moderate or severe injuries to tourists, requiring inpatient hospital care. The average age for tourist admissions was 37 years, and their mean hospital stay was 7.3 days.
1991	Guptill, Hargarten and Baker	396 deaths of American travellers to Mexico in 1975 and 1984	The leading cause of death to all US travellers to Mexico was injuries (51%), with 18% of deaths resulting from motor vehicle crashes.
1991	Hargarten, Baker and Guptill	2,463 deaths of American travellers in 1975 and 1984	There were 601 deaths due to injuries in the study period. Motor vehicle crashes were the most common cause of injury deaths (26.8%), followed by drowning (16.1%).
1991	Paixao, Dewar, Cossar, Covell and Reid	952 deaths abroad of people leaving from Scotland between 1973 and 1988	Leading cause of death was cardio-vascular disease (69%) followed by trauma (21%) and infection (4%); with traumatic deaths such as road traffic accidents being a major concern in young, particularly male, tourists.
1991	Sniezek and Smith	17,988 deaths among non-US residents in the United States between 1979 and 1984	Injuries (n = 4,078) accounted for 23% of all deaths. The most frequent causes of injury deaths were motor vehicle traffic crashes (37%), drowning (15%), and homicides (11%). From the 1,525 injuries related to motor vehicles, a risk indicator of 11.7 per one million tourist arrivals was calculated
1994	Salib and Brimacombe	255 patients presenting to the Ayers Rock Medical Centre over 18 months (defined as life threatening or requiring more than 1.5 hours of	There were 33 incidents associated with car accidents, of which two-thirds involved tourists (no distinction was made between domestic and international tourists).

		more than 1.5 hours of emergency medical treatment)	
1995	Prociv	421 recorded deaths of Australian travellers overseas	A total of 31 travellers (7% of the sample) died in motor vehicle or road accidents. Most of the fatalities (n = 26) involved short-term travellers, defined as those going overseas for less than 12 months. A further nine non-specified deaths were possibly related to road crashes. Of the 40 traffic and non-specified accident victims, 25 were men and 15 women; 34 (85%), including 12 women, were below the age of 50.
1996	Carey and Aitken	538 cases of road trauma involving motorbikes in Bermuda between July and September 1993	The tourist rate of motorbike-related injury was 94.1/1,000 person-years at risk, whereas that of the local population was 16.6/1,000. The injury rate among residents was highest for young males, whereas among tourists it was highest among older persons. Tourists also had an increased risk of fracture. The study concluded that tourists visiting Bermuda are at high risk of injury from motorbike use, with rates of injury much higher than the local population.
1996	Page and Meyer	Data on road-based accidents collated by the Land Transport Safety Authority in New Zealand	Some 52 foreign drivers were involved in fatalities on New Zealand roads for the period 1988-93, with nearly 20% due to drivers not keeping to the left, a major problem for some overseas visitors. There were 1,386 non-fatal accidents involving foreign drivers for the period 1988-91. The foreign driver was considered by the New Zealand Police to have been a causative factor in 232 non-fatal injury crashes in the period 1988-91, with not keeping to the left a significant factor. Foreign drivers were also identified as a major problem in terms of rental car crashes.
1997	Petridou, Askitopoulou, Vourvahakis, Skalkidoou and Trichopoulos	730 road traffic injury victims who contacted any of the three hospital of the Heraklion District on the island of Crete during the 6-month study period	On the basis of Greek hospital discharge statistics in Heraklion District, one foreign visitor was discharged owing to injuries of any type for every 18 Greeks. The corresponding ratio for road traffic accidents is close to 1:3, underlying the importance of road traffic accidents as the major health hazard during pleasure travelling. Left-sided driving country nationals were at an increased risk for a traffic accident

			when they drove a rented rather than an owned vehicle (p = .02), possibly on account of maladaption during the adjustment period in the country of visit. Moreover, road traffic victims from left-side driving countries compared with foreigners from right-side driving countries were involved 2.5 times more frequently in accidents in which over-passing or other driving manoeuvres require reflexes conditioned on reverse directionality (p = .02). Alcohol abuse was reported as a primary cause of accident in a significantly higher proportion of foreign nationals, reflecting the fact that the latter group was on vacation. The study concluded that road traffic accidents are a major hazard during pleasure travelling and victims of such accidents among travellers have a distinct epidemiological profile compared with accidents of a similar nature among locals.
1998	Wilks and Watson	Road crash data involving international drivers in Queensland 1992-97; cost of road crashes involving international visitors	Between 1992 and 1997, 39 fatal crashes occurred; 397 cases needed hospitalisation; 503 cases needed medical treatment; 261 minor injuries occurred and 1282 property damage cases resulted. A total of 2482 cases occurred. The total cost of international driver crashes in 1997 in Queensland was AU$18,912,000, with a AU$4,272,000 cost for fatal crashes; AU$9,620,000 for hospitalisation; AU$1,980,000 for medical treatment; AU$1,020,000 for minor injury and AU$2,020,000 for property damage by accidents.
1999	Coley	Analysis of overseas drivers fatal, serious and minor injury crashes in New Zealand 1993-98	Use of Land Transport Safety Authority data, extending the earlier work of Page and Meyer (1996) in New Zealand.
1999	Davis	Analysis of legal risks using published secondary data in Australia	The increase of tourists does not necessarily lead to an increase in road accidents and claims for compensation.
1999	Department of Transport and Works, Northern Territory	Analysis of road crash data 1993-1998	Between 1993-98, 445 international visitors were reported as being injured on Northern Territory roads, representing 5.7% of all casualties. There were 33 international visitor deaths, representing 9.5% of all fatalities.

1999	Department of Urban Services Australian Capital Territory (Canberra)	Analysis of road crash data 1993-97	Only 0.02% of international visitors were involved in a serious crash.
1999	Ellis	Overview of international visitor involvement in fatal crashes in Australia 1990-94	Predicted the annual rate of 45 international tourist deaths on Australian roads could rise to 70 in 2000 due to the Sydney Olympic Games
1999	Matcham	Analysis of 1997-98 insurance claims for Lumley Insurance Ltd, Australia	Of the 10,500 rental vehicles insured, 20 claims a week with an average claim of AU$5,000. The main cause of accidents involved tourists 'Right of Way', 'Loss of Control' and 'Rear Ending a Vehicle' as well as "Hitting a Stationary Vehicle'. Where the driver was at fault, 'Lost Control' and 'Hit an Animal' comprised 50% of claims. Fatigue was assessed as a contributory factor, with accidents occurring around noon and between 17.00 and 18.00. Those renters under 25 years of age had a disproportionately higher number of claims than other age groups, which continued to rise until age 28. The claims peak in the '40-45' age group, but this reflected the greater proportion of renters in this age group. Most costly crashes occurred in the country or the outback. The three mostly types of cause of rental vehicle crash are: collision with kangaroos, especially at dusk, right of way collisions and loss of control collisions, where jetlag may be a major cause.
1999	New South Wales Roads and Traffic Authority	Analysis of road traffic crashes involving international residents 1993 – 97; overseas visitor pedestrian accidents in 1988-97 in New South Wales	Total crashes declined 32% 1992 – 97 and related casualties dropped by 25%. Overseas visitors had a greater proportional involvement in more serious crashes. Overseas visitors tended to be older in fatalities, of whom 78% were male; overseas drivers tended to be driving four-wheel drives; crashes involving overseas visitors tended to occur in country areas. Some 200 overseas pedestrian casualties occurred 1998-97. These are rare and more likely to be a female.
1999	Office of Road Safety, Western Australia Department of Transport	Road accident data 1995-98	Some 1% of drivers involved in a police reported crash resulting in a fatality, serious or minor injury had an international licence.
1999	Petridou, Dessypris, Skalkidoou and	19,320 hospital injuries; 1739 tourist cases for the	15% of all accidents were traffic-related among permanent residents

	Trichopoulos	Greek Island of Kerkyra for 1996-97	and Greek tourists. But traffic-related accidents represent 40% of tourist accidents, and were disproportionally frequent. The risk of traffic accidents was much higher for men than women, with younger tourists at the greatest risk. However, due to the absence of data to calculate person-time at risk, it may not necessarily be that tourists are at a higher risk, since they may drive greater distances. In addition, younger tourists may drive more frequently at night time. What was beyond question, was the concentration of road traffic-related injuries in the peak tourist season.
1999	Queensland Transport	Road accident data 1993 – 1998 involving international tourists	Visitor fatalities grew 34% in 1993 – 97, slightly less than the 39% growth in international visitors. Analysis of car crash characteristics showed that 83% of crashes involved cars; 66% occurred at intersections and 47% occurred in built-up areas. The geographical distribution of crashes highlighted country and outback areas as the most likely location of crashes.
1999	Transport South Australia	Analysis of road accidents and trauma involving international visitors 1994-98	1994-98, 202 crashes involved overseas drivers. Most fatal and serious crashes occurred in country districts. The most common type of crash in metropolitan areas were: 'rear end crashes'. In rural areas, 'roll-over crashes' were most common. The majority of accidents occurred in the summer months.
1999	Victoria Roads	Analysis of road crash casualties involving an international license 1994-98	Of 17,000 casualty crashes reported each year, in 1998 only 130 reported to Victorian Police involved international licences.
1999	Wilks	Review of the international literature and findings of Australian studies	Analysis of tourist road safety issues in Australia and advice for drivers; future research directions identified
1999	Wilks, Watson and Faulks	Review of Australian situation and Queensland data 1992-1997	Implications of the Sydney 2000 Olympic Games for tourist road safety, since 43% of all international visitors to Australia drive a private car or company car; 15% rent a car; 2% drive motor homes or a campervan and 3% use a four-wheeled vehicle. Review of traffic laws and road conditions of international visitors to Australia, including which side of the road visitors are used to driving on; miles

			of road in the home country; road signage in miles/kms; blood alcohol limit in home country; maximum speed limits in urban and rural areas; seat belt laws. Developing a national tourist road safety research programme was also examined, including the need for road crash data; hospital records; insurance claims and collaboration with other agencies.
2001	Modler	An examination of 18 road accidents involving tourists to Solitaire, Namibia	15 of the 18 drivers were from Europe and most drivers were in rented vehicles, usually 4×4. Lack of seat belt wearing, lack of experience on gravel roads and driving 4×4s, and speeding were identified as the main risk factors.
2001	Page, Bentley, Meyer and Chalmers	5863 cases of injuries to overseas visitors were examined from the records of the New Zealand Health Information Service 1982-1996	The authors estimate that even on conservative measures at 1999 prices, overseas visitor accidents cost the New Zealand government NZ$21,333,200. Raising issues of cost along side the importance of visitor well-being and welfare.
2001	Master and Prideaux	Examines the issues related to the safety of international visitors in tourism destinations	Using Queensland, Australia as a case study, the paper's main focus is motor vehicle and water activity accidents in order to develop strategies for consideration of the authorities involved in destination management.
2001	Sharples and Fletcher	An investigation of the relative involvement of tourists in road accidents against local drivers in rural Scotland	Using STATS19 data for 1999 and 2000, postcode data was used to identify status of drivers to determine whether they were local, UK based tourists or overseas drivers. There findings would indicate that overseas and UK visitor drivers were no more likely to be involved in accidents than local drivers but that cause of accident was likely to be different.
2002	McInnes, Williamson and Morrison		A review of literature on accidents and injury to tourists and travellers.
2002	Wilks and Coory	An examination of all overseas visitor hospital admissions in Queensland, Australia from 1995 to 2000	The main reasons for admission were motor vehicle accidents (21.8%) and water-related injuries (17.7%). Unfamiliar environments or unfamiliar activities appeared to be relevant to injuries sustained in most cases.
2002	Wilks, Pendergast and Wood	An examination of the deaths of 1513 overseas visitor deaths in Australia	Among the accidental deaths, road traffic accidents and water-related incidents were the main causes.
2003	Thompson, Ashley, Dockery, Brown, Binns	Records of health problems of tourists to	Accidents were the most common problems health crises with those

	Dockery-Brown, Binns, Jolly and Jolly	problems of tourists to the North Coast of Jamaica were reviewed from June 1998 to June 2002	problems health crises with those under 40 more frequently reporting accidents or injuries. Research seeks to reduce health problems and improve emergency health services for tourists.

Source: Revised from Wilks (1999); Page et al., (2001)

Wilks (1999) completed a comprehensive literature review dealing with international tourists and road safety in the lead up to the 2000 Sydney Olympics on which Table 8.2 is based; this was later revised and updated by Page et al., (2001) prior to presenting an analysis of data specific to New Zealand. There is a paucity of UK research, however studies from other countries can contribute to our overall knowledge of road incidents experienced by visitors. The New Zealand study by Page et al (2001) is of particular interest due to areas of commonality between Scotland and New Zealand; left-hand drive, similar terrain, roads, highly variable weather conditions and climatic variations. The significant increase in caravan/campervan traffic on dualled roads in the summer season also offers many similarities as does the road configurations, which are sometimes winding with a significant camber. Therefore the visitor to New Zealand will experience similar hazards as visitors to Scotland. The use of speed cameras and rural accident black spot notices also provides some similarities.

8.2.1 Visitor Drivers from Overseas

The studies by Wilks (1999) and Page et al., (2001) deal specifically with overseas/foreign tourists; this does not consider the domestic tourist. Although the domestic tourist or visitor to an area may not have the same challenges as an overseas visitor, they may have some similar issues. Overseas visitors may face difficulties such as unfamiliarity with the road regulations of the host country and possible language barriers, but the domestic and overseas visitor will both face hazards such as driving on unfamiliar roads and distractions such as the novelty of breathtaking scenery.

It could be assumed that overseas visitors are more likely to be involved in road accidents and indeed headlines such as "Tourist Road Hazard" (Scotsman, 2001) or "Tourist caused crash" (Evening Times, 2001) would tend to reinforce this view. However, a recent study into road accidents involving tourists in rural Scotland would not support this view; Sharples and Fletcher (2001) analysed postcode data from

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'STATS19' forms for 1999 and 2000 in rural areas of Scotland. The STATS19 forms are completed by police in the event of any road traffic accident resulting in injury. Prior to 1999 it would not have been possible to differentiate non-UK residents from UK residents with unknown postcodes due to lack of coding. Using post 1999 data, they found that accidents increased in times of higher visitor numbers but that the accident rate per vehicle mile was similar and that

> *"There is no evidence that the foreign and UK visitor drivers are markedly more likely than local drivers to be involved in an accident."* (Sharples and Fletcher, 2001: i)

Yet, the cause of accidents was found to vary between the UK drivers and foreign drivers, as may be expected

> *"For the average driver who was at fault, loss of control, negotiating a bend, or going to fast for the conditions of the road were the main causes. However, for foreign drivers who were at fault, the most frequent causes were driving on the wrong side of the road, turning and crossing the centre line."* (Sharples and Fletcher, 2001: ii)

Although caution must be taken in utilising this data, as its collection is dependent very much on the accurate completion of forms in what may be difficult or traumatic situations, it does allow an insight into differences in the nature and type of accidents involving different groups. Until recently it was likely that most overseas tourists driving in Scotland would have had a great deal of driving practice before reaching the Central Scotland Police Force area due to the main ports of arrival being outside the area. But, the opening of ferry crossings at Newcastle and, more recently, at Rosyth in Central Scotland has meant that more overseas visitors can bring their car over straight onto Scottish roads. A recent study commissioned by VisitScotland indicated that 44% of inbound travellers on the Rosyth ferry were visiting Scotland for the first time (George Street Research, 2003), which has implications for road safety agencies in Scotland. The rise in use of regional airports with cheap flights arriving in Glasgow, Edinburgh, Prestwick and Aberdeen is also likely bring more overseas visitors directly onto Scottish roads in hire cars. This trend will undoubtedly continue due to the popularity of the low-cost airlines and the additional £6.5m development money provided to encourage airlines to fly to and from Scotland (BBC News, 2003).

8.2.2 Cultural and Practical Differences for Overseas Drivers

Although Britain and Scotland in particular, has a low fatality rate and is a relatively safe country to drive in, this may not be the case for overseas tourists. Scotland, along with the rest of the UK, is likely to be perceived as a 'dangerous' place to drive due to the difference in driving conditions, particularly driving on the other side of the road, compared to the majority of other countries in the world. Cross-cultural differences are also likely to cause problems in the area of risk perception (Sivak, Soler, Tränkle and Spagnhol, 1989) and in risk taking behaviour (Sivak, Soler and Tränkle, 1989) as well as particular differences in driving culture for example American drivers are accustomed to an opposite approach taken at intersections (Summala, 1998). Foreign drivers are considered a greater risk than domestic drivers in most countries and there has empirical research that would support this (for example, Leviäkangas, 1998). But, Britain has some advantages over other areas of Europe in that it is not a transit route. This may keep accident rates down, as there are fewer problems in terms of large volumes of people driving through the country with very different driving cultures and standards of vehicle maintenance. There are also likely to be fewer people driving extremely long distances and fewer people travelling through with little knowledge of the local road regulations and standards.

8.2.3 Risk and the Visitor Driver

As discussed in chapter three, with the transition into tourism tends to come changes in attitude and behaviour patterns that leave them more susceptible to certain hazards; this has been explored in terms of crime and extreme sports but may be equally applicable to visitors while they are using the roads whether as a driver, a passenger or pedestrian. Tourists and visitors are likely to be more at risk from road accidents not purely due to unfamiliarity or their own behaviour, but the very fact that people tend to drive longer distances on holidays and day trips (DLTR, 2001). This will increase their exposure to accidents. However, overall risk will be determined for an individual traveller by the number of accidents per unit of traffic (EuroRAP, 2002). Using this measure, serious and fatal accident rates are four times higher on 'A' roads than on motorways in Britain (EuroRAP, 2002) and, as Scotland has fewer motorways but a higher proportion of road per capita (DfT, 2001), the risk for locals and visitor alike should, theoretically, be heightened. To date there has not been sufficient research to appreciate the reason why, Scottish 'A' roads appear to have lower fatal

and serious accident rates that the national 'A' roads. This however should be seen in the context that the majority of road deaths occur outside built-up areas on single carriageway roads (EuroRAP, 2002) as

> "In Britain, 9% of deaths on major roads outside built-up areas are on the motorways, 19% are on dual carriageways, 38% are on single carriageways of national and regional importance and 34% are on other single carriageways." (EuroRAP, 2002: 12).

This chapter selects the same definable geographical area used for the other aspects of the research (see chapter four for details). By investigating the available data from the Central Scotland Police force the dimensions, scale and nature of visitor-related RTAs should become apparent and how these may differ from those relating to the local residents. This will be information source will be used in conjunction literature sources and data collected from accommodation providers, tourists and visitors to the area in order to develop a fuller depiction of road traffic hazards for visitors and what factors contribute to the visitor-related RTAs, in view of the existing tourism literature (e.g. Wilks and Watson, 1998; Page et al., 2001) and the views of the visitors and those involved with the visitors. The section commences with a brief review of the RTA literature to explain why this issue is worthy as part of research into visitor well-being, followed by presentation of data acquired from the "STATS19" forms supplied by Central Scotland Road Accident Investigation Unit (CSRAIU) and surveys taken from accommodation providers, tourists and visitors. These are used to explore the differences in the nature of accidents in the Central Scotland Police Force area for visitors and non-visitors.

The main data set used has been taken from "STATS19" data supplied by the Central Scotland Road Accident Investigation Unit (CSRAIU); in the four-year period 1999-2002 there were 2841 road traffic accidents in the Central Scotland Police Force Area involving 4842 vehicles and 7384 casualties. The data does not allow tourists to be specifically identified, however, one of the fields captured in the data is postcode information. This information can then be used to distinguish 'locals' i.e. those living within the Central Scotland Police Force Area and 'visitors' i.e. those living outside of the Central Scotland Police Force Area. The number 1 in the postcode field should identify unknown postcodes and non-UK residents should be identified with the number 2. Twenty-one percent of the records had to be dismissed from the

analysis due to being identified as 1 or due to incomplete information, leaving records for 3831 drivers/vehicles and 5826 casualties identifiable as 'visitor' or 'local'.

8.2.4 Limitations

This data will not show the entire extent of road incidents in the area as they may not be recorded for various reasons, such as the minor nature of incident or due to those involved not wishing to notify the authorities. The data set also suffers from incomplete records on postcode fields. Unfortunately, this may result in a disproportionate number of 'visitor' records being excluded as it is likely that local postcodes will, at least in part, be known by the police whereas non-local areas, including overseas visitors, will be unknown and, therefore, be less likely to be recorded. There was concern expressed in the Sharples and Fletcher (2001) report that, although there had been some evident improvement, the STATS19 forms, on which their report and this article are based, are not completed accurately much of the time. In a fifth of the records used in this article the postcode fields were entered as 'unknown' or left blank and, although there is no way of knowing for certain what their contents should have contained, it is likely that a large number of these will be from outside the local area. One further complication, which contributes to under-recording, is the fact that there are likely to be a number of overseas visitors entered using their temporary UK postcode (Sharples and Fletcher, 2001) adding to underestimation of the number of non-UK drivers.

Human error will also be a limiting factor as the road accident data has been through a lengthy process; the individual officers recording the crime, then input into the computer by separate staff, before being reprocessed through a separate system to put into a useable format for the CSRAIU and then reprocessed to be put it into a useable format for analysis. Each stage adds the opportunity for errors.

Interrogation of the Central Scotland Road Accident Investigation Unit and survey data

8.3: Identifying visitors in the Central Scotland Road Accident Investigation Unit database

Using the driver postcode and the accident grid reference, 'accident to home' distance can be calculated. This would indicate that the mean average distance from home is 21.75km but the modal distance for accidents was 2km from home i.e. the majority of

drivers were very local to the accident area. Although this study is centred on the Central Scotland Police Force area, the calculations for 40km away from home were made to allow comparison to the 'definition' of a local in the Sharples and Fletcher (2001) report; the argument put forward for this distance was based on the National Travel Survey data (see Sharples and Fletcher, 2001:25). This allowed a triangulation 'check' on the data. In our sample 89% of accidents occurred within a 40 km distance from home; this was comparable to the Sharples and Fletcher report which had 87% 'local only' drivers and 8% 'mix local and non local' (2001:29). The categories and classifications used in the STATS19 forms have been used to produce the results presented here. Unless otherwise stated, the figures presented here utilise the definition of a local as within the postcode areas covered by the Central Scotland Police Force and non-locals are those outside of these postcode areas.

8.4 Profile of data and severity of accidents

Visitor drivers are involved in 28% of accidents occurring in the Central Scotland Police Force area; however, they are proportionately more likely to be involved in serious or fatal accidents (see Figure 8.2 a&b). This represents significant levels of human loss and suffering but also has serious resource implications for the emergency services that deal with the consequences of these accidents. A greater understanding of the main differences between local and visitor driver accidents may assist in developing strategic measures for prevention and coping more effectively.

Figure 8.2a and b: Level of Severity of Accident for Local and Visitor Drivers

Level of accident severity for local drivers

Fatal 2%   Serious 21%
Slight 77%

Level of accident severity for visitor drivers

Fatal 2%   Serious 26%
Slight 72%
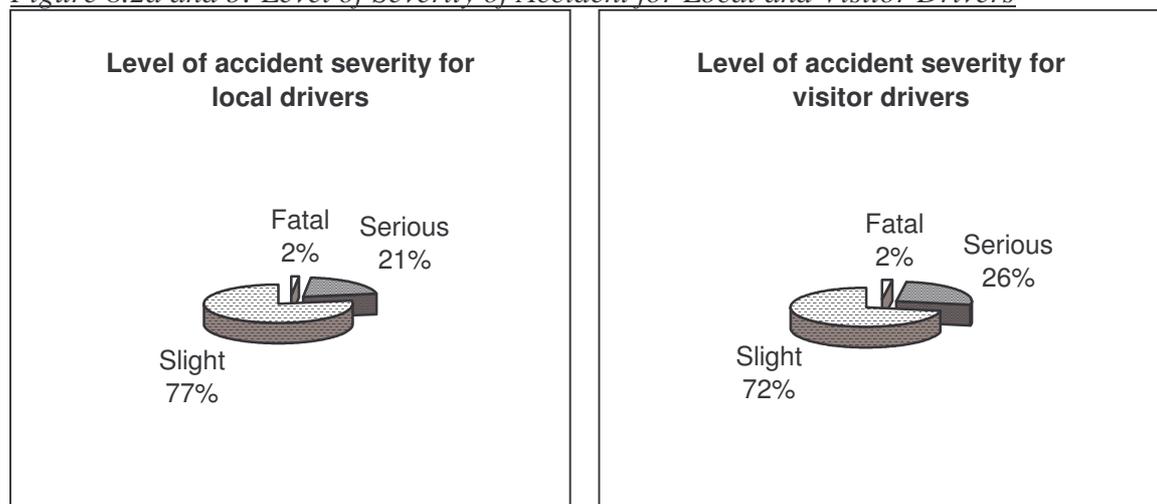
8.5: Seasonal and Temporal Aspects of RTAs

Although visitor drivers, over the course of the year, are involved in 28% of all accidents; they show a slight rise in April then a larger rise in June, peaking in July before descending again in August; this relates to the Scottish school holiday period which in the summer runs from June and through July. This is in contrast to the local drivers' accident pattern, showing distinct peaks in November, January and August (see Figure 8.3).

Figure 8.3: Visitor and Local Drivers Involved in Accidents 1999-2002 by Month
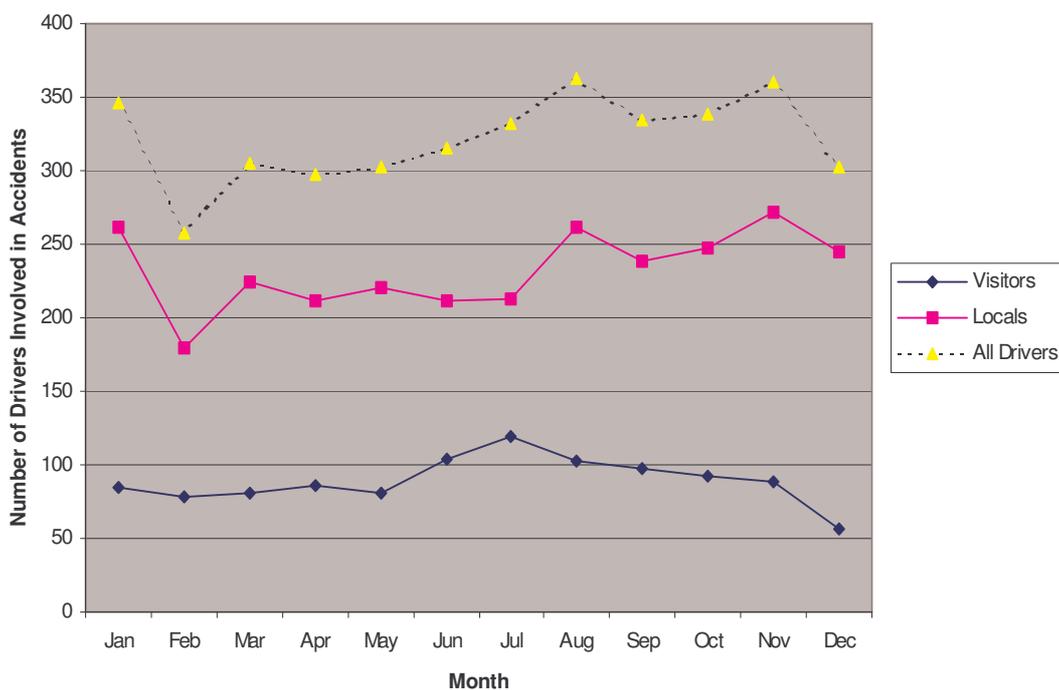
Although it may be expected that more visitors may be involved in an accident at the weekend when more leisure travel takes place, Friday is the peak day for accidents whether for locals or visitors.

The hour of day that accidents take place does show significant differences:

➢ with locals tending to have more accidents during the peak work travel times (see Figure 8.4);

➢ locals, on average account for 72% of the accident vehicles, between 05.00hr and 08.00hr;

➢ Visitors' accidents peak between 10.00hr and 11.00hr, which comprise 40% of total accidents.

This is likely to be due to exposure rates as local drivers are more likely to be travelling to and from work and visitors, particularly leisure visitors, will be able to avoid peak time traffic.

Figure 8.4: Visitor & Local Drivers Involved in Accidents 1999-2002 by Hour of Day
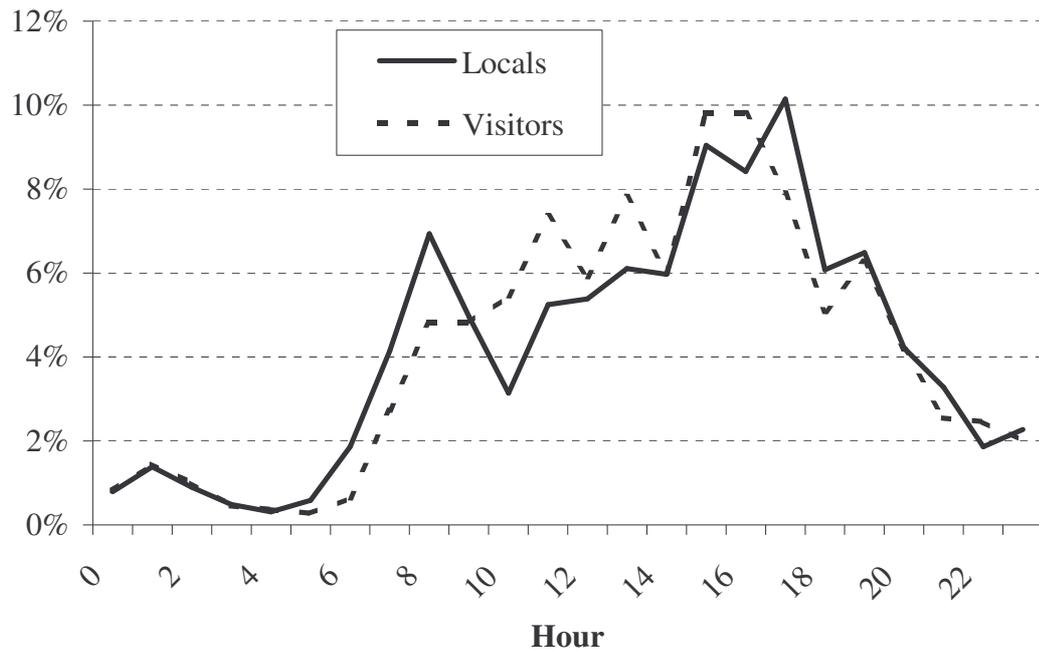
Visitor drivers were more likely to be male with over three-quarters against two-thirds of local drivers; this may be due to higher exposure rates if males are more likely to drive on leisure trips but also may be due to business travellers who are predominately male. Road types also showed significant differences between local and visitor driver accidents with visitors more likely to be involved in accident on A, A(M) or M classified roads (see Table 8.3), this again is likely to be due to exposure rates with visitor drivers more likely to stick to main routes due to unfamiliarity with local roads.

Actual road classification does not give an indication of location in terms of urban or rural, however a speed limit of 30 or below will indicate that the accident occurred in a built-up area.

Table 8.3: Road type where accident occurred for local and visitor drivers

Road Type	Local (N)	Visitor (N)	Local (%)	Visitor (%)
Motorway	123	126	4.4%	11.8%
A(M) road of motorway standard	24	10	0.9%	0.9%
A road	1294	677	46.5%	63.3%
B road	498	119	17.9%	11.1%
C road	59	7	2.1%	0.7%
Unclassified road	788	131	28.3%	12.2%
Total	*2786*	*1070*	*100%*	*100%*

Analysis of the speed limit would then confirm that visitors tend to have fewer accidents in built-up areas (see Table 8.4).

Table 8.4: Speed limit of road where accident occurred for local and visitor drivers

Speed limit	Local (N)	Visitor(N)	Local (%)	Visitor(%)
Up to 30 miles per hour	1709	353	59.2%	32.1%
40 miles per hour	81	29	2.8%	2.6%
50 miles per hour	30	3	1.0%	0.3%
60/70 miles per hour	1067	714	37.0%	65.0%
Total	*2887*	*1099*	*100%*	*100%*

The typical profile of visitor casualties involved in accidents is 36 years of age compared to locals, who are aged 34 years, but differences become more apparent when looking at the modal age of those involved in accidents, 25 for visitor casualties against only 19 for local casualties (see Table 8.5).

Table 8.5: Average age of local and visitor drivers in years

	Local	Visitor
Sample	3872	1655
Mean	34.1	35.7
Standard Deviation	18.1	17.5
Mode	19	25
Median	31	33

As 66% of tourists to Scotland (VisitScotland, 2002) are aged over 35, a higher average age for accidents may be expected; for non-UK drivers there was insufficient data for robust analysis, but of the forty identified as non-UK drivers, the mean average was 40 years and the modal age was 38 years.

Although the cause of accident must be treated with caution due to the very subjective nature of completion of reports in difficult situations, it does give some indication of

the differences between local and visitor drivers, with local conditions being more significant for visitor drivers.

Figure 8.5: Type of impact for accidents involving local and visitor drivers
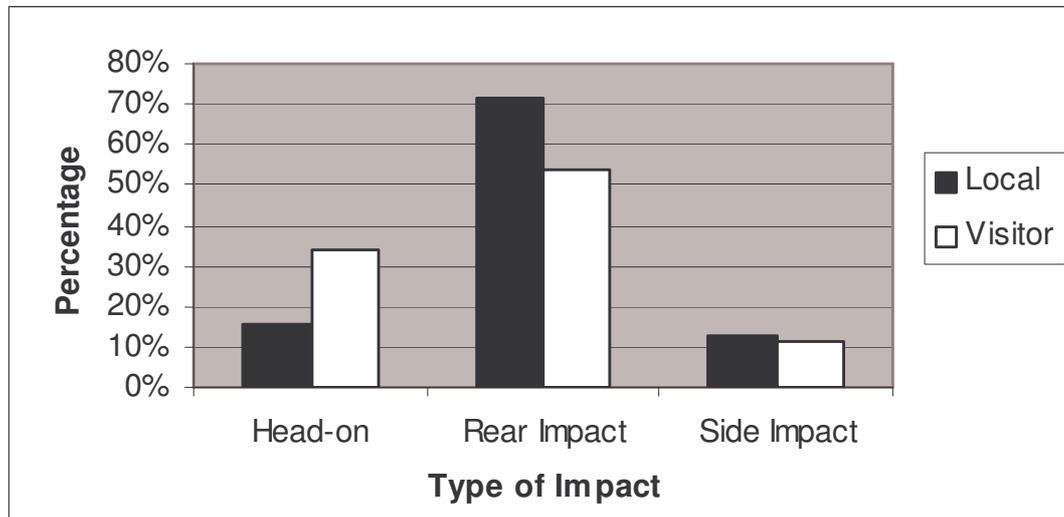
However, perhaps more important is the type of accident impact experienced. In order to ascertain the type of impact from the data source it was necessary to read through the descriptions given. Unfortunately not all records had discernable descriptions therefore Figure 8.5 is based on 883 records – 582 local drivers and 301 visitor drivers.

Even from this limited sample, there are clearly differences in the type of impact with visitor drivers far more likely to be involved in head-on collisions.

8.6: Synopsis

The main features of the results are that visitor drivers are more likely to be involved in head-on collisions, on main, open road routes with higher speed limits, and that these accidents are more likely to be serious or fatal than for local drivers. Such different characteristics are of concern as they highlight differing needs in terms of reducing the number and seriousness of road traffic accidents for visitors.

The data does give an indication of actual incidents but does not give an insight into the attitudes and behaviour of visitors to driving while on vacation.

8.7 Results from the Survey Data

Having analysed the incident data from the Central Scotland Road Accident Investigation Unit (CSRAIU) database, further insight into the visitor's attitudes and behaviours concerning driving and accidents can be gleaned.

8.7.1 Results from the accommodation survey data

The accommodation providers, when asked to indicate the types of incidents that guest were involved in, road traffic accidents were the most commonly identified incidents, with 44% of incidents involving road traffic accidents (see Figure 8.6).

In fourteen of the nineteen road traffic accidents cases reported (74%), the police were informed. In only four cases (21%) was an ambulance involved. This could be seen as an indicator of the seriousness of the incident, implying that of the nineteen RTA incidents, the majority (79%) were minor. Of those not reported, the incidents were dealt with through the either insurance companies, car hire companies or the local garage.

Figure 8.6: Incidents Experienced by Guests According to Accommodation Providers
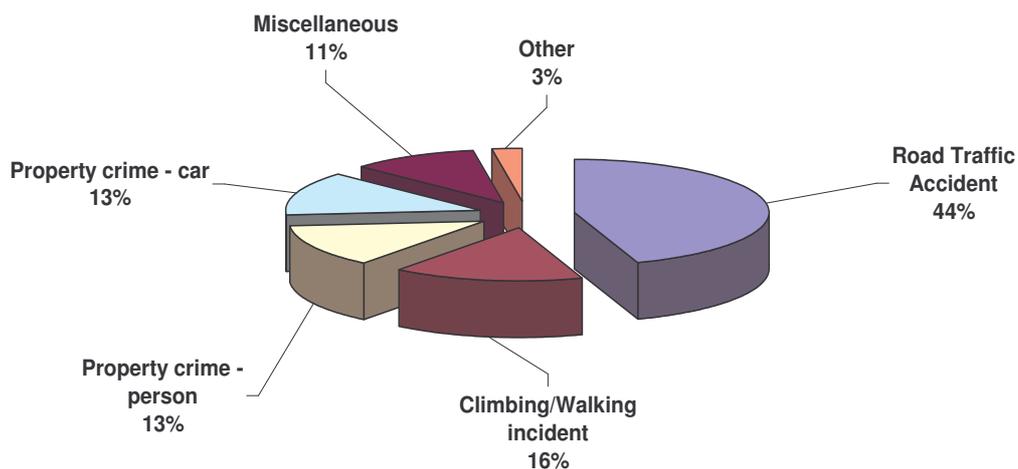
When asked if the guests were satisfied with the way in which the incident had been handled, the respondents were split almost 50:50 with eight stating their guests were

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satisfied and nine that they did not know. Only two respondents stated their guests were unsatisfied, and no reason for why they were unsatisfied was provided in the comments. Only one of the 'unsatisfied' visitors RTA was described by the accommodation provider, saying that the incident was a "near RTA on exit from property onto B road. Car on road travelling too fast." This suggests that the incident was not an actual accident but a close call. Although the police were involved it would be expected that there is very little that they could do and this may have caused the lack of satisfaction.

One of the accommodation providers did comment that minor RTAs were very common amongst Americans by stating

> "A lot of our guests (particularly Americans) have minor accidents e.g. lose wing mirrors because they are not used to driving on narrow roads."

8.7.2 Results from the tourist survey

In the tourist survey, twelve of the 187 respondents, 6%, had been involved in an RTA incident. Due to the low numbers there is little can be taken from these results, so the figures of direct relevance are shown in actual numbers as indicators. Eleven of the respondents were from England and one from the Netherlands and all twelve described themselves as independent holiday-makers. The incidents reported were mainly in Scotland (eight respondents) with three occurring in Spain and one in Portugal.

The factors indicated as contributing to the incident occurring are presented below in Table 8.6 and show that where a major factor was identified, half identified carelessness and only a quarter being tourist/visitor.

The respondents involved in RTAs, with the exception of one, disagreed that they would not visit that destination again (both town/resort and country) but there was a little more agreement that they would take more care on holiday as a result of the incident with two agreeing, three slightly agreeing with the statement and five disagreeing. Similarly two agreed and one slightly agreed with the statement that they would only visit destinations where they felt safe as a result of the incident and seven disagreed. Although the numbers are small and care must be taken in any analysis of such results, it would seem that RTA incidents do not have such a large impact on

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behaviour as crime incidents (see chapter seven) and that incidents of crime are more likely to be seen as a result of the respondent being a tourist/visitor.

Table 8.6: Factors contributing to RTA occurring

Factor contributing to RTA	Not a factor	Minor factor	Major factor
Carelessness	2	2	6
Being a tourist/visitor	8	0	3
Isolation of area	8	0	2
Alcohol/drugs consumed by others	8	0	2
Dangerous environment	9	0	1
Lack of information	10	0	1
Crowds of people	9	1	0
Lack of adequate lighting	10	0	0
Lack of good planning	10	0	0
Lack of protection	10	0	0
Lack of site security/ safety arrangements	10	0	0
My inexperience	9	1	0
My own behaviour	9	1	0
Alcohol/drugs consumed by me	10	0	0

8.7.3 Results from the Visitor survey

Due to the location of the area, road transport was universal, but within that private vehicles were the main mode of transport corresponding with the high number of independent travellers in the survey. Taken together, independent transport (i.e. excluding the 36% using public transport and organised coach tours) was used by 64% of respondents (see Table 8.7). This corresponds with the VisitScotland figures on Scottish tourism transport reported above.

Table 8.7: Main Mode of Transport Used

Mode of transport	Frequency	Percent
Public transport	58	22%
Organized coach tour	37	14%
Private vehicle	127	48%
Hired vehicle	26	10%
Motorcycle	9	3%
Bicycle	2	1%
Other	6	2%
Total	*265*	*100%*

To ascertain attitudes concerning driving on holiday, a series of statements were made; the responses were then analysed using factor analysis. Four components became apparent (Four components were found to account for 69% of the variance and Varimax rotation was used to develop these components) and these are shown in the Table 8.8 (see Appendix F for details of loadings).

Table 8.8: Driver types by factor analysis

Type of Driver	Characteristics
Knowledgeable driver	I am familiar with roads in this area I never drive when weather forecasts advise against it
Keep-going driver	I drive in the snow I drive when I am overtired
Cautious driver	I find driving on the left strange I never drive when weather forecasts advise against it
Careful driver	I never drive when I have alcohol in my system I drive slowly on unfamiliar roads I always carry a mobile phone as a means of contact

These different driver types suggest a need for different approaches to accident reduction to suit driving styles and the knowledge base of visitor drivers.

Although not relating solely to RTAs, respondents were asked their views on whether they were likely to have an accident during the remainder of their visit and, separately, whether they were likely to have an accident at home. The results are shown in Table 8.9 and 8.10 respectively.

Table 8.9: Likelihood of being involved in an accident during visit by age group and gender

Male	15-24	25-34	35-44	45-54	55-64	65 plus
Very unlikely	18%	42%	43%	60%	17%	38%
Unlikely	41%	52%	48%	35%	78%	25%
Possibly	32%	6%	9%	5%	0%	38%
Quite likely	9%	0%	0%	0%	6%	0%
Female	15-24	25-34	35-44	45-54	55-64	65 plus
Very unlikely	31%	56%	33%	46%	33%	53%
Unlikely	46%	28%	44%	39%	61%	42%
Possibly	23%	16%	22%	14%	6%	5%

The gender differences varied through the age groups with younger females being more confident than males that they were unlikely to have an accident during the rest of their visit but as the age increased the males became more confident, but this reverted back in the older age groups (55-64 and 65 plus). A similar pattern was shown in the question relating to accidents at home, implying that feelings relating to being in an accident have little to do with being a visitor.

Table 8.10: Likelihood of being involved in an accident at home by age group and gender

Male	15-24	25-34	35-44	45-54	55-64	65 plus
Very unlikely	18%	21%	22%	50%	17%	25%
Unlikely	36%	64%	52%	30%	61%	13%
Possibly	45%	15%	26%	20%	22%	63%
Female	15-24	25-34	35-44	45-54	55-64	65 plus
Very unlikely	19%	32%	33%	39%	33%	42%
Unlikely	42%	32%	26%	36%	39%	37%
Possibly	27%	36%	37%	25%	28%	21%
Quite likely	4%	0%	4%	0%	0%	0%
Very likely	8%	0%	0%	0%	0%	0%

8.8 Summary

Although certain conclusions may be drawn from these data, the inevitable outcome, given the discussion of data limitations, is how little we understand and appreciate the evident differences between local and visitor accidents. This is certainly not unique to Scotland as the literature reviewed in Table 8.2 shows. It is staggering to find so few studies of visitor road accidents given the significance of the car as a mode of transport for visitors. It is almost a hidden issue internationally, somewhat punctuated by major RTAs involving visitors that make headline news but then interest wanes. The role of the car as a mode of visitor transport has a long established research background in most of the popular tourism and recreation texts dating from the 1960s and 1970s, reflected in government statistics in most countries that acknowledge the significance of this flexible form of transport in shaping tourism and recreational trips. This highlights a fundamental acceptance among researchers of the car's importance and yet a reluctance to engage in research to monitor its impact and significance, particularly in relation to the wider agenda on visitor safety.

There is certainly a pressing need for research that identifies the differences between residents and visitors in terms of RTAs, if resources are to be allocated in the most effective manner to reduce this unseen problem. The need for specifically targeted road safety measures, not only for overseas visitors, would seem to be evident, although unfortunately non-UK drivers and casualties were not identified in statistically significant quantities in this study and may therefore be skewing the data to an extent. However, taken with other studies such as Sharples and Fletcher, there would seem to be significant differences in accident cause between local and visitor UK drivers; this is an area which is an unacknowledged problem. The current situation regarding overseas visitors to Scotland is in urgent need of further investigation as ever increasing numbers of European visitors take advantage of affordable flights to regional airports and the recently opened ferry crossings to Rosyth. In other words, this attests to the fact that the car is a very opportunist form of travel: where opportunities are provided, it quickly takes advantage of them, as evidence from road building in Europe and the USA shows that traffic grows to fill capacity. In the case of ferry travellers to Scotland from mainland Europe, these visitors may not, as has traditionally been the case, have had experience driving on British roads prior to reaching Scotland. In a recent study of a large sport-related

event in Central Scotland, the researchers identified that over a third of the visitors hired cars, many of whom were from mainland Europe where they drive on the other side of the road. Unfamiliarity with road systems and driving on the left may combine with the specific hazards inherent in Scottish roads, leading to potentially fatal consequences. This is not that different from the situation prevailing in other countries such as the USA and Australia, where unfamiliarity and language barriers may add to the problem combined with cultural differences associated with driving on the opposite of the road. Although this may be a UK wide concern, Scotland has its own distinct responsibilities with devolved government and the issue of visitor safety is one that needs to be addressed to ensure visitor well-being and to protect Scotland's reputation as a safe destination. This seems to be self evident, at a time when tourism agencies are seeking to promote the virtues of Scotland to the inbound European and long haul market in an attempt to grow market segments.

Action which might be seen as cost effective and which mirrors international best practice includes: Keep Left campaigns available in several languages, and general campaigns that visitors will be exposed to, which will only be effective if they are reaching the target audience and addressing the key issues. The results above would indicate that there are specific differences between visitors and locals. The implications of which will affect not only the police but also those concerned with road safety, the other emergency services and those providing health care. What is evident in Central Scotland is that tourists and day visitors are a vital part of the local economy, there may be a moral obligation to protect visitors from undue danger but there are also sound economic reasons for doing so. Scotland is generally considered a 'safe' destination and many visitors choose this area precisely for its safe image. Statistics representing actual risk are useful for planning road safety but risk perception of those using the roads is also a vital aspect of safety. Perception affects behaviour and, in terms of visitors, may discourage, or prevent, them from visiting some areas of Scotland, thereby reducing their time here and spread of spending into peripheral areas. As with other safety messages there is a need to warn without unduly alarming visitors and yet to ensure the safety messages are effective with the needs of the particular groups in mind. Paradoxically, there is a need to ensure that visitors do not feel too safe as they may then take less care on the roads.

The actual numbers of deaths and injuries suffered by visitors to an area and whether these numbers are less or more than the average for the local population is, to an extent, immaterial. The key issues, which should be high on the RTA research agenda in relation to tourism, include:

> Are these accidents preventable within reasonable bounds of cost and convenience?
> Are there differences in the required prevention methods for visitors versus the local population?
> Within the 'category' of visitors, is there a need for different accident prevention methods for sub groups such as overseas or particular age groups?
> Are safety perceptions amongst visitors accurate?

In order to answer any of the above questions, there is a requirement for more robust data. While additional research can be costly and time-consuming, the results could allow more effective targeting of resources to reduce accident numbers and severity thus savings in the long-term in both human suffering and resources. When the focus returns to resources for such research and any subsequent action, then the question of responsibility inevitably arises. When Page et al., (2001) published their research on motor vehicle transport accidents occurring in New Zealand, they produced figures indicating the cost to the authorities in dollars. This demonstrated that issues of resource allocation may be seen as one of relative cost savings against the cost of action taken to reduce visitor accidents. Loss of tourism income must also be considered as visits will be cut short and repeat visits are less likely for those experiencing negative incidents. This argument of resource savings and economic consequences must be reinforced, as in the article by Page et al., (2001), with the moral considerations of reducing undue suffering. As we would wish to ensure the well-being of a guest to our home, so must we do what we can to ensure the well-being of those invited to our country. Responsibility for resourcing such important areas should not then be left to be haphazardly implemented from one local authority, police force area or tourist board area to another, this requires a centralised approach to ensure consistency and avoid undue replication of effort. The EuroRAP research is an excellent start to identifying the likely risks for all drivers, but this then needs to be related to the risks which visitors face as drivers, that can pose additional problems in local areas.

Chapter Nine: Emergency health care and the visitor

9.0 Introduction

The previous two chapters have taken an in-depth look at issues of crime and road traffic accidents, this chapter focuses on the issues associated with injury and ill-health for visitors to a destination. Ill-health and injury can seriously impact on the vacation experience (Schmierer and Jackson, 2004) and, where this then requires emergency care, it can impact not only on destination reputation but also on resources, which may place a strain on the services available for local residents.

While risk of illness and accidents are a possibility at all times, the unfamiliarity of the environment and the undertaking of unusual activities may heighten the risk for visitors to a destination. Even where the risk is not greater, the additional stress of becoming ill or injured in a strange place will impact on the visitor far more than for local residents. This is particularly true when the means of gaining health care are not immediately apparent or where there are difficulties such as making arrangements for returning home when not in full health or having to stay longer in the area to facilitate treatment.

This chapter is split into two main sections; firstly examining the literature relating to illness, injury and accidents before presenting data extracted from the Information Services Department (ISD) of the National Health Service (NHS) data relating to emergency admittance to hospitals in the Forth Valley area and the results from the surveys undertaken. There are distinct difficulties in assessing the reasons for illness relating to a destination such as the Forth Valley area of Scotland; many of the studies relating to disease are not applicable as this is not a tropical destination nor does it have the health risks associated with poor sanitation and lack of fresh drinking water. Scotland does have its own particular health risks such as the dreaded midges and it is susceptible to the major global health risks such as flu pandemics or the resurgence of SARS as an international threat. However, there is a stronger focus on injury and accidents in the thesis as there are more possibilities for preventative measures to be introduced or strengthened by the destination authorities in destinations such as this.

9.1 Health and Well-being

Health can be seen as central to well-being, which is not to say that those suffering ill-health will have no quality of life, but health is usually described as a central feature

in well-being measures (Albrecht, Fitzpatrick and Schrimshaw, 2000). However, it is a complex concept that can be defined both positively and negatively such as being well or unwell (Hunter-Jones, 2005).

Often health benefits are cited as a main reason for undertaking travel (Mathieson and Wall, 1982) but health may be more than just a motivator for travel; according to Hunter-Jones (2005) the literature covering tourism and health falls into four categories: healthcare tourism; health-tourism; wellness and travel medicine. However, Hunter-Jones also recognises another category that is more hidden, the population of people who vacation during illness. The Hunter-Jones study on Cancer and Tourism seeks to inform on two levels; to alert the health care professionals on the benefits tourism may have to a patient's quality of life and to inform the tourism industry of the needs of this group. The research suggests that along with the more 'traditional' motivations of relaxing and getting away from everyday life, those with cancer regularly cited that it allowed them to return, at least temporarily, to a sense of normality.

The literature relating to tourism, travel and health is substantial, with several journals dedicated to this topic (for example, the Journal of Travel Medicine or Travel Medicine and Infectious Disease) and articles on the subject appearing in both tourism and medical journals together with a plethora of books dedicated to the subject (for example, Clift and Grabowski, 1997) or with the subject as part of a wider scope (for example, Wilks, Pendergast and Leggat, 2006)

9.2 The Tourist-Health Literature

Cossar (2003) provides an overview of travellers' health, which identifies the complexity of issues relating to this field of study suggesting that a traveller's ability to cope to exposures to new cultures and their inherent risks, is much dependant on all aspects of their health, physical and mental, prior experience, personality and how they behave. Much of the literature relating to travel and issues of safety and health centres on overseas travel and, particularly in the case of disease, which tends to focus on travellers from the developed world visiting tropical locations (for example, Leggat and Goldsmid, 2004; Moore et al, 2004).

The literature on emergency health care relating to tourists and visitors can be segmented into sub-sets: epidemiological studies; those dealing with specific

contagious diseases; those dealing with illnesses and/or injury relating to specific places; those dealing with illness and/or injury relating to a specific study group e.g. tourists from a particular country; those dealing with all injuries; those dealing with all unintentional injury; those dealing with specific injury types and those dealing with injuries obtained through undertaking specific activities. Due to the nature of most of the studies relating purely to illness in travellers, these have been excluded. Instead, the study of literature concentrates on those examining specific population groups and destinations for all types of injury and illness and those examining specific injuries or activities. Even when segmented into these groups, there are too many to catalogue every study; thus a small selection of studies are listed in the Tables (Tables 9.1–9.4) below to offer an indication of the nature and scope of studies in this area. Road Traffic Accidents (RTAs) are singled out as a particular area of interest for study with mixed results reported; due to the extent of study in this area and its importance as a leading reason for mortality among young people, this topic has been treated separately in the previous chapter (Chapter 8). However, there is an overlap in the studies featured; many deal with RTAs as part of a general study of injuries to a particular group or in a particular destination area.

Table 9.1: Studies relating to injuries/illness of a particular group

Year	Author(s)	Sample	Findings
1993	Hargarten and Bouc	796 cases of American tourists transported back to the US by emergency medical air transport services over a 3 year period	Injury accounted for 44% (n = 351) of the total cases, with motor vehicle crashes (n = 157) being the most common cause of injury.
1985	Hargarten and Baker	185 Peace Corps volunteers who died during the period 1968 to 1983	Motor vehicle crashes (n = 67) were the single most common cause of death of Peace Corps volunteers (PCVs). They accounted for more than one third of all deaths and more than half of all unintentional injury deaths.
1991	Guptill, Hargarten and Baker	396 deaths of American travellers to Mexico in 1975 and 1984	The leading cause of death to all US travellers to Mexico was injuries (51%).
1991	Hargarten, Baker and Guptill	2,463 deaths of American travellers	There were 601 deaths due to injuries in the study period. Mot

		American travellers in 1975 and 1984	injuries in the study period. Motor vehicle crashes were the most common cause of injury deaths (26.8%), followed by drowning (16.1%).
	and Guptill		
1991	Paixao, Dewar, Cossar, Covell and Reid	952 deaths abroad of people leaving from Scotland between 1973 and 1988	Leading cause of death was cardio-vascular disease (69%) followed by trauma (21%) and infection (4%); with traumatic deaths such as road traffic accidents being a major concern in young, particularly male, tourists.
1995	Prociv	421 recorded deaths of Australian travellers overseas	A total of 31 travellers (7% of the sample) died in motor vehicle or road accidents. Most of the fatalities (n = 26) involved short term travellers, defined as those going overseas for less than 12 months. A further nine non-specified deaths were possibly related to road crashes. Of the 40 traffic and non-specified accident victims, 25 were men and 15 women; 34 (85%), including 12 women, were below the age of 50.
2006	Pain and Kerr	Case study utilising reversal theory to explain the motivation of a seriously injured athlete who wanted to continue his participation in extreme sports despite serious injury affecting his motor skills and impaired his mental skills.	Inferences: - Some people have personalities that predispose them to take physical risks through activities such as dangerous and extreme sports. Continued participation may lead to dependence on the high levels of arousal associated with such activities. Medical practitioners may have to accept that some clients may ignore medical advice and continue to engage in potentially destructive behaviour.

Table 9.2: Studies relating to particular activities

Year	Author(s)	Sample	Findings
1995	Vredenburgh and Cohen	A random sample of seventy-five respondents who had participated in snow-skiing and scuba diving was taken to ascertain levels of warning reading and compliance.	Perceptions of danger increased the reporting of compliance with warnings. Familiarity with an activity increased reading of warnings but did not increase compliance with warnings.
2003	Van der Sman, van Marle, Eckhardt and van Aken	Data taken from Emergency Departments (ED) in European Union countries on injuries relating to selected activities and a survey of relevant institutes. Main results are extrapolated from Dutch data and based on sparse material. Study based on recreational activities and does not distinguish between visitors and local residents.	For the EU region as a whole it is estimated that half a million ED treatments, 18,000 hospitalisations and 200 fatalities may be related to sports-related services in the EU each year. The numbers of people taking part in these activities are huge: from 100,000 regular divers to over 26 million people skiing each year. The organisations contacted were very aware of their responsibilities with most having developed safety guidelines and training for instructors. Young people were particularly vulnerable with a third of injuries affect those between 5 and 14 being involved in dangerous activities. A further 40% were between 15 and 34. Drowning was the most common reason for fatality, accounting for 61% of fatalities.

Table 9.3: Studies relating to visitor safety in destinations

Year	Author(s)	Sample	Findings
2001	Master and Prideaux	Examines the issues related to the safety of international visitors in tourism destinations	Using Queensland, Australia as a case study, the paper's main focus is motor vehicle and water activity accidents in order to develop strategies for consideration of the authorities involved in destination management.
2002	McInnes, Williamson and Morrison	A review of literature on accidents and injury to tourists and travellers.	
2003	Cossar	A review of studies relating to travel-related illness and accidents with a discussion of health protection measures.	An overview of travellers' health from an epidemiological perspective. Trauma is identified as an important form of death for vacationers but, despite high numbers of travellers becoming infected, death from disease is rare. However, admissions to hospital on return from visits abroad for travel related illnesses continue to increase.

Table 9.4: Studies relating to illness/injuries of visitors to a particular destination

Year	Author(s)	Sample	Findings
1991	Sniezek and Smith	17,988 deaths among non-US residents in the United States between 1979 and 1984	Injuries (n = 4,078) accounted for 23% of all deaths. The most frequent causes of injury deaths were motor vehicle traffic crashes (37%), drowning (15%), and homicides (11%). From the 1,525 injuries related to motor vehicles, a risk indicator of 11.7 per one million tourist arrivals was calculated
1994	Salib and Brimacombe	255 patients presenting to the Ayers Rock Medical Centre over 18 months (defined as life threatening or requiring more than 1.5 hours of emergency medical	There were 33 incidents associated with car accidents, of which two thirds involved tourists (no distinction was made between domestic and international tourists).

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		treatment)	
2001	Page, Bentley, Meyer and Chalmers	5863 cases of injuries to overseas visitors were examined from the records of the New Zealand Health Information Service 1982-1996	The authors estimate that even on conservative measures at 1999 prices, overseas visitor accidents cost the New Zealand government NZ$21,333,200. Raising issues of cost along side the importance of visitor well-being and welfare.
2002	Wilks and Coory	An examination of all overseas visitor hospital admissions in Queensland, Australia from 1995 to 2000	The main reasons for admission were motor vehicle accidents (21.8%) and water-related injuries (17.7%). Unfamiliar environments or unfamiliar activities appeared to be relevant to injuries sustained in most cases.
2002	Wilks, Pendergast and Wood	An examination of the deaths of 1513 overseas visitor deaths in Australia	Among the accidental deaths, road traffic accidents and water-related incidents were the main causes.
2003	Thompson, Ashley, Dockery-Brown, Binns, Jolly and Jolly	Records of health problems of tourists to the North Coast of Jamaica were reviewed from June 1998 to June 2002	Accidents were the most common problems health crises with those under 40 more frequently reporting accidents or injuries. Research seeks to reduce health problems and improve emergency health services for tourists.
2005	Page, Bentley and Walker	An examination and comparison of the safety of adventure tourism operators in New Zealand and Scotland	The study highlighted the similarities in safety issues, injury rates and their contributory factors for the two destinations, with slips, trips and falls being the predominant reason for injury but with striking an object, falls from height, drowning or near fatal submersions in water being other key problem areas.
2005	Heggie	An examination of press releases of fatal and non-fatal incidents involving tourists in Hawaii Volcanoes National Park from 1992 to 2002	The study found 40 fatalities, 45 serious injuries, 53 minor injuries and 25 no injury events. 30% were aircraft/backcountry incidents; 22% road incidents; 17% frontcountry incidents. Males were more likely than females to be involved in incidents and 20-29 and 40-49 year olds accounted for the highest number of fatalities and total incidents.

2004	Ashley, Gordon-Strachan, Reece and Ashley	A review of health risks facing visitors to Jamaica and the challenges posed through tourism growth.	During the 12-month period between March 1996 and February 1997, 23.6% of tourists suffered from traveler's diarrhea during their stay. Bacterial infection with *Escherichia coli* was the most common cause of traveler's diarrhea.

9.3 Long-term/short-term issues

Unlike crime and road traffic accidents, some illness relating to vacations may not become apparent at the time or the consequences of which will not become fully apparent until after the event; for example, over exposure to sun may cause premature ageing, skin cancer or the development of cataracts (Cossar, 2003). Certain activities may increase exposure through the amplification effects of water or snow for example or the amount of time undertaking certain pursuits. Therefore, such ill-health may not be directly associated with the destination; in the mind of the visitor, the destination authorities or the visitor's place of origin. This lack of attribution should not be seen as a consequent lack of responsibility; as destinations should be concerned not simply with the possibility of negative publicity of directly attributable negative events but also the overarching moral responsibility of ensuring, as far as possible, that the visitor is protected or at least supplied with the necessary information (in an appropriate format, at an appropriate time), to make an informed decision.

Often the very environment that attracts visitors is the cause of heightened risk levels. Although, as discussed earlier, road traffic accidents are a main cause of death and serious injury for tourists, regardless of destination, some hazards that impact on visitors are destination specific, for example wild animals (Durrheim and Leggat, 1999) or parasitic disease (Bauer, 2002a); in the case of Scotland, the mountain regions and wilderness environment that are the main attractions for many visitors wishing to undertake adventurous activities, are a potential hazard over and above the general hazards of visiting an unfamiliar place.

Water can be seen as a particular hazard both in terms of drinking water and in the use of water for recreational purposes. Cossar (2003) identifies the ingestion of untreated water as being the cause of a variety of diseases including diarrhoeal illnesses, typhoid, cholera, Hepatitis A and worm infections. Such ingestion can occur from

direct consumption of water but also from foodstuffs such as salad, particularly where sanitation facilities and hygiene is inadequate. Recreational pursuits present a variety of hazards connected not only to the actual inherent hazards of recreational activities such as scuba diving or water-skiing but also from contamination of the water by chemical by-products, water-breeding insects or untreated sewage.

Weather can be an issue both in terms of its actual impact on health, for example exposure to extreme temperatures or conditions, or in its affect on increasing risk from hazards, for example sudden changes in weather conditions when climbing in a mountain area or driving. Exposure to sun is a danger at all times but may be a particular hazard on vacation as often the visitor will have a higher level of outdoor exposure. The idea of using sun protection products in warmer climates has been well highlighted in the marketing activities of both social marketers and manufacturers of sun protection products but the need for protection in cooler countries such as Scotland has not been as well publicised, despite the damaging affect that such exposure can have. Scotland's mountains claim many lives every year, many due to climbers being suddenly caught in conditions for which they are inadequately prepared.

Health is a vast area of study; even in relation to tourists the volume of literature is enormous and scattered over a multitude of disciplines and journals. The main issues covered though tend to relate to diseases and illnesses such as diarrhea in tropical destinations or where water and sanitation are issues. As such illnesses have little bearing on visitors to temperate, developed countries such as Scotland as such illnesses are only briefly discussed here and the thesis concentrates on injury and trauma.

9.4 Accidents and the visitor

The role of risk-taking behaviour in injury has been the focus of a great deal of academic literature but much has been in the form of theoretical commentaries (Turner, McClure and Pirozzo, 2003). Paixao et al (1991) found that accidents are the most common form of death for young travellers, associated with levels of adventurousness, use of alcohol and the natural disinhibition of youth (Cossar, 2003). Although, as discussed earlier, many of such incidents are a result of road traffic accidents, the activities undertaken in a destination can impact on the nature, type and

likelihood of injury and trauma. Tourism has changed in recent years, moving from passive sightseeing to more energetic activities such as skiing, water-sports, walking and climbing with activities becoming increasingly part of or the main part of holidays for a large number of holidaymakers. The growth in participation in activities is not new and has been a recognised phenomenon at least since the early 1980s (Ewert, 1994). Activities can vary from 'soft' for example rambling and fishing to 'hard' for example white water rafting and mountain climbing and each have hazards and risk relating to the experience and behaviour of those undertaking the activities and those facilitating these activities. The growth in activity holidays has brought with it more potential for tourist injuries.

9.5 Activities and the visitor

Although 'Adventure Tourism' as an area of study is relatively new, Scotland has traditionally been a country seen as a place where outdoor pursuits such as mountain climbing and hill-walking can be pursued. The history of 'Munro bagging', climbing the 284 highest peaks in Scotland, can be traced back at least as far as 1891 when Sir Hugh Munro first catalogued them (http://www.munromagic.com). What has really changed over the past twenty years, is the degree of preparation for holidays has decreased with many people choosing to book last-minute deals and the rise in the short-break market as additional holiday times that tend to be more spontaneous in nature, together with a growth in the numbers choosing to undertake more active holidays and the growth in providers organising activities that are often aimed at people with little or no experience. A whole host of activities are available and with VisitScotland, the organisation responsible for promoting tourism in Scotland, utilising this availability as a main selling point to attract new markets such as young, professional visitors from the affluent South-East of England, there is likely to be a continued expansion in numbers of those participating in adventure activities with little or no experience.

While the experienced participants of 'extreme sports' such as mountain climbing, skiing or kayaking are likely to have a knowledge of the hazards and risks that they face, those who participate in an ad-hoc way may be less clear. There is evidence to suggest that many people expect that undertaking adventure activities with a provider will have the perception of risk but be perfectly safe; such attitudes may encourage behaviours that place the participants, and those around them, at unnecessary risk.

There may be particular issues relating to visitor origin and presumed knowledge. While visitors may wander the hills in the Lake District and be in little danger, those who are used to this type of forgiving environment may believe the Scottish hills to be similar in nature and may be unprepared and take little heed to warnings about how quickly a lovely day in the hills can become treacherous very rapidly if the weather changes. Also, there may be issues around the ability of those visiting the area from overseas and their ability to understand safety messages and instructions if English is not their first language.

Table 9.5: List of Adventure Tourism Activities

Aviation-related	Marine	Land-based
Ballooning	Black-water rafting	Cross-country skiing
Hang-gliding	Caving	Downhill skiing
Gliding	Charter sailing	Heli-skiing
Heli-bungy jumping	Diving/snorkelling	Ski-touring
Parachuting	Jet-biking	Trekking/tramping
Paragliding	Jet-boating	Vehicle safaris
Scenic aerial touring	Para-sailing	Flying-fox operations
(small aircraft/helicopter)	Rafting	Bungy jumping
	River kayaking/ sea kayaking	Mountain biking/ cycling
	Canoeing	Guided glacier trekking
	River surfing/ river-sledging	Horse-trekking
	Water skiing	Hunting
	Wind surfing	Mountain-guiding
	Fishing	Rap-jumping/ abseiling
		Rock climbing

Source: Page, 1997 (cited in Page et al, 2005)

The activities that have come to be studied under the heading of adventure tourism cover a wide range of activities on land, sea and in the air. Page (1997, cited in Page et al, 2005) categories adventure tourism activities by the environment they occur i.e. aviation-related, marine and land-based. Table 9.5 provides a definitive list of activities that can be classified as adventure activities (Page et al, 2005). Such activities tend to produce a large number of injuries based on slips, trips and falls but with the majority being of a minor nature.

9.6 Activity Types

The growth of some activities may be of greater concern than others, for instance white water rafting incidents in an Australian study accounted for 50% of visitor injuries and 70% of all overseas visitor injuries (Hall and McArthur, 1991). Even

activities that may not be considered as adventure activities by participants, in that they are unlikely to perceive them as dangerous such as scenic flights in small planes and helicopters, can be a major cause of mortality. A study of tourist injuries in Australia found that 29 tourists had died as a result of such flights in a seven-year period (Page and Meyer, 1997).

There are difficulties in assessing the true extent of injuries attributable to adventure activities due to their relatively low numbers in the overall statistics and the difficulty in identifying them, particularly where they are undertaken independently:

> "If information on formal, organised sports in regional and rural areas is limited, then the information on general active recreational injuries is even more so. Recreational activities include snow sports (e.g. skiing, tobogganing, snowboarding); water sports (e.g. boating, water-skiing, diving, swimming, jet-skiing, kayaking); land activities (e.g. mountaineering, orienteering, bush walking, horse riding); wheeled activities (e.g. bicycling, motorcycling, car racing); adventure pursuits (e.g. paragliding, ballooning, rock climbing, parachuting); and other activities such as hunting or fishing. Apart from a few notable exceptions, there is very little information about injuries that occur during participation in these activities." (Finch, Mahoney, Mardie and Tsharni, 2003:156)

Page, Bentley and Walker (2005)'s study comparing adventure tour operators in New Zealand and Scotland demonstrated considerable similarities between the two destinations; both were dominated by small and medium sized enterprises (SMEs) with the predominant injuries occurring from slips, trips and falls (STFs) but with falls from height, striking of objects and submersion in water also being key areas of injury. Although some injury types were related to the actual activities undertaken, exposure length was a key factor. Certain activity types were more inclined to report injury of clients with horse riding, bungee jumping, snow sports and multi-activity centres reporting the highest levels of injury. The exposure rates for multi-activity centres combined with fatigue and the unfamiliarity of the activities meant that such operators reported high rates of injury but more serious injury.

Many clients over-estimate their ability to operators, this appeared to be a particular issue for providers of horse-riding, this combines with the perception held by many participants that there would be no real risk or they would not be allowed to do it (Page et al, 2005) and can produce potentially dangerous situations for the naive participant, other clients and the operators themselves. Although operators may try to minimise and manage the risk of activities undertaken, factors such as the weather,

clients who are unprepared for the level of challenge and those who do not pay heed to advice, can cause accidents.

Although there are issues regarding the definition of adventure tourism, there is agreement that adventure activities have become increasingly popular in recent years (Gymóthy and Mykletun, 2004). Such activities elements of danger and an increased risk of injury (Weber, 2001), although there is some dispute over whether the risk is central to the motivation for these activities or whether it is a side-effect in the pursuit of insight and knowledge (Walle, 1997). Vredenburgh and Cohen (1995) found that participants in particular high-risk sports did not tend to rate their own activity as high-risk compared to other high-risk sports but those who felt an activity was dangerous believed that compliance with warnings would keep them safe. This may have implications in terms of participants being less inclined to recognise risk in familiar, regularly enjoyed pursuits. This may be a particular issue if they are participating in familiar pursuits in an unfamiliar area (i.e. on holiday). The same study also found that the reading of, and compliance with, warnings had no gender differences but their random sampling had produced fifty males against twenty-five females, which may reflect participation. The authors suggest two reasons why there may have been no differences between the genders: the study instrument was not sensitive enough to measure any differences or there were no differences. If the assumption is made that there are no differences, then it could be concluded that there are personality types that are predisposed to undertaking high-risk activities. Although Burns, Lee and Graefe (1999) amongst others suggest that the use of outdoor spaces for recreations purposes tends to demonstrate differences in gender as regards feelings of safety. It could have been expected then that females would feel differently about the same adventure activity.

9.7 The Visitor, Activities and the Environment

The literature, then suggests that there is a rather complex relationship between the visitor, the environment of the destination and the activities undertaken in terms of the nature and type of accidents and illness experienced. The next section examines database material supplied by the ISD, the body responsible for collecting statistical data from the Health Care Trusts that comprise the National Health Service. The information is based on data collected from the emergency admissions to the hospitals

in the Forth Valley area. As such, it can only supply an indicator of the main differences between visitors and local residents with regard to such admissions.

Interrogation of the National Health Service Database and Survey Data

As was the case when analysing the data relating to crime and road traffic accidents, the findings for the visitors in relation to hospital admissions was compared to those of the local residents. This allows visitors to be assessed in the context of the destination, uncovering differences that may result from them being visitors to the area.

9.8 Emergency health data

In discussing emergency health, road traffic accidents will be a major element. Road traffic accidents are a major cause of death and serious injury throughout the western world, and as such, is the subject of separate treatment in the previous (Chapter 7) but there will be some overlap in terms of the National Health Centre data on which the emergency health findings are based. In a similar way, but not to the same extent, there will be some overlap between the crime data and the health data as some criminal acts may result in injury. Visits to the emergency facilities in hospitals are expected to be for fairly major injuries or illnesses that either cannot wait for a visit to the patient's own GP or are too serious for GP facilities. However, there is evidence to suggest that emergency units are used for non-emergency health care for reasons such as not being registered with a local GP or being unsure of alternative locations for health treatment or advice in the local area. Such reasons are likely to particularly affect visitors to the area, and therefore it may be expected that their injuries and illnesses may be less serious than for local residents presenting for treatment in the emergency departments.

In order to assess the differences between visitors and local residents in respect of the emergency health care, information was sought from ISD Scotland (the Information Services Department, who provide Scottish health statistics). With the assistance of Jon Cossar from the Scottish Centre for Infection and Environmental Health, an application for data was made. Once the ISD ethics committee had approved the application, analysis was undertaken. The data consisted of 82,712 records, with each record having 18 fields or variables. Table 9.6 reproduces the 'key' supplied with the data by ISD Scotland.

Table 9.6: ISD data 'key'

Variable name	Description	Values/Format
Linknum	Unique identifier to identify set of patient records	Sequential 8 digit numeric code
CIS	Continuous Inpatient Stay Marker (see above)	001-999
Age	Age on admission to hospital in years	
Sex	Patients gender	1=Male 2=Female
Pcdistr	Post code district	4 character string variable
Hbres	NHS board of residence cypher	A = Ayrshire and Arran B = Borders C = Argyll & Clyde F = Fife G = Glasgow H = Highland L = Lanarkshire N = Grampian R = Orkney S = Lothian T = Tayside V = Forth Valley W = Western Isles Y = Dumfries & Galloway Z = Shetland E = England / Wales / Northern Ireland O = Outside U.K. Q = No fixed abode U = Not known
Tadm	Admission type	0 = Deferred Admission 1 = Waiting List/Diary/Booked 2 = Repeat Admissions 3 = Transfer 4 = Emergency - Deliberate Self Injury or Poisoning 5 = Emergency - Road Traffic Accident 6 = Emergency - Home Accident (includes Accidental Poisoning in the home) 7 = Emergency - Other Injury (includes Accidental Poisoning other than in the home) 8 = Emergency - Other (excludes Accidental Poisoning)

Doa	Patients date of admission (year and month)	Date in the format CCYYMM
Dod	Patients date of discharge (year and month)	Date in the format CCYYMM
Hosp	Institution code where the episode took place	V201H=Stirling Royal Infirmary V102H=Falkirk & District Royal Infirmary Other=Other NHS Hospital in Scotland
Ipdc	Inpatient/Day case flag	I=Inpatient D=Day Case
Spec	Code for specialty where this episode took place	See reference file
Specname	Text description of specialty	
Diag	Code describing the main medical (or social) condition managed/investigated during the patient's stay.	ICD10 (International Classification of Diseases Version 10) codes taken to 3 digit level.
diagname	Text description of diagnosis code	
op1	Main operation/procedure if applicable (selected by the clinician responsible for the care of the patient)	OPCS4 classification of surgical operations and procedures to 3 digit level.
opdescr	Text description of main operation/procedure code	
Stay	Length of stay in hospital in days	

Using this data all those whose NHS board of residence is coded as the Forth Valley (V) are considered to be a local resident.

9.8.1 Profile of hospital admissions

Local residents make up the large majority of those attending the accident and emergency unit. The figures for emergency admissions would indicate that visitors account for only 4.1% of admissions, composed of 3.95% of UK visitors and 0.20% of non-UK visitors (see Figure 9.1).

Given the relatively small number of non-UK visitors (163 admissions – 0.2% of the total), they have been incorporated with the overall visitor figures for the remaining analysis.

Figure 9.1: Profile of Hospital Admissions for Visitors (UK), Visitors (Non-UK) and Locals

Visitor 3.95% Non-UK 0.20% Local 95.85%
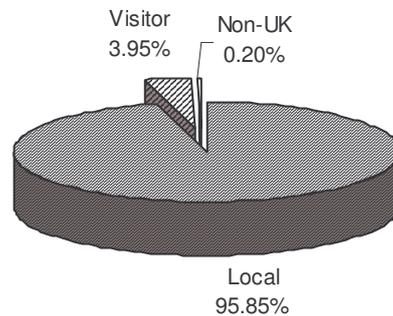
Table 9.7: Admissions by NHS Board of Residence

NHS Board of Residence	All Data		Visitors Only	
	Frequency	Percentage	Frequency	Percentage
Forth Valley	78636	95.1%	N/A	N/A
Fife	883	1.1%	883	21.7%
England/Wales/Northern Ireland	614	0.7%	614	15.1%
Tayside	584	0.7%	584	14.3%
Lanarkshire	546	0.7%	546	13.4%
Lothian	484	0.6%	484	11.9%
Glasgow	310	0.4%	310	7.6%
Outside UK	163	0.2%	163	4.0%
Argyll & Clyde	150	0.2%	150	3.7%
Unknown	81	0.1%	81	2.0%
Ayrshire and Arran	72	0.1%	72	1.8%
Grampian	71	0.1%	71	1.7%
Highland	39	0.0%	39	1.0%
No fixed abode	26	0.0%	26	0.6%
Borders	21	0.0%	21	0.5%
Dumfries & Galloway	21	0.0%	21	0.5%
Western Isles	4	0.0%	4	0.1%
Shetland	4	0.0%	4	0.1%
Orkney	3	0.0%	3	0.1%
Total	*82712*	*100.0%*	*4076*	*100.0%*

Table 9.7 shows the breakdown by NHS Board of residence, also shown is the data when locals are removed to give a profile of just the visitors (all of the Forth Valley removed).

Although the neighbouring areas account for the largest groups in visitor admissions, as might be expected, there are still a large group from outside Scotland with 15% from the remainder of the UK and 4% from outside the UK.

9.8.2 Reasons for Admission

Differences between locals and visitors in the NHS database become apparent when type of admission is examined (Table 9.8). As would be expected, there are lower levels of deferred, booked repeat and home accident admissions for visitors, however some of the other differences are less expected. The three main differences for admissions between locals and visitors are: Emergency, other injury (13% visitor against 4% local); road traffic accidents (4.05% for visitors, 0.71% locals) and emergency, other (65% visitor, 74% local).

This may suggest that visitors are more likely to be victims of trauma than locals, and if this is the case it may be expected that this will be seen in the types of injuries, such as fractures. Injury and trauma in recreational sports and activities will vary with participation patterns but research would suggest that even where participation rates are similar for males and females, that men have higher injury levels (Gabbe, Finch, Cameron and Williamson, 2005).

Table 9.8: Reason for Admission

Reason for Admission	Visitor	Local	Total	Visitor	Local	Total
Emergency, Other	2632	58392	61024	64.57%	74.26%	73.78%
Transfer	551	10403	10954	13.52%	13.23%	13.24%
Emergency, Other injury	525	3454	3979	12.88%	4.39%	4.81%
Emergency, Home accident	113	3277	3390	2.77%	4.17%	4.10%
Emergency, DSI	82	2315	2397	2.01%	2.94%	2.90%
Emergency RTA	165	558	723	4.05%	0.71%	0.87%
Waiting list	7	155	162	0.17%	0.20%	0.20%
Repeat admission	0	43	43	0.00%	0.05%	0.05%
Deferred admission	1	39	40	0.02%	0.05%	0.05%
Total	4076	78636	82712			

When examining the data further, it was found that there were distinct differences in gender for admission types as well as between locals and visitors (see Figure 9.2).

Figure 9.2: Admission by Type for Locals and Visitors by Gender
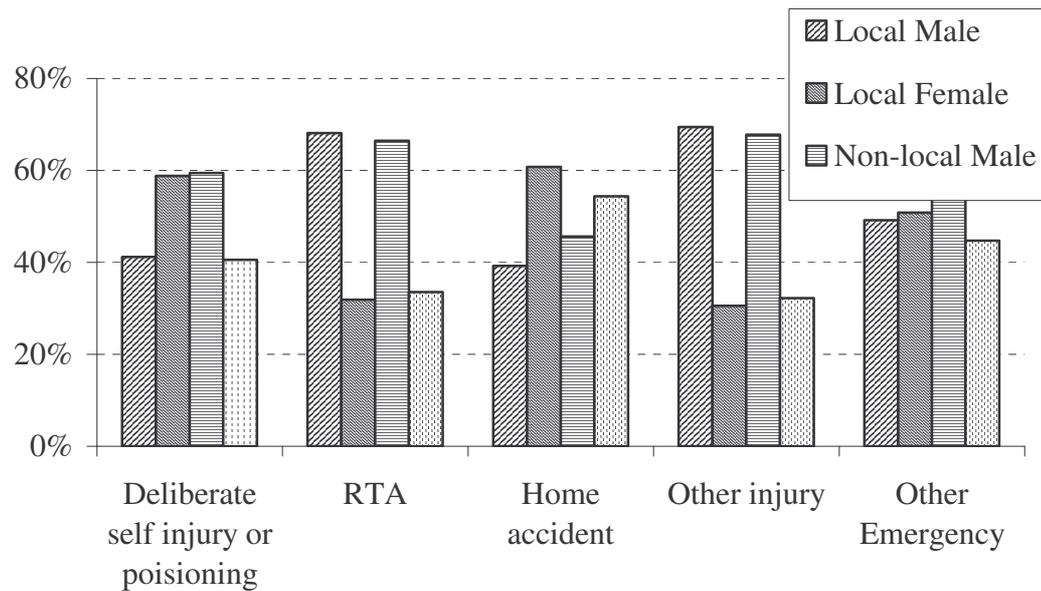
Admission by specialism shows that visitors are more likely to be admitted for orthopaedic (pertaining to bones, joints and muscles) reasons than locals, and less likely to be for geriatric medicine. The main specialisms are listed in Table 9.9, the full list can be found in Appendix D.

Table 9.9: Admission Specialism

Specialism	Visitor	Local	Total	Visitor	Local	Total
General Medicine	1438	29623	31061	35.28%	37.67%	37.55%
Geriatric Medicine	389	12634	13023	9.54%	16.07%	15.74%
General Surgery	568	11604	12172	13.94%	14.76%	14.72%
Orthopaedics	770	7127	7897	18.89%	9.06%	9.55%
Medical Paediatrics	344	7101	7445	8.44%	9.03%	9.00%
Cardiology	132	2760	2892	3.24%	3.51%	3.50%
Urology	138	2218	2356	3.39%	2.82%	2.85%
Gynaecology	111	2176	2287	2.72%	2.77%	2.77%

Although there were quite a few areas where differences occurred, these were mainly in areas where you might expect it to be mainly locals such as haematology. In several areas, the percentage relating to each admission type within each specialism is very similar, for example General Medicine.

In order to explore this further, the diagnoses for those admitted were cross-tabulated against locals and visitors. Due to the size of the results, with over 1,000 different diagnoses listed, the full Table is presented in Appendix E, with a summary of the main reasons shown in Table 9.10.

Table 9.10: Diagnoses

Diagnoses	Visitor	Local	Total	Visitor	Local	Total
Pain in throat and chest	201	4490	4691	10.90%	14.08%	13.91%
Abdominal and pelvic pain	192	3687	3879	10.41%	11.56%	11.50%
Fracture of lower leg, including ankle	142	755	897	7.70%	2.37%	2.66%
Fracture of forearm	109	904	1013	5.91%	2.84%	3.00%
Acute myocardial infarction	181	2472	2653	9.82%	7.75%	7.87%
Other and unspecified injuries of head	105	1165	1270	5.69%	3.65%	3.77%
Fracture of lumbar spine and pelvis	47	223	270	2.55%	0.70%	0.80%
Convulsions, not elsewhere classified	55	650	705	2.98%	2.04%	2.09%
Syncope and collapse	99	1442	1541	5.37%	4.52%	4.57%
Atrial fibrillation and flutter	66	992	1058	3.58%	3.11%	3.14%
Fracture of femur	69	1263	1332	3.74%	3.96%	3.95%
Other diseases of digestive system	43	815	858	2.33%	2.56%	2.54%
Cellulitis	39	788	827	2.11%	2.47%	2.45%
Unspecified acute lower respiratory infection	45	941	986	2.44%	2.95%	2.92%
Poison by nonopioid analgesic antipyretic and antirheumatics	40	866	906	2.17%	2.72%	2.69%
Abnormalities of breathing	35	841	876	1.90%	2.64%	2.60%
Other soft tissue disorders, not elsewhere classified	66	1410	1476	3.58%	4.42%	4.38%
Heart failure	50	1246	1296	2.71%	3.91%	3.84%
Pneumonia, organism unspecified	64	1514	1578	3.47%	4.75%	4.68%
Chronic ischaemic heart disease	65	1549	1614	3.52%	4.86%	4.79%
Angina pectoris	89	2071	2160	4.83%	6.50%	6.40%
Other chronic obstructive pulmonary disease	42	1802	1844	2.28%	5.65%	5.47%
Total	*1844*	*31886*	*33730*			

With visitors being more likely to be have their specialism coded as orthopaedic, and also have significantly higher diagnoses of some fractures (Table 9.11), fractures were further investigated showing that visitors are more likely to be admitted for a fracture

(12%) than locals (5%), indicating that visitors are more likely to seek emergency treatment for trauma than locals.

Table 9.11: Visitors and Local Admissions for Fractures

	Visitor	**Local**	**Total**	**Visitor**	**Local**	**Total**
Non-Fracture	3576	74503	78079	87.73%	94.74%	94.40%
Fracture	500	4133	4633	12.27%	5.26%	5.60%
Total	*4076*	*78636*	*82712*			

9.8.3 Demographics

The data was explored to assess if there were any differences in the demographic profile of visitors and local residents.

9.8.3.1 Gender and age

An examination of the gender split in the data showed that while there was virtually a 50:50 split between male and female admissions for local residents, visitors demonstrated a larger proportion of male admissions (56.8% male - 43.2% female).

Figure 9.3: Gender Split of Visitors and Locals
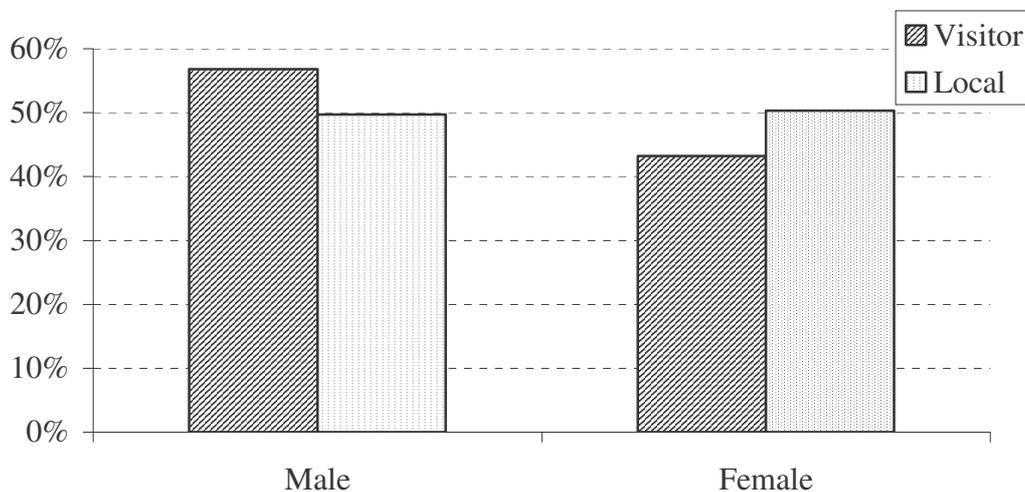
An analysis of the age and gender of locals and visitors would indicate that visitors are a little younger than the locals admitted, particularly for males (see Table 9.12 below).

Table 9.12: Gender and age Groups of locals and visitors

	Male		Female	
	Visitor	Local	Visitor	Local
Under 15	9.78%	90.22%	8.91%	91.09%
15 to 24	12.19%	87.81%	8.92%	91.08%
25 to 34	12.23%	87.77%	8.93%	91.07%
35 to 44	12.65%	87.35%	8.69%	91.31%
45 to 54	12.06%	87.94%	7.92%	92.08%
55 to 64	9.93%	90.07%	9.94%	90.06%
65+	9.90%	90.10%	10.79%	89.21%
Total	10.71%	89.29%	9.77%	90.23%

This may be as expected given that travel demands a certain level of fitness and, perhaps consequently, older people have a lower propensity to travel and therefore, they are likely to make up a smaller proportion of the visitor population. The relative youth of visitor admissions is shown in Figure 9.4, demonstrating the differences in age of admissions with male visitors having much higher admissions rates between the ages 15 and 55; female visitors though demonstrate a very similar pattern of admissions by age with the exception of the 25-34 age group.

Table 9.13: Admission by Age Category

	Visitor	**Local**	**Total**	**Visitor**	**Local**	**Total**
Under 15	475	9052	9527	11.65%	11.51%	11.52%
15 to 24	321	4931	5252	7.88%	6.27%	6.35%
25 to 34	409	5720	6129	10.03%	7.27%	7.41%
35 to 44	462	7296	7758	11.33%	9.28%	9.38%
45 to 54	467	8409	8876	11.46%	10.69%	10.73%
55 to 64	563	10337	10900	13.81%	13.15%	13.18%
65+	1379	32891	34270	33.83%	41.83%	41.43%
Total	*4076*	*78636*	*82712*			

Figure 9.4: Admission by Age for Local and Visitors by Gender
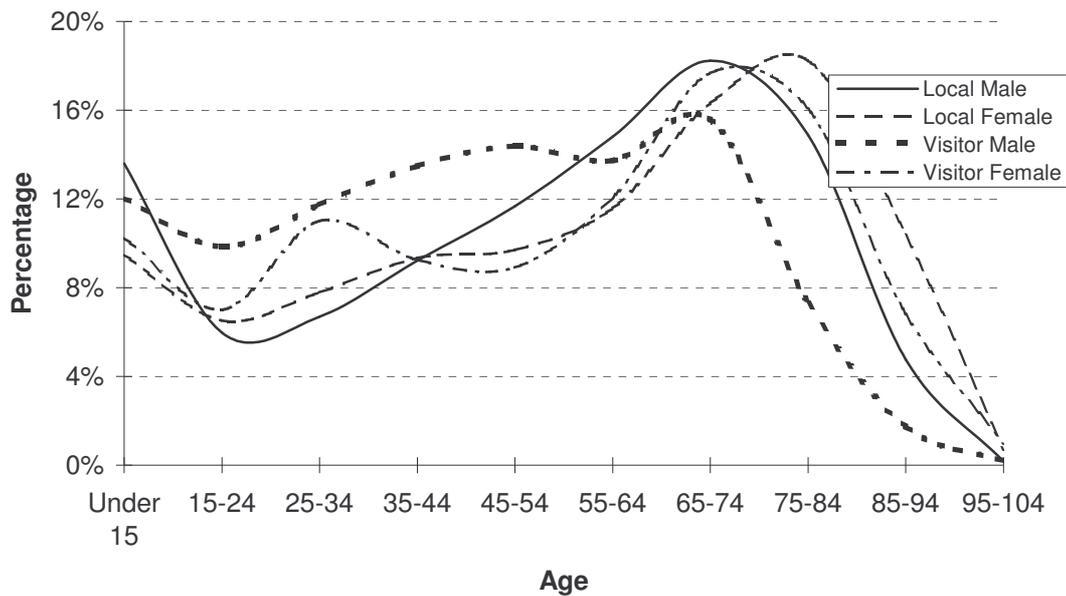
Younger people, particularly males, may be coming to the area to participate in activities that have an element of danger in them but one of the main causes of this differentiation may be due to the higher level of road traffic accidents (RTAs) involving visitors. The emergency admissions by age group for RTAs show a distinctly different pattern to local drivers (see Figure 9.5 below).

Figure 9.5: Emergency Road Traffic Accident Admissions by Age
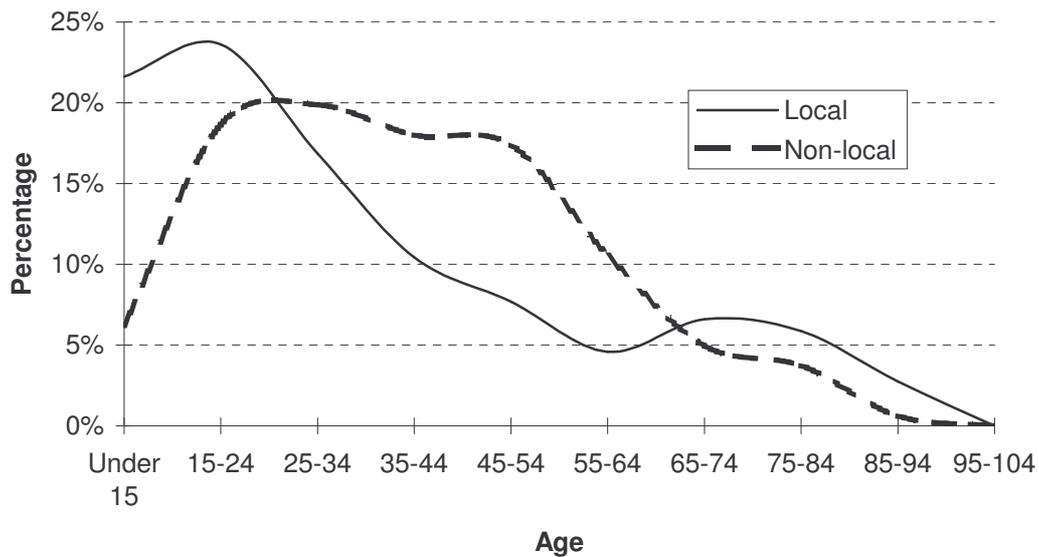
The lack of very young casualties may be a reflection of the age groups of visitors to the area but the differences do reflect a need for road safety messages for visitors to

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be aimed at an older age group than would usually be the case for local campaigns. RTAs are explored in more detail in a separate chapter utilising statistical information provided by the Central Scotland Accident Investigation Unit (CSAIU); this data correlates in respect of an older profile of visitor drivers involved in incidents. The CSAIU data also demonstrated a proportionally high level of males to females and this may account, at least in part for the higher proportion of males in the overall accident and emergency admissions for visitors.

9.8.4 Length of Stay

When looking at the length of stay in hospital for visitors against locals, if all the data is used and placed into categories of 30 days, there is very little difference

However, if the admissions requiring a stay of less than a month are examined in greater detail (Figure 9.6), then the pattern is different with visitors being more likely to be admitted for one day or less.

Figure 9.6: Admissions by Length of Stay for Locals and Visitors for Less Than One Month
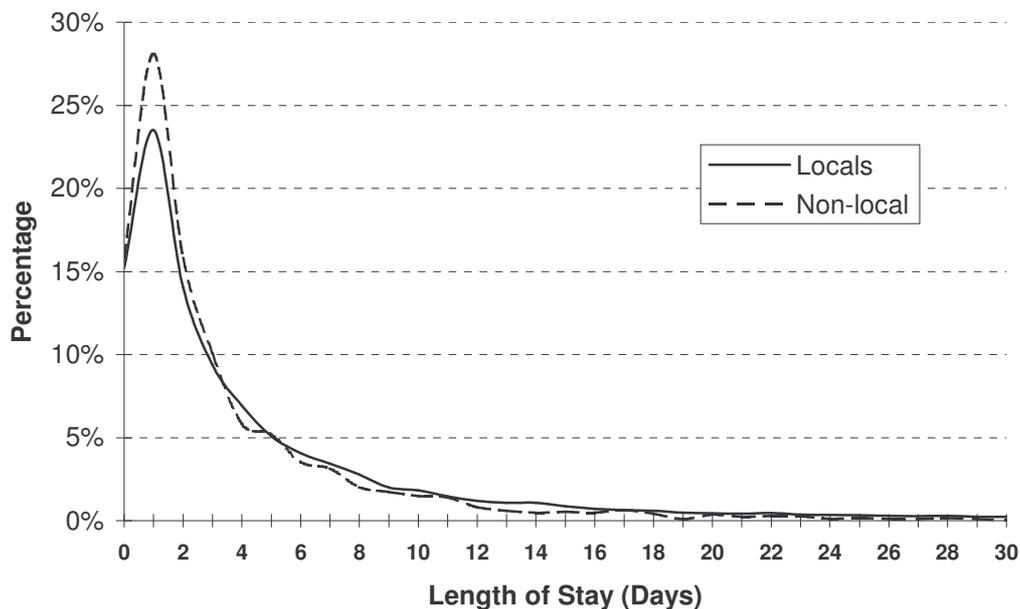
The reasons for this are unclear but may include less serious injuries being treated through emergency admissions due to other health services being unavailable to them, for example a local resident suffering a minor injury or illness would be more likely to seek medical advice from their general practitioner (GP), a service unavailable to the visitor; visitors may be transferred to another hospital closer to home, they may

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accept basic treatment and on returning home seek further treatment; and visitors may be less likely to travel if they suffer from recurring illness that they fear may require emergency hospital admission.

9.8.5 Temporal Differences in Admissions

Unfortunately due to the contents of the database provided by the ISD, there was no way to ascertain time of day or day of week for the emergency admission data. However, month of admission was available and on examination of all admissions, as would be expected, the visitor admissions demonstrated a clear seasonal pattern rising from April to a peak in June/July before falling to below local levels from October through to March (Figure 9.7).

Figure 9.7: Admissions by Month for Locals and Visitors
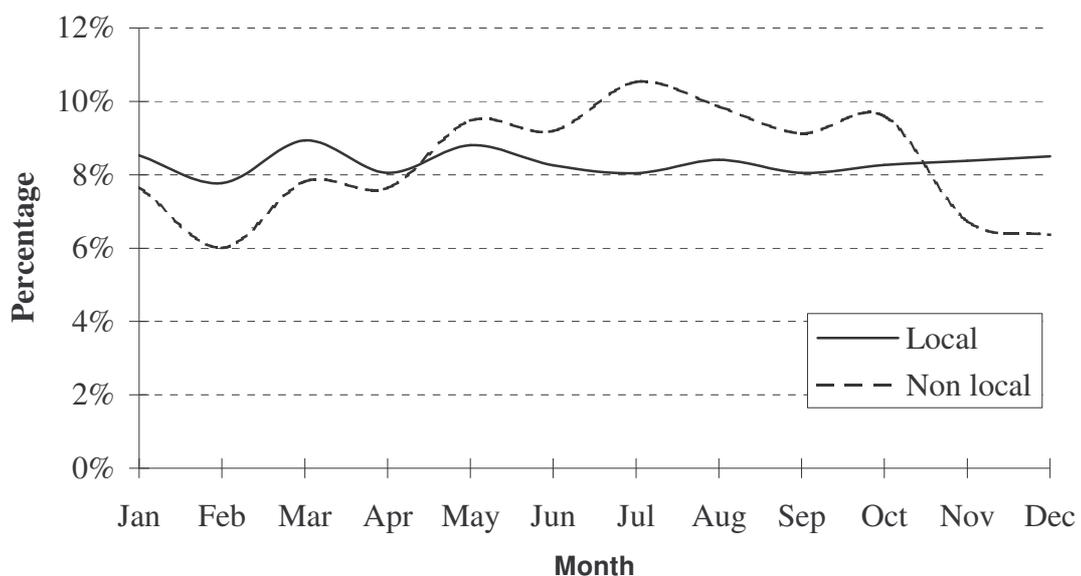
However, when examining different admission types, there were clear differences; some, due to relatively low numbers, have been discounted in the analysis to avoid misleading representations. The road traffic accident (RTA) admissions showed very specific peaks which would appear to relate to the main Scottish school holidays of Easter (April), summer (June into early July) and the October holiday but not the Christmas break (see Figure 9.8).

Figure 9.8: Emergency Road Traffic Accident Admissions by Month
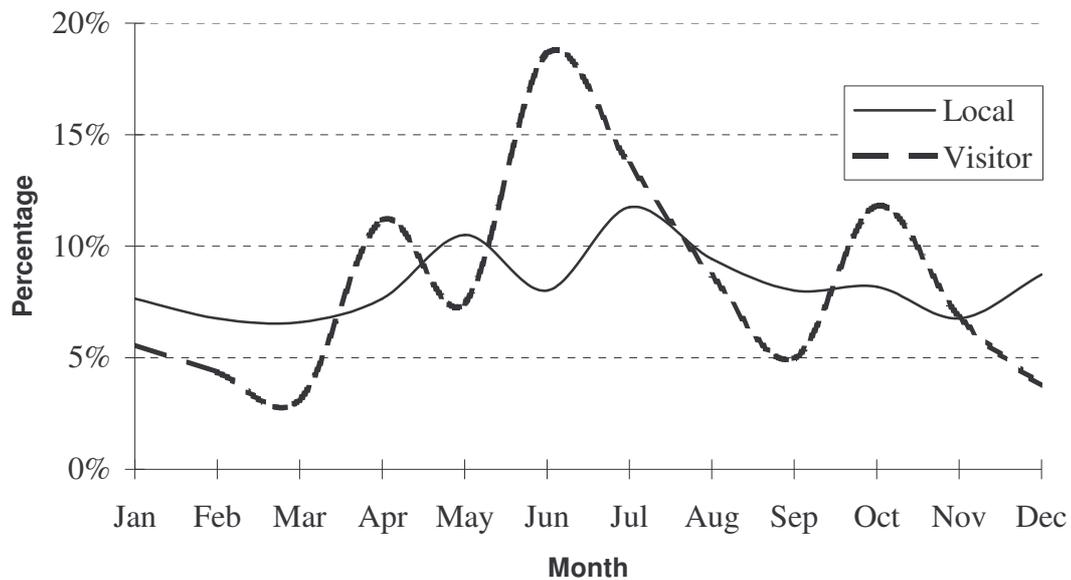
The most substantial category in terms of visitor numbers apart from 'Emergency – Other' was 'Emergency – Other Injury'. This contains all the injuries apart from self-harm, road traffic accidents and those in the home. As discussed earlier, this was the largest category of injuries accounting for 524 cases - 15% of the total admissions for visitors – proportionally much higher than for locals.

Figure 9.9: Emergency Other Injury Admissions by Month
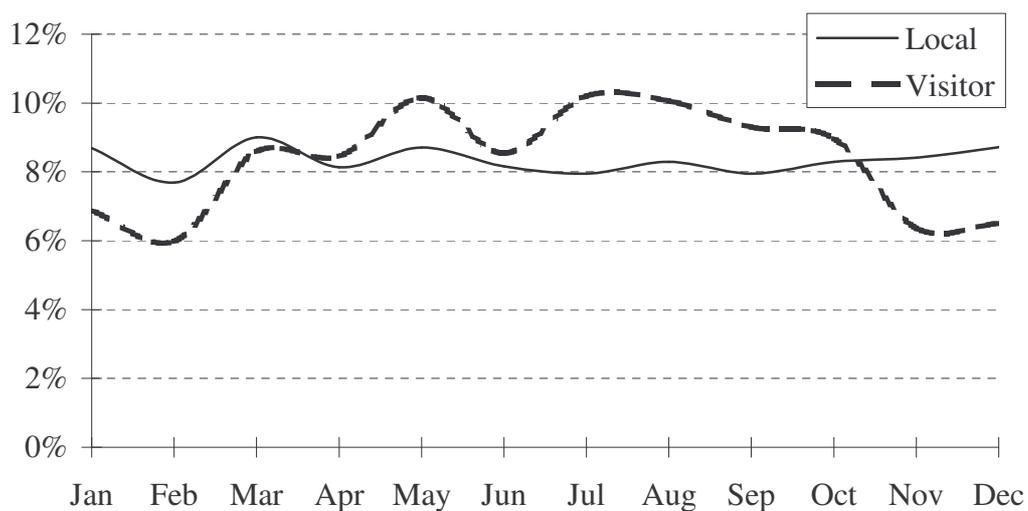
This showed the most distinctly seasonal pattern of admissions with a large peak in the main summer months (see Figure 9.9). This may correlate to the activities being undertaken in the height of the summer.

By far the largest category for locals and visitors was the 'Emergency – other' category accounting for 74% of local admissions and 61% of visitor admissions through the emergency department. Unsurprisingly, as the largest category, the seasonal pattern was very similar to that of overall admissions shown in Figure 9.9. A pattern very similar to that one would expect given the increase in numbers of visitors from late spring through to early autumn.

9.8.6 Trauma

Some of the evidence presented here suggests that visitors are more likely to receive emergency health care for trauma than locals, with locals more likely to be suffering from chest pains or heart disease, but not acute myocardial infarction (heart attack). There is no specific code within the data that identifies the patient as suffering from a trauma type injury; however the diagnoses field can be used to give an estimate of these injuries that can be used to compare visitors with locals. To enable this all diagnoses of fractures were grouped together, showing that 12.27% of visitors who received treatment were treated for fractures compared to 5.26% of locals.

Figure 9.10: Age groups for fracture admissions for Visitors and Locals
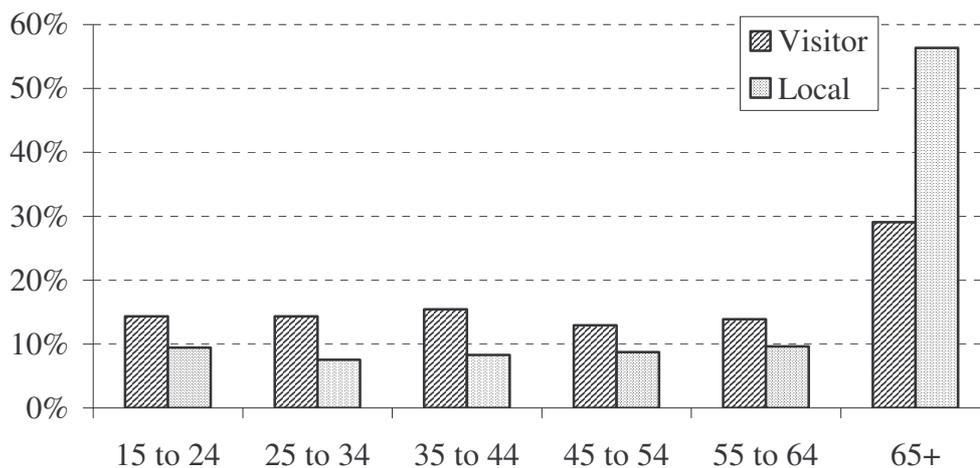
When the age profile of fractures for visitors and locals are compared there is a distinct difference, with older (65 years and over) locals more likely to suffer a fracture than visitors, but younger visitors being at a higher risk than locals.

There are also significant differences in gender profiles, with visitor males much more likely to be treated for fractures (57.40%) compared to local males (44.79%).

Figure 9.11: Gender Differences for Fracture Admission for Visitors and Locals
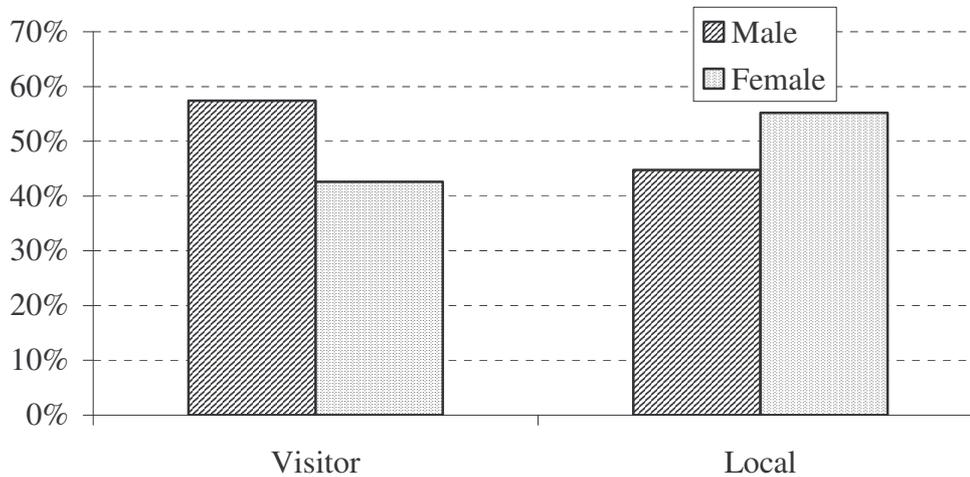
After suffering a fracture, visitors are likely to spend less time in hospital than locals, with 82.80% of visitors being discharged within 10 days, compared to 68.23% of locals. This may be partly because visitors are discharged to their own health district, or it could be a function of age as younger patients may be in better health and, therefore, can be discharged earlier.

9.8.8 Summary

As with road traffic accidents and crime, there are distinct differences between visitors and locals, and the relatively small numbers of visitors masks these differences. The data presented here shows that locals are more likely to seek emergency treatment than visitors, and this could be because visitors will, where possible, delay seeking medical attention until they get home, and this may impact on their well-being during the visit. Locals are far more likely to seek attention for existing conditions, such as angina, and therefore it may be concluded that a significant number of potential visitors may not actually visit the area due to health concerns therefore affecting well being by proxy.

When visitors do seek treatment, in more than 12% of cases it is for fractures, therefore it can be concluded that visitors have a high likelihood of their well-being will be affected by traumatic injures, some of which may be due to road traffic accidents, a category for which visitors are more likely to be admitted than locals

This section clearly shows that the visitors well being can be affected by their health, but the issues for visitors are different to that of locals.

As discussed in the literature review section relating to emergency health, the issues relating to disease and the visitor are so vast that it would be difficult to illustrate or measure in the confines of this thesis, therefore there were no overt questions concerning health in the surveys with the exception of accidents.

9.9 Accommodation Providers view on health

The accommodation providers were asked about incidents affecting visitors. As reported before, see chapters six and seven, the majority of incidents were concerned with crime and road traffic accident, neither of which would necessarily result in illness or injury. However, some of the information given would indicate that medical attention was required for some of these incidents as the ambulance service was used, although there is nothing to indicate whether medical attention was sought in other cases.

Ten incidents were reported that did not fit into the crime or RTA categories. Four cases of illness or injury were directly attributable to activities; with two mountain accidents; a bicycle incident; and a guest becoming ill on the hills. These all required hospital treatment as did two heart attack incidents, the circumstances of which are not described and another unidentified incident where police and ambulance services were also required. The remaining three incidents were concerning guests who were late in returning from the hills, requiring the services of the police and the mountain rescue services. In total then, seven of the ten incidents described here were directly related to activities.

The number of incidents that the accommodation providers indicated in the survey was very low, hence it is hard to say how satisfactory the incident was dealt with; Table 9.14 shows the raw numbers. Of the six climbing/walking incidents 5 were dealt with satisfactorily. The incident that was not dealt with satisfactorily was one where some visitors had not returned when expected from climbing or walking and the accommodation provider reported this to the police, however the visitors later returned to the accommodation before the police arrived.

The two events recorded as 'other' were both heart attacks the comments on how they were dealt with indicate that it was in an apt and professional manner ('quickly and discretely' and 'very well').

Table 9.14: Satisfaction levels for how Incidents were dealt with

Satisfaction	Satisfied	Not Satisfied	Unknown	Total
Road Traffic Accident	9	2	9	20
Climbing/Walking incident	5	1	1	7
Other	1	0	1	2
Total	*15*	*3*	*11*	*29*

9.10 The tourists' view on health

Two sections of the tourist questionnaire related to health, those relating to incidents that may have occurred to them and those relating to factors important when on holiday. Only six respondents were involved in an incident that did not either fall into the category of road traffic accidents or criminal activity.

In terms of health related factors important on holiday, as discussed more fully in Chapter 5, health and fitness were considered as important aspects of a holiday; this was apparent through analysis of the items using both score averages and using factor analysis where health and fitness were apparent as a component. Other items on the scale could be said to be associated with mental health, for example relaxation – again identified as a component through factor analysis. This expectation of health benefits may make any subsequent health impairment experienced on holiday, whether due to illness or accident, more difficult to cope with. However this must be offset against the need for challenge that was apparent, this might make incidents such as accidents due to activities undertaken, more acceptable.

9.11 The visitors' view of health

The Visitor questionnaire asked questions relating to the likelihood of the tourist being involved in an accident at home at while as a visitor, as the questionnaire was only administered to those who were visitors to the area the question was phrased as 'an accident at home' and 'an accident here'. The results were recorded on a five point Likert scale from 'very unlikely' coded as 1, to very likely coded as 5.

Figure 9.12: The likelihood of being involved in an accident
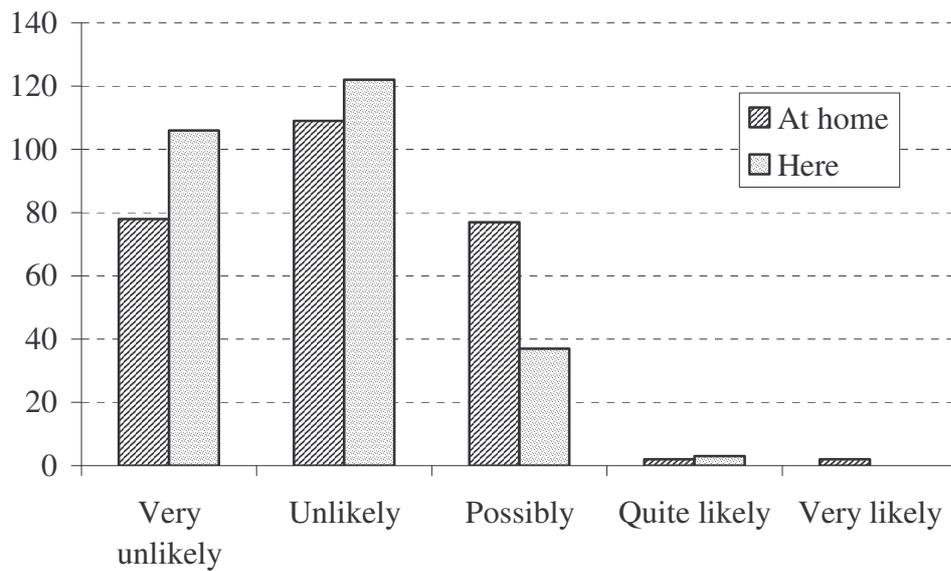
This shows that most visitors felt that they were more at risk from an accident while at home, than as a visitor. This is further shown by looking at the mean answer to the questions, for 'at home' the mean answer was 2.03 (n = 268), just over unlikely, and for 'here' was 1.76 (n = 268), between very unlikely and unlikely.

Table 9.15: Factor analysis of statements relating to hill-walking/climbing

Type of Walker/Climber	Characteristics
Expert	I always wear appropriate gear I always carry a compass/map I always let someone know when intend to return I always carry emergency rations I am an experienced walker/climber
Casual	I never let anyone know where intend to go I never check the weather forecast I often drink alcohol when walking/climbing
Careful	I never walk/climb when advised against it I never walk alone {I often drink alcohol when walking/climbing} – Negative correlation
Overconfident	{I never walk/climb when advised against it} – Negative correlation I always carry mobile phone as a means of contact

Although there was nothing specifically relating to health in this questionnaire, there were a number of questions concerning accidents and a specific section relating to hill-walking/ climbing. The results of the responses for statements relating to hill-walking/climbing were analysed using factor analysis, four components accounted for 70% of the variance; this data was rotated using the varimax rotation and the resulting components are presented in Table 9.15 (see Appendix F for details of loadings). The components were named to coincide with the characteristics identified. The largest group were identifiable as 'expert' walkers/climbers but this cannot be seen as a reflection of the respondents of the Visitor questionnaire as only 21% of all respondents filled in this section of the questionnaire. This may be indicative of the percentage of visitors who participate in mountain-based activities.

9.12 Summary

Much of the literature relating to travel health concentrates on pre-travel and post-travel advice; relating to quality of advice, its availability and its accuracy. Although it is suggested that GPs may play a pivotal role (Cossar, 2003), they may not have sufficient information to give specialist advice and they will only tend to concentrate on preventative medical care such as inoculation. The GP as a source of information, may also pose difficulties as the potential traveller have to actively seek a consultation prior to their travel; this may pose problems due to lack of time/availability of appointments and people may be reluctant to 'bother' the doctor unless they are visiting a destination that requires inoculation. There may be also a fear, particularly for men who are notoriously disinclined to seek medical care, that the doctor may 'find something' in the course of any examination.

Earlier discussion on risk highlighted the differences presented by the same hazards for visitors over local residents. This is likely to be increased further by the activities undertaken by visitors. Evidence of such an increase in activity is shown in the number of operators that offer 'adventure activities' as part of their package. Even mainstream coach operators such as WA Shearings, are offering new products that offer adventure to the over 50s market (Travel Mole, 2005a). Availability, accessibility and price all act to increase the numbers participating in active holidays, taking the example of skiing holidays for the UK market, not only have incomes risen in real terms making holiday-taking generally more affordable, new resorts have opened up particularly in the Eastern European countries, Canadian and American

resorts are accessible for the UK market and prices for skiing has fallen in real terms over the past 10 years for many European resorts (Travel Mole, 2005b). There is evidence to suggest that in terms of judging the safety of an activity is more dependent on likelihood of injury rather than the severity (Young et al, 1990). The implications of this for adventure providers may be that they have to stress that people have been injured while undertaking their activities rather than emphasising the possibly fatal consequences of not heeding safety advice. This may be particularly important where young people are involved, as they tend to have a limited conception of their own mortality and what that means. Certainly in railway safety it was found that young people were more responsive to safety messages where they were faced with the possibility of disfigurement or limb loss than those emphasising the possibility of them losing their life.

For some people, participation in dangerous activities may be an addiction with the high levels of arousal associated with participation being sought regardless of the danger it may present (Pain and Kerr, 2004). There is evidence to suggest that there may be a disposition in certain personality types for undertaking high risk activities (Pain and Kerr, 2004), while activity providers may have clients that fall into this category for some activities, it more likely that those seeking thrills may also be inclined to be independent in seeking activities to meet their arousal needs.

> *"Psychologists and other medical practitioners have to accept that some clients may ignore medical advice and continue to engage in potentially destructive behaviour."* (Pain and Kerr, 2004: 339)

The rating that respondents gave to high-risk activities in the study by Vredenburgh and Cohen (1995) suggests that those taking part in high-risk activities do not necessarily perceive them to be high-risk. Suggestions in some literature relating to extreme sports such as mountaineering and skiing, a large attraction to the Central Scotland region, that extreme sports are addictive and that those participating may not heed advice even where there is a potential that they may put their lives in danger (Pain and Kerr, 2002), should influence the way in which any protection measures are implemented.

If destinations are trying to reduce injury from extreme sports then an awareness of ways to increase compliance levels for warnings have to be found. Although the study by Vredenburgh and Cohen (1995) did indicate that training and experience

might increase reading of warnings, it did not increase compliance. The only variable that did increase compliance in Vredenburgh and Cohen's (1995) study was perception of danger. The findings of Page, Bentley and Walker (2005) with regard to adventure activity providers, suggested that ownership type was significant in terms of reported injuries and the age of the business, with relatively newer businesses reporting fewer injuries that links to their better levels of safety management.

Page et al (2005), suggest that greater emphasis on risk assessment and improved client briefings particularly for clients whose first language is not English (the studies were based on Scotland and New Zealand). However, there was recognition of the difficulties faced by small businesses seeking to comply with regulation and meet the cost of compliance in a context requiring flexibility (due to factors such as weather and seasonal numbers) and often dependent on seasonal and part-time employees bring additional challenges for training.

While studies by authors such as Page and Bentley are very enlightening, they deal specifically with operators, and thus cover injuries relating to those participating through activity providers. Similarly, Finch et al (2003) discuss the difficulty in accessing data relating to those practicing activities without any involvement with providers or organizations. Data from the NHS, used in this study, does cover injury from any and all participants but, as the data is not collected for this purpose, it is difficult to assess the reasons for injury and there are no details of how the injury was incurred, with the exception of road traffic accidents. In a similar way, illnesses are not cataloged in terms of how they occurred and so, although some comparison can be made on the nature and type of illness experienced by visitors and local residents, there is no way of ascertaining if activities undertaken by visitors are contributing to illnesses experienced. This is compounded, in the case of both illness and injury, by the possibility of visitors not seeking health care in the destination but choosing to wait until their return home.

If tourism activity, as suggested by authors such as Beedie (2005), can be described as flow, then the situation vis-à-vis health and safety issues must be constantly re-evaluated. As activities become 'mainstream' with activities previously considered adventurous becoming commodified and sanitised, then those who wish to be considered 'travellers' or 'adventurers' will seek new forms of 'tourism' activities. This thesis is discussed by Beedie (2005) in relation to the movement of adventure

activities from wilderness areas into urban and peri-urban areas. As activities such as freerunning and splelunking become commercialised (a process argued by Beedie that has already begun for freerunning) then they will increase in popularity, attracting those closer to the allocentric end of Plog's continuum resulting in a demand for such activities to become regulated and safe for both those undertaking the activity and other users of the environment. The 'gentrification' of such activities (Beedie, 2005) will naturally encourage the more adventurous to seek out new methods of adventure tourism creating new challenges for those seeking to ensure the safety of tourists.

Insurance has become a key issue with operators in the adventure sector seeing rises in premiums and additional pressure to reduce injury rates. Injury risk is an inherent part of adventure activity and cannot be totally factored out even it was desirable to do so. Challenge is part of the experience and with challenge, there will always be a degree of risk, which we seek to overcome with our skill when undertaking adventure activities; this is a vital element in the wish to participate in such activities. Adventure activities are also a key way in which a destination can differentiate itself, as it is often place dependent. It would be counterproductive to over prescribe regulation and suffocate their ability to thrive and provide experiences that many clients thoroughly enjoy without incident.

Companies that provide activities for visitors may feel that they cannot itemise all the incidents that occur or catalogue near misses, as this information may generate negative publicity and/or attract restrictions on their operations. This may account for the under-recording of incidents apparent for some operators participating in research undertaken by Bentley, Page and Meyer (2003) and Page, Bentley and Walker (2005). While it would be beneficial to no-one to have too high a degree of red-tape that does not allow this area of tourism to thrive, as it is now a cornerstone of the promotion of Scotland as a holiday destination, exemplified by recent VisitScotland campaigns, there does need to be cognisance of the issues of visitor well-being and ensuring that they are adequately informed of the risks and not placed in unnecessary danger through lack of adequately trained staff, poor equipment or pressure to take visitors out on activities when the conditions are unsuitable. As previous research (for example, Bentley et al, 2003; Page et al, 2005) has demonstrated, fully assessing the situation is fraught with difficulties as operators may not keep adequate records and may be unable or unwilling to give accurate information on incidents and it difficult

to marry up statistics for injuries relating to such activities from medial data. There is also the difficulty in that many of those seeking adventure activities do not undertake these activities with activity providers and while many will act responsibly, there has been an increase in visitors undertaking activities such as mountain climbing without adequate preparation and/or equipment and getting into difficulties. It is believed by some that the advent of the mobile phone has encouraged some to believe that it is aright to undertake mountain exploration as they have the 'safety blanket' of the phone if they get into difficulties. Such irresponsible behaviour can have high costs in terms of rescue services and in terms of lives lost, either of the participant or of those attempting their rescue. There has always been an aversion to the idea of charging people when mountain or sea rescue is required or requiring those undertaking such activities to purchase specific insurance to cover rescue in the event of mishaps but as funding for such operations becomes more difficult then there may be push toward this.

The central Scotland area, in common with the UK in general, does not have to be concerned with many risks that affect other countries and regions attracting tourists such as typhoid or malaria. There are still many health factors that can, and do affect visitors to the area. Some of these health factors may present long-term risk and may be underrated as concerns for visitors such as sun-related health issues.

A study undertaken in Cornwall indicated that most primary schools included sun awareness education based on Sun Awareness Guidelines produced by the Department of Health in 1995 (Morris, Gould, Bennett, Bastin, Salter and Watt, 2005). This type of education may assist in reducing health risks overall in the UK population but does not protect those from elsewhere travelling to the UK who may feel that the UK sun does not warrant the use of sun protection. As with other health factors, lack of information could result in unnecessary risks being taken and while the results of such exposure are unlikely to have any serious impacts on the destination, there may still be ethical reasons for ensuring that visitors are informed of the risks.

This chapter has brought together the aspects of tourism that may lead to health issues and examined hospital admission records and results from surveys undertaken to build up a picture of the differences in health-related issues for visitors and locals. The data from the NHS database does not identify causes for differences between the two

groups but does indicate that differences do exist. As discussed earlier in the chapter, there are issues relating to health that may not be easily identified by analysing 'point in time' case data as health issues may not have to be dealt with immediately; visitors may choose to wait until they return to their own area before seeking medical attention; some ailments may not become apparent until after the visit and visitors may come with pre-existing health issues. What such analysis can provide is an indication of the type of health issues the visitor may have, particularly when it may underline other data, for example on road traffic accidents, and support the need for further investigation into such matters. The apparent increase in injury rates also supports the need for more in-depth research into the adventure tourism market such as that undertaken by Page and Bentley.

One of the more significant findings from the research, while expected, is the substantial increase in emergency admissions for visitors in the peak summer months. This surge is likely to negatively impact on the service provision for local residents but may impact in a more extreme fashion in areas where adventure tourism activities are most prevalent (for example, Fort William).

Although examining the data held by the authorities in the area can give some insight into the nature and type of illness, accidents and crime that visitors may be subject to, they cannot give a full picture as many incidents may not be reported and/or the consequences of the incidents may not become apparent until after the visitor returns home or reaches another destination. This is particularly true for the health data where infections contracted may not develop symptoms till after the visitor leaves the destination, even for injuries this may also be the case where the visitor believes they only have a minor injury they may return to be treated by their own GP or hospital; in the case of crime, as discussed before the visitor may choose not to report the incident but they may report it on arrival home if they live in the UK; and for any incident, visitors may suffer from psychological effects that are not apparent until later. In such cases, the visitor figures will appear artificially low but there will still be an association of the incident and its negative impact with the destination. While such events may damage the destination's image, this should not be the only reason for the destination to take responsibility for visitor well-being. There will be some incidents that occur in the destination that cause later problems such as sexually transmitted disease or infections that take a long time to become apparent which may not be

immediately attributable to the destinations in the minds of the visitor but from an ethical stand point, it can be argued that some action should be taken to at least warn visitors of the dangers.

The previous chapter and its predecessors have examined particular aspects of health and personal safety that can impact on visitor well-being; the next chapter discusses issues associated with responsibility for visitor well-being.

Chapter Ten: Visitor Well-being: Risks and Responsibility

10.0 Introduction

The thesis up to now has examined a variety of incident types to ascertain if there are any differences in the nature and type of incidents impacting on the visitor. The research indicates that there are clear differences, in agreement with previous literature pertaining to the individual incident types. That such differences are prevalent in all aspects of the visitor experience of incidents suggests that the approaches that may ameliorate the impact of such incidents should also be different. Before such approaches can be developed, those responsible for the health and personal safety of the visitor must be identified.

This chapter seeks to develop the premise of visitor well-being by examining aspects of responsibility. When reviewing related literature to develop the premise for this research study it became apparent that in many developed countries, governments have demonstrated a growing interest in improving the well-being of the community (see for example, Grant, 2002). This is evident in the UK where policy documents and initiatives have been developed such as 'community safety' with the aim of enhancing the well-being of the community. The premise of government intervention in health care, policing and other emergency services can be seen as an altruistic government seeking to improve the well-being of the general population although cynics may argue that the economic benefits of a safe, fit and healthy work force may drive such interventionist programmes. It is certainly true that at a basic level providing people with access to a safe environment including policing, adequate sewerage and rudimentary health care will rapidly improve health by reducing crime, disease, lowering infant mortality rates, increasing life expectancy and hence improve quality of life. The majority of governments worldwide recognise that this should be a right for every individual (see sites such as www.un.org or www.earthsummit.info). In developed countries these basic measures are, more or less, taken for granted while in some less developed countries this basic level of provision may be lacking. Generally though, in areas where tourism is being encouraged, these facilities are provided, for the visitors at least.

Tourism can be seen as a tool to further the aims of community well-being through benefits such as providing employment opportunities, acting as a catalyst to protecting

the environment or increasing the viability of local facilities (Page and Hall, 2002); most governments, including the UK, and the Scottish Parliament, believe tourism to be beneficial to local communities. However, when dealing with the well-being of the visiting population, the issues become more complex and involve a number of nebulous concepts concerning the nature of the destination, its visitors and the nature of tourism itself.

10.1 Selling a dream

Tourism can be examined from a number of perspectives such as, the economic impact that it has, from a sociological point of view, or in terms of the psychology, examining the behaviours and motivations of the individual. For the leisure vacationer, tourism is often simply seen as a break from the reality of their individual life and an opportunity to do things that they want to do. This wish to fulfil their desires and behave in a hedonistic manner may not fit well with risk calculation. From the perspective of the destination, they may consider any indication that their destination is less than perfect, may cause the visitor to look elsewhere, and so they may be less inclined to issue warnings or take overt action to ensure visitors' personal safety and health.

The acceptance of a level of risk of illness, accident or crime may be considered to be part of the visitor experience. However, if the visitor has no means of assessing that risk, this may be seen as unethical and may even be seen as a contravention of rights by legal systems. Visitors may not be able to access the formal and informal local sources of information that allow local residents to assess risks (Walker and Page, 2003). In order that visitors may be empowered to make informed choices, ways must be found to ensure they can, and do, access sufficient information on potential hazards. Ensuring the well-being of visitors to a destination will be dependent on making sure that, not only are they as safe as possible, but also that they feel safe without feeling their activities are being curtailed. This area is problematic in tourism on several counts due to the complexity of four inter-related factors: -

> ➢ The nature of the visitor;
> ➢ The nature of the tourism industry;
> ➢ The nature of destinations;
> ➢ The nature of destination communities.

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10.1.1 The nature of the visitor

Visitors have a tendency to display characteristics that make it difficult for them to absorb information on potential hazards or to act in a suitable manner on such information. Visitors can, and do, choose across a wide variety of holiday possibilities. There are differences in accommodation type, level of 'packaging' of holiday, and the way a holiday is booked even within the same destination area. These factors make it difficult to set up effective communication channels to reach all visitors. In terms of ease of communication, the 'ideal' situation would be the destination where the majority of visitors book a tour operator package through a travel agency; this would allow the tour operator through the travel agencies and the principals at the destination to provide a consistent and clear communication channel on health issues at the destination. This, though, is not the situation for many destinations. Visitors to any destination are likely to come from a wide range of sources and often the largest numbers come from within the destination's own country i.e. domestic visitors, and so finding appropriate lines of communication and applying them consistently can prove problematic. Too much emphasis on personal safety may adversely affect the holiday experience - tourism is associated with 'getting away from it all', leisure, pleasure, relaxing, 'making dreams come true' with the idea of detaching ourselves from the routines and responsibilities of everyday life. The wish to 'escape' makes it difficult to marry our ideal holiday with taking extra care. If the destination restricts the visitor's behaviour through overt safety measures and messages, the visitors may feel 'cosseted' and react in a negative way, particularly given Plog's (2001) assessment that the largest group of travellers are seeking adventure and freedom to explore as part of the 'holiday experience'.

As discussed earlier, people seem to undergo 'metamorphoses' when they become tourists and seem, as a generalisation, to abandon their normal behaviour patterns, moral values and sensibilities. Visitor knowledge of risk does not necessarily correlate to improved risk behaviour, for example, Evans et al (2001), in a study of UK package holidaymakers, discovered that the level of health knowledge did not reduce risk of illness and concluded that information alone does not motivate changes in risk behaviour. These combined issues present difficulties in communicating risk to those visiting a destination and these issues are further complicated by the diversity of organisations involved in providing the tourism 'product'.

10.1.2 The nature of the tourism 'industry'

The tourism 'industry' is made up a disparate group of organisations that work together, often loosely, to provide the tourism product 'the holiday'. Although there are some tangible aspects to the holiday product, the main thing that is being sold is the 'holiday experience', an intangible dream. Holidays are usually thought of as an escape - a break from routine. Although what is expected from the holiday can vary in nature for each individual, the main emphasis is on pleasure and enjoyment. Concerns for personal safety and health are negative issues that do not sit easily with the selling of a dream. Rationally informing visitors of potential dangers will allow them to make the informed choices discussed earlier and, therefore, will enhance the whole experience. Unfortunately the emotional response to warnings of potential hazards may make the visitor or potential visitor feel that the destination is a dangerous place. This may prevent them from participating fully in activities at the destination, reduce their stay or prevent their visit altogether. Any of these actions will reduce income to the destination. The industry providing the tourism product will not wish to emphasis any potential negatives - tourism is marketing a dream, a total break from the cares and worries of everyday life. This does not fit well with any suggestion that all may not be 'perfect in paradise'. It is quite understandable that the industry would not wish to give overt messages that a destination is less than 100% safe. As Lord (1993) concludes, in an article shortly after a particularly brutal fatal attack on a visitor who wandered out of the 'tourist area' and into a notorious high crime area, visitors were not about to be better warned as the industry does not want to "*spoil the image of a land of waving palm trees, sunsets and Mickey Mouse*".

10.1.3 The nature of the destination

Destinations are rarely operated and controlled by one organisation. More common are a number of small businesses and organisations working to produce their part of the tourism product. Although these companies and organisations may have some commonality of purpose, they may feel they are in competition with one another. They may accept responsibility for the visitor consuming their part of the 'product' but may feel that they have no liability outside this. As the visitor in the destination spends much of the time there outside any specific 'tourist area' or product component but rather within the community, it is difficult to allocate responsibility for the visitors' health and personal safety for the entirety of their time at destination. For

example, a hotel may have a duty of care to its client while they are on the hotel premises, but who is responsible for warning the visitor of potential hazards outside the hotel grounds? Is there a duty to warn and, if so, to what extent is this purely an accommodation matter? Where would that leave the day visitor? The visitor may see a resort area or destination as an entity but the individual parts of what constitutes the 'destination' may not feel as united, indeed, the suppliers of many products and services used by the visitor may not feel they are even part of the tourism industry. This division may make it difficult for local government and agencies to allocate resources for the health and safety requirements of the visitor at the expense, or apparent expense, of the local community.

10.1.4 The nature of the destination community

Haralambos and Holborn (1995) hypothesis that societies develop from learned behaviour rather than instinct, makes the heightened risk from hazards for visitors more explicable when entering a different society. One of the main influences on the visitor environment will be the extent to which tourism is welcome. This is again highly dependent on the way in which tourism has been developed (Gunn, 1993). Where tourism is carefully controlled and local residents consulted and involved, there is likely to be a higher level of acceptance within the community; where tourism is developed with little or no regard for the local residents, there is likely to be resentment (Feighey, 2002). The result of this exclusion of locals from decision making for their local community and from fully enjoying the benefits of tourism is likely to cause a variety of negative effects. Although there is a general usage of the tourism anthropological terminology of 'hosts and guests' (Inskeep, 1991), this rather implies an invitation to visit on the part of the local residents. There are circumstances where this terminology would be appropriate, where a community has deliberately set out to attract visitors, however there are many tourism destinations that do not have this controlled and deliberate community 'invitation' to account for their growth. Doxey (1975) suggests a model in the form of an Irridex to describe the likely progression of events were tourism is developed within a community. Doxey's Irridex (1975) describes a series of stages that destination communities are likely to go through linked to the development process, however this is a simplistic model (Page & Hall, 2003) and implies a linear process. While the Irridex maybe simplistic, the community attitude to tourism and, therefore the visitor is likely to depend on how

tourism is perceived. Anti-visitor attitudes are often based on the idea that tourism development causes anti-social behaviour and increases crime. The local residents may feel that the local children are being encouraged to change from traditional morals and ethics and develop those of the visitor. Differences in religious and societal customs may cause the visitor to unwittingly cause offence and upset local sensibilities. Ways of dressing, openness in physical contact between genders, use of drugs and alcohol can be copied by the locals. This 'demonstration effect' (Cooper et al, 1998:174) can cause resentment, particularly where there is a large disparity of wealth between the residents and visitors. In wishing to emulate the visitor, the local resident may find it is beyond his or her financial reach and may seek ways of financing this new lifestyle, and members of the community may turn to crime or prostitution with visitors becoming potential targets for crime due to local residents feeling excluded and unable to attain similar wealth in any other way.

Visitors may have little or no knowledge of the feelings of the resident community prior to their visit and, therefore, may not realise how offensive their behaviour may be to others. Even visitors who behave in a more discrete manner, in keeping with the local sensibilities, may find themselves subject to this underlying resentment. This 'exclusion' is likely to make the visitor feel uneasy even if they are not subject to crime and also prevents any meaningful interaction between visitor and resident. Where the destination is situated within the community area, this unwelcome feeling is likely to reduce visitor numbers as they begin to feel that the destination presents 'too high a risk'.

Taking this argument, as the destination gains in popularity, the type of visitor will change and ownership within the resort will change. Where visitors are made to feel unwelcome, their well-being will suffer and where locals feel resentful, they are unlikely to introduce, or support the introduction of, schemes to protect and inform the visitor, particularly if they no longer have ownership of the tourism product and its profits (whether financial or in other forms of benefit such as control). This lack of control and feelings of ownership may translate into the visitors becoming, or feeling, more vulnerable prompting the external owners to seek to further exclude locals by redeveloping outside the original resort area, employing staff from outside the local area or even creating 'enclaves' to 'protect' the visitors. Excluding locals in such a manner is likely to create further resentment and increase the perception of danger

from the local populace amongst the visitors, appearing to validate the decision for the owners to separate the visitor form the local. In this scenario, both locals and visitors will be denied potentially positive social interactions and breed further misconceptions and prejudices. This is not an inevitable outcome and various measures can be taken to reduce the likelihood of this worse case scenario.

10.2 Destination appraisal

The interaction between the factors is illustrated graphically in Figure 10.1; this is derived from the earlier risk assessment programme diagram (Figure 2.3 in Chapter 2) adapted to fit with the evident situation vis-à-vis tourists in the destination.

Once the extent of risk is ascertained, then the appropriate action must be decided upon. The Risk Evaluation Matrix (see Figure 10.2) can be used to categorise risk by frequency and severity to allow decisions to be made on action to be taken.

Figure 10.1: The Destination Risk Calculator

Destination Risk Calculator

The overall risk in the destination is determined by the level of inherent hazards interacting with the degree of precautions taken to protect visitors from the destination hazards. This is then affected by the overall risk taking behaviour of the tourist, determined by the activity of the tourist and the degree to which it is tempered by effective communication of destination hazards. Where the dotted line cuts through each determines the overall risk level in the destination for the tourist.

If there is both a high frequency of occurrence and a high severity of consequence then action may be taken to *avoid* the activity. In destination terms it may be to discourage visitors from going to certain areas of a town at night where there are regular problems of criminal activity. If on the other hand, frequency is high but the severity low, steps may be taken to *reduce* the risk. For example, after the appointment of new medical officers in Benidorm in the early 1990s better food hygiene measures were introduced that reduced incidents of diarrhoea from over 15% of British holidaymakers to less than 6% (Ryan, 1996).

If the severity of incidents is likely to be high but the frequency of occurrence is low then it may be appropriate to *transfer* the risk. In terms of an organisation this can be as simple as insuring against incidents causing injury or distress. However in destination terms, insurance may be having systems in place to deal with incidents that may occur such as the successful victim support services put in place for visitors to Ireland (Victim Support, 2002) or having in place a major incident/trauma plan for medical services such as the case of Katherine in Australia illustrated by Faulkner and Vikulov (2001). Risk is an inherent part of life and in some cases where frequency is low and the severity is low, risk may just be accepted as part of the characteristics of the destination for example, if there are occasional minor thefts or unsupervised play areas with potential hazards, then this may be accepted as reasonable to *retain*.

Figure 10.2: Risk Evaluation Matrix

Based on Wilks & Page (2003): 11

This matrix has been applied from the perspective of a destination; however, as individuals we may have differing ideas on risk. The knowledge of the risks presented by a destination may not be as comprehensive for the individual but the potential visitor may also have different ideas on what risks are acceptable to take.

There is clearly a need to develop a programme of risk management tailored to the individual destination. This would involve not only assessing the level of risk within the destination but also, more importantly, identifying those responsible for undertaking any required actions. The difficulties is allocating responsibility in a destination situation are complex as there is generally no single responsible organisation (with the exception of self-contained destinations such as a cruise liner) making the whole process of risk assessment and management difficult to instigate.

10.3 Responsibility for Visitor Safety

Authors may have views on responsibility for aspects of visitor health and personal safety or for particular market, for example the following quote concerns students:

> *"The tourism industry must recognise its responsibilities. A cursory look at spring break promotional materials and videos highlights the type of alcohol and sexually related activities that the tourism industry is not only condoning, but encouraging. As the tourism industry is benefiting from students travelling during spring break, it clearly has a social responsibility in its marketing and promotional campaigns, and once students are at the destination."* (Josiam, Hobson, Dietrich and Smeaton, 1998:501)

It may be felt that their relative youth may require a more circumspect approach by those in the 'tourism industry'. This view, however sympathetically it may be viewed, does little to develop ideas on who should be assuming this responsibility as the 'tourism industry' cannot be considered as a single entity. It also takes little cognisance of the other findings that those participating in overindulgence tend to be the students who participate in similar behaviour at home. The article does make a number of suggestions as to possible action that could be taken but again fails to identify *who* should take this action nor its impact upon this market. The implication of the following quotation, taken from the same article, is that students predisposed to this type of behaviour will seek out destinations where they can indulge with little restriction, as:

> *"Students who wish to engage in heavy drinking, and a party lifestyle in general, may be more likely to travel to destinations that have few barriers to drinking. Such destination communities that target heavy drinkers may reap the economic*

benefits of tourism in the short term. However, in the long run, they are placing both the host community and the visiting students at risk from the consequences of alcohol abuse.” (Josiam et al, 1998:501)

It is questionable if an industry based on hedonism should be or could be responsible for the long-term impact on the visitors' health; this type of concern is unlikely to influence the interests of private companies unless they can see a negative impact on their future business. It is interesting to note the authors' unease for the impact on host community as a primary concern and the visitors as secondary.

Tourism professionals have traditionally shied away from overt messages concerning safety and security in the fear that they will discourage potential tourists, however Tarlow (2005), advocates that the very opposite is true with tourists seeking destinations that offer a sense of safety and security. Tarlow continues by saying:

> *“Although there is a small minority of travellers who seek out the most dangerous places, most visitors want to know what the industry is doing to protect them. Tourism professionals need to work with security professionals to protect visitors from locals who might seek to do the visitor harm, from other visitors who may be in transit for the purpose of committing crime, and less than honest staff members. Finally, the industry must seek to protect the visitor from its own professionals who may be willing to commit fraud or sell a product that is defective.”* (Tarlow, 2005: 1)

This should be expanded to other areas of health and safety that may impact on the visitor such as protecting them from accidents and disease but also needs to expand in terms of responsibility as the tourism professional would be required to work not only with security professionals, as advocated by Tarlow but also with government agencies, both local and national, health professionals and safety specialists. In this way the tourism professional may find a key role as co-ordinator and gatekeeper of information between visitors and potential visitors, and those with the necessary knowledge and expertise to protect them.

Issues relating to pre-travel advice are as complex as the hazards at a destination. Even when health is specifically addressed, there would seem to be large discrepancies between the advice given to visitors for a specific location. A study undertaken by Cabada, Maldonado, Quispe, Serrano, Mozo, Gonzales, Seas, Verdonck, Echevarria and Gotuzzo (2005) suggests that even where a large percentage of the tourists (in this case 93.6%) had received pre-travel health advice (with many receiving such advice from more than one source), this advice rarely

addressed the specific health risks for the destination (in this case Cuzco in Peru). While general health advice on issues such as safe consumption of food and water, use of insect repellent, sun protection and condoms was prevalent, it was evident that advice received by visitors prior to travel to a destination is generally inadequate. While there may be some onus on the authorities associated with the places that the visitors travel from, it is unlikely that that they will have sufficiently detailed information to cover the potential hazards for all destinations, it must therefore be the responsibility of the individual destination to provide information to potential visitors. This creates issues of communication and timing, but it cannot be expected that the visitors' safety can be protected just be information being provided to them, rather the visitor, along with other agencies and stake holders, would also have a level of responsibility for their own safety.

10.3.1 Responsibility beliefs of the visitor and accommodation providers

Within the surveys carried out for this research questions were asked about the levels of responsibility of various people, organisations and bodies for the safety of visitors. The same set of questions was posed to both accommodation providers and the visitors themselves with the results being coded on a three point Likert scale:

1. Little or no responsibility
2. A degree of responsibility
3. A high level/total responsibility

Table 10.1 compares the ranking of responsibility for accommodation providers and visitors; this was computed by using the mean value of their answers.

The responses from the accommodation providers and visitors are also compared by using the mean values, with Figure 10.3 showing the results.

Generally accommodation providers responded with higher responsibility levels, with the exception of the visitor being responsible for their own safety. Visitors generally believe that they are more responsible for their own safety than what accommodation providers believe.

The other area of interest is tour operators; the accommodation providers believed that operators had a higher degree of responsibility toward visitor safety.

Accommodation Providers	Visitor
Police services	Visitor
Visitor	Police services
Accommodation Providers	Accommodation Providers
Car Hire Companies	Local Government
Tour Operators	Site/land Owners
Local Government	Car Hire Companies
Mountain Rescue Services	National Government
Site/land Owners	Tour Operators
National Government	Area Tourist Board
Area Tourist Board	National Tourist Board
Travel agents	Mountain Rescue Services
National Tourist Board	Travel Agents

Figure 10.3: A comparison of responsibility beliefs
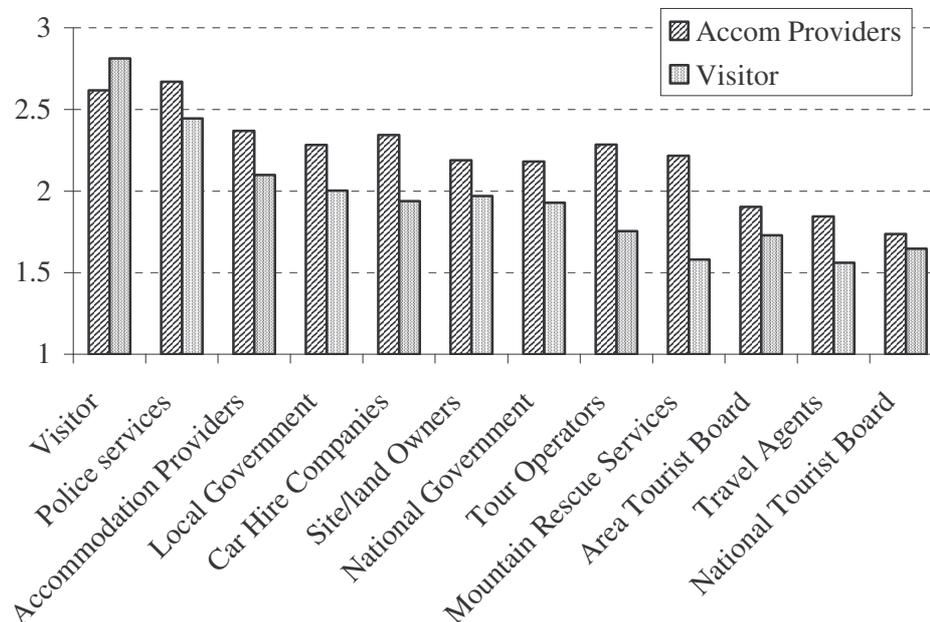
The factor analysis of the questions asked of visitors relating to who they think are responsible for their safety within the destination produced three components: 'authorities', 'service providers' and 'self' (see Table 10.2). The factor analysis was

carried out using Varimax rotation, with a threshold of 0.5 was used to decide if a variable was significant or not (see Appendix F for details of loadings).

The groupings were split fairly evenly with 34% believing that 'authorities' are responsible, 34% believing that 'service providers' are responsible and 32% believing that they themselves are responsible for their safety ('self'). This suggests that groups of visitors may have to be treated differently.

Table 10.2: Factor analysis of questions relating to responsibility for safety

Responsibility types	Characteristics
Authorities	Area Tourist Board
	National Tourist Board
	Local Government
	National Government
	Police services
Service Providers	Site/land Owners
	Tour Operators
	Accommodation Providers
	Travel Agents
Self	Visitor

Within the demographics there are quite clear differences in attitudes to responsibility for safety at the destination with over 45 being much more likely to belief that they are personally responsible for their own safety (see Table 10.3).

Table 10.3: Cross tabulation of attitude toward responsibility for safety by age

	Authorities	Service suppliers	Self
15-24	44%	28%	28%
25-34	30%	44%	26%
35-44	43%	48%	10%
45-54	33%	24%	43%
55-64	22%	17%	61%
65 plus	31%	38%	31%
Total	34%	34%	32%

The main difference seen between male and females with regard to attitudes towards safety responsibility were concerning service suppliers and authorities; males were more likely to believe that service providers were responsible and females rating authorities as having more responsibility (see Table 10.4).

Table 10.4: Cross tabulation of attitude towards responsibility for safety by gender

	Authorities	Service suppliers	Self
Male	25%	44%	30%
Female	43%	23%	34%
Total	34%	34%	32%

10.4 Summary

Both the visitor and the accommodation providers believe that the visitor has a high level of responsibility for their own safety; with official tourist organisations such as tourist boards are rated as having low responsibility. As the visitor may require information concerning the hazards of area to help them to take responsibility for their safety then these organisations will play a part in this. Although the research would indicate that there is a degree of responsibility placed on the visitor, Dann and Cohen (1991) suggest that tourism "*is often viewed as a series of transitory events where responsibility is placed in abeyance or suspended.*" (Dann and Cohen, 1991:303) and that it contains an element of fantasy. These themes of fantasy and abeyance of responsibility have been apparent in a great deal of research into various topics concerning tourism. And this combines with less clearly defined responsibility roles in the destination for the visitor.

While research studies have shown that many of the health and personal safety problems experienced by visitors to an area were preventable and a result of inadequate precautions prior to the trip or the visitors' behaviour while on vacation, visitors were inclined to blame external factors for their illness (Jackson and White, 1993). The results from this research would seem to contradict this idea of a lack of willingness on the part of the visitor to take responsibility for their own safety; with visitors indicating themselves as having a high level of responsibility. Destinations such as Disney have an overt focus on safety (Hall and Page, 2002) that is very appealing to families with young children but that a 20-year-old seeking adventure may find constraining, even if his/her parents would prefer it! Destinations must take cognisance that the majority of visitors will be between these two extremes and will have expectations that, allow they take responsibility for many of their actions and behaviours, they also expect that the destination authorities and tourism agents will ensure a relatively safe environment and indicate hazards which may be avoided.

This chapter has developed the idea of risk and responsibility to conclude the analysis of visitor well-being. The final chapter discusses the implications of this research for stakeholders and identifies areas for future study.

Chapter Eleven: Visitor Well-being: Implications from the research

11.0 Introduction

In chapter four a framework of visitor well-being was developed based on literature in the area of visitor health and personal safety (Figure 11.1). This framework portrays the complexity of the range of forces that influence well-being in a destination.

Figure 11.1 The framework of visitor well-being
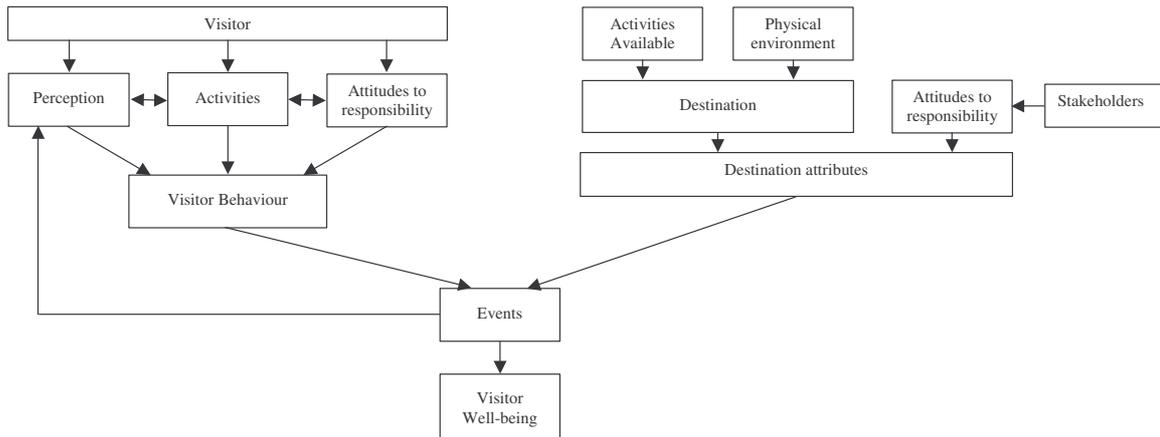
The framework illustrates that visitor well-being is a product of the interaction of visitor behaviour with the destination attributes to create the events experienced by the visitor. The resulting events can change the visitor's perception of the destination and impact on their well-being.

The destination includes all the physical aspects of the destination and the activities that are available for the visitor to participate in. This is the context in which the visitor exists. The main aspects of the research have concentrated on the visitor and what happens to the visitor in the context of the destination. Although local residents and visitors generally share the same environment, it would appear that they are affected differently by incidents, with visitors not always being at increased risk from the hazards within the environment. This difference between locals and visitors should not be unexpected as the visitor is removed from his or her home environment into an environment where he or she has less knowledge of the potential hazards; and this combines with the change in attitude, and thus behaviour, towards potentially hazardous situations.

The key themes that emerged throughout the research was that visitors were not necessarily at more risk of experiencing negative incidents but that these incidents tended to be different both in terms of the type of incident experienced and the time and place that the incident occurred. In each of the areas studied these differences were marked.

11.1 Key themes

The research suggests that the main consideration is that in all respects of well-being the visitor is different from local residents in terms of both the type and nature of incidents and the approaches required to protect and look after them. While a holistic approach is required to develop suitable systems and procedures to better ensure well-being of visitors, this research has identified specific areas of concern.

11.1.1 Crime

Issues of criminal activity impact on everybody's well-being, but criminal victimisation in an unfamiliar environment can be even more distressing. The findings of this research would indicate that there are significant variations between how local residents and visitors are affected by crime. As well as seasonal variations, visitors are:

➢ More likely to be victims of property crime.
➢ More likely to be victims of theft of vehicles and theft from vehicles.
➢ More likely to be victims of crime between 2pm and 8pm.
➢ Less likely to have their crimes solved (detected).

11.1.2 Road traffic accidents

Despite the major role of the car in tourism there has been little research into road traffic accidents and visitors. This research has found there to be significant differences in the nature and type road traffic accidents affecting visitors when compared to the local population. Alongside the expected seasonal variances there were a number of less expected differences, visitors are:

➢ More likely to be involved in fatal or serious accidents.
➢ More likely to be involved in an accident if they are male.
➢ More likely to be involved in an accident between 10.00hrs and 16.00hrs
➢ More likely to have an accident on major roads and outside built up areas.

➢ More likely to be involved in a head-on crash.

11.1.3 Emergency health care

The information gained from examining emergency health data was more challenging to use because of its disparate nature. However there were some fairly obvious differences between the types of admissions for visitors and local residents. There are seasonal variations similar to those found for RTAs and crime, but other differences were also found. Visitors are more likely to seek emergency health care:

➢ If they are male.

➢ For acute myocardial infarction (heart attack).

➢ For fractures.

The emergency health data concerning admissions for RTAs also collaborates the data obtained for road traffic accidents.

While awareness of the nature and type of incidents affecting visitors is important, these actual differences identified from official databases are not necessarily reflected in the visitor's perceptions.

11.1.4 Relative risk and perception

The aspect that the visitors are concerned about may not be those that present most risk, for example visitors are likely to be concerned about crime, as was highlighted when they were asked about what made them feel safe, virtually all the responses related to things that would make them feel less at risk from criminal activity and yet their likelihood of being a victim of crime is similar to that of local residents, while their risk of being a casualty in an RTA increases substantially.

Despite this, visitors felt safer at the destination than at home and their perception of the destination is that it is a safe place. The research also suggests that visitors are inclined to accept a high degree of responsibility for their own health and personal safety.

Figure 11.2 is a graphical illustration of the way in which the health and safety hazards in an environment impact on the visitor. The diagram illustrates that visitors are more likely to experience some incidents and less likely to experience other incidents, using local resident as the baseline; for example hazard 1 might illustrate

head on road traffic accidents and hazard 5 might illustrate assault. This is an appropriate baseline for the destination area used in the study; the majority of visitors are UK residents are from similar environments with similar standards of living, health care, policing, etc. It may be that where a destination mainly attracts visitors from areas with very different standards of living in their home environment that comparison with the local residents of the destination would be meaningless. Where the visitor expectation of health and safety provision is based on a very different environment, there may be a case that these destinations should compare relative risk based on the home conditions of their main markets. This is a valid approach in some circumstances and one taken in some studies, for example Brunt et al (2000).

Figure 11.2: Differing risk of health and safety incidents for locals and visitors
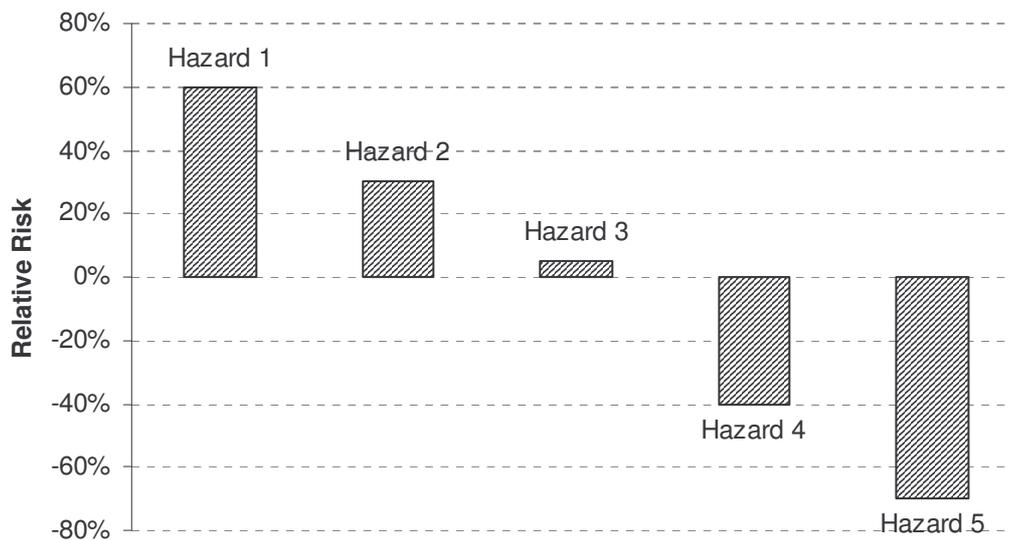
Developed by the author

The data presented in this thesis demonstrates that there were clear differences in the nature and type of crime alongside the expected seasonal variation in crime, there were also substantial differences in the time of day that visitors were experiencing crime. This was also true of the data concerning road traffic accidents (RTAs). Although not so clearly represented in the hospital data, there were still similar patterns apparent. As the visitor only makes up a small percentage (circa 7%) of the total population the events that affect them can be masked by the more prevalent events that are occurring to non-visitors therefore the trends concerning visitors have to be specifically looked for.

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11.2 Revising the framework of visitor well-being

The experience the visitor has in the destination will be affected by measures taken to protect the visitor and services and facilities available should they suffer negative events such as an accident or a criminal incident. This aspect of the destination can be attributed to the attitudes and beliefs of the local stakeholders toward the visitor. These attitudes and beliefs will affect the resources and level of provision for visitor welfare made by the destination. When the physical environment, the services available and the attitudes of the local stakeholders combine, they form the attributes of the destination (see Figure 11.1)

However, one of the key determinants of future visitor behaviour is events that have occurred in the past. Past events affect the visitor's perception of a destination, which in turn affect their attitudes to responsibility as well as activities that they are willing to undertake. This feedback is automatic, and can be sub-conscious, as the information about the event is, by its very nature, known by the visitor. This is illustrated by the feedback arrow from events to visitor perception (Figure 11.1).

In order to improve visitor well-being there must be an appreciation of the nature and type of incidents that effect visitors and how these are translated into events by the visitor. Details of these events need to be utilised by the stakeholders to fashion interventions that can improve destination attributes and therefore visitor well-being. However stakeholders must actively seek information concerning these events. Figure 11.3 is a revised to demonstrate this with a dotted line from events to the stakeholders to illustrate the potential to learn from the events that affect visitors and create interventions based on their experience.

Figure 11.3 Revised framework of well-being

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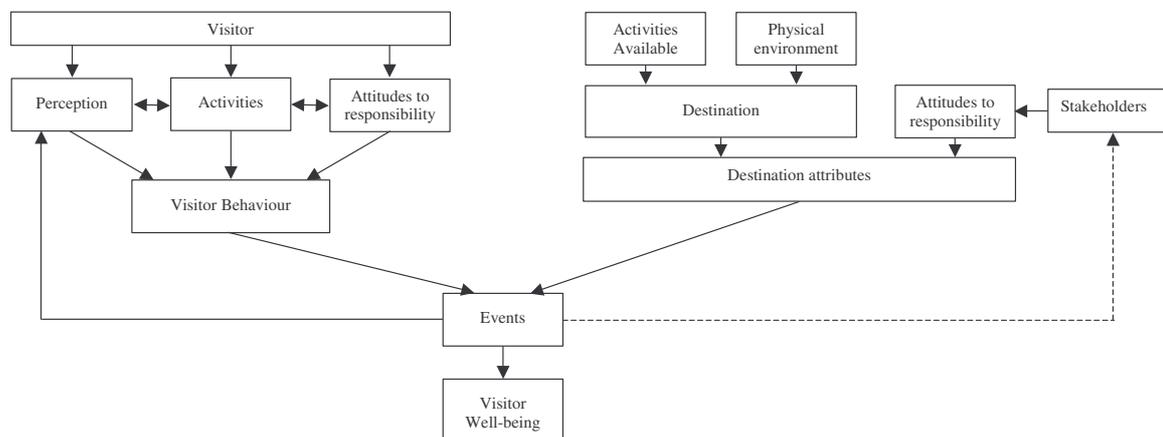
There are two elements within the framework, visitor behaviour and destination attributes. The aspects of destination health and safety relating to visitor behaviour are dependent on the typology of the visitor, the activities that they wish to participate in, their perception of the destination and their attitude towards looking after their own health and safety. Many of these aspects are influenced by the destination attributes, for example the activities available will impact on activities undertaken. The visitor's type that is attracted will be affected by what is available at the destination in terms of physical attributes and facilities available. The visitor will have some ability to control their well-being but this will very much depend on their knowledge of the destination which may be a result of the image portrayed.

The destination has unique hazards but these can be at least partially mitigated by stakeholders within the destination. Developing systems that gives feedback of events to stakeholders will allow them to develop interventions that can prevent negative events or reduce their severity. This in turn will positively affect the perception of the visitor and make a repeat visit and word of mouth recommendation more likely.

11.3 Visitor well-being: A policy framework

The framework suggests that the attitudes of the stakeholders in a destination can have a distinct impact on visitor well-being. While this can in part be achieved by utilising the systems in place for local residents such as police services, sanitation and road safety engineering. There are particular issues relating to the visitor that need to be address to tackle the differences in the type and nature of incidents impacting on them. However, putting in place specific measures that address the actual incidents impacting on visitors is only a partial answer to improved visitor well-being. There have been moves in some countries toward developing policy on the personal safety and security of travellers, for example, Smith (1999) discusses the initiatives and measures introduced by the United States between 1980 and 2000 to improve the health and safety of travellers.

In order to fully address the issues surrounding visitor well-being, the visitors' perceptions of incidents (and possibility of incidents occurring) must also be assessed and the information used to improve perceptions of the area. Although tourism can be seen as a system with a generating region, a transit region and a destination region, the main tourism activity is experienced in the destination. The destination is rarely

custom-built and so the visitor is very much dependent on the conditions that are prevalent in the community that is acting as the destination. While there are generally fairly clear, developed systems of responsibility for the well-being of a resident within a community, the responsibility for the well-being of the visitor is less obvious. Who takes responsibility and the degree of responsibility, will vary according to factors such as the degree of dependency on tourism income, the level of public ownership or control and the extent to which tourism is considered a 'good thing'. Responsibility for visitor well-being may be seen as solely belonging to those providing tourism services, this would seem like a logical argument as, for example, a car manufacturer would be responsible for the safety of his product – the car. However, it is rarely the case that only one provider is involved in the 'tourism product' within a destination nor are all aspects of the 'tourism product' provided by tourism businesses. To continue the analogy of the car, although the manufacturer may be responsible for ensuring the car is road worthy when first sold, he is not considered responsible for road safety, the behaviour of the driver or other road users nor for the upkeep of the vehicle. Similarly, the provider of elements of the tourism product cannot be held responsible for all aspects of the visitors' well-being in the destination.

The value of the research lies in the 'ordinariness' of the context of the study. This research demonstrates that even in an area with low crime rates, relatively safe roads and health environment, there are still issues that need to be addressed to ensure visitor well-being. Not least of these is the hidden nature of much of the information on incidents that affect visitors. The relative number of visitors is small in relation to the overall population and is therefore largely subsumed in the overall data.

A destination may suffer from lack of resource allocation for visitor well-being programs due to those who hold the control of resources not appreciating the importance of this issue. The stakeholders therefore may have to embark on an internal marketing campaign to raise awareness of this issue and encourage allocation of resources. There are also issues in terms of willingness to identify and explore these issues for localised political reasons i.e. not wishing to allocate additional resources particularly if it means redirecting local resources or where it is felt that potential visitors may be discouraged from visiting by safety messages.

Incidents often make sensational media stories. This may explain why government policy intervention and destinations have become more focussed on these issues in

view of the global media attention that visitor well-being issues now attract. The complexity of the tourism product, as an amalgam of businesses and services provided by the public, private and voluntary sector, is further complicated by the interconnected nature of the provision with products and services that are not tourism-specific.

If the basic expectation of the visitor is to be able to enjoy a safe environment in their chosen destination without undue curtailment of their leisure activities, then methods of ameliorating risk must be found either through reducing hazards or more adequately preparing the visitor.

11.4 Protecting the Visitor

The research suggests that visitors are prepared to take a high level of responsibility for their own health and personal safety. However, they can only do this effectively when they are armed with sufficient information to make their own judgement. Only when they are equipped with adequate knowledge of the destination and its hazards can they make informed choices.

11.4.1 Information and advice

Many of the incidents involving visitors may be prevented by better information and advice. There are issues of where, when and who should provide such information. Where a visitor books through an agent, there is an obvious channel for information, however, the use of agents for travel is reducing and has never been high for internal travel or day-trips. Even where agents are used and/or package holidays booked, there has been some questioning of the availability and quality of advice from such sources (Reid et al, 1986)

General practitioners (GPs) may be a good source of pre-travel health advice, particularly for those with chronic health problems but this will not be holistic (i.e. is unlikely to address issues such as behaviour aimed at reducing accidents or preventing criminal victimisation) nor is it likely to be destination specific. This is improving in terms of health as most GPs or associated nurses will have access to information about main health issues associated with particular destinations along with the recommended inoculations with the development of travel health databases such as the Travax database in the UK (Cossar et al, 1988).

Even where a visitor has the desire to take responsibility for their own safety, there can be circumstances where this cannot always be the case. Visitors may rely on a level of protection at provider and legislative level to protect themselves and their families. This is illustrated by the tragic events in Corfu that led to the death of two children through carbon monoxide poisoning. There was an expectation that the EU action on ensuring responsibility is taken by tour operators with the introduction of the "Package Holiday Directive" that tour operators will seek assurance from providers on compliance with safety standards. "UK tour operators" will, when contracting hotels, ask their accommodation providers to guarantee that all EU rules are obeyed in respect of health and safety (e.g. fire escapes, fire extinguishers, water heater flues and so on). Tour operators have to be able to rely on guarantees provided by the hotel management who sign the contracts with tour operators." (AITO statement reported in Travel Mole, 2006). However, there is no such directive that covers accommodation booked on the Internet and there is little done to ensure compliance of hoteliers to the directive even where it does apply (Travel Mole 2006). This issue is likely to become even more important as consumers become more sophisticated travellers, web savvy and continue to move away from packaged holidays. This issue is expressed in a call from the consumer group HolidayTravelWatch for Package Travel Regulation compliance and for a government review of the regulations.

Managing director Frank Brehany said:

> *"We now challenge the Federation of Tour Operators and ABTA to publicly and unequivocally state that following the Court of Appeal decision and the likely increase in the sales of DIY holidays, that their members will ensure that such holidays will comply with the Package Travel Regulations, and that holidaymakers will enjoy their rights under those Regulations.*
> *Further, we challenge them to re-double their efforts to ensure that all 'traditional' package holidays and health and safety audits are sufficiently assessed to ensure their compliance with the Package Travel Regulations."*
> (Travel Mole, 2006)

Levels of legislation and compliance are variable with regard to health and safety issues for international travellers. In the domestic market, there may be an expectation that certain basic standards are adhered to, yet without sufficient enforcement, compliance may only occur where the provider does so through their own ethical consideration. If compliance is left to the individual operators, then those

who comply with health and safety regulations may find it difficult to compete with less scrupulous providers who are prepared to take a chance and not invest in the necessary precautions.

11.4.2 How do we warn the visitor?

Advice in the literature and on government sites for UK travellers mainly concerns issues relating to travelling to other countries where there may be different levels of sanitation, water safety, medical care, etc. As such, advice tends to centre round aspects of safety such as the purchase of insurance, pre-travel checks, immunisation in good time, anti-malarial medication, dental checks prior to travel and making sure of sufficient medication for existing conditions. When travelling in one's own country or in a place perceived of as having similar conditions to their own country, there may be a feeling that such precautions are unnecessary.

Visitors can, and do, ignore warning signs even in the most dangerous places (Heggie 2006). What can be done to protect those who may find themselves ill-equipped and unable to deal with the consequences of their actions when they fail to heed warnings? While a contained environment may allow for steps to be taken to reduce hazards, for most destinations such containment is not feasible or desirable. Issues of education then may have to be approached but how can destination stakeholders ensure that the safety message reach visitors in an effective way?

Although it might be accepted that the destination has some responsibility for the visitor, there remains the issue of how, where and when steps can be taken to reduce the risk of visitors succumbing to incidents while in the destination. Even in packaged situations, visitors are injured and lose their lives due to their lack of knowledge of the area and its danger. Warnings on safety aspects that may have prevented such incidents are traditionally placed within the welcome meeting, which often take place several hours after arrival in a destination; in a number of cases too late. Injuries and mortality such as over-exposure to sun; diving into shallow swimming pools or not taking due care on unfamiliar roads are prevalent. Although some incidents are due to hazards very specific to the destination, many are quite general. Even the somewhat limited success of such welcome meeting warnings by company representatives depend on visitors being in a package holiday situation and

choosing to voluntarily spend part of their visit at a welcome meeting which is often basically a sales pitch for organised trips.

Approaches to reaching the visitor must concentrate on the likely places/channels that visitors will be exposed to before they leave for their visit, while they are travelling to the destination and during their stay. While destination vary, most will have information on their visitors that can assist in this process such as main generating markets; profile of visitors (i.e. demographics, typologies, travel group composition, etc.); how they travel to and in the destination and where they go whilst in the destination.

Most destinations will collect this data for other purposes but it is a vital step to understanding the way that events will impact on the visitor. This information is typically collected for marketing purposes and often used to profile visitors in marketing terms e.g. 'snow geese'; 'golf widows' or 'active families'. This is then used to target groups in ways that will reach them effectively. This same information used by marketing organisations to promote the destination can be used to effectively produce safety messages in formats, places and at times most appropriate to the particular client group being targeted. However, as with destination promotion, this approach must be fashioned to the individual needs of the groups being targeted. While this research has been a useful starting point for understanding the differences between visitors and local residents, visitors will not be a homogenous group but rather will consist of sub-groupings. Such sub-groups will be party to differing events and have different information needs.

The avoidance of duplication or information overload is crucial if visitors are to benefit fully. Therefore messages need to be co-ordinated with agencies working together to achieve maximum effect. This will not only protect the visitor from receiving too much information, and inadvertently giving the impression that the destination is dangerous but it will also prove cost effective if resources are pulled. An example of this type of co-operation can be found in the Scottish Borders where the Council has initiated "New Ways" which with other bodies such as the NHS Boards, Scottish Enterprise, Fire Boards, Police Boards and Chief Constables to establish close working practices but they have also brought in other 'vital partners' such as Borders College, VisitScotland Borders, Communities Scotland and the Voluntary Sector to develop the Scottish Borders community

(www.scottishbordersnewways.com). The involvement of the area tourist organisation ensures that the needs of the visitors are not neglected in the process. This information can be used to identify the most appropriate way of communicating with the majority of visitors.

In bringing together information, in most cases from existing mechanisms, a 'map' of opportunities can be compiled. This 'map' can identify suitable locations, both physical and virtual, to reach the target audience. For example, for a destination that mainly attracts family groups travelling by car, it may be appropriate to:

- ➢ Develop links with internet travel routing services such as the RAC or AA to add advice on road safety or links to advice sites (Pre-trip);
- ➢ Place information in petrol stations or motorway services in the form of children's activity booklets (En-route) and;
- ➢ Incorporate safety information into attraction and accommodation leaflets and promotional material (In destination).

Such measures require co-operation and research to assess the effectiveness of the approaches. There is also the question of how susceptible to warnings a visitor will be on commencement of a period of hedonic leisure. Even where information is given in a timely fashion, in an accessible place and format, it may not be sufficient to protect the visitor.

It is unlikely that a visitor will seek out information concerning the risks that they face within a destination, especially if they feel that they are safer at that destination than they are at home. Therefore any safety information that is aimed at the visitor must be easily available. This need may be amplified when there is a language or cultural barrier between the visitor and the destination.

There is also an issue of how to use services within a destination. The access to many of the services, such as medical care, is subject to local knowledge. Most people know where their local health centre is and the procedures for seeking medial attention there, however this may not be the case for visitors. This local knowledge must be disseminated into the visitor community in a manner that it is accessible and useful.

The differences in knowledge base does not fully account for the differences in risk level between visitors and local residents. Therefore the destination stakeholders

must assess methods of reducing the risk of events that may reduce visitor well-being and/or ameliorate the impact when such events occur.

11.4.3 Prevention

Difficulties arise when seeking to control environmental hazards, particularly when the visitor is seeking an adventure. Issues of control will be especially difficult where the visitor does not seek activities in the confines of an adventure activity provider. Scotland, as with a number of other destinations, has been promoting itself on its attributes as an adventure activity destination. Such promotion has been effective in increasing the numbers visiting Scotland but with a more active market base, the issues of keeping the visitor safe are of particular importance.

Morgan and Dimmock (2006) state that not all risk can be eliminated from activities provided by adventure tourism operators, however at least in this scenario there is an ability to regulate and reduce risk to the client, where the visitor is undertaking activities without the protection provided by operators, it will be harder.

Measures to protect visitors from hazards and to effectively communicate dangers are apparent in many destination areas, but with more and more areas opening up to tourism at a time when there is greater awareness of rights and responsibilities (Walker and Page, 2003), there is a need to ensure that destinations do as much possible to protect the well-being of the visitor. Risk assessment is normally related to one particular activity or group of activities, the idea of assessing an entire destination with all its attendant parts is not an appealing proposition. However, if the destination does not at least seek to address these issues then that destination may be considered too hazardous for visitors. Assessing risk within a destination and then taking steps to manage that risk must, by the disparate nature of the 'tourism product' providers, involve a partnership approach with the visitor as an integral part of that process.

Benevolent intervention to reduce incidents may be effective. Lessons may be learned from other situations where groups have been particularly targeted from interventions. For example, Lothian and Borders "What's around the corner" campaign aims to encourage safer motorbike riding in the Scottish Borders by locating police officers in well known biker stop points and talking with riders about their riding in a non-confrontational manner (www.aroundthecorner.org.uk). Such

interventions could be used for visitors by targeting well known tourist locations and using a similar approach. This could tackle not only driver behaviour to reduce road traffic accidents but could also be used to increase awareness of crime and other accidents. Officers trained in tourist/community policing with an approachable nature would provide both advice and reassurance.

Additional measures such as provision of secure storage would assist in reducing crime, particularly as many visitors wish to tour. This could be provided at public transport hubs, police stations or similar secure public areas. This would require additional resources in terms of space, staffing and insurance but would be an effective way of reducing the property crime that disproportionately affects visitors. A small fee could be introduced but the service would have to be easily accessible and promoted to the visitor.

Steps to ensure the safety of the visitor have to be multifaceted and involve all stakeholders including the visitor. The results of this research suggested that visitors were quite prepared to take some responsibility for their own safety but that there were distinctly different groups with their own views on such responsibility.

11.4.4 When things go wrong

Another area of interest is the impact on visitor perception of any negative event and how it is affected by the treatment received after the incident, either positively or negatively. This is likely to be a complex interaction including aspects such as the relative seriousness of the incident in the eyes of the visitor, reporting of the incident and knowledge of the incident by those at the destination. Such factors are further complicated by non-destination factors such as the personality of the visitor, their expectations, and the reaction of any travelling companions/other guests. Again, this would require access to visitors who had experienced negative incidents. This would benefit from a qualitative approach to allow analysis of key incidents and recurring themes. Such research would allow the destination authorities to further understand the nature of their interaction with the visitor and the ways in which they could approach introducing assistance post incident.

In terms of crime, the particular needs of the visitor are recognised in the form of specialist victim support in some destinations (for example, in Holland, Thailand and Eire). Such overt action in seeking to ameliorate the impact of negative incidents has

proved to improve visitor perception of the incident itself and, to an extent, reinstate their positive view of the destination. Such programmes could be expanded to cover other areas that impact on visitor well-being such as visitors suffering for the effects of illness or accidents in an unfamiliar environment.

There are a number of difficulties in discussing emergency health for a destination such as the Forth Valley area. The Forth Valley Health Board or NHS Forth Valley is a trust operating in the context of a National Health Service (NHS). As part of a UK system, emergency provision is free for all UK citizens and as part of a reciprocal health agreement; this service is also free to all European Union (EU) citizens. Individual trusts have devolved budgets calculated primarily on their population base. Therefore, large numbers of visitors and/or visitors participating in dangerous activities can have budgetary implications. This is further complicated by health being a devolved issue for Scotland (The Scottish Parliament has budgetary and some legislative control over health services in Scotland). Similar complexities occur in policing and transport. While Scotland currently operates within the UK system, this could become an issue in the future particularly if Scotland does achieve independence.

Post-event care requires resource provision. The cost to instigate such programmes would have to be justified to those bearing the burden of the cost. As with many aspects of tourism, there is difficulty as those who would be most likely to pay for such provision (the taxpayer) may not see any immediate benefit in spending resources in this way when it may be perceived that this is taking away resources from local residents (e.g. local health services/policing/schools).

11.4.5 Taking the lead

While national government, local authorities, police and health trusts may undertake activities that protect the visitor and assist them in the event of a negative incident, these measures are rarely specifically aimed at the visitor and, where they are, they tend to be based on anecdotal evidence rather than research based evidence.

Currently there are few clear lines of responsibility for visitors. In order to make progress on visitor well-being there is a requirement for a coordinating body that can move the issue up the political agenda. Currently there is no such body even in the relatively small country of Scotland. Tourism is a devolved issue in Scotland, and the

majority of aspects that impact on visitor well-being are also devolved, for example Health and Transport. Therefore there are strong possibilities for developing an effective coordinating structure.

11.5 Summary

Well-being of the visitor is dependent on a number of factors including the visitors' perceptions, attitudes and behaviour combined with the attributes of the destination including the attitude of the local residents and the physical environment. Events are key to well-being, and when a person is a visitor these events are liable to differ from ones that locals would encounter. Events are not just instances in time, and include how the visitor is treated 'post incident', for example by the police when a crime has been reported. As events are key to well-being, then the control and management of these events is important in looking after the well-being of visitor. The tourism industry, governments and even other agencies initially not considered involved in tourism may have to consider their position in terms of the care that they give visitors in a destination area. The recent Tsunami that devastated many Indian Ocean countries on the 26th December 2004 has resulted in a lawsuit by 15 Austrian and four German victims of the disaster. Although the initial lawsuit is aimed at uncovering evidence that could prove neglect, this may lead to compensation claims. The interesting aspect of this case in terms of this thesis is that the claims are being made against the Thai government, Accor (the French hotel chain) and the National Oceanic and Atmospheric Administration (NOAA) – a US-run organisation that operates a tsunami early warning system. The accusations include that NOAA and the Thai government had information that they failed to pass on. The accusations against Accor centre on their failure to properly inform relatives of victims after the disaster and the building of their resort on a known quake fracture line (Travelwire News, 2005). The implications from such a case, if successful, would be far reaching; even if it not successful, it may initiate other similar actions.

11.6 Overview

The two key points that are apparent from this research are:

> ➢ The types of incidents that impact on the visitor are not only different in nature but show distinct temporal and geographical variances.
> ➢ The information on incidents affecting visitors is subsumed in the overall data on incidents.

To address these issues there is a requirement for:

> - More detailed analysis to uncover patterns of incidents affecting visitors.
> - The development of clear lines of responsibility for aspects of visitor well-being.
> - A holistic approach to well-being issues for visitors.
> - The development of a coordinating body.
> - Visitor well-being issues to be moved up the political agenda.
> - Information available in appropriate formats at appropriate times in appropriate locations for visitors
> - Information available in appropriate formats at appropriate times in appropriate locations for service providers
> - Provision of post-incident care
> - Research with a practical focus i.e. what can be done to improve the situation.

The dynamic nature of visitor well-being and its interactive nature raises some interesting questions about the encounter; aspects such as exposure time and the consequences of action taken to the visitor's view of the destination after any negative incident. As with all research, while this thesis may have addressed some of the issues surrounding visitor well-being, it has raised other questions that warrant further research. While there are likely to be generic threads for all destinations, stakeholders will have to identify issues that are particularly to their individual destinations. There follows an outline of further research that has become apparent through this research.

11.7 Further research

The experience of the visitor and its impact on subsequent behaviour is an interesting area worthy of further research. However, it would require information from a large number of visitors who had been involved in incidents from one destination area, their length of stay and other information to expose other factors that may have contributed such as demographics and activities undertaken.

A number of research areas could be developed from this research, foremost must be to test the validity of the framework. There are logistical difficulties in examining such a complex issue in terms of tourists, not least of which is access to potential visitors to a destination. Given that perception both prior to, during and post visit all play a part in the overall experience, a longitudinal study would be required that

involves a large number of participants. The logistical and resource implications of such a study may make it prohibitive unless it can be incorporated within an existing study such as that undertaken by the Office for National Statistics (ONS) into time use. Even if this could be achieved, it would only cover UK residents, whose issues may be different than those of overseas visitors.

11.7.1 National study of visitor incidents

An expansion of this research to cover all areas of the UK would allow a wider view of the differences in incidents affecting local residents and visitors. Data for the whole of the UK would allow a deeper understanding of any specific differences in the nature and type of incidents involving overseas visitors. However, to be truly effective, there would have to be a greater emphasis on correct form completion by the police and accident investigation units. The difficulties involved in this were discussed earlier in the thesis but suffice to say here that the forms are completed in difficult circumstances. Again, to gain primary data to assess the visitors' perceptions and behaviours would require a large study with prohibitive resource implications.

11.7.2 Cost-benefit analysis

Arguments could be made for appraising the economic impact of visitor incidents to the destination. Cost-benefit analysis of visitor incidents may illuminate the true economic benefit accruing from tourism. In terms of visitor well-being, it would justify spending on resources for prevention or awareness raising. However, there may be issues in terms of domestic visitors within a national system. For example, the implications of assessing cost and allocating cost back to each health care trust in the NHS may cause issues in terms of treatment for people from outside the area. This may impact seriously on the current 'free at point of delivery' principle that currently operates.

Schmierer and Jackson (2006) suggest that health care issues for visitors are the responsibility of the host community, local authorities and the potential visitor but there may be an argument that responsibility also lies with the tourist generating areas. There are two reasons that they may play a role as stakeholders in the health and personal safety of their citizens while they are in the tourist areas. Firstly, it could be argued that, particularly in the case of packaged tours to less developed countries, much of the economic benefit accrues to the agents based in the generating area.

Secondly, and perhaps more compellingly, the returning visitors may bring with them resulting health issues, both physical and psychological, associated with their incident in the destination visited. Medium to long-term health issues will have an impact on the generating area through loss of economic activity. For example, a tourist, returning from a ski trip with a broken limb, may require several weeks' absence from work and require further medical treatment.

Understanding the requirements of the visitor is the preliminary step required to either allocating or seeking to allocate, additional resources to fulfil these requirements. Separating out and apportioning cost to the consequences of incidents involving visitors is beyond the remit of this research. However, if the costs are in proportion to the number of visitors identified as having sought treatment, reported crime or being involved in a road traffic accident, it would be a significant cost. It is possible that these costs are not proportionate in this way as visitors may require more resources when involved in incidents. For example in the case of RTAs, incidents involving visitors tended to be more serious and hence, would have a higher cost not only in terms of human life and well-being but also in the economic cost to the destination. Clearly, addressing the issues affecting visitor well-being is in the best interest of the destination, economically, socially and morally.

While the focus of this research has been the Forth Valley area of Scotland, even in such a relatively small area the impacts will not be evenly spread. Areas where tourist numbers are high, and more particularly where there are opportunities for adventurous activities, will experience a stretching of resources in the peak tourist season that is far greater than is apparent when assessing statistics from the entire area. Where such areas are outside the administrative centres or on the edge of authority boundaries, the additional resource requirement may not be recognised as a priority area. Difficulties in resource allocation, combined with reduced resources to the local authority areas may make any political will to improve visitor well-being impossible to implement, even if it would reduce costs and increase economic benefit from tourism in the longer term. Cost-benefit research into the benefits of reducing incident rates for visitors may assist in releasing resources to tourist areas. Although identifying costs may be easier than identifying benefits due to the nebulous nature of tourism.

Throughout the research many of the aspects discussed in terms of visitor exposure to and knowledge of hazards has been alluded to but there is a need for research into exactly what affect aspects such as length of stay, activities undertaken, mode of transport, number in group, etc has on incidents. In terms of exposure, it might be supposed that this is a linear relationship, i.e. the more time spent at a destination, the greater the risk of incidents occurring. While in purely statistical terms, the longer spent at the destination, the greater the change of being involved in a negative incident, there may be reasons why this may not be a direct relationship, i.e. a visitor spending 14 nights in a destination may not be twice as likely to experience a negative event than one spending only 7 nights. Further research would be required to explore this, but it is conjectured that longer exposure would result in the visitor becoming more familiar with the destination and its characteristics, including hazards, resulting in modified behaviour.

11.7.4 Specific research areas

While the above discusses areas of general research that would increase the understanding of incidents affecting visitors and their relationship with well-being, each of the sub-areas of this thesis (crime; health and road accidents) would benefits from specific research to allow the development of interventions that could improve visitor well-being by tackling health and personal safety.

11.7.4.1 Criminal incidents

Crime prevention, unlike other risk-based safety and security measures such as fire prevention, has been a relatively recent area of development (O'Malley and Hutchinson, 2007). The idea of emphasising behaviours and utilising this information to 'design out' opportunities for crime (Cohen, 1985) can be seen as particularly beneficial in reducing the types of crime particularly experienced by visitors. The research indicates that visitors are more likely to experience property crime particularly against their car. As visitors are inclined to visit particular locations, car parks linked to walking/climbing/skiing areas and visitor attractions are prone to targeting by criminals; therefore particular situational crime prevention measures may be more appropriate for overtly tourism areas. Informal discussions with police officers suggests a growing trend for groups of criminals from the urban areas (in this

case Glasgow/ Edinburgh) driving to remote sites where visitors leave their cars to recreate in the surrounding mountains. With such situations there is a need for additional research to produce effective policing measures. Questions that need to be addressed include:

> Geographical assessing where visitor crime occurs, and what are the elements of criminal activity that distinguishes such activity from that affecting local residents.

> Can 'hotspot' areas be targeted with situational crime prevention programmes?

> What is the role of visitor alcohol and drug consumption in crime affecting visitors?

> How would visitors like to be informed of potential danger from criminal activities?

> Are visitor adequately insured for the extra risks associated with being a visitor? In particular do domestic visitors have coverage for loss of property and how do we encourage them to take additional cover for domestic holidays?

> What is the effect of the duration of trip? Does the risk to visitors reduce with time as they become more familiar with the environment or does it increase as familiarity lowers feeling of risk?

> What are the effects of higher levels of policing and is the additional cost justifiable?

> Do benevolent interventions, such as the police discussing personal safety issues with visitors, make the visitor more aware of the risks?

> Are there any particular issues for non-UK nationals?

> What impact do holiday choices such as accommodation choice/activities undertaken/travelling companions have on risk of crime?

Such questions are not an exhaustive list and many could be addressed in one piece of research. In a similar way, the research on road traffic accidents produced a number of questions.

11.7.4.2 Road traffic accidents

A necessary element for a person to become a visitor is that of travelling to destination, and this will almost certainly include some road use, weather active as a driver or passive as a passenger. As visitors are more likely to be involved in 'Killed or Serious Injury' (KSI) accidents, a better understanding of the reasons could be used to generate specific interventions that suit visiting road users.

Social marketing has successfully (find supporting reference/s) been used to intervene in road safety research with campaigns aimed either at the general population, the driving population and at specific groups such as young drivers or pedestrians and sometimes at targeting two different groups with tailored messages regarding the same issues i.e. the bike awareness campaigns urging car drivers to look more carefully and powered two wheeler riders to ride more defensively. Focused research can provide some of this information, as well as assessing the value of any interventions. Further research could be focused on:

- A geographical assessment of where tourist RTAs occur, and what are the elements of accidents that distinguish them from the types of accidents that locals have.

- The assessment and modification of "tourist routes" to take into account the types of 'visitor' road user, for example those who are inexperienced at driving on the road types found at the destination.

- As visitors are likely to be in 'holiday mode', is there a higher prevalence of driving while under the influence?

- Are visitor road users more easily distracted while driving, and therefore put at a higher level of risk than locals?

- Do the pressures of getting to the destination and seeing everything increase the risk to the visitor due to fatigue?

- What is the impact on risk of the lack of familiarity when using a hire vehicle?

- Are visitor drivers adequately insured for the extra risks associated with being a visitor? This may be an important issue for those who hire vehicles at the destination.

- What is the effect of the duration of trip? Does the risk to visitors reduce with time as they become more familiar with the environment or does it increase as familiarity lowers a road users feeling of risk?

- What are the effects of higher level of road policing and other interventions aimed at visitor road users, and are costs of these interventions justifiable?

- Do benevolent interventions, such as the police discussing road safety issues with visitors, increase visitor road safety more then enforcement (L&B police/ around the corner) at well known hubs

- What are the problems that impact on road safety for those visiting from a foreign country? For example problems with visibility and sense of place on the road of driving when driving a left-hand drive car on the left? Or the problems of driving a right hand drive car when use to driving on the right?

- What are the safety issues for pedestrian safety for visitors? What are the increased risks for those who are use to cars driving on the right?

> ➢ As public transport reduces risks caused by unfamiliarity, alcohol, fatigue, etc, what can be done to encourage visitors to use it?

> ➢ Are there issues for vulnerable road users, such as cyclists, and if so what interventions would be suitable?

With a lot of these further research questions useful data will be held by insurance companies, therefore it may be prudent to form research links with these companies so that this data can be exploited. Research is the key to making the roads safer for visitors.

11.7.4.3 Health incidents

Due to the nature of emergency health care, many of the measures that are outlined relating to criminal incidents and road traffic accidents will have impacts on emergency health care. There are however some specific areas of concern relating to this area:

> ➢ What are the implications of a more active visitor such as those attracted to adventure tourism activities on the emergency services?

> ➢ What are the implications of new markets developing such as from China, South east Asia and the Indian sub-continent on their particular health needs and on disease control?-

> ➢ Are visitors aware of ways to access health care? Can methods be found of reducing their reliance on emergency services for more minor ailments?

In conclusion, there are a number of research areas that can be explored in the light of this study. The thesis has a contribution to make to the academic literature to advance the concept of visitor well-being but it also has the more practical contribution of highlighting specific issues and indicating possible ways of addressing these issues.

References

Adams, R. E. and Serpe, R. T. (2000), Social Integration, Fear of Crime, and Life Satisfaction, *Sociological Perspectives*, 43 (4): 605-629

African Eye News Services (2001), South Africa; Two more tourists mugged at crime hotspot, *African Eye News Services,* 22/11/01

AILLSTTB (2001), *Accommodation Guide*, Argyll, the Isles, Loch Lomond and the Trossachs Tourist Board, UK

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes,* 50, 179-211

Ajzen, I. (2002), Perceived Behavioural Control, Self-efficacy, Locus of control and the Theory of Planned Behaviour, *Journal in Applied Social Psychology,* 32: 665-683

Albarracin, D., Fishbein, M., Johnson, B. T., & Muellerieile, P. A. (2001). Theories of reasoned action and planned behavior as models of condom use: A meta-analysis. *Psychological Bulletin,* 127(1), 142-161.

Albrecht, G.L., Fitzpatrick R. and Schrimshaw S.C. (1990), Introduction, *Handbook of Social Studies in Health and Medicine (Book),* book chapter: 1-5

Albrecht, G.L., Fitzpatrick R. and Schrimshaw S.C. (eds) (2000), *Handbook of Social Studies in Health and Medicine*, Sage, London

Alder, M.B. and Chisholm, B. (1991), Health Promotion and Disease Prevention for the International Traveler*, Nurse Practitioner*, Vol 16 (5): 10-25

Amedeo, D. (1993) 'Emotions in person-environment-behavior episodes', in T. Garling and R.G. Coleridge (eds) Behavior and Environment: Psychological and Geographical Approaches, Amsterdam: Elsevier: 83-116.

Andrews, F.M. and Withey, S. B. (1976), *Social Indicators of Well-being: America's Perception of Life Quality*, Plenum Press, New York

AOL report (2002), Girlfriend of missing English tourist files for compensation, *AOL News Report*, 22/08/02, www.aol.com/news/report, accessed 22/08/02

Aristotle (1955) *The Nicomachean Ethics,* (trans) J.A.K. Thomson. London: Penguin.

Ashley, D.V.M., Gordon-Strachan, G., Reece, M.H. and Ashley. D.E.C. (2004), Challenges for Health and Tourism in Jamaica, *Journal of Travel Medicine*, 11: 370-373

Aziz, H. (1995), Understanding attacks on tourists in Egypt, *Tourism Management*, 16 (2): 91-95

Bamberg, S., Ajzen, I., & Schmidt, P. (2003). Choice of travel mode in the theory of planned behavior: The roles of past behavior, habit, and reasoned action. *Basic and Applied Social Psychology*, 25, 175-188

Barker, M. and Page, S. J. (2002), Visitor safety in urban tourism environments: the case of Auckland, New Zealand, *Cities*, 19 (4): 273-282

Barker, M., Page, S.J. and Meyer, D. (2002), Modelling Tourism and Crime: The 2000 America's Cup, *Annals of Tourism Research,* Vol 29 (3): 762-782

Barnett, A, R Shumsky, M Hansen, A Odoni, and G Gosling (2001), "Safe at home? An experiment in domestic airline security," *Operations Research*, 49 (2), 181-95

Bauer, I. L. (2001), Tourism and the environment, the other side of the coin: Environmental impacts on tourists' health, *Tourist Studies,* 1 (3): 297-314

Bauer, I.L. (2002), Health Advice in Australian Travel Brochures, *Journal of Travel Medicine*, Vol 9 (5): 263-268

Bauer, I.L. (2002), Travel Health Advice as Recalled by 552 Tourists to Peru, *Journal of Travel Medicine*, Vol 9 (6): 293-299

BBC news (2003), *TV show blamed for Faliraki trouble*, http://newsvote.bbc.co.uk/mpapps/pagetools/print/news.bbc.co.uk, 11/09/03

Beck, K., Boni N. and Packer, J. (1999), The use of public attitude surveys: what can they tell police managers?, *Policing: an International Journal of Police Strategies & Management*, Vol 22 (2): 191-213

Beerli, A. and Martin, J.D. (2003), Tourists' characteristics and the perceived image of tourist destinations: a quantitative analysis – a case study of Lanzarote, Spain, *Tourism Management*, Vol 31, No 3: 657-681

Bentley, T., and Page, S.J. (2001), Scoping the extent of Accidents in Adventure Tourism, *Annals of Tourism Research*, Vol 28: 705-726

Bentley, T., Meyer, D., Page S.J. and Chalmers D. (2001), Recreational tourism injuries among visitors to New Zealand: an exploratory analysis using hospital discharge data, *Tourism Management,* Vol 22: 373-381

Bieger, T. and Laesser, C. (2004), Information Sources for Travel Decisions: Toward a Source Process Model**,** *Journal of Travel Research,* Vol 42 (4): 357-371

Blaikie, N. (2003), *Analyzing Quantitative Data*, SAGE Publications Ltd, London, UK

Blake, A. and Sinclair, M.T. (2003), Tourism Crisis Management – US response to September 11, *Annals of Tourism Research*, Vol 30 (4): 813-832

Brown, H. (1999), Sex crimes and tourism in Nepal, *International Journal of Contemporary Hospitality Management,* Vol 11 (2/3): 107-110

Brunt, P., Mawby, R. and Hambly, Z. (2000), Tourist victimisation and the fear of crime on holiday, *Tourism Management,* Vol 21: 417-424

Burns, Lee and Graefe (1991), Visitor perceptions of personal security and crime at outdoor recreation areas: contemporary issues at US army corps of engineers lakes and along the Appalachian Trail, *Northeastern Recreation Research Symposium*

Butler, R. (1980), The concept of the tourist area cycle of evolution: implications for the evolution of resources, *Canadian Geographer*, Vol 24 (1): 5-12

Cabada, M.M., Maldonado, F. Quispe, W. Serrano, E., Mozo, K., Gonzales, E., Seas, C., Verdonck, K., Echevarria, J.I. and Gotuzzo, E. (2005), Pretravel health advice among international travellers visiting Cuzco, Peru, *Journal of Travel Medicine*, Vol 12 (2): 61-65

Callander, M. and Page, S.J. (2003), Managing risk in adventure tourism operations in New Zealand: a review of the legal case history and potential for litigation, *Tourism Management,* Vol 24: 13-23

Carey, M.J. and Aitken, M.E. (1996), Motorbike Injuries in Bermuda: A risk for tourists, *Annals of Emergency Medicine*, Vol 28 (4): 424-429

Carter, S. (1998), Tourists' and travellers' social construction of Africa and Asia as risky locations, *Tourism Management*, Vol 19 (4): 349-358

Chesney-Lind, M. and Lind, I.Y. (1986), Visitors as Victims: Crimes against Tourists in Hawaii, *Annals of Tourism Research,* Vol 13 (2): 167-191

Child, D. (1970), *The Essentials of Factor Analysis*, Holt, Rinehart and Winston Ltd., London, UK

Cioccio, L. and Michael, E.J. (2007), Hazard or disaster: Tourism management for the inevitable in Northeast Victoria, *Tourism Management*, Vol 28: 1-11

Clark, M., Riley, M., Wilkie, E. and Wood, R.C. (1998), *Researching and Writing Dissertations in Hospitality and Tourism*, International Thomson Business Press, London, UK

Clift, S and Page, S.J. (eds.)(1996), *Health and the International Tourist*, Routledge, London, UK

Clift, S. and Grabowski, P. (eds.)(1997), *Tourism and Health: Risks, Research and Responses*, Pinter, UK

Coley, S. (1999), New Zealand status report. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 137-146

Conner, M., Kirk, S. F. L., Cade, J. E., & Barrett, J. H. (2003). Environmental influences: actors influencing a woman's decision to use dietary supplements 1,2. *The Journal of Nutrition,* 133(6), 1978

Cooper, C., Fletcher, J., Gilbert, D., Shepherd, R., and Wanhill, S. (1998), *Tourism: Principles and Practice, 2nd ed.,* Longman, New York, USA

Cossar, J. (2003), Travellers' Health: An Epidemiological Overview. *In* Wilks, J. and Page, S.J. (eds), *Managing Tourist Health and Safety in the New Millennium*, Pergamon, Oxford, UK

Cossar, J.H., Walker, E., Reid, D. and Dewar, R.D. (1988), Computerised advice on malaria prevention and immunisation, *British Medical Journal*, Vol 296: 358.

Creswell, J.W. and Plano Clark, V.L. (2007), *Designing and Conducting Mixed Methods Research,* Sage, London, UK

Crichton, D. (2005), *Technical Paper 1: Flood Risk & Insurance in England and Wales: Are there lessons to be learned from Scotland?*, Benfield Hazard Research

Dann, G. (1977), Tourist motivation: an appraisal, *Annals of Tourism Research*, Vol 8 (2): 187-219

Danyliw, N.Q. and Loftus, M. (1997), Stupid park tricks, *U.S. News & World Report*, Vol 122 (25): 61

Davis, R. (1999), A legal perspective. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 39-56

de Albuquerque, K. and McElroy, J. (1999), Tourism and Crime in the Caribbean, *Annals of Tourism Research,* Vol 26 (4): 968-984

De Vaus, D. (2001), *Research design in social research*: Sage Publications Ltd.

Dean, M. (2001), Imprisoned by distortions, *Guardian,* 12/12/01

Decrop, A. (2006), *Vacation Decision Making*, CABI Publishing, Oxford, UK

Department of Transport and Works, (1999), Status report. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 115-120

Department of Urban Services, (1999), Status report. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 121-136

DfT (2001), *Transport Statistics Bulletin – Road Traffic Statistics:2001*, National Statistics, London, UK

DfT (2003), *Car use in GB – Personal Travel Factsheet 7*, Department for Transport/National Statistics, January 2003, UK

Dimanche, F. and Lepetic, A. (1999), New Orleans Tourism and Crime: A Case Study, *Journal of Travel Research,* Vol 38, August: 19-23

Doxey, G.V. (1975), A causation theory of visitor-resident irritants: Methodology and research inferences, *Proceedings of the Travel Research Association 6th Annual Conference*, San Diego: Travel Research Association: 195-198

DTLR (2001), *Transport Local Government Regions, - Focus on Personal Travel*, The Stationery Office, Dec 2001, London, UK

Durrheim, D.N. and Leggat, P.A. (1999), Risk to tourists posed by wild mammals in South Africa, *Journal of Travel Medicine*, Vol 6 (3): 172-179

Economist (1994), Save the tourists: murder in the cities, *Economist,* Vol 322, No 7877: 22-24

Edmonds, C.W. & Walker, D.G. (1999), Snorkelling deaths in Australia, 1987-1996, *The Medical Journal of Australia*, Vol 171: 591-594

Ellis, B. (1999), A national road safety overview. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 19-26

Elsrud, T. (2001). Risk creation in traveling: backpacker adventure narration, *Annals of Tourism Research* Vol 28(3): 597-617.

EuroRAP (2002), *Comparison of European Fatality Rates*, European Road Assessment Programme, February.

Evans, M. R., Shickle, D. and Morgan, M. Z. (2001), Travel Illness in British Holiday Tourists: Prospective Cohort Study, *Journal of Infection,* Vol 43: 140-147

Evening Times (2001), Tourist caused crash, *Evening Times*, 13/10/01: 6

Ewert, A.W. (1994), Playing the Edge: Motivation and Risk-taking in High Altitude Wildernesslike Environment, *Environment and Behaviour*, Vol 26 (1): 3-25

Eyles, J. and Smith. D., (1978), Social geography, *American Behavioural Scientist,* Vol 22: 41-58

Faulkner, B. and Vikulov, S. (2001), Katherine, washed out one day, back on track the next: a post-mortem of a tourism disaster, *Tourism Management*, Vol 22: 331-344

Feighey, W.G. (2002), Community participation in rural tourism development: a social representations approach, *Conference paper*

Fielding, N.G. and Fielding, J.L. (1986), *Linking data*, Sage, Beverly Hills, USA

Finch, C., Mahoney, M., Townsend, M. and Tsharni, Z. (2003), Rural Sports And Recreational Injuries In Australia: What Do We Know?, *Australian Journal of Rural Health,* Vol 11:151–158

Fink, A. and Kosecoff, J. (1985). *How to conduct surveys*. Newbury Park: Sage, London, UK.

Floyd, M.F. and Pennington-Gray, L. (2004), Profiling Risk Perceptions of Tourists, *Annals of Tourism Research*, Vol. 31(4): 1051–1054

Gabbe, B.J., Finch, C.F., Cameron P.A. and Williamson, O.D. (2005), Incidence of serious injury and death during sport and recreation activities in Victoria, Australia *British Journal of Sports Medicine,* Vol 39:573-577

George Street Research, (2003), *Know your market – Survey of holidaymakers on the Rosyth-Zeebrugge ferry*, VisitScotland, 2003, www.scotexchange.net/knowyourmarket/kym-rosythZeebruggeFerrySurvey.html

George, R. (2003), Tourist's perceptions of safety and security while visiting Cape Town, *Tourism Management*, Vol 24: 575-585

Gilbert, D. and Abdullah, J. (2003), Holidaytaking and the Sense of Well-Being, *Annals of Tourism Research*, Vol 31 (1): 103-121

Gill, M., Moon, C., Seaman, P. and Turbin, V. (2002), Security management and crime in hotels, *International Journal of Contemporary Hospitality Management,* Vol 14 (2): 58-64

Glaesser, D. (2003), *Crisis Management in the Tourism Industry*, Butterworth-Heinemann, Oxford, UK

Golledge, R.G. (1967), "Conceptualizing the Market Decision Process, *Journal of Regional Science*, Vol 7, 239-58.

Goodrich, J.N. (2002), September 11, 2001 attack on America: a record of the immediate impacts and reactions in the USA travel and tourism industry, *Tourism Management,* Vol 23: 573-580

Grant, M. (2002), Local Well-being: Re-engineering Tourism on the Isle of Wight, *Conference paper,* September

Greene, J.C., Caracelli, V.J. and Graham, W.F. (1989), Toward a conceptual framework for mixed-method evaluation designs, *Educational Evaluation and Policy Analysis*, Vol 11 (3): 244-274

Griffin, J. (1986), *Well-being: Its Meaning, Measurement and Moral Importance*, Clarendon Paperbacks, Oxford University Press, Oxford, UK

Groenenboom, K. and Jones, P. (2003), Issues of security in hotels, *International Journal of Contemporary Hospitality Management* Vol 15 (1): 14-19

Gunn, C. (1993), *Tourism Planning, 3rd ed.,* Taylor and Francis, Philadelphia, USA

Guptill, K., Hargarten, S. and Baker, T. (1991), American travel deaths in Mexico: Causes and prevention strategies, *Western Journal of Medicine*, Vol 154: 169-171

Gymóthy, S. and Mykletun, R.J. (2004), Play in Adventure Tourism – The Case of Artic Trekking, *Annals of Tourism Research*, Vol 31 (4): 855-878

Hall, C.M. and McArthur, S (1991), Commercial white water rafting in Australia, *Australian Journal of Leisure and Recreation,* Vol 1: 25-30

Hall, C.M., Timothy, D.J. and Duval, D.T. (eds) (2003), *Safety and Security in Tourism: Relationships, Management, and Marketing*, The Hayworth Hospitality Press, NY, USA

Hall, M. C. and Page, S. J. (2002), *The Geography of Tourism and Recreation - Environment, place and space, 2nd ed.,* Routledge, Oxford, UK

Haralambos, M. and Holborn, M. (1995), *Sociology: Themes and Perspectives*, 4th Ed., Collins Educational, London, UK

Hargarten, S. W., Baker, T. and Guptill, K. (1991), Overseas Fatalities of United States Citizen Travelers: An Analysis of Deaths Related to International Travel, *Annals of Emergency Medicine*, Vol 20 (6): 622-626

Hargarten, S.W. and Baker, S. (1985), Fatalities in the Peace Corps: A retrospective study, 1962 through 1983, *Journal of American Medical Association*, Vol 254: 1326-1329

Hargarten, S.W. and Bouc, G. (1993) Emergency air medical transport of US-citizen tourists 1988-1990, *Air Medicine Journal*, Vol 12: 398-402

Hargarten, S.W., Baker, T. and Guptill, K. (1991), Overseas Fatalities of United States Citizen Travelers: An Analysis of Deaths Related to International Travel, *Annals of Emergency Medicine,* Vol 20 (6): 622-626

Harper, D. W. Jr. (2000), Planning in Tourist Robbery, *Annals of Tourism Research*, Vol 27 (2): 517-520

Harper, D. W. Jr. (2001), *Comparing Tourists Crime Victimization,* Annals of Tourism Research*, Vol 28 (4): 1053-1056

Heggie, T.W. (2005), Reported fatal and non-fatal incidents involving tourists in Hawaii Volcanoes National Park, 1992–2002, *Travel Medicine and Infectious Disease,* Vol 3 (3): 123-131

Heggie, T.W. (2006), Tourist Trauma in National Parks, In Wilks, J., Pendergast, D. and Leggat, P. (2006), *Tourism in Turbulent Times: Towards Safe Experiences for Visitors*, Elsevier, Oxford, UK

HSE (2005), *Ill health costs*, http://www.hse.gov.uk/costs/ill_health_costs/ill_health_costs_intro.asp, accessed 11/01/2006

Huch, R. (1987), "Flying and pregnancy," *Gynakologe*, 20 (3), 165-70

Hunter-Jones, P. (2000), Identifying the Responsibility for Risk at Tourism Destinations: The UK Experience, *Tourism Economics*, Vol 6 (2): 187-198

Hunter-Jones, P. (2005), Cancer and Tourism, *Annals of Tourism Research*, Vol 32 (1): 70-92

Innskeep, E. (1991), *Tourism Planning,* John Wiley & Sons, New York, USA

ISD Scotland, (2002), *Morbidity in Scotland – Accidents*, Information and Statistics Division of National Statistics, No 03/04, April 2002

ISD Scotland, (2003), *Morbidity in Scotland - General morbidity involving hospital care*, Information and Statistics Division of National Statistics, No 03/05, April 2003

Jarrell, S. and Howsen, R.M. (1990), *Transient Crowding and Crime: The More 'Strangers' in an Area, the More Crime Except for Murder, Assault and Rape,* American Journal of Economics and Sociology, Vol 49 (4): 483-494

Josiam, B.M., Hobson, J.S., Dietrich, U.C. and Smeaton, G. (1998) An analysis of the sexual, alcohol and drug related behavioural patterns of students on spring break, *Tourism Management*, Vol 19, No 6:501-513

Karstedt, S. (2001), Comparing cultures, comparing crime: Challenges, prospects and problems for a global criminology, *Crime Law and Social Change,* Vol 36 (3): 285-308

Kathrada, M., Burger, C.J.S.C. and Dohnal, M. (1999), Holistic tourism-crime modelling, *Tourism Management,* Vol 20: 115-122

Keating, M., (1994), *Agenda for Change*, 2nd Ed., the Centre for Our Common Future, Geneva, Switzerland.

Koskela, H. and Pain, R. (2000), Revisiting fear and place: women's fear of attack and the built environment, *Geoforum,* Vol 31: 269-280

Leggat, P.A. and Goldsmid J.M (2004) Travellers' diarrhoea: health advice for travellers, *Travel Medicine and Infectious Disease*, Vol 2 (1):17-22

Leiper, N. (1990), *Tourism Systems: An Interdisciplinary Perspective*, Palmerston North, New Zealand: Department of Management Systems Occasional Paper 2, Massey University

Leslie, D. (1999), Terrorism and Tourism: The Northern Ireland Situation – A Look Behind the Veil of Uncertainty, *Journal of Travel Research*, Vol 38 (1): 37-40

Levantis, T. and Gani, A. (2000), Tourism demand and the nuisance of crime, *International Journal of Social Economics,* Vol 27, No 7/8/9/10: 959-967

Leviäkangas, P. (1998), Accident Risk of Foreign Drivers – the case of Russian drivers on South-Eastern Finland, *Accident Analysis and Prevention*, Vol 30 (2): 245-254

Lewin, K. (1935) *A dynamic theory of personality.* New York: McGraw-Hill.

Lopez-Velez, R. (2003), Malaria prevention in international travel, *Endefermedades Infecciosas Y Microbiologia Clinica*, Vol 21, No 5: 248-260

Lord, L. (1993), Untitled, *U.S. News & World Report*, Vol 114, Issue 17: 76

Lovelock, C., Vandermerwe, S. & Lewis, B. (1996), *Services Marketing: a European Perspective*, Prentice Hall

Lowenthal, D. (ed)(1967), *Environmental perception and behavior*, Department of Geography Research Paper no. 109, University of Chicago, Chicago.

Lynam, D., Sutch, T., Broughton, J. and Lawson, S. (2003), The European Road Assessment Programme – completing the pilot phase – 2001 & 2002, *Traffic Engineering and Control,* Vol 44 (5): 68-172.

Marchant, V. (1999), Steep, Deep and Deadly, *Times South Pacific*, Issue 10: 48

Maslow, A.H. (1943), A theory of human motivation, *Psychological Review*, Vol 50: 370-96

Maslow, A.H. (1987), *Motivation and Personality*, 3rd ed., Harper Collins Publishers, US (revised by Frager, R., Fadiman, J., McReynolds, C. and Cox, R.)

Massam, B.H. (2002), Quality of life: public planning and private living, *Progress in Planning*, Vol 58: 141-227

Master, H. & Prideaux, B. (2001), 'Reducing Risk Factors for International Visitors in Destinations', *Asia Pacific Journal of Tourism Research*, vol. 6 (2): 24-32

Matcham, D. (1999), An insurance perspective. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 27-38

Mathieson, A. and Wall, G. (1982), *Tourism: Economic, Physical and Social Impacts, Longman Group*, Essex, UK

Mawby, R.I., Brunt, P. and Hambly, Z. (2000), Fear of crime among British holidaymakers, *British Journal of Criminology,* Vol 40: 468-479

Maxwell, J.A. (1998), Designing a Qualitative Study, In Bickman, L and Rog, D.J. (1998) (eds), *Handbook of Applied Social Research Methods*, Sage, London, UK

McInnes, R., Williamson, L.M. and Morrison, A. (2002), Unintentional injury during foreign travel: A review, *Journal of Travel Medicine*, Vol 9 (6): 297-307

Michalkó, G. (2003), Tourism Eclipsed by Crime: The Vulnerability of Foreign Tourists in Hungary, *Journal of Travel and Tourism Marketing*, Vol 15 (2/3): 159-172 (simultaneously published in Hall, C.M., Timothy, D.J. and Duval, D.T. (eds.)(2003), *Safety and Security in Tourism: Relationships, Management and Marketing*)

Miller, S.I. and Fredericks, M. (1999), How Does Grounded Theory Explain? *Qualitative Health Research,* Vol 9: 538-551

Mills, C.W. (1959), *The Sociological Imagination*. New York: Oxford University Press.

Mitchell, M. (ed.)(1997), *The Aftermath of Road Accidents*, Routledge, London, UK

Modler, H. (2001), Motor vehicle accidents in the Namib Desert, Namibia, *South African Medical Journal*, Vol 91 (2): 118-119

Moore, D.A.J., Grant, A.D., Armstrong, M., Stumpfle, R. and Behrens, R.H. (2004), Risk factors for malaria in UK travellers, *Transactions of the Royal Society of Tropical Medicine and Hygiene*, Vol 98 (1): 55-63

Morgan, D. and Dimmock, K. (2006), Risk Management in Outdoor Adventure Tourism, In Wilks, J., Pendergast, D. and Leggat, P. (2006), *Tourism in Turbulent Times: Towards Safe Experiences for Visitors*, Elsevier, Oxford, UK

Morris, J.M., Gould, D., Bennett, S., Bastin, J., Salter, L. and Watt, A. (2005), Sun protection initiatives in Cornwall, *Clinical and Experimental Dermatology*, Vol 30 (4): 340-343

Muehsam, M.J. and Tarlow, P.E. (1995), Involving the police in tourism, *Tourism Management,* Vol 16 (1): 9-14

Neal, J.D., Sirgy, M.J. and Uysal, M. (1999), The Role of Satisfaction with Leisure Travel/Tourism Services and Experience in Satisfaction with Leisure Life and Overall Life, *Journal of Business Research,* Vol 44: 153-163

New South Wales Roads and Traffic Authority (1999), Status report. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 73-86

Office of Road Safety, (1999), Status report. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 87-90

Oppermann, M. (1995), Travel Life Cycle, *Annals of Tourism Research,* Vol 22 (3): 535-552

Oxford Concise (2001), *Oxford Concise Dictionary*, 10th ed., Oxford University Press, UK

Pacione, M. and Gordon, G. [Eds.](1984), *Quality of Life and Human Welfare*, Royal Geographical Society, London, UK

Page, S. J., Bentley, T. A., Meyer, D. and Chalmers, D. J. (2001), Scoping the Extent of Tourist Road Safety: Motor Vehicle Transport Accidents in New Zealand 1982-1996, *Current Issues in Tourism*, Vol 4 (6): 503-526

Page, S.J. (2003), *Tourism Management: Managing for Change*, Butterworth-Heinemann, Oxford, UK

Page, S.J. and Hall, M.C. (2003), *Managing Urban Tourism*, Prentice Hall, Pearson Education, UK

Page, S.J. and Meyer, D. (1996), Tourist accidents: An exploratory analysis, *Annals of Tourism Research*, Vol 23 (3): 666-690

Page, S.J. and Meyer, D. (1997), Injuries and accidents among international tourists in Australia. *In* Clift, S. and Grabowski, P. (eds.)(1997), *Tourism and Health: Risks, Research and Responses*, Pinter, UK: 61-80

Page, S.J., Bentley, T. and Walker, L. (2005) Tourist Safety in New Zealand and Scotland, *Annals of Tourism Research*, Vol 32 (1): 150-166

Pain, M. and Kerr, J.H. (2004), Extreme risk taker who wants to continue taking part in high risk sports after serious injury, *British Journal of Sports Medicine*, Vol 38: 337-339

Paixao, M. L. T. D'A., Dewar, R. D., Cossar, J. H., Covell, R. G. and Reid, D. (1991), What do Scots die of when abroad?, *Scottish Medical Journal*, Vol 36 (4): 114-116

Pearce, D.G. (1989), *Tourist Development*, 2nd ed., Longman Scientific and Technical, Harlow, UK

Pearsall, J. (2001), *The Concise Oxford Dictionary, 10th Ed*, BCA for Oxford University Press, Oxford, UK

Petridou, E., Askitopoulou, H., Vourvahakis, D.,Skalkidoou, A. and Trichopoulos, D. (1997), Epidemiology of road traffic accidents during pleasure travelling: The evidence from Crete, *Accident Analysis and Prevention*, Vol 29 (5): 687-693

Petridou, E., Dessypris, N., Skalkidoou, A. and Trichopoulos, D. (1999), Are traffic injuries disproportionally more common among tourists in Greece? Struggling with incomplete data, *Accident Analysis and Prevention*, Vol 31 (6): 611-615

Pizam, A. (1999), A Comprehensive Approach to Classifying Acts of Crime and Violence at Tourism Destinations, *Journal of Travel Research,* Vol 38, August: 5-12

Pizam, A. and G. Smith (2000) Tourism and terrorism: A quantitative analysis of major terrorist acts and their impact on tourism destinations, *Tourism Economics*, Vol 6 (2): 123-138.

Pizam, A., Jeong, G-H., Reichel, A., van Boemmel, H., Lusson, J.M., Steynberg, L., State-Costache, O., Volo, S., Kroesbacher, C., Kucerova, J. and Montmany, N. (2004), The Relationship between Risk-Taking, Sensation-Seeking, and the Tourist Behaviour of Young Adults: A Cross-Cultural Study, *Journal of Travel Research*, Vol 42: 251-260

Plog, S. (2001), Why Destination Areas Rise and Fall in Popularity, *Cornell Hotel and Restaurant Administration Quarterly*, June 2001: 13-24

Poon, A. (1993), *Tourism, technology and competitive strategies*, CAB International, UK

Prociv, P. (1995), Deaths of Australian tourists overseas, *Medical Journal of Australia*, Vol 163: 27-30

Purkiss, S. (1990), Motor cycle injuries in Bermuda, *Injury*, Vol 21: 228-230

Queensland Transport (1999), Status report. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 61-72

Ryan, C. (1995), *Researching Tourist Satisfaction - issues, concepts, problems,* Routledge, London, UK

Ryan, C. (1996), Linkages between holiday travel risk and insurance claims: evidence from New Zealand, *Tourism Management*, Vol 17 (8): 593-601

Ryan, C. (2002), *The tourist experience*, 2nd ed., Continuum, London, UK

Ryan, R.M., & Deci, E.L. (2001). To be happy or to be self-fulfilled: A review of research on hedonic and eudaimonic well-being. In S. Fiske (Ed.), *Annual Review of Psychology,* Vol 52: 141-166

Sachon, M. and Pate-Cornell, E. (2000), Delays and safety in airline maintenance, *Reliability Engineering & System Safety*, Vol 67 (3): 301-309

Salib, M and Brimacombe, J. (1994), A survey of emergency medical care at Uluru (Ayers Rock), *Medical Journal of Australia*, Vol 161: 693-4

Schmeirer, C. and Jackson, M., (2004), Tourist ill health: what to do with the data? *In* Smith, K.A. and Schott, C. (eds)(2004), *Proceedings of the New Zealand Tourism and Hospitality Research Conference 2004*, Wellington, 8-10 December: 357-363

Schmeirer, C. and Jackson, M., (2006), Local Health Impacts of Tourism, *In* Wilks, J., Pendergast, D. and Leggat, P. (eds) (2006), *Tourism in Turbulent Times: Towards Safe Experiences for Visitors*, Advances in Tourism Research Series, Elsevier, Oxford, UK: 63-78

Scotsman (2001), Tourist Road Hazard, *Scotsman*, 10/08/01: 11

Scottish Enterprise (2004), *STEAM Report 2003*, Scottish Enterprise, UK

Sharp, B. (2001), *Strategies for Improving Mountain Safety*, Strathclyde University/ Leverhulme Trust, Glasgow, UK

Sharples, J. M. and Fletcher, J. P. (2001), *Tourist Road Accidents in Rural Scotland*, Scottish Executive Central Research Unit

Sivak, M., Soler, J., and Tränkle, U. (1989b), Cross-Cultural Differences in Driver Risk-Taking, *Accident Analysis and Prevention*, Vol 21 (4): 363-369

Sivak, M., Soler, J., Tränkle, U. and Spagnhol, J.M. (1989), Cross-Cultural Differences in Driver Risk-Perception, Accident Analysis and Prevention, Vol 21 (4): 355-362

Smith, D.M., Langa, K.M., Kabeto, M.U. & Ubel, P.A. (2005). Health, Wealth, and Happiness. *Psychological Science*, Vol 16 (9): 663-666

Smith, G. (1999), Toward a United States Policy on Traveller Safety and Security: 1980-2000, *Journal of Travel Research,* Vol 38, August: 62-65

Smith, S.L.J. (1990a), Another look at the Carpenter's tools: A reply to Plog, *Journal of Travel Research*, Vol 29 (2): 50-51

Smith, S.L.J. (1990b), A test of Plog's Allocentric/Psychocentric Model: Evidence from Seven Nations, *Journal of Travel Research*, Vol 28 (4): 40-43

Sniezek, J. and Smith, S. (1991), Injury mortality among non-US residents in the United States 1979-1984, *International Journal of Epidemiolgy*, Vol 20: 225-229

Sönmez, S.F. and Graefe, A.R. (1998), Influence of terrorism risk of foreign travel decisions, *Annals of Tourism Research,* Vol 25 (1): 112-144

Sönmez, S.F., Apostolopoulis, Y. and Tarlow, P. (1999), Tourism in Crisis: Managing the Effects of Terrorism, *Journal of Travel Research,* Vol 38, August: 13-18

Steffen, R, deBernardis, C. and Banos, A. (2002), Travel epidemiology - a global perspective, *International Journal of Antimicrobial Agents,* Vol 00: 1-7

Strauss, A. and Corbin J. (1990), *Basics of Qualitative Research: Grounded Theory Procedures and Techniques.* Newbury Park, CA: Sage Publications.

Summala, H. (1998), American Drivers in Europe: Different Signing Policy May Cause Safety Problems at Uncontrolled Intersections, *Accident Analysis and Prevention*, Vol 30, No 2: 285-289

Tarlow, P. (2005), Expert's View: The role of tourism security, *eTurboNews*, 25/08/05, www.travelwirenews.com, accessed 25[th] August 2005

Tarlow, P.E. (2000), Creating safe and secure communities in economically challenging times, *Tourism Economics*, Vol 6 (2): 139-149

Tarlow, P.E. and Santana, G. (2002), Providing Safety for Tourists: A Study of a Selected Sample of Tourist Destinations in the United States and Brazil, *Journal of Travel Research,* Vol 40, May: 424-431

Tchankova, L. (2002), Risk identification - basic stage in risk management, *Environmental Management and Health,* Vol 13 (3): 290-297

Thompson, D.T., Ashley, D.V., Dockery-Brown, C.A., Binns, A., Jolly, C.M. and Jolly, P.E. (2003), Incidence of health crises in tourists visiting Jamaica, West Indies, 1998-2000, *Journal of Travel Medicine*, Vol 10 (2): 79-86

Tourism Resources Company (2001), Stirling Visitor Survey 2000, Stirling Council, March 2001, UK

Transport South Australia (1999), Status report. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 103-114

Travel Mole (2005a), *WA Shearings bids for adventurous travellers*, www.travelmole.com/printable.php?news_id=105028, accessed 14/09/05

Travel Mole (2005b), *Skiing cheaper than a decade ago*, www.travelmole.com/printable.php?news_id=105011, accessed 14/09/05

Travelmole, (2003), Forty percent travel without insurance, says survey, *Travelmole*, www.travelmole.com/cgi-bin, accessed 26/06/03

Travelwire News (2005), European tsunami victims sue NOAA, Accor hotels, Thailand, http://www.travelwirenews.com/cgi-script/csArticles/articles/000031/003108.htm, accessed 16/02/05

Turner, C., McClure, R., and Pirozzo, S. (2003), Injury and risk-taking behaviour – a systematic review, *Accident Analysis and Prevention*, Vol 36: 93-101

United Nations (1992), *Report of the United Nations Conference on Environment and Development*, http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm accessed 13th June 2007

UN-World Tourism Organization (2003), *Tourism Highlights,* www.world-tourism.org

UN-World Tourism Organization (2004), *WTO World Tourism Barometer*, Vol 2 (2), June 2004, WTO Publications, Madrid

Uriely, N., Yonay, Y. and Simchai, D. (2002), Backpacking Experiences: A Type and Form Analysis, *Annals of Tourism Research*, 29 (4): 520-38.

Van der Sman, C., van Marle, A., Eckhardt, J. and van Aken, D. (2003), *Risks of Certain Sports and Recreational Activities in the EU: The Role of Services*, Consumer Safety Institute, Amsterdam, Sept 2003

Van Kamp, I., Leidelmeijer, K., Marsman, G. and de Hollander, A. (2003), Urban environmental quality and human well-being: Towards a conceptual framework and demarcation of concepts; a literature study, *Landscape and Urban Planning*, Vol 985: 1-14

Veenhoven, R. (1999), Quality-of-life in individualistic society: A comparison of 43 nations in the early 1990's, *Social Indicators Research*, Vol. 48: 157–186

Victim Support (2002), New rights for victims of crime in Europe: Council Framework Decision on the standing of victims in criminal proceedings, *Victim Support,* June

Victoria Roads (1999), Status report. In Wilks, J., Watson, B. and Hansen, R. (eds) *International Visitors and Road Safety in Australia: A Status Report*, Australian Transport Safety Bureau, Canberra, Australia: 91-96

VisitScotland (2003), *Tourism in Scotland 2002*, VisitScotland, UK

VisitScotland (2004), *Tourism in Scotland 2003*, VisitScotland, Edinburgh, UK

Voelkl, K.E. and Gerber, S.B. (1999), *Using SPSS for Windows: Data Analysis and Graphics*, Springer-Verlag, New York, USA

Vredenburgh, A.G. and Cohen, H.H. (1995), High-risk recreational activities: Skiing and scuba – what predicts compliance with warnings, *International Journal of Industrial Ergonomics*, Vol 15: 123-128

Walker, L. and Page, S.J. (2003), Risks, Rights and Responsibilities in Tourism Well-being, in Wilks, J. and Page, S.J. (eds.), *Managing Tourist Health and Safety in the New Millennium*, Pergamon, UK: 215-236

Walker, L. and Page, S.J. (2004), The Contribution of Tourists and Visitors to Road Traffic Accidents: A Preliminary Analysis of Trends and Issues for Central Scotland, *Current Issues in Tourism*, Vol 7 (3): 217-241

Walle, A.H. (1997), Pursuing Risk or Insight: Marketing Adventures, *Annals of Tourism Research*, Vol 24 (3): 265-282

Watson, G. L. and Kopachevsky, J.P. (1996), Interpretations of tourism as commodity, In Apostopolopoulos, Y., Leivadi, S. and Yiannakis, A. (eds.)(1996), *The Sociology of Tourism: Theoretical and empirical investigations*, Routledge Advances in Tourism, London, UK (previously published in *Annals of Tourism Research*, 1994, 21:643-660)

Weber, K. (2001), Outdoor Adventure Tourism: A Review of Research Approaches, *Annals of Tourism Research*, Vol 28: 360-377

White, D.D. (2007) An Interpretive Study of Yosemite National Park Visitors' Perspectives Toward Alternative Transportation in Yosemite Valley. *Environmental Management* 39(1): 50

Whitman, D. (2000), Don't get foolish in the great outdoors; the bison do butt*., U.S. News and World Report*, Vol 129, Issue 1: 48

WHO (1989) *European Charter on Environment and Health*, http://www.uhqlibdoc.who.int/euro/-1993/ICP-RU10_113.pdf): 7ff.

Wilks, J. (1999a), Scuba diving safety on Australia's Great Barrier Reef, *Travel Medicine International,* Vol 17 (1): 17-21

Wilks, J. (1999b), International Tourists, Motor Vehicles and Road Safety: A Review of the Literature Leading Up to the Sydney 2000 Olympics, *Journal of Travel Medicine,* Vol 6: 115-121

Wilks, J. and Coory, M. (2002), Overseas visitor injuries in Queensland hospitals: 1996-2000, *Journal of Tourism Studies*, Vol 13: 2-8

Wilks, J. and Page, S.J. (2003) (eds.), *Managing Tourist Health and Safety in the New Millennium*, Pergamon, UK

Wilks, J. and Watson, B. (1998) Road safety and international visitors in Australia: Looking beyond the tip of the iceberg, *Travel Medicine International*, Vol 16: 194-198

Wilks, J., Watson, B and Faulks, I. (eds) (1999), International tourists and road safety in Australia: Developing a national research and management programme, *Tourism Management*, Vol 20: 645-654

Wilks, J., Pendergast, D. and Leggat, P. (eds) (2006), *Tourism in Turbulent Times: Towards Safe Experiences for Visitors*, Advances in Tourism Research Series, Elsevier, Oxford, UK

Wilks, J., Pendergast, D. and Wood, M.T. (2002), Overseas visitor deaths in Australia: 1997-2000, *Current Issues in Tourism*, Vol 5: 550-557

Wong, S. and Lau, E. (2001), Understanding the Behavior of Hong Kong Chinese Tourists on Group Tour Packages, *Journal of Travel Research*, Vol 40, August 2001: 57-67

Yeung, J.M.C. and Lingam, K. (2002), Flight related deep vein thrombosis, *Scottish Medical Journal*, Vol 47 (6), Dec 2002: 123-6

Yin, R. (1989), *Case study research design and methods.* Beverly Hills: Sage Publications, London, UK

Appendix A - Survey of accommodation providers

The design of the questionnaire for the accommodation providers concentrated on being as short as possible, as this was felt to be vital to keep response rates as high as possible, which was particularly important as the accommodation providers were being asked to cooperate in further research. A stamped addressed envelope was included to increase response rates.

1. How much responsibility do you feel the following people or organisations have for the safety and security of visitors to this area? (Please circle the appropriate letter that corresponds to your opinion)

	A high level/total responsibility	A degree of responsibility	Very little/no responsibility
a. The visitor/tourist	A	B	C
b. Area tourist boards	A	B	C
c. National tourist boards	A	B	C
d. Local government	A	B	C
e. National government	A	B	C
f. Police services	A	B	C
g. Mountain rescue services	A	B	C
h. Site/land owners	A	B	C
Overnight tourists			
i. Tour operator	A	B	C
j. Travel agent	A	B	C
k. Accommodation providers	A	B	C
Those hiring cars			
l. Car hire company	A	B	C

2. What was the last incident (car accident, mountain accident or crime against property or person) that one of your guests was involved in?

———————————————————————————————

———————————————————————————————

3. Which organisations were involved in dealing with the incident above?

———————————————————————————————

———————————————————————————————

4. Was the incident reported to the authorities?

Yes O   **No** O

5. How was the incident was dealt with?

———————————————————————————————

———————————————————————————————

6. Was the guest involved satisfied with the way the incident was dealt with?

Yes O   **No** O   **Don't know** O

The next stage of the research will involve leaving self-completion questionnaires in guest rooms. The questionnaire will be based on the tourist's experience of holidays, incidents and their perceptions of this area as a destination. The questionnaires would be collected once every two weeks (or as suits). Please indicate below whether you would consider participating.

I would be happy to participate in further research on this topic   O

I would not like to participate in further research on this topic   O

Thank you very much for your time and I wish you a busy and prosperous season

Appendix B – Street survey of tourists

The street survey of tourists was an administered questionnaire undertaken on a random sample basis. The questionnaire for this survey was designed to last for no longer than ten minutes, as this was felt to be the limit of acceptable time for people to be standing in the street being surveyed. The majority of the questions were closed or in the nature of a scaled response as this reduced the time needed for each questionnaire to be completed, while still allowing for a variety of responses.

1. Which of the following groups would you place yourself in? (see map)

Local resident in Falkirk, Stirling or Clackmannanshire Local Authority area	
Day-tripper from outside of this area	
Inclusive/package holiday-maker	
Independent holiday-maker	

THANK YOU FOR YOUR TIME

If other, please state _____

2. Which of the following people or organisations do you feel have responsibility for your safety and security while you are in this area? (Please tick box that applies)

	A high level/total responsibility	A degree of responsibility	Very little/no responsibility
a. Yourself			
b. Area tourist boards			
c. National tourist boards			
d. Local government			
e. National government			
f. Police services			
g. Mountain rescue services			
h. Site/land owners			
Overnight tourists			
i. Tour operator			
j. Travel agent			
k. Accommodation providers			
Those hiring cars			
l. Car hire company			

3. What was your *main* reason for choosing to visit here today?

_____

4. Which of the following statements do you agree with in relation to this area? (Please tick box that applies)

	Agree	Slightly agree	Disagree
a. Crime against tourists is low			
b. Hitch-hiking is safe			
c. I am concerned for the security of my belongings			
d. I am unlikely to have an accident			
e. I feel safe walking the streets at night			
f. I feel safe walking the streets during the day			
g. Serious crime is low			
h. Tourists are more likely to be a victim of crime than locals			
i. Travelling alone is safe			
j. I am more security conscious at home			
k. I feel safer at home			
l. I participate in dangerous sports/ activities here			
m. I take more risks on holiday than at home			
n. I am more careful who I talk to here			
o. This is a safe destination			
p. Getting drunk/high is part of the holiday experience			

5. How safe do you feel here?

Very safe   Quite safe   OK   Unsafe   Very unsafe

6. How safe do you feel at home?

Very safe   Quite safe   OK   Unsafe   Very unsafe

7. Do you think that you are likely to be a victim of crime (for example theft, fraud, assault) during the remainder of your visit here?

Very unlikely   Unlikely   Possibly   Quite likely   Very likely

8. Do you think that you are likely to be a victim of crime (for example theft, fraud, assault) at home in the next 12 months?

Very unlikely   Unlikely   Possibly   Quite likely   Very likely

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9. Do you think that you are likely to be involved in an accident during the remainder of your visit here? (For example road accident or mountain accident)

Very unlikely   Unlikely   Possibly   Quite likely   Very likely

10. Do you think that you are likely to be involved in an accident at home during the next 12 months? (For example road accident or mountain accident)

Very unlikely   Unlikely   Possibly   Quite likely   Very likely

11. *On holiday* – Which of the following statements do you agree with? (Please tick box that applies)

	Agree	Slightly agree	Disagree
a. I avoid leaving valuables visible			
b. I keep my belongings close to me			
c. I minimise cash carried			
d. I ensure windows and doors are locked			
e. I hitch-hiking/ pick-up hitch-hikers			
f. I avoid certain streets /areas			
h. I carry a money belt			
i. I dress down			
j. I use safes/ lockers			
k. I don't share rooms with strangers			
l. I avoid going out at night			
m. I avoid going out alone			
n. I am happy to use public transport			
o. I use self protection devices			
p. I accept drinks from recent acquaintances			
q. I drink more alcohol when on holiday than at home			

12. *Driving while on holiday* – Which of the following statements do you agree with? (Please tick box that applies)

	Agree	Slightly agree	Disagree
a. I am familiar with roads in this area			
b. I find driving on the left strange			
c. I never drive when weather forecasts advise against it			
d. I drive in the snow			
e. I drive when I am overtired			
f. I never drive when I have alcohol in my system			
g. I drive slowly on unfamiliar roads			
g. I always carry a mobile phone as a means of contact			

13. *Hill-walking/climbing on holiday* – Which of the following statements do you agree with? (Please tick box that applies)

	Agree	Slightly agree	Disagree
a. I always wear appropriate gear even for short walks/ in the summer			
b. I always carry a compass and map			
c. I never let anyone know where I intend to go			
d. I always let someone know when I intend to return			
e. I always carry emergency rations			
f. I never check the weather forecast before I set out			
g. I never walk/ climb when reports advise against it			
h. I am an experienced walker/ climber			
i. I never walk alone			
j. I always carry a mobile phone as a means of contact			
k. I often drink alcohol when walking/climbing			

14. What factors that make you feel safe at a destination

_____

15. What is the *main* mode of transport you are using whilst in this area?

Public transport	
Organised coach tour	
Private vehicle (own/friend's/company's)	
Hired vehicle	
Motorcycle	
Bicycle	
Other	

16. How many people, including yourself, are in your *immediate* party today?

17. Where is your normal place of residence?

Adults		Children	
1		1	
2		2	
3		3	
4		4	
5 or more		5 or more	

UK	
Overseas	

Town/place?   _____

Which country?   _____

18. Gender

Male	
Female	

19. Age Group

15-24	
25-34	
35-44	
45-54	
55-64	
65+	

20. Ethnic Origin

Black		Chinese	
White		Indian	
Asian		Pakistani	
Arab		Traveller	
African		Mixed race	
Caribbean		Other	
Bangladeshi			

Please state _____

Thank you for you time

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Appendix C – Tourist self-completion survey

This questionnaire was designed for self-completion by tourists and was more complex than the other questionnaires. It was hoped that, as the questionnaire was to be administered within the accommodation, tourists could complete it at their leisure and would not be too concerned with its relative size. In order to enhance response rates a stamped addressed envelope was provided and the incentive of entry into a prize draw was given.

Dear Sir or Madam:

My name is Linda Walker and I am currently undertaking research into tourism in the area in conjunction with Central Scotland Police Force. The main aim of the research is to establish nature and level of incidents (crimes and road or mountain accidents) and how they affect tourists.

Please find enclosed with this letter a questionnaire, I would be grateful if you would take the time to complete it. While it is appreciated that this is a sensitive subject, there are obvious benefits to understanding the nature of incidents and how they affect the visitors as this information can help to make Central Scotland an even safer destination.

The questionnaire has been designed to assess links between holiday travel experience and incidents. Please feel free to make comments on any related issues on the reverse of the questionnaire.

To thank you for taking the time to fill in this questionnaire, your name will be put forward for a prize draw for £30 worth of vouchers.

Looking forward to your response.

Yours sincerely

Linda Walker

If you wish to discuss any aspect of this research, please feel free to get in touch using the contact details below: -
Linda Walker, Department of Marketing (Tourism), Cottrell Building, University of Stirling, Stirling, FK9 4LA.
Telephone: 01786 467376   Fax: 01786 464745   E-mail: linda.walker@stir.ac.uk

To verify that this is bona-fide research, please feel free to contact Allyson Blair at Central Scotland Police Force headquarters, Randolphfield, Stirling, FK8 2HD
Tel: 01786 456000

1) How many holidays have you taken in the last 12 months *(including short breaks)***?**

_____

2) Where have you been on holiday in the last 12 months *(please name the countries you have visited, including domestic holidays)***?**

_____

_____

3) **What factors are important to you when choosing a destination?** *(Please tick the appropriate box for each factor)*

	Very important	Quite important	Important	Not very important	Not important
Recommendation from friends					
Recommendations from TV, magazines, etc.					
Excitement of a new place to explore					
Familiar sights/places/people					
Lots of attractions					
Close to home					
Lots of activities available					
Similar culture					
Safe reputation					
English spoken					
Opportunity to meet new people					
Different cultures					
Don't have to fly to get there					
Other, Please state _____					

4) **Which of the following items are important to you on holiday?** *(Please tick the appropriate box for each item)*

	Very important	Quite important	Important	Not very important	Not important
Organising your own itinerary or activities					
Doing things you find personally meaningful					
Relaxing and taking things easy					
Giving your mind and body a rest					
Bringing family closer together					
Enjoying family life					
Getting away from the responsibilities of normal life					
Having a change from daily routine					
Making new friends					
Enjoying people's company					
Having new and different experiences					
Excitement and stimulation					
Using your skills and abilities					
Developing new skills and abilities					
Keeping physically fit					
Health					
Gaining the respect and admiration of others					
Showing others what you are capable of					
Being involved in competitive pursuits					
Testing yourself in difficult & demanding situations					
Organising activities of teams or groups					
Gaining positions of leadership					

What sources of information do you think are important when choosing a destination? *(Please tick the appropriate box for each source of information)*

	Very important	Quite important	Important	Not very important	Not important
Own experience					
Reports in the news (e.g. TV news, newspapers, Internet)					
Government sources (e.g. foreign office travel advice)					
Recommendation from friends					
Recommendations from travel agent/tour operator					
TV holiday programmes					
Guidebooks					
Articles *(e.g. in holiday magazines, travel section of papers, etc.)*					
Other - Please state _____					

5) **Have you (or members of your party) been affected by crime or an accident while on a holiday?**

Yes ☐
No ☐   **If No, please go to Question 14**

If you have been involved in more than one incident, please answer the questions based on your most recent experience.

6) **How serious was the incident you were involved in?** *(Please circle appropriate statement)*

Very serious   Quite serious   Serious   Minor   Very minor

7) **In which country/town/resort did this incident occur?**

Country _____   **Town/resort** _____

8) **What was the nature of the incident?** *(Please tick the appropriate box)*

Road accident	
Mountain accident	
Crime against property such as theft	
Crime against person such as assault	
Fraud	
Other, please state _____	

9) **Who did you report the incident to?** *(Please tick all that apply)*

Police authorities/ 999 services		**Please go to Q. 12**
Mountain rescue		**Please go to Q. 12**
Friends/ family	
Someone in charge at site/place of incident	
No-one	
Other, please state _____	

10) **Please tick the factors that prevented you from reporting the incident officially** *(Please tick all that apply)*

Language difficulties	
Uncertainty of procedures	
Minor nature of incident	
Lack of confidence in the authorities	
Lack of time in schedule	
Other, please state _____	

11) Which of the following factors do you feel contributed to this incident occurring? *(Please tick the appropriate box for each factor)*

	Not a factor	A minor factor	A major factor
a. Being a tourist/visitor			
b. Carelessness			
c. Crowds of people			
d. Dangerous environment			
e. Isolation of area			
f. Lack of adequate lighting			
g. Lack of good planning			
h. Lack of information			
i. Lack of protection			
j. Lack of site security/ safety arrangements			
k. My inexperience			
l. My own behaviour			
m. Alcohol/drugs consumed by me			
n. Alcohol/drugs consumed by others			

12) How far do you agree with the following statements? Since the incident …

	Agree	Slightly agree	Disagree
a. I would not visit that town/resort again			
b. I would not visit that country again			
c. I take more care while on holiday			
d. I only go to destinations where I feel safe			

About your current visit

13) Which of the following groups would you place yourself in for this holiday? *(Please tick the one that best describes your current holiday)*

Inclusive/package holiday-maker ☐   Independent holiday-maker ☐   Other ☐

14) Which of the following people or organisations do you feel have responsibility for your safety and security while you are in this area? *(Please tick box that applies for each one)*

	A high level/ total responsibility	A degree of responsibility	Very little/no responsibility
a. Yourself			
b. Area tourist boards			
c. National tourist boards			
d. Local government			
e. National government			
f. Police services			
g. Mountain rescue services			
h. Site/land owners			
i. Tour operator			
j. Travel agent			
k. Accommodation providers			
For those hiring cars			
l. Car hire company			

15) What was your _main reason_ for choosing this destination?

_____

17) How many people, including yourself, are in your _immediate_ party?

Number of Adults _____   **Number of Children _____**

**About You**

16) Where is your normal place of residence?

UK   €   **Town/place** _____

Non-UK   €   **Country** _____

17) Gender

Male	
Female	

18) Age Group

15-24	
25-34	
35-44	
45-54	
55-64	
65+	

19) **Ethnic Origin**

Black		**Chinese**	
White		**Indian**	
Asian		**Pakistani**	
Arab		**Traveller**	
African		**Mixed race**	
Caribbean		**Other**	
Bangladeshi			

Please state _____

Prize draw preference: **£30 of Next vouchers**   €

£30 of Marks and Spencer vouchers €

**Name and address details are only required if you wish to be entered in the prize draw. Details will not be used for any other purpose.**

Name: _____

Address: _____

_____

_____

Postcode/
Zip code: _____

Country: _____

Thank you for your time

Appendix D – Emergency admissions by Specialism

Specialism	Visitor	Local	Total	Visitor	Local	Total
General Medicine	1438	29623	31061	35.28%	37.67%	37.55%
Geriatric Medicine	389	12634	13023	9.54%	16.07%	15.74%
General Surgery	568	11604	12172	13.94%	14.76%	14.72%
Orthopaedics	770	7127	7897	18.89%	9.06%	9.55%
Medical Paediatrics	344	7101	7445	8.44%	9.03%	9.00%
Cardiology	132	2760	2892	3.24%	3.51%	3.50%
Urology	138	2218	2356	3.39%	2.82%	2.85%
Gynaecology	111	2176	2287	2.72%	2.77%	2.77%
Ear, Nose & Throat	49	1027	1076	1.20%	1.31%	1.30%
Oral Surgery	21	295	316	0.52%	0.38%	0.38%
Ophthalmology	12	283	295	0.29%	0.36%	0.36%
Haematology	2	284	286	0.05%	0.36%	0.35%
Neurosurgery	19	241	260	0.47%	0.31%	0.31%
Nephrology	3	215	218	0.07%	0.27%	0.26%
Clinical Oncology	5	154	159	0.12%	0.20%	0.19%
Anaesthetics	13	120	133	0.32%	0.15%	0.16%
Cardiac Surgery	5	104	109	0.12%	0.13%	0.13%
General Surgery (excludes Vascular)	8	98	106	0.20%	0.12%	0.13%
Neurology	5	83	88	0.12%	0.11%	0.11%
Surgical Paediatrics	4	73	77	0.10%	0.09%	0.09%
Rheumatology	2	71	73	0.05%	0.09%	0.09%
Cardiothoracic Surgery	5	56	61	0.12%	0.07%	0.07%
Rehabilitation Medicine	11	50	61	0.27%	0.06%	0.07%
Diagnostic Radiology	6	48	54	0.15%	0.06%	0.07%
Medical Oncology	1	46	47	0.02%	0.06%	0.06%
Gastroenterology	5	38	43	0.12%	0.05%	0.05%
Plastic Surgery	3	27	30	0.07%	0.03%	0.04%
Respiratory Medicine	2	23	25	0.05%	0.03%	0.03%
Vascular Surgery	1	21	22	0.02%	0.03%	0.03%
Thoracic Surgery	1	13	14	0.02%	0.02%	0.02%
Dermatology		12	12	0.00%	0.02%	0.01%
Communicable Diseases		7	7	0.00%	0.01%	0.01%
GP Other Than Obstetrics	2	1	3	0.05%	0.00%	0.00%
Endocrinology		2	2	0.00%	0.00%	0.00%
Palliative Medicine	1	1	2	0.02%	0.00%	0.00%

Appendix E – Emergency Hospital Admissions by Diagnoses

Code	Description	Visitor	Local	Total	Visitor	Local	Total
R07	Pain in throat and chest	201	4490	4691	4.93%	5.71%	5.67%
R10	Abdominal and pelvic pain	192	3687	3879	4.71%	4.69%	4.69%
I21	Acute myocardial infarction	181	2472	2653	4.44%	3.14%	3.21%
I20	Angina pectoris	89	2071	2160	2.18%	2.63%	2.61%
J44	Other chronic obstructive pulmonary disease	42	1802	1844	1.03%	2.29%	2.23%
I25	Chronic ischaemic heart disease	65	1549	1614	1.59%	1.97%	1.95%
J18	Pneumonia- organism unspecified	64	1514	1578	1.57%	1.93%	1.91%
R55	Syncope and collapse	99	1442	1541	2.43%	1.83%	1.86%
M79	Other soft tissue disorders- not elsewhere classified	66	1410	1476	1.62%	1.79%	1.78%
S72	Fracture of femur	69	1263	1332	1.69%	1.61%	1.61%
I50	Heart failure	50	1246	1296	1.23%	1.58%	1.57%
S09	Other and unspecified injuries of head	105	1165	1270	2.58%	1.48%	1.54%
I48	Atrial fibrillation and flutter	66	992	1058	1.62%	1.26%	1.28%
J22	Unspecified acute lower respiratory infection	45	941	986	1.10%	1.20%	1.19%
S52	Fracture of forearm	109	904	1013	2.67%	1.15%	1.22%
T39	Poison by nonopioid analgesic antipyretic and antirheumatics	40	866	906	0.98%	1.10%	1.10%
R06	Abnormalities of breathing	35	841	876	0.86%	1.07%	1.06%
K92	Other diseases of digestive system	43	815	858	1.05%	1.04%	1.04%
L03	Cellulitis	39	788	827	0.96%	1.00%	1.00%
I64	Stroke- not specified as haemorrhage or infarction	28	779	807	0.69%	0.99%	0.98%
S82	Fracture of lower leg- including ankle	142	755	897	3.48%	0.96%	1.08%
I63	Cerebral infarction	21	731	752	0.52%	0.93%	0.91%
R11	Nausea and vomiting	32	718	750	0.79%	0.91%	0.91%
C34	Malignant neoplasm of bronchus and lung	20	693	713	0.49%	0.88%	0.86%
N39	Other disorders of urinary system	28	656	684	0.69%	0.83%	0.83%
K80	Cholelithiasis	27	651	678	0.66%	0.83%	0.82%
R56	Convulsions- not elsewhere classified	55	650	705	1.35%	0.83%	0.85%
R51	Headache	38	646	684	0.93%	0.82%	0.83%
T43	Poisoning by psychotropic drugs- not elsewhere classified	13	575	588	0.32%	0.73%	0.71%
G40	Epilepsy	23	567	590	0.56%	0.72%	0.71%
E10	Insulin-dependent diabetes mellitus	15	538	553	0.37%	0.68%	0.67%
K59	Other functional intestinal disorders	23	520	543	0.56%	0.66%	0.66%
K35	Acute appendicitis	13	511	524	0.32%	0.65%	0.63%
J45	Asthma	21	506	527	0.52%	0.64%	0.64%
J06	Acute upper respiratory infections multiple and unsp sites	24	498	522	0.59%	0.63%	0.63%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
B34	Viral infection of unspecified site	26	497	523	0.64%	0.63%	0.63%
A08	Viral and other specified intestinal infections	26	490	516	0.64%	0.62%	0.62%
K52	Other noninfective gastroenteritis and colitis	26	485	511	0.64%	0.62%	0.62%
J46	Status asthmaticus	22	477	499	0.54%	0.61%	0.60%
R04	Haemorrhage from respiratory passages	19	452	471	0.47%	0.57%	0.57%
K29	Gastritis and duodenitis	26	450	476	0.64%	0.57%	0.58%
F10	Mental and behavioural disorders due to use of alcohol	27	436	463	0.66%	0.55%	0.56%
R54	Senility	4	429	433	0.10%	0.55%	0.52%
M54	Dorsalgia	21	425	446	0.52%	0.54%	0.54%
R33	Retention of urine	28	424	452	0.69%	0.54%	0.55%
T81	Complications of procedures- not elsewhere classified	17	422	439	0.42%	0.54%	0.53%
I80	Phlebitis and thrombophlebitis	19	416	435	0.47%	0.53%	0.53%
L02	Cutaneous abscess- furuncle and carbuncle	16	413	429	0.39%	0.53%	0.52%
K56	Paralytic ileus and intestinal obstruction without hernia	16	403	419	0.39%	0.51%	0.51%
T42	Poison antiepileptic sed-hypnotic and antiparkinsonism drug	6	393	399	0.15%	0.50%	0.48%
K57	Diverticular disease of intestine	20	371	391	0.49%	0.47%	0.47%
J21	Acute bronchiolitis	18	362	380	0.44%	0.46%	0.46%
T40	Poisoning by narcotics and psychodysleptics [hallucinogens]	9	359	368	0.22%	0.46%	0.44%
I26	Pulmonary embolism	14	356	370	0.34%	0.45%	0.45%
D64	Other anaemias	7	354	361	0.17%	0.45%	0.44%
K62	Other diseases of anus and rectum	16	331	347	0.39%	0.42%	0.42%
R41	Oth symptoms & signs involv cognitive function and awareness	8	329	337	0.20%	0.42%	0.41%
K70	Alcoholic liver disease	5	318	323	0.12%	0.40%	0.39%
K85	Acute pancreatitis	10	307	317	0.25%	0.39%	0.38%
S42	Fracture of shoulder and upper arm	32	306	338	0.79%	0.39%	0.41%
N17	Acute renal failure	6	300	306	0.15%	0.38%	0.37%
C18	Malignant neoplasm of colon	10	298	308	0.25%	0.38%	0.37%
R00	Abnormalities of heart beat	11	293	304	0.27%	0.37%	0.37%
Z03	Med observ and evaluation for suspected diseases and conds	14	291	305	0.34%	0.37%	0.37%
G45	Transient cerebral ischaemic attacks and related syndromes	27	282	309	0.66%	0.36%	0.37%
S61	Open wound of wrist and hand	26	276	302	0.64%	0.35%	0.37%
I47	Paroxysmal tachycardia	10	270	280	0.25%	0.34%	0.34%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
M25	Other joint disorders- not elsewhere classified	10	265	275	0.25%	0.34%	0.33%
N23	Unspecified renal colic	18	246	264	0.44%	0.31%	0.32%
K26	Duodenal ulcer	23	243	266	0.56%	0.31%	0.32%
I73	Other peripheral vascular diseases	4	242	246	0.10%	0.31%	0.30%
T50	Poison diuretics & oth/unsp drugs medics & biol subs	8	240	248	0.20%	0.31%	0.30%
A09	Diarrhoea and gastroenteritis of presumed infectious origin	9	224	233	0.22%	0.28%	0.28%
S32	Fracture of lumbar spine and pelvis	47	223	270	1.15%	0.28%	0.33%
O03	Spontaneous abortion	6	221	227	0.15%	0.28%	0.27%
S02	Fracture of skull and facial bones	22	218	240	0.54%	0.28%	0.29%
R31	Unspecified haematuria	10	215	225	0.25%	0.27%	0.27%
A41	Other septicaemia	11	206	217	0.27%	0.26%	0.26%
J03	Acute tonsillitis	11	205	216	0.27%	0.26%	0.26%
D50	Iron deficiency anaemia	5	201	206	0.12%	0.26%	0.25%
I46	Cardiac arrest	14	197	211	0.34%	0.25%	0.26%
E11	Non-insulin-dependent diabetes mellitus	6	197	203	0.15%	0.25%	0.25%
C50	Malignant neoplasm of breast	10	195	205	0.25%	0.25%	0.25%
I61	Intracerebral haemorrhage	7	195	202	0.17%	0.25%	0.24%
K81	Cholecystitis	14	194	208	0.34%	0.25%	0.25%
N20	Calculus of kidney and ureter	10	193	203	0.25%	0.25%	0.25%
S62	Fracture at wrist and hand level	25	191	216	0.61%	0.24%	0.26%
J05	Acute obstructive laryngitis [croup] and epiglottitis	6	189	195	0.15%	0.24%	0.24%
R42	Dizziness and giddiness	7	185	192	0.17%	0.24%	0.23%
I67	Other cerebrovascular diseases	5	185	190	0.12%	0.24%	0.23%
R53	Malaise and fatigue	4	180	184	0.10%	0.23%	0.22%
K61	Abscess of anal and rectal regions	7	177	184	0.17%	0.23%	0.22%
N18	Chronic renal failure	2	174	176	0.05%	0.22%	0.21%
N93	Other abnormal uterine and vaginal bleeding	11	172	183	0.27%	0.22%	0.22%
S01	Open wound of head	16	171	187	0.39%	0.22%	0.23%
S22	Fracture of rib(s)- sternum and thoracic spine	38	170	208	0.93%	0.22%	0.25%
I71	Aortic aneurysm and dissection	4	170	174	0.10%	0.22%	0.21%
R50	Fever of unknown origin	8	168	176	0.20%	0.21%	0.21%
C16	Malignant neoplasm of stomach	3	163	166	0.07%	0.21%	0.20%
J90	Pleural effusion- not elsewhere classified	3	161	164	0.07%	0.20%	0.20%
I60	Subarachnoid haemorrhage	4	155	159	0.10%	0.20%	0.19%
O02	Other abnormal products of conception	17	153	170	0.42%	0.19%	0.21%
C61	Malignant neoplasm of prostate	9	152	161	0.22%	0.19%	0.19%
L05	Pilonidal cyst	7	151	158	0.17%	0.19%	0.19%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
K20	Oesophagitis	6	149	155	0.15%	0.19%	0.19%
K50	Crohn's disease [regional enteritis]	10	148	158	0.25%	0.19%	0.19%
C80	Malignant neoplasm without specification of site	4	147	151	0.10%	0.19%	0.18%
K25	Gastric ulcer	6	145	151	0.15%	0.18%	0.18%
T84	Comps of internal orthopaedic prosth devs implants & grafts	6	142	148	0.15%	0.18%	0.18%
C79	Secondary malignant neoplasm of other sites	8	140	148	0.20%	0.18%	0.18%
K22	Other diseases of oesophagus	5	139	144	0.12%	0.18%	0.17%
C78	Sec malignant neoplasm of respiratory and digestive organs	5	138	143	0.12%	0.18%	0.17%
R13	Dysphagia	1	138	139	0.02%	0.18%	0.17%
C90	Multiple myeloma and malignant plasma cell neoplasms	0	137	137	0.00%	0.17%	0.17%
J93	Pneumothorax	5	136	141	0.12%	0.17%	0.17%
R05	Cough	5	136	141	0.12%	0.17%	0.17%
I22	Subsequent myocardial infarction	14	135	149	0.34%	0.17%	0.18%
G35	Multiple sclerosis	12	135	147	0.29%	0.17%	0.18%
R17	Unspecified jaundice	4	133	137	0.10%	0.17%	0.17%
I35	Nonrheumatic aortic valve disorders	7	132	139	0.17%	0.17%	0.17%
K86	Other diseases of pancreas	5	131	136	0.12%	0.17%	0.16%
C85	Other and unspecified types of non-Hodgkin's lymphoma	4	131	135	0.10%	0.17%	0.16%
G43	Migraine	9	129	138	0.22%	0.16%	0.17%
R63	Symptoms and signs concerning food and fluid intake	3	129	132	0.07%	0.16%	0.16%
R21	Rash and other nonspecific skin eruption	6	127	133	0.15%	0.16%	0.16%
C15	Malignant neoplasm of oesophagus	4	125	129	0.10%	0.16%	0.16%
I44	Atrioventricular and left bundle-branch block	6	120	126	0.15%	0.15%	0.15%
K21	Gastro-oesophageal reflux disease	5	120	125	0.12%	0.15%	0.15%
C67	Malignant neoplasm of bladder	1	120	121	0.02%	0.15%	0.15%
N83	Noninflammatory disord ovary fallopian tube & broad ligament	8	114	122	0.20%	0.14%	0.15%
C56	Malignant neoplasm of ovary	0	113	113	0.00%	0.14%	0.14%
I10	Essential (primary) hypertension	8	112	120	0.20%	0.14%	0.15%
I84	Haemorrhoids	8	112	120	0.20%	0.14%	0.15%
K40	Inguinal hernia	6	107	113	0.15%	0.14%	0.14%
J96	Respiratory failure- not elsewhere classified	4	107	111	0.10%	0.14%	0.13%
S06	Intracranial injury	7	104	111	0.17%	0.13%	0.13%
S92	Fracture of foot- except ankle	16	103	119	0.39%	0.13%	0.14%
N45	Orchitis and epididymitis	6	103	109	0.15%	0.13%	0.13%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
C25	Malignant neoplasm of pancreas	2	102	104	0.05%	0.13%	0.13%
Z13	Special screening exam for other diseases and disorders	1	102	103	0.02%	0.13%	0.12%
E87	Other disorders of fluid- electrolyte and acid-base balance	1	102	103	0.02%	0.13%	0.12%
G20	Parkinson's disease	0	101	101	0.00%	0.13%	0.12%
S39	Other and unspec injuries of abdomen lower back and pelvis	16	100	116	0.39%	0.13%	0.14%
J81	Pulmonary oedema	5	100	105	0.12%	0.13%	0.13%
T18	Foreign body in alimentary tract	7	99	106	0.17%	0.13%	0.13%
J69	Pneumonitis due to solids and liquids	4	99	103	0.10%	0.13%	0.12%
C20	Malignant neoplasm of rectum	0	99	99	0.00%	0.13%	0.12%
I95	Hypotension	5	98	103	0.12%	0.12%	0.12%
F03	Unspecified dementia	4	98	102	0.10%	0.12%	0.12%
J36	Peritonsillar abscess	3	95	98	0.07%	0.12%	0.12%
O00	Ectopic pregnancy	7	94	101	0.17%	0.12%	0.12%
T85	Comps oth internal prosthetic devices implants & grafts	8	93	101	0.20%	0.12%	0.12%
K83	Other diseases of biliary tract	5	92	97	0.12%	0.12%	0.12%
Z74	Problems related to care-provider dependency	0	92	92	0.00%	0.12%	0.11%
T78	Adverse effects- not elsewhere classified	5	91	96	0.12%	0.12%	0.12%
E86	Volume depletion	1	91	92	0.02%	0.12%	0.11%
J47	Bronchiectasis	1	89	90	0.02%	0.11%	0.11%
M06	Other rheumatoid arthritis	0	89	89	0.00%	0.11%	0.11%
T14	Injury of unspecified body region	11	88	99	0.27%	0.11%	0.12%
O04	Medical abortion	2	88	90	0.05%	0.11%	0.11%
S81	Open wound of lower leg	12	87	99	0.29%	0.11%	0.12%
N50	Other disorders of male genital organs	4	87	91	0.10%	0.11%	0.11%
K63	Other diseases of intestine	0	87	87	0.00%	0.11%	0.11%
O20	Haemorrhage in early pregnancy	9	86	95	0.22%	0.11%	0.11%
S79	Other and specified injuries of hip and thigh	5	86	91	0.12%	0.11%	0.11%
R68	Other general symptoms and signs	1	85	86	0.02%	0.11%	0.10%
D46	Myelodysplastic syndromes	0	85	85	0.00%	0.11%	0.10%
K30	Dyspepsia	8	84	92	0.20%	0.11%	0.11%
T82	Comps cardiac & vasc prosthetic devs implants & grafts	0	84	84	0.00%	0.11%	0.10%
I49	Other cardiac arrhythmias	4	83	87	0.10%	0.11%	0.11%
L97	Ulcer of lower limb- not elsewhere classified	5	82	87	0.12%	0.10%	0.11%
R26	Abnormalities of gait and mobility	4	81	85	0.10%	0.10%	0.10%
I74	Arterial embolism and thrombosis	5	80	85	0.12%	0.10%	0.10%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
C64	Malignant neoplasm of kidney- except renal pelvis	0	79	79	0.00%	0.10%	0.10%
J98	Other respiratory disorders	6	78	84	0.15%	0.10%	0.10%
S43	Disloc sprain and strain of joints ligs of shoulder girdle	9	77	86	0.22%	0.10%	0.10%
N19	Unspecified renal failure	1	77	78	0.02%	0.10%	0.09%
E83	Disorders of mineral metabolism	1	77	78	0.02%	0.10%	0.09%
S66	Injury of muscle and tendon at wrist and hand level	8	76	84	0.20%	0.10%	0.10%
K51	Ulcerative colitis	8	76	84	0.20%	0.10%	0.10%
K55	Vascular disorders of intestine	8	75	83	0.20%	0.10%	0.10%
C71	Malignant neoplasm of brain	6	75	81	0.15%	0.10%	0.10%
I24	Other acute ischaemic heart diseases	3	75	78	0.07%	0.10%	0.09%
I31	Other diseases of pericardium	7	74	81	0.17%	0.09%	0.10%
A04	Other bacterial intestinal infections	6	74	80	0.15%	0.09%	0.10%
D69	Purpura and other haemorrhagic conditions	9	73	82	0.22%	0.09%	0.10%
J84	Other interstitial pulmonary diseases	6	73	79	0.15%	0.09%	0.10%
R19	Oth symptoms & signs involving digestive system and abdomen	3	73	76	0.07%	0.09%	0.09%
N92	Excessive- frequent and irregular menstruation	4	72	76	0.10%	0.09%	0.09%
T44	Poison by drug primarily affecting the autonomic nervous sys	1	72	73	0.02%	0.09%	0.09%
N04	Nephrotic syndrome	0	72	72	0.00%	0.09%	0.09%
M51	Other intervertebral disc disorders	9	71	80	0.22%	0.09%	0.10%
C92	Myeloid leukaemia	2	69	71	0.05%	0.09%	0.09%
M80	Osteoporosis with pathological fracture	0	69	69	0.00%	0.09%	0.08%
G81	Hemiplegia	7	68	75	0.17%	0.09%	0.09%
E16	Other disorders of pancreatic internal secretion	1	68	69	0.02%	0.09%	0.08%
I85	Oesophageal varices	6	67	73	0.15%	0.09%	0.09%
I87	Other disorders of veins	1	67	68	0.02%	0.09%	0.08%
I62	Other nontraumatic intracranial haemorrhage	8	66	74	0.20%	0.08%	0.09%
C91	Lymphoid leukaemia	3	66	69	0.07%	0.08%	0.08%
M24	Other specific joint derangements	4	65	69	0.10%	0.08%	0.08%
R09	Oth symptoms and signs involv circul and resp systems	2	65	67	0.05%	0.08%	0.08%
M70	Soft tissue disorders related to use- overuse and pressure	1	65	66	0.02%	0.08%	0.08%
K76	Other diseases of liver	0	64	64	0.00%	0.08%	0.08%
J02	Acute pharyngitis	2	63	65	0.05%	0.08%	0.08%
M84	Disorders of continuity of bone	3	62	65	0.07%	0.08%	0.08%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
R22	Localized swelling- mass & lump of skin/subcutaneous tissue	3	62	65	0.07%	0.08%	0.08%
H66	Suppurative and unspecified otitis media	1	62	63	0.02%	0.08%	0.08%
I42	Cardiomyopathy	3	61	64	0.07%	0.08%	0.08%
K72	Hepatic failure- not elsewhere classified	0	61	61	0.00%	0.08%	0.07%
I77	Other disorders of arteries and arterioles	2	60	62	0.05%	0.08%	0.07%
D68	Other coagulation defects	5	59	64	0.12%	0.08%	0.08%
A87	Viral meningitis	4	58	62	0.10%	0.07%	0.07%
Z53	Persons encount health services spec procs not carried out	1	58	59	0.02%	0.07%	0.07%
C22	Malignant neoplasm of liver and intrahepatic bile ducts	1	57	58	0.02%	0.07%	0.07%
F41	Other anxiety disorders	4	56	60	0.10%	0.07%	0.07%
T45	Poison by primarily systemic and haematological agents NEC	1	55	56	0.02%	0.07%	0.07%
J43	Emphysema	0	55	55	0.00%	0.07%	0.07%
S31	Open wound of abdomen- lower back and pelvis	2	52	54	0.05%	0.07%	0.07%
E84	Cystic fibrosis	0	52	52	0.00%	0.07%	0.06%
M17	Gonarthrosis [arthrosis of knee]	1	51	52	0.02%	0.06%	0.06%
K44	Diaphragmatic hernia	4	50	54	0.10%	0.06%	0.07%
N13	Obstructive and reflux uropathy	1	50	51	0.02%	0.06%	0.06%
R60	Oedema- not elsewhere classified	0	50	50	0.00%	0.06%	0.06%
J15	Bacterial pneumonia- not elsewhere classified	2	49	51	0.05%	0.06%	0.06%
A39	Meningococcal infection	1	49	50	0.02%	0.06%	0.06%
T59	Toxic effect of other gases- fumes and vapours	0	49	49	0.00%	0.06%	0.06%
T17	Foreign body in respiratory tract	1	48	49	0.02%	0.06%	0.06%
I88	Nonspecific lymphadenitis	0	48	48	0.00%	0.06%	0.06%
B01	Varicella [chickenpox]	5	47	52	0.12%	0.06%	0.06%
L72	Follicular cysts of skin and subcutaneous tissue	2	47	49	0.05%	0.06%	0.06%
F01	Vascular dementia	0	47	47	0.00%	0.06%	0.06%
M00	Pyogenic arthritis	1	45	46	0.02%	0.06%	0.06%
G61	Inflammatory polyneuropathy	5	44	49	0.12%	0.06%	0.06%
N75	Diseases of Bartholin's gland	4	44	48	0.10%	0.06%	0.06%
I45	Other conduction disorders	6	43	49	0.15%	0.05%	0.06%
G41	Status epilepticus	4	43	47	0.10%	0.05%	0.06%
G31	Other degenerative diseases of nervous system NEC	1	42	43	0.02%	0.05%	0.05%
R40	Somnolence- stupor and coma	1	42	43	0.02%	0.05%	0.05%
R02	Gangrene- not elsewhere classified	0	42	42	0.00%	0.05%	0.05%
S51	Open wound of forearm	8	41	49	0.20%	0.05%	0.06%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
I33	Acute and subacute endocarditis	4	41	45	0.10%	0.05%	0.05%
K65	Peritonitis	3	41	44	0.07%	0.05%	0.05%
N61	Inflammatory disorders of breast	3	41	44	0.07%	0.05%	0.05%
S00	Superficial injury of head	3	41	44	0.07%	0.05%	0.05%
H05	Disorders of orbit	2	41	43	0.05%	0.05%	0.05%
S89	Other and unspecified injuries of lower leg	4	40	44	0.10%	0.05%	0.05%
G80	Infantile cerebral palsy	3	40	43	0.07%	0.05%	0.05%
R20	Disturbances of skin sensation	1	40	41	0.02%	0.05%	0.05%
T38	Pois by hormone and synthetic substitute and antagonist NEC	1	40	41	0.02%	0.05%	0.05%
L08	Other local infections of skin and subcutaneous tissue	5	39	44	0.12%	0.05%	0.05%
T46	Poison by agents primarily affecting the cardiovascular sys	2	39	41	0.05%	0.05%	0.05%
K91	Postprocedural disorders of digestive system NEC	1	39	40	0.02%	0.05%	0.05%
N73	Other female pelvic inflammatory diseases	5	38	43	0.12%	0.05%	0.05%
C83	Diffuse non-Hodgkin's lymphoma	4	37	41	0.10%	0.05%	0.05%
H83	Other diseases of inner ear	3	37	40	0.07%	0.05%	0.05%
I66	Occlusion/stenosis cerebral arts not result cerebral infarct	2	37	39	0.05%	0.05%	0.05%
B00	Herpesviral [herpes simplex] infections	2	37	39	0.05%	0.05%	0.05%
P92	Feeding problems of newborn	2	37	39	0.05%	0.05%	0.05%
I83	Varicose veins of lower extremities	1	37	38	0.02%	0.05%	0.05%
S12	Fracture of neck	7	36	43	0.17%	0.05%	0.05%
H60	Otitis externa	4	36	40	0.10%	0.05%	0.05%
S86	Injury of muscle and tendon at lower leg level	3	36	39	0.07%	0.05%	0.05%
J00	Acute nasopharyngitis [common cold]	1	36	37	0.02%	0.05%	0.04%
K43	Ventral hernia	0	36	36	0.00%	0.05%	0.04%
D70	Agranulocytosis	6	35	41	0.15%	0.04%	0.05%
T52	Toxic effect of organic solvents	4	35	39	0.10%	0.04%	0.05%
N95	Menopausal and other perimenopausal disorders	2	35	37	0.05%	0.04%	0.04%
I34	Nonrheumatic mitral valve disorders	2	35	37	0.05%	0.04%	0.04%
N40	Hyperplasia of prostate	1	35	36	0.02%	0.04%	0.04%
N48	Other disorders of penis	0	35	35	0.00%	0.04%	0.04%
G44	Other headache syndromes	0	35	35	0.00%	0.04%	0.04%
T83	Complications of genitourinary prosth devs implants & grafts	3	34	37	0.07%	0.04%	0.04%
C45	Mesothelioma	0	34	34	0.00%	0.04%	0.04%
H40	Glaucoma	0	34	34	0.00%	0.04%	0.04%
N44	Torsion of testis	3	33	36	0.07%	0.04%	0.04%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
R62	Lack of expected normal physiological development	2	33	35	0.05%	0.04%	0.04%
R73	Elevated blood glucose level	1	33	34	0.02%	0.04%	0.04%
S91	Open wound of ankle and foot	1	33	34	0.02%	0.04%	0.04%
H16	Keratitis	0	33	33	0.00%	0.04%	0.04%
Q40	Other congenital malformations of upper alimentary tract	0	33	33	0.00%	0.04%	0.04%
S05	Injury of eye and orbit	6	32	38	0.15%	0.04%	0.05%
S68	Traumatic amputation of wrist and hand	5	32	37	0.12%	0.04%	0.04%
S53	Dislocation sprain & strain of joints & ligs elbow	4	32	36	0.10%	0.04%	0.04%
K04	Diseases of pulp and periapical tissues	3	32	35	0.07%	0.04%	0.04%
I30	Acute pericarditis	1	32	33	0.02%	0.04%	0.04%
A49	Bacterial infection of unspecified site	1	32	33	0.02%	0.04%	0.04%
D12	Benign neoplasm of colon- rectum- anus and anal canal	0	32	32	0.00%	0.04%	0.04%
R18	Ascites	0	32	32	0.00%	0.04%	0.04%
I70	Atherosclerosis	2	31	33	0.05%	0.04%	0.04%
N76	Other inflammation of vagina and vulva	1	31	32	0.02%	0.04%	0.04%
K58	Irritable bowel syndrome	1	31	32	0.02%	0.04%	0.04%
I05	Rheumatic mitral valve diseases	0	31	31	0.00%	0.04%	0.04%
M35	Other systemic involvement of connective tissue	0	31	31	0.00%	0.04%	0.04%
C53	Malignant neoplasm of cervix uteri	0	31	31	0.00%	0.04%	0.04%
M75	Shoulder lesions	3	30	33	0.07%	0.04%	0.04%
H53	Visual disturbances	2	30	32	0.05%	0.04%	0.04%
I27	Other pulmonary heart diseases	0	30	30	0.00%	0.04%	0.04%
M19	Other arthrosis	0	30	30	0.00%	0.04%	0.04%
N32	Other disorders of bladder	5	29	34	0.12%	0.04%	0.04%
R23	Other skin changes	3	29	32	0.07%	0.04%	0.04%
T24	Burn and corrosion hip & lower limb exc ankle & foot	1	29	30	0.02%	0.04%	0.04%
M31	Other necrotizing vasculopathies	1	29	30	0.02%	0.04%	0.04%
J20	Acute bronchitis	1	29	30	0.02%	0.04%	0.04%
K82	Other diseases of gallbladder	0	29	29	0.00%	0.04%	0.04%
C19	Malignant neoplasm of rectosigmoid junction	0	29	29	0.00%	0.04%	0.04%
R91	Abnormal findings on diagnostic imaging of lung	0	29	29	0.00%	0.04%	0.04%
B27	Infectious mononucleosis	0	29	29	0.00%	0.04%	0.04%
S83	Dislocation sprain & strain of joints and ligaments of knee	3	28	31	0.07%	0.04%	0.04%
O06	Unspecified abortion	2	28	30	0.05%	0.04%	0.04%
C24	Maligt neoplasm of other and unspec parts biliary tract	2	28	30	0.05%	0.04%	0.04%
M23	Internal derangement of knee	2	28	30	0.05%	0.04%	0.04%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
S30	Superficial injury of abdomen- lower back and pelvis	1	28	29	0.02%	0.04%	0.04%
E14	Unspecified diabetes mellitus	1	28	29	0.02%	0.04%	0.04%
H92	Otalgia and effusion of ear	0	28	28	0.00%	0.04%	0.03%
M10	Gout	0	28	28	0.00%	0.04%	0.03%
S41	Open wound of shoulder and upper arm	2	27	29	0.05%	0.03%	0.04%
C54	Malignant neoplasm of corpus uteri	2	27	29	0.05%	0.03%	0.04%
D25	Leiomyoma of uterus	2	27	29	0.05%	0.03%	0.04%
K12	Stomatitis and related lesions	2	27	29	0.05%	0.03%	0.04%
K66	Other disorders of peritoneum	1	27	28	0.02%	0.03%	0.03%
K41	Femoral hernia	1	27	28	0.02%	0.03%	0.03%
G51	Facial nerve disorders	1	27	28	0.02%	0.03%	0.03%
G30	Alzheimer's disease	1	27	28	0.02%	0.03%	0.03%
T51	Toxic effect of alcohol	0	27	27	0.00%	0.03%	0.03%
F32	Depressive episode	1	26	27	0.02%	0.03%	0.03%
N12	Tubulo-interstitial nephritis not spec as acute or chronic	1	26	27	0.02%	0.03%	0.03%
R57	Shock- not elsewhere classified	1	26	27	0.02%	0.03%	0.03%
K74	Fibrosis and cirrhosis of liver	1	26	27	0.02%	0.03%	0.03%
R32	Unspecified urinary incontinence	1	26	27	0.02%	0.03%	0.03%
D47	Oth neo uncert / unkn behav lymphoid/haematopoietic rel tis	0	26	26	0.00%	0.03%	0.03%
Z54	Convalescence	0	26	26	0.00%	0.03%	0.03%
G93	Other disorders of brain	6	25	31	0.15%	0.03%	0.04%
S19	Other and unspecified injuries of neck	5	25	30	0.12%	0.03%	0.04%
S64	Injury of nerves at wrist and hand level	3	25	28	0.07%	0.03%	0.03%
J86	Pyothorax	2	25	27	0.05%	0.03%	0.03%
M13	Other arthritis	2	25	27	0.05%	0.03%	0.03%
Z43	Attention to artificial openings	1	25	26	0.02%	0.03%	0.03%
R69	Unknown and unspecified causes of morbidity	0	25	25	0.00%	0.03%	0.03%
Z46	Fitting and adjustment of other devices	0	25	25	0.00%	0.03%	0.03%
S27	Injury of other and unspecified intrathoracic organs	2	24	26	0.05%	0.03%	0.03%
N47	Redundant prepuce- phimosis and paraphimosis	2	24	26	0.05%	0.03%	0.03%
I51	Complications and ill-defined descriptions of heart disease	1	24	25	0.02%	0.03%	0.03%
M16	Coxarthrosis [arthrosis of hip]	0	24	24	0.00%	0.03%	0.03%
M62	Other disorders of muscle	0	24	24	0.00%	0.03%	0.03%
G47	Sleep disorders	0	24	24	0.00%	0.03%	0.03%
C02	Malignant neoplasm of other and unspecified parts of tongue	0	24	24	0.00%	0.03%	0.03%
S36	Injury of intra-abdominal organs	8	23	31	0.20%	0.03%	0.04%
R94	Abnormal results of function studies	1	23	24	0.02%	0.03%	0.03%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
N81	Female genital prolapse	0	23	23	0.00%	0.03%	0.03%
C32	Malignant neoplasm of larynx	0	23	23	0.00%	0.03%	0.03%
R59	Enlarged lymph nodes	0	23	23	0.00%	0.03%	0.03%
M86	Osteomyelitis	8	22	30	0.20%	0.03%	0.04%
H57	Other disorders of eye and adnexa	2	22	24	0.05%	0.03%	0.03%
D32	Benign neoplasm of meninges	1	22	23	0.02%	0.03%	0.03%
A02	Other salmonella infections	0	22	22	0.00%	0.03%	0.03%
G95	Other diseases of spinal cord	0	22	22	0.00%	0.03%	0.03%
K37	Unspecified appendicitis	2	21	23	0.05%	0.03%	0.03%
I72	Other aneurysm	2	21	23	0.05%	0.03%	0.03%
D27	Benign neoplasm of ovary	2	21	23	0.05%	0.03%	0.03%
M81	Osteoporosis without pathological fracture	1	21	22	0.02%	0.03%	0.03%
S63	Disloc sprain strain joint and ligs at wrist and hand level	1	21	22	0.02%	0.03%	0.03%
R47	Speech disturbances- not elsewhere classified	0	21	21	0.00%	0.03%	0.03%
M94	Other disorders of cartilage	0	21	21	0.00%	0.03%	0.03%
K90	Intestinal malabsorption	0	21	21	0.00%	0.03%	0.03%
H44	Disorders of globe	0	21	21	0.00%	0.03%	0.03%
K42	Umbilical hernia	0	21	21	0.00%	0.03%	0.03%
T79	Certain early complications of trauma NEC	2	20	22	0.05%	0.03%	0.03%
T36	Poisoning by systemic antibiotics	2	20	22	0.05%	0.03%	0.03%
T20	Burn and corrosion of head and neck	2	20	22	0.05%	0.03%	0.03%
N43	Hydrocele and spermatocele	1	20	21	0.02%	0.03%	0.03%
N80	Endometriosis	0	20	20	0.00%	0.03%	0.02%
L30	Other dermatitis	0	20	20	0.00%	0.03%	0.02%
L98	Other disorders of skin and subcutaneous tissue NEC	0	20	20	0.00%	0.03%	0.02%
I08	Multiple valve diseases	0	20	20	0.00%	0.03%	0.02%
L50	Urticaria	0	20	20	0.00%	0.03%	0.02%
R99	Other ill-defined and unspecified causes of mortality	0	20	20	0.00%	0.03%	0.02%
G00	Bacterial meningitis- not elsewhere classified	0	20	20	0.00%	0.03%	0.02%
Q21	Congenital malformations of cardiac septa	0	20	20	0.00%	0.03%	0.02%
S29	Other and unspecified injuries of thorax	5	19	24	0.12%	0.02%	0.03%
R35	Polyuria	1	19	20	0.02%	0.02%	0.02%
L89	Decubitus ulcer	0	19	19	0.00%	0.02%	0.02%
B02	Zoster [herpes zoster]	0	19	19	0.00%	0.02%	0.02%
M46	Other inflammatory spondylopathies	0	19	19	0.00%	0.02%	0.02%
N10	Acute tubulo-interstitial nephritis	3	18	21	0.07%	0.02%	0.03%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
M48	Other spondylopathies	2	18	20	0.05%	0.02%	0.02%
D48	Neoplasm uncert or unknown behaviour other and unspec sites	1	18	19	0.02%	0.02%	0.02%
Z75	Problems related to medical facilities and other health care	1	18	19	0.02%	0.02%	0.02%
I82	Other venous embolism and thrombosis	1	18	19	0.02%	0.02%	0.02%
P59	Neonatal jaundice from other and unspecified causes	1	18	19	0.02%	0.02%	0.02%
T88	Other complications of surgical and medical care NEC	0	18	18	0.00%	0.02%	0.02%
D41	Neoplasm of uncertain or unknown behaviour of urinary organs	0	18	18	0.00%	0.02%	0.02%
D52	Folate deficiency anaemia	0	18	18	0.00%	0.02%	0.02%
T29	Burns and corrosions of multiple body regions	0	18	18	0.00%	0.02%	0.02%
D61	Other aplastic anaemias	0	18	18	0.00%	0.02%	0.02%
L51	Erythema multiforme	0	18	18	0.00%	0.02%	0.02%
S69	Other and unspecified injuries of wrist and hand	10	17	27	0.25%	0.02%	0.03%
N28	Other disorders of kidney and ureter NEC	4	17	21	0.10%	0.02%	0.03%
S67	Crushing injury of wrist and hand	3	17	20	0.07%	0.02%	0.02%
T71	Asphyxiation	2	17	19	0.05%	0.02%	0.02%
N94	Pain and oth conds assoc fem gen organs and mens cycle	2	17	19	0.05%	0.02%	0.02%
M67	Other disorders of synovium and tendon	2	17	19	0.05%	0.02%	0.02%
K60	Fissure and fistula of anal and rectal regions	2	17	19	0.05%	0.02%	0.02%
S99	Other and unspecified injuries of ankle and foot	1	17	18	0.02%	0.02%	0.02%
T75	Effects of other external causes	1	17	18	0.02%	0.02%	0.02%
M47	Spondylosis	1	17	18	0.02%	0.02%	0.02%
L40	Psoriasis	1	17	18	0.02%	0.02%	0.02%
L01	Impetigo	1	17	18	0.02%	0.02%	0.02%
A40	Streptococcal septicaemia	0	17	17	0.00%	0.02%	0.02%
F06	Oth mental disord brain damag and dysfunction/physical dis	0	17	17	0.00%	0.02%	0.02%
R14	Flatulence and related conditions	0	17	17	0.00%	0.02%	0.02%
Z50	Care involving use of rehabilitation procedures	0	17	17	0.00%	0.02%	0.02%
L04	Acute lymphadenitis	0	17	17	0.00%	0.02%	0.02%
T63	Toxic effect of contact with venomous animals	3	16	19	0.07%	0.02%	0.02%
I65	Occlusion/stenos precerebral arts not result cerebrl infarct	3	16	19	0.07%	0.02%	0.02%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
S70	Superficial injury of hip and thigh	2	16	18	0.05%	0.02%	0.02%
K31	Other diseases of stomach and duodenum	1	16	17	0.02%	0.02%	0.02%
S71	Open wound of hip and thigh	1	16	17	0.02%	0.02%	0.02%
S37	Injury of pelvic organs	1	16	17	0.02%	0.02%	0.02%
J35	Chronic diseases of tonsils and adenoids	1	16	17	0.02%	0.02%	0.02%
J31	Chronic rhinitis- nasopharyngitis and pharyngitis	1	16	17	0.02%	0.02%	0.02%
B37	Candidiasis	0	16	16	0.00%	0.02%	0.02%
R44	Oth symptoms & signs involv general sensation and perception	0	16	16	0.00%	0.02%	0.02%
N30	Cystitis	0	16	16	0.00%	0.02%	0.02%
C43	Malignant melanoma of skin	0	16	16	0.00%	0.02%	0.02%
D75	Other diseases of blood and blood-forming organs	0	16	16	0.00%	0.02%	0.02%
T21	Burn and corrosion of trunk	0	16	16	0.00%	0.02%	0.02%
M71	Other bursopathies	0	16	16	0.00%	0.02%	0.02%
T48	Poison agents prim act on smooth+skeletal muscles+resp sys	0	16	16	0.00%	0.02%	0.02%
S20	Superficial injury of thorax	5	15	20	0.12%	0.02%	0.02%
Z47	Other orthopaedic follow-up care	2	15	17	0.05%	0.02%	0.02%
S80	Superficial injury of lower leg	1	15	16	0.02%	0.02%	0.02%
K27	Peptic ulcer- site unspecified	1	15	16	0.02%	0.02%	0.02%
C44	Other malignant neoplasms of skin	1	15	16	0.02%	0.02%	0.02%
G83	Other paralytic syndromes	1	15	16	0.02%	0.02%	0.02%
G37	Other demyelinating diseases of central nervous system	0	15	15	0.00%	0.02%	0.02%
M65	Synovitis and tenosynovitis	0	15	15	0.00%	0.02%	0.02%
C17	Malignant neoplasm of small intestine	0	15	15	0.00%	0.02%	0.02%
C82	Follicular [nodular] non-Hodgkin's lymphoma	0	15	15	0.00%	0.02%	0.02%
A37	Whooping cough	0	15	15	0.00%	0.02%	0.02%
S21	Open wound of thorax	3	14	17	0.07%	0.02%	0.02%
S14	Injury of nerves and spinal cord at neck level	2	14	16	0.05%	0.02%	0.02%
E05	Thyrotoxicosis [hyperthyroidism]	2	14	16	0.05%	0.02%	0.02%
R30	Pain associated with micturition	1	14	15	0.02%	0.02%	0.02%
N05	Unspecified nephritic syndrome	1	14	15	0.02%	0.02%	0.02%
N21	Calculus of lower urinary tract	1	14	15	0.02%	0.02%	0.02%
T49	Pois top ag prim affect skin muc memb by ophth oto dent drug	1	14	15	0.02%	0.02%	0.02%
L53	Other erythematous conditions	0	14	14	0.00%	0.02%	0.02%
J11	Influenza- virus not identified	0	14	14	0.00%	0.02%	0.02%
J04	Acute laryngitis and tracheitis	3	13	16	0.07%	0.02%	0.02%
T68	Hypothermia	3	13	16	0.07%	0.02%	0.02%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
E78	Disorders of lipoprotein metabolism and other lipidaemias	2	13	15	0.05%	0.02%	0.02%
S56	Injury of muscle and tendon at forearm level	2	13	15	0.05%	0.02%	0.02%
Z09	Follow-up exam after treatment for conds oth than mal neos	2	13	15	0.05%	0.02%	0.02%
T09	Other injuries of spine and trunk- level unspecified	2	13	15	0.05%	0.02%	0.02%
N49	Inflammatory disorders of male genital organs NEC	2	13	15	0.05%	0.02%	0.02%
A46	Erysipelas	1	13	14	0.02%	0.02%	0.02%
G12	Spinal muscular atrophy and related syndromes	1	13	14	0.02%	0.02%	0.02%
F50	Eating disorders	1	13	14	0.02%	0.02%	0.02%
G82	Paraplegia and tetraplegia	0	13	13	0.00%	0.02%	0.02%
M66	Spontaneous rupture of synovium and tendon	0	13	13	0.00%	0.02%	0.02%
K75	Other inflammatory liver diseases	0	13	13	0.00%	0.02%	0.02%
M72	Fibroblastic disorders	0	13	13	0.00%	0.02%	0.02%
S11	Open wound of neck	0	13	13	0.00%	0.02%	0.02%
I78	Diseases of capillaries	0	13	13	0.00%	0.02%	0.02%
H81	Disorders of vestibular function	0	13	13	0.00%	0.02%	0.02%
B17	Other acute viral hepatitis	0	13	13	0.00%	0.02%	0.02%
K11	Diseases of salivary glands	2	12	14	0.05%	0.02%	0.02%
K02	Dental caries	2	12	14	0.05%	0.02%	0.02%
N35	Urethral stricture	1	12	13	0.02%	0.02%	0.02%
A16	Respiratory TB not confirmed bact or histologically	0	12	12	0.00%	0.02%	0.01%
J13	Pneumonia due to Streptococcus pneumoniae	0	12	12	0.00%	0.02%	0.01%
Q87	Oth spec cong malform syndromes affecting multiple sys	0	12	12	0.00%	0.02%	0.01%
S13	Dislocation sprain and strain of joints and ligs neck level	0	12	12	0.00%	0.02%	0.01%
H20	Iridocyclitis	2	11	13	0.05%	0.01%	0.02%
N89	Other noninflammatory disorders of vagina	2	11	13	0.05%	0.01%	0.02%
J12	Viral pneumonia- not elsewhere classified	1	11	12	0.02%	0.01%	0.01%
J94	Other pleural conditions	1	11	12	0.02%	0.01%	0.01%
L60	Nail disorders	1	11	12	0.02%	0.01%	0.01%
D59	Acquired haemolytic anaemia	1	11	12	0.02%	0.01%	0.01%
H34	Retinal vascular occlusions	1	11	12	0.02%	0.01%	0.01%
H26	Other cataract	0	11	11	0.00%	0.01%	0.01%
J85	Abscess of lung and mediastinum	0	11	11	0.00%	0.01%	0.01%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
L73	Other follicular disorders	0	11	11	0.00%	0.01%	0.01%
G58	Other mononeuropathies	0	11	11	0.00%	0.01%	0.01%
C77	Secondary and unspecified malignant neoplasm of lymph nodes	0	11	11	0.00%	0.01%	0.01%
S73	Dislocation- sprain and strain of joint and ligaments of hip	0	11	11	0.00%	0.01%	0.01%
I38	Endocarditis- valve unspecified	0	11	11	0.00%	0.01%	0.01%
S76	Injury of muscle and tendon at hip and thigh level	0	11	11	0.00%	0.01%	0.01%
O21	Excessive vomiting in pregnancy	0	11	11	0.00%	0.01%	0.01%
C26	Malignant neoplasm of other and ill-defined digestive organs	0	11	11	0.00%	0.01%	0.01%
R27	Other lack of coordination	1	10	11	0.02%	0.01%	0.01%
I89	Oth noninfective disorders lymphatic vessels and lymph node	1	10	11	0.02%	0.01%	0.01%
T22	Burn and corros shoulder & upr limb exc wrist/hand	1	10	11	0.02%	0.01%	0.01%
T80	Comps following infusion transfusion and therapeutic inject	0	10	10	0.00%	0.01%	0.01%
G62	Other polyneuropathies	0	10	10	0.00%	0.01%	0.01%
R29	Oth sympt and signs involv nerv and musculosk systems	0	10	10	0.00%	0.01%	0.01%
M88	Paget's disease of bone [osteitis deformans]	0	10	10	0.00%	0.01%	0.01%
J95	Postprocedural respiratory disorders NEC	0	10	10	0.00%	0.01%	0.01%
R78	Findings of drugs and oth substances not norm found in blood	0	10	10	0.00%	0.01%	0.01%
T37	Poisoning by oth systemic anti-infective and antiparasitics	0	10	10	0.00%	0.01%	0.01%
D13	Benign neoplasm of other and ill-def parts of digestive sys	0	10	10	0.00%	0.01%	0.01%
Z48	Other surgical follow-up care	0	10	10	0.00%	0.01%	0.01%
C81	Hodgkin's disease	0	10	10	0.00%	0.01%	0.01%
J32	Chronic sinusitis	0	10	10	0.00%	0.01%	0.01%
D86	Sarcoidosis	0	10	10	0.00%	0.01%	0.01%
T65	Toxic effect of other and unspecified substances	0	10	10	0.00%	0.01%	0.01%
T13	Other injuries of lower limb- level unspecified	0	10	10	0.00%	0.01%	0.01%
H54	Blindness and low vision	0	10	10	0.00%	0.01%	0.01%
M93	Other osteochondropathies	0	10	10	0.00%	0.01%	0.01%
G91	Hydrocephalus	0	10	10	0.00%	0.01%	0.01%
S93	Dislocation sprain & strain joints & ligs ankle & foot level	0	10	10	0.00%	0.01%	0.01%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
M91	Juvenile osteochondrosis of hip and pelvis	0	10	10	0.00%	0.01%	0.01%
T23	Burn and corrosion of wrist and hand	3	9	12	0.07%	0.01%	0.01%
T54	Toxic effect of corrosive substances	2	9	11	0.05%	0.01%	0.01%
S10	Superficial injury of neck	2	9	11	0.05%	0.01%	0.01%
Z30	Contraceptive management	2	9	11	0.05%	0.01%	0.01%
M43	Other deforming dorsopathies	2	9	11	0.05%	0.01%	0.01%
F05	Delirium not induced by alcohol and other psychoactive subs	1	9	10	0.02%	0.01%	0.01%
Z08	Follow-up examination after treatment for malignant neoplasm	0	9	9	0.00%	0.01%	0.01%
N70	Salpingitis and oophoritis	0	9	9	0.00%	0.01%	0.01%
K73	Chronic hepatitis- not elsewhere classified	0	9	9	0.00%	0.01%	0.01%
R39	Other symptoms and signs involving the urinary system	0	9	9	0.00%	0.01%	0.01%
T56	Toxic effect of metals	0	9	9	0.00%	0.01%	0.01%
A48	Other bacterial diseases- not elsewhere classified	0	9	9	0.00%	0.01%	0.01%
C38	Malignant neoplasm of heart- mediastinum and pleura	0	9	9	0.00%	0.01%	0.01%
N84	Polyp of female genital tract	0	9	9	0.00%	0.01%	0.01%
G56	Mononeuropathies of upper limb	0	9	9	0.00%	0.01%	0.01%
S46	Injury of muscle and tendon at shoulder and upper arm level	0	9	9	0.00%	0.01%	0.01%
G06	Intracranial and intraspinal abscess and granuloma	0	9	9	0.00%	0.01%	0.01%
D37	Neoplasm uncert or unkn behaviour oral cav and diges organs	0	9	9	0.00%	0.01%	0.01%
Q61	Cystic kidney disease	0	9	9	0.00%	0.01%	0.01%
D51	Vitamin B12 deficiency anaemia	0	9	9	0.00%	0.01%	0.01%
C01	Malignant neoplasm of base of tongue	0	9	9	0.00%	0.01%	0.01%
Z04	Examination and observation for other reasons	0	9	9	0.00%	0.01%	0.01%
E22	Hyperfunction of pituitary gland	0	9	9	0.00%	0.01%	0.01%
D43	Neoplasm of uncertain or unknown behaviour of brain and CNS	0	9	9	0.00%	0.01%	0.01%
M30	Polyarteritis nodosa and related conditions	0	9	9	0.00%	0.01%	0.01%
C62	Malignant neoplasm of testis	0	9	9	0.00%	0.01%	0.01%
B99	Other and unspecified infectious diseases	8	8	16	0.20%	0.01%	0.02%
N90	Other noninflammatory disorders of vulva and perineum	1	8	9	0.02%	0.01%	0.01%
J80	Adult respiratory distress syndrome	1	8	9	0.02%	0.01%	0.01%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
T01	Open wounds involving multiple body regions	1	8	9	0.02%	0.01%	0.01%
H46	Optic neuritis	0	8	8	0.00%	0.01%	0.01%
J38	Diseases of vocal cords and larynx- not elsewhere classified	0	8	8	0.00%	0.01%	0.01%
M32	Systemic lupus erythematosus	0	8	8	0.00%	0.01%	0.01%
G03	Meningitis due to other and unspecified causes	0	8	8	0.00%	0.01%	0.01%
L95	Vasculitis limited to skin- not elsewhere classified	0	8	8	0.00%	0.01%	0.01%
J42	Unspecified chronic bronchitis	0	8	8	0.00%	0.01%	0.01%
Q53	Undescended testicle	0	8	8	0.00%	0.01%	0.01%
T60	Toxic effect of pesticides	0	8	8	0.00%	0.01%	0.01%
D58	Other hereditary haemolytic anaemias	0	8	8	0.00%	0.01%	0.01%
M60	Myositis	0	8	8	0.00%	0.01%	0.01%
H00	Hordeolum and chalazion	0	8	8	0.00%	0.01%	0.01%
M33	Dermatopolymyositis	0	8	8	0.00%	0.01%	0.01%
L92	Granulomatous disorders of skin and subcutaneous tissue	0	8	8	0.00%	0.01%	0.01%
T19	Foreign body in genitourinary tract	0	8	8	0.00%	0.01%	0.01%
Z27	Need for immunization against combinations of infect dis	0	8	8	0.00%	0.01%	0.01%
L00	Staphylococcal scalded skin syndrome	0	8	8	0.00%	0.01%	0.01%
F11	Mental and behavioural disorders due to use of opioids	2	7	9	0.05%	0.01%	0.01%
T58	Toxic effect of carbon monoxide	1	7	8	0.02%	0.01%	0.01%
N82	Fistulae involving female genital tract	1	7	8	0.02%	0.01%	0.01%
E27	Other disorders of adrenal gland	1	7	8	0.02%	0.01%	0.01%
C41	Malig neo bone + articular cartilage of oth + unspeci sites	1	7	8	0.02%	0.01%	0.01%
T11	Other injuries of upper limb- level unspecified	0	7	7	0.00%	0.01%	0.01%
T87	Complications peculiar to reattachment and amputation	0	7	7	0.00%	0.01%	0.01%
C51	Malignant neoplasm of vulva	0	7	7	0.00%	0.01%	0.01%
C07	Malignant neoplasm of parotid gland	0	7	7	0.00%	0.01%	0.01%
Q43	Other congenital malformations of intestine	0	7	7	0.00%	0.01%	0.01%
C06	Malignant neoplasm of other and unspecified parts of mouth	0	7	7	0.00%	0.01%	0.01%
K07	Dentofacial anomalies [including malocclusion]	0	7	7	0.00%	0.01%	0.01%
N91	Absent- scanty and rare menstruation	0	7	7	0.00%	0.01%	0.01%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
S65	Injury of blood vessels at wrist and hand level	0	7	7	0.00%	0.01%	0.01%
C76	Malignant neoplasm of other and ill-defined sites	0	7	7	0.00%	0.01%	0.01%
D53	Other nutritional anaemias	0	7	7	0.00%	0.01%	0.01%
L20	Atopic dermatitis	0	7	7	0.00%	0.01%	0.01%
Q90	Down's syndrome	0	7	7	0.00%	0.01%	0.01%
G04	Encephalitis- myelitis and encephalomyelitis	0	7	7	0.00%	0.01%	0.01%
Q25	Congenital malformations of great arteries	0	7	7	0.00%	0.01%	0.01%
Q65	Congenital deformities of hip	0	7	7	0.00%	0.01%	0.01%
K10	Other diseases of jaws	2	6	8	0.05%	0.01%	0.01%
T47	Poison agents primarily affecting the gastrointestinal sys	1	6	7	0.02%	0.01%	0.01%
S55	Injury of blood vessels at forearm level	1	6	7	0.02%	0.01%	0.01%
R61	Hyperhidrosis	1	6	7	0.02%	0.01%	0.01%
G25	Other extrapyramidal and movement disorders	1	6	7	0.02%	0.01%	0.01%
M15	Polyarthrosis	1	6	7	0.02%	0.01%	0.01%
J40	Bronchitis- not specified as acute or chronic	1	6	7	0.02%	0.01%	0.01%
H25	Senile cataract	0	6	6	0.00%	0.01%	0.01%
A05	Other bacterial foodborne intoxications	0	6	6	0.00%	0.01%	0.01%
K38	Other diseases of appendix	0	6	6	0.00%	0.01%	0.01%
G24	Dystonia	0	6	6	0.00%	0.01%	0.01%
Z45	Adjustment and management of implanted device	0	6	6	0.00%	0.01%	0.01%
G36	Other acute disseminated demyelination	0	6	6	0.00%	0.01%	0.01%
R52	Pain- not elsewhere classified	0	6	6	0.00%	0.01%	0.01%
D80	Immunodeficiency with predominantly antibody defects	0	6	6	0.00%	0.01%	0.01%
M87	Osteonecrosis	0	6	6	0.00%	0.01%	0.01%
G97	Postprocedural disorders of nervous system- NEC	0	6	6	0.00%	0.01%	0.01%
I11	Hypertensive heart disease	0	6	6	0.00%	0.01%	0.01%
E23	Hypofunction and other disorders of pituitary gland	0	6	6	0.00%	0.01%	0.01%
E34	Other endocrine disorders	0	6	6	0.00%	0.01%	0.01%
E46	Unspecified protein-energy malnutrition	0	6	6	0.00%	0.01%	0.01%
N71	Inflammatory disease of uterus- except cervix	0	6	6	0.00%	0.01%	0.01%
C48	Malignant neoplasm of retroperitoneum and peritoneum	0	6	6	0.00%	0.01%	0.01%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
L27	Dermatitis due to substances taken internally	0	6	6	0.00%	0.01%	0.01%
J01	Acute sinusitis	0	6	6	0.00%	0.01%	0.01%
E21	Hyperparathyroidism and other disorders of parathyroid gland	0	6	6	0.00%	0.01%	0.01%
D35	Benign neoplasm of other and unspecified endocrine glands	0	6	6	0.00%	0.01%	0.01%
K13	Other diseases of lip and oral mucosa	0	6	6	0.00%	0.01%	0.01%
R58	Haemorrhage- not elsewhere classified	0	6	6	0.00%	0.01%	0.01%
D84	Other immunodeficiencies	0	6	6	0.00%	0.01%	0.01%
N85	Other noninflammatory disorders of uterus- except cervix	0	6	6	0.00%	0.01%	0.01%
R25	Abnormal involuntary movements	0	6	6	0.00%	0.01%	0.01%
T00	Superficial injuries involving multiple body regions	0	6	6	0.00%	0.01%	0.01%
G71	Primary disorders of muscles	0	6	6	0.00%	0.01%	0.01%
T16	Foreign body in ear	0	6	6	0.00%	0.01%	0.01%
I23	Certain current complication follow acute myocardial infarct	0	6	6	0.00%	0.01%	0.01%
R45	Symptoms and signs involving emotional state	0	6	6	0.00%	0.01%	0.01%
T02	Fractures involving multiple body regions	4	5	9	0.10%	0.01%	0.01%
H21	Other disorders of iris and ciliary body	2	5	7	0.05%	0.01%	0.01%
S49	Other and unspecified injuries of shoulder and upper arm	2	5	7	0.05%	0.01%	0.01%
S59	Other and unspecified injuries of forearm	1	5	6	0.02%	0.01%	0.01%
T25	Burn and corrosion of ankle and foot	1	5	6	0.02%	0.01%	0.01%
M08	Juvenile arthritis	1	5	6	0.02%	0.01%	0.01%
B08	Oth viral inf characterized skin / mucous membr les NEC	1	5	6	0.02%	0.01%	0.01%
T15	Foreign body on external eye	0	5	5	0.00%	0.01%	0.01%
B18	Chronic viral hepatitis	0	5	5	0.00%	0.01%	0.01%
M21	Other acquired deformities of limbs	0	5	5	0.00%	0.01%	0.01%
Q05	Spina bifida	0	5	5	0.00%	0.01%	0.01%
H49	Paralytic strabismus	0	5	5	0.00%	0.01%	0.01%
T62	Toxic effect of other noxious substances eaten as food	0	5	5	0.00%	0.01%	0.01%
R15	Faecal incontinence	0	5	5	0.00%	0.01%	0.01%
R16	Hepatomegaly and splenomegaly- not elsewhere classified	0	5	5	0.00%	0.01%	0.01%
N31	Neuromuscular dysfunction of bladder NEC	0	5	5	0.00%	0.01%	0.01%
E53	Deficiency of other B group vitamins	0	5	5	0.00%	0.01%	0.01%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
S40	Superficial injury of shoulder and upper arm	0	5	5	0.00%	0.01%	0.01%
N02	Recurrent and persistent haematuria	0	5	5	0.00%	0.01%	0.01%
N87	Dysplasia of cervix uteri	0	5	5	0.00%	0.01%	0.01%
A52	Late syphilis	0	5	5	0.00%	0.01%	0.01%
K28	Gastrojejunal ulcer	0	5	5	0.00%	0.01%	0.01%
Q55	Other congenital malformations of male genital organs	0	5	5	0.00%	0.01%	0.01%
E72	Other disorders of amino-acid metabolism	0	5	5	0.00%	0.01%	0.01%
J34	Other disorders of nose and nasal sinuses	0	5	5	0.00%	0.01%	0.01%
N36	Other disorders of urethra	0	5	5	0.00%	0.01%	0.01%
K71	Toxic liver disease	0	5	5	0.00%	0.01%	0.01%
S03	Dislocation sprain & strain of joints & ligaments of head	0	5	5	0.00%	0.01%	0.01%
H33	Retinal detachments and breaks	0	5	5	0.00%	0.01%	0.01%
J14	Pneumonia due to Haemophilus influenzae	0	5	5	0.00%	0.01%	0.01%
D17	Benign lipomatous neoplasm	0	5	5	0.00%	0.01%	0.01%
N15	Other renal tubulo-interstitial diseases	0	5	5	0.00%	0.01%	0.01%
I12	Hypertensive renal disease	0	5	5	0.00%	0.01%	0.01%
R49	Voice disturbances	0	5	5	0.00%	0.01%	0.01%
C75	Malignant neo other endocrine glands and related structures	0	5	5	0.00%	0.01%	0.01%
A07	Other protozoal intestinal diseases	0	5	5	0.00%	0.01%	0.01%
H04	Disorders of lacrimal system	0	5	5	0.00%	0.01%	0.01%
G08	Intracranial and intraspinal phlebitis and thrombophlebitis	0	5	5	0.00%	0.01%	0.01%
P22	Respiratory distress of newborn	0	5	5	0.00%	0.01%	0.01%
P54	Other neonatal haemorrhages	0	5	5	0.00%	0.01%	0.01%
C73	Malignant neoplasm of thyroid gland	2	4	6	0.05%	0.01%	0.01%
S28	Crush injury thorax and traumatic amputation part of thorax	1	4	5	0.02%	0.01%	0.01%
S24	Injury of nerves and spinal cord at thorax level	1	4	5	0.02%	0.01%	0.01%
F44	Dissociative [conversion] disorders	1	4	5	0.02%	0.01%	0.01%
M76	Enthesopathies of lower limb- excluding foot	1	4	5	0.02%	0.01%	0.01%
C95	Leukaemia of unspecified cell type	1	4	5	0.02%	0.01%	0.01%
F31	Bipolar affective disorder	0	4	4	0.00%	0.01%	0.00%
M20	Acquired deformities of fingers and toes	0	4	4	0.00%	0.01%	0.00%
E03	Other hypothyroidism	0	4	4	0.00%	0.01%	0.00%
D45	Polycythaemia vera	0	4	4	0.00%	0.01%	0.00%
E66	Obesity	0	4	4	0.00%	0.01%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
J10	Influenza due to identified influenza virus	0	4	4	0.00%	0.01%	0.00%
Q03	Congenital hydrocephalus	0	4	4	0.00%	0.01%	0.00%
Q24	Other congenital malformations of heart	0	4	4	0.00%	0.01%	0.00%
M89	Other disorders of bone	0	4	4	0.00%	0.01%	0.00%
N34	Urethritis and urethral syndrome	0	4	4	0.00%	0.01%	0.00%
O01	Hydatidiform mole	0	4	4	0.00%	0.01%	0.00%
C12	Malignant neoplasm of pyriform sinus	0	4	4	0.00%	0.01%	0.00%
M05	Seropositive rheumatoid arthritis	0	4	4	0.00%	0.01%	0.00%
Z29	Need for other prophylactic measures	0	4	4	0.00%	0.01%	0.00%
S34	Inj nerves lumbar spinal cord abdo low back and pelvis level	0	4	4	0.00%	0.01%	0.00%
D73	Diseases of spleen	0	4	4	0.00%	0.01%	0.00%
E04	Other nontoxic goitre	0	4	4	0.00%	0.01%	0.00%
M50	Cervical disc disorders	0	4	4	0.00%	0.01%	0.00%
O72	Postpartum haemorrhage	0	4	4	0.00%	0.01%	0.00%
D33	Benign neoplasm brain and oth parts of central nervous sys	0	4	4	0.00%	0.01%	0.00%
H93	Other disorders of ear- not elsewhere classified	0	4	4	0.00%	0.01%	0.00%
D07	Carcinoma in situ of other and unspecified genital organs	0	4	4	0.00%	0.01%	0.00%
H10	Conjunctivitis	0	4	4	0.00%	0.01%	0.00%
Q23	Congenital malformations of aortic and mitral valves	0	4	4	0.00%	0.01%	0.00%
H35	Other retinal disorders	0	4	4	0.00%	0.01%	0.00%
L52	Erythema nodosum	0	4	4	0.00%	0.01%	0.00%
N99	Postprocedural disorders of genitourinary system NEC	0	4	4	0.00%	0.01%	0.00%
Q82	Other congenital malformations of skin	0	4	4	0.00%	0.01%	0.00%
C10	Malignant neoplasm of oropharynx	0	4	4	0.00%	0.01%	0.00%
E28	Ovarian dysfunction	0	4	4	0.00%	0.01%	0.00%
C74	Malignant neoplasm of adrenal gland	0	4	4	0.00%	0.01%	0.00%
G72	Other myopathies	0	4	4	0.00%	0.01%	0.00%
A38	Scarlet fever	0	4	4	0.00%	0.01%	0.00%
Q79	Congenital malformations of the musculoskel system NEC	0	4	4	0.00%	0.01%	0.00%
D00	Carcinoma in situ of oral cavity- oesophagus and stomach	0	4	4	0.00%	0.01%	0.00%
L21	Seborrhoeic dermatitis	0	4	4	0.00%	0.01%	0.00%
P28	Other respiratory conds originating in the perinatal period	0	4	4	0.00%	0.01%	0.00%
C05	Malignant neoplasm of palate	0	4	4	0.00%	0.01%	0.00%
T08	Fracture of spine- level unspecified	3	3	6	0.07%	0.00%	0.01%
L90	Atrophic disorders of skin	1	3	4	0.02%	0.00%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
M41	Scoliosis	1	3	4	0.02%	0.00%	0.00%
A60	Anogenital herpesviral [herpes simplex] infection	1	3	4	0.02%	0.00%	0.00%
Z91	Personal history of risk-factors- not elsewhere classified	1	3	4	0.02%	0.00%	0.00%
R90	Abn findings on diagnostic imaging of central nervous system	1	3	4	0.02%	0.00%	0.00%
C14	Mal neo oth ill-def sites lip/oral cavity/pharynx	1	3	4	0.02%	0.00%	0.00%
B50	Plasmodium falciparum malaria	1	3	4	0.02%	0.00%	0.00%
E80	Disorders of porphyrin and bilirubin metabolism	1	3	4	0.02%	0.00%	0.00%
F07	Personality and behav disord brain dis dam and dysfunction	1	3	4	0.02%	0.00%	0.00%
M77	Other enthesopathies	1	3	4	0.02%	0.00%	0.00%
K05	Gingivitis and periodontal diseases	0	3	3	0.00%	0.00%	0.00%
D72	Other disorders of white blood cells	0	3	3	0.00%	0.00%	0.00%
F16	Mental and behavioural disorders due to use of hallucinogens	0	3	3	0.00%	0.00%	0.00%
H61	Other disorders of external ear	0	3	3	0.00%	0.00%	0.00%
Q28	Other congenital malformations of circulatory system	0	3	3	0.00%	0.00%	0.00%
C52	Malignant neoplasm of vagina	0	3	3	0.00%	0.00%	0.00%
I40	Acute myocarditis	0	3	3	0.00%	0.00%	0.00%
R34	Anuria and oliguria	0	3	3	0.00%	0.00%	0.00%
I99	Other and unspecified disorders of circulatory system	0	3	3	0.00%	0.00%	0.00%
G10	Huntington's disease	0	3	3	0.00%	0.00%	0.00%
G60	Hereditary and idiopathic neuropathy	0	3	3	0.00%	0.00%	0.00%
H11	Other disorders of conjunctiva	0	3	3	0.00%	0.00%	0.00%
F15	Men & behav dis due use oth stims inc caffeine	0	3	3	0.00%	0.00%	0.00%
K45	Other abdominal hernia	0	3	3	0.00%	0.00%	0.00%
C66	Malignant neoplasm of ureter	0	3	3	0.00%	0.00%	0.00%
T26	Burn and corrosion confined to eye and adnexa	0	3	3	0.00%	0.00%	0.00%
S96	Injury of muscle and tendon at ankle and foot level	0	3	3	0.00%	0.00%	0.00%
H02	Other disorders of eyelid	0	3	3	0.00%	0.00%	0.00%
A15	Resp TB bacteriologically and histologically confirmed	0	3	3	0.00%	0.00%	0.00%
Q67	Cong musculoskel deformities of head face spine and chest	0	3	3	0.00%	0.00%	0.00%
M83	Adult osteomalacia	0	3	3	0.00%	0.00%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
M11	Other crystal arthropathies	0	3	3	0.00%	0.00%	0.00%
Z12	Special screening examination for neoplasms	0	3	3	0.00%	0.00%	0.00%
G23	Other degenerative diseases of basal ganglia	0	3	3	0.00%	0.00%	0.00%
K36	Other appendicitis	0	3	3	0.00%	0.00%	0.00%
L93	Lupus erythematosus	0	3	3	0.00%	0.00%	0.00%
T41	Poisoning by anaesthetics and therapeutic gases	0	3	3	0.00%	0.00%	0.00%
H43	Disorders of vitreous body	0	3	3	0.00%	0.00%	0.00%
D22	Melanocytic naevi	0	3	3	0.00%	0.00%	0.00%
C88	Malignant immunoproliferative diseases	0	3	3	0.00%	0.00%	0.00%
D06	Carcinoma in situ of cervix uteri	0	3	3	0.00%	0.00%	0.00%
C49	Malignant neoplasm of other connective and soft tissue	0	3	3	0.00%	0.00%	0.00%
I81	Portal vein thrombosis	0	3	3	0.00%	0.00%	0.00%
S60	Superficial injury of wrist and hand	0	3	3	0.00%	0.00%	0.00%
G90	Disorders of autonomic nervous system	0	3	3	0.00%	0.00%	0.00%
A18	Tuberculosis of other organs	0	3	3	0.00%	0.00%	0.00%
K14	Diseases of tongue	0	3	3	0.00%	0.00%	0.00%
A19	Miliary tuberculosis	0	3	3	0.00%	0.00%	0.00%
K08	Other disorders of teeth and supporting structures	0	3	3	0.00%	0.00%	0.00%
Z51	Other medical care	0	3	3	0.00%	0.00%	0.00%
Q27	Other congenital malformations of peripheral vascular system	0	3	3	0.00%	0.00%	0.00%
B20	Human immunodef virus dis result infectious parasitic dis	0	3	3	0.00%	0.00%	0.00%
C40	Malignant neoplasm of bone and articular cartilage of limbs	0	3	3	0.00%	0.00%	0.00%
H47	Other disorders of optic [2nd] nerve and visual pathways	0	3	3	0.00%	0.00%	0.00%
L55	Sunburn	0	3	3	0.00%	0.00%	0.00%
C09	Malignant neoplasm of tonsil	0	3	3	0.00%	0.00%	0.00%
B80	Enterobiasis	0	3	3	0.00%	0.00%	0.00%
Q66	Congenital deformities of feet	0	3	3	0.00%	0.00%	0.00%
J82	Pulmonary eosinophilia- not elsewhere classified	0	3	3	0.00%	0.00%	0.00%
Q22	Congenital malformations of pulmonary and tricuspid valves	0	3	3	0.00%	0.00%	0.00%
Q31	Congenital malformations of larynx	0	3	3	0.00%	0.00%	0.00%
Q93	Monosomies and deletions from the autosomes NEC	0	3	3	0.00%	0.00%	0.00%
L22	Diaper [napkin] dermatitis	0	3	3	0.00%	0.00%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
P78	Other perinatal digestive system disorders	0	3	3	0.00%	0.00%	0.00%
P38	Omphalitis of newborn with or without mild haemorrhage	0	3	3	0.00%	0.00%	0.00%
Q04	Other congenital malformations of brain	0	3	3	0.00%	0.00%	0.00%
D57	Sickle-cell disorders	0	3	3	0.00%	0.00%	0.00%
K46	Unspecified abdominal hernia	0	3	3	0.00%	0.00%	0.00%
A32	Listeriosis	0	3	3	0.00%	0.00%	0.00%
S35	Inj of blood vessels at abdomen lower back and pelvis level	2	2	4	0.05%	0.00%	0.00%
N41	Inflammatory diseases of prostate	1	2	3	0.02%	0.00%	0.00%
J16	Pneumonia due to other infectious organisms NEC	1	2	3	0.02%	0.00%	0.00%
D21	Other benign neoplasms of connective and other soft tissue	1	2	3	0.02%	0.00%	0.00%
S97	Crushing injury of ankle and foot	1	2	3	0.02%	0.00%	0.00%
Q91	Edwards' syndrome and Patau's syndrome	1	2	3	0.02%	0.00%	0.00%
H15	Disorders of sclera	0	2	2	0.00%	0.00%	0.00%
Q85	Phakomatoses- not elsewhere classified	0	2	2	0.00%	0.00%	0.00%
J37	Chronic laryngitis and laryngotracheitis	0	2	2	0.00%	0.00%	0.00%
D18	Haemangioma and lymphangioma- any site	0	2	2	0.00%	0.00%	0.00%
Q63	Other congenital malformations of kidney	0	2	2	0.00%	0.00%	0.00%
J70	Respiratory conditions due to other external agents	0	2	2	0.00%	0.00%	0.00%
B44	Aspergillosis	0	2	2	0.00%	0.00%	0.00%
J62	Pneumoconiosis due to dust containing silica	0	2	2	0.00%	0.00%	0.00%
M53	Other dorsopathies- not elsewhere classified	0	2	2	0.00%	0.00%	0.00%
N03	Chronic nephritic syndrome	0	2	2	0.00%	0.00%	0.00%
D60	Acquired pure red cell aplasia [erythroblastopenia]	0	2	2	0.00%	0.00%	0.00%
I07	Rheumatic tricuspid valve diseases	0	2	2	0.00%	0.00%	0.00%
N14	Drug/heavy-metal-induced tubulo-interstitial and tub conds	0	2	2	0.00%	0.00%	0.00%
N60	Benign mammary dysplasia	0	2	2	0.00%	0.00%	0.00%
K09	Cysts of oral region- not elsewhere classified	0	2	2	0.00%	0.00%	0.00%
M45	Ankylosing spondylitis	0	2	2	0.00%	0.00%	0.00%
H73	Other disorders of tympanic membrane	0	2	2	0.00%	0.00%	0.00%
C70	Malignant neoplasm of meninges	0	2	2	0.00%	0.00%	0.00%
F20	Schizophrenia	0	2	2	0.00%	0.00%	0.00%
B35	Dermatophytosis	0	2	2	0.00%	0.00%	0.00%
O07	Failed attempted abortion	0	2	2	0.00%	0.00%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
C84	Peripheral and cutaneous T-cell lymphomas	0	2	2	0.00%	0.00%	0.00%
D11	Benign neoplasm of major salivary glands	0	2	2	0.00%	0.00%	0.00%
N88	Other noninflammatory disorders of cervix uteri	0	2	2	0.00%	0.00%	0.00%
E20	Hypoparathyroidism	0	2	2	0.00%	0.00%	0.00%
E15	Nondiabetic hypoglycaemic coma	0	2	2	0.00%	0.00%	0.00%
B33	Other viral diseases- not elsewhere classified	0	2	2	0.00%	0.00%	0.00%
Z85	Personal history of malignant neoplasm	0	2	2	0.00%	0.00%	0.00%
O73	Retained placenta and membranes- without haemorrhage	0	2	2	0.00%	0.00%	0.00%
G98	Other disorders of nervous system- not elsewhere classified	0	2	2	0.00%	0.00%	0.00%
A56	Other sexually transmitted chlamydial diseases	0	2	2	0.00%	0.00%	0.00%
Z44	Fitting and adjustment of external prosthetic device	0	2	2	0.00%	0.00%	0.00%
S57	Crushing injury of forearm	0	2	2	0.00%	0.00%	0.00%
E85	Amyloidosis	0	2	2	0.00%	0.00%	0.00%
R93	Abn findings on diagnostic imaging of other body structures	0	2	2	0.00%	0.00%	0.00%
Q18	Other congenital malformations of face and neck	0	2	2	0.00%	0.00%	0.00%
G96	Other disorders of central nervous system	0	2	2	0.00%	0.00%	0.00%
R79	Other abnormal findings of blood chemistry	0	2	2	0.00%	0.00%	0.00%
C93	Monocytic leukaemia	0	2	2	0.00%	0.00%	0.00%
S54	Injury of nerves at forearm level	0	2	2	0.00%	0.00%	0.00%
Q76	Congenital malformations of spine and bony thorax	0	2	2	0.00%	0.00%	0.00%
H55	Nystagmus and other irregular eye movements	0	2	2	0.00%	0.00%	0.00%
F19	Mental & behav'l disorders due multiple/psychoact drug use	0	2	2	0.00%	0.00%	0.00%
G50	Disorders of trigeminal nerve	0	2	2	0.00%	0.00%	0.00%
J92	Pleural plaque	0	2	2	0.00%	0.00%	0.00%
F23	Acute and transient psychotic disorders	0	2	2	0.00%	0.00%	0.00%
T55	Toxic effect of soaps and detergents	0	2	2	0.00%	0.00%	0.00%
N64	Other disorders of breast	0	2	2	0.00%	0.00%	0.00%
I86	Varicose veins of other sites	0	2	2	0.00%	0.00%	0.00%
A43	Nocardiosis	0	2	2	0.00%	0.00%	0.00%
T70	Effects of air pressure and water pressure	0	2	2	0.00%	0.00%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
C55	Malignant neoplasm of uterus- part unspecified	0	2	2	0.00%	0.00%	0.00%
H74	Other disorders of middle ear and mastoid	0	2	2	0.00%	0.00%	0.00%
D44	Neoplasm of uncertain/unknown behaviour of endocrine glands	0	2	2	0.00%	0.00%	0.00%
A86	Unspecified viral encephalitis	0	2	2	0.00%	0.00%	0.00%
L94	Other localized connective tissue disorders	0	2	2	0.00%	0.00%	0.00%
Q42	Congenital absence- atresia and stenosis of large intestine	0	2	2	0.00%	0.00%	0.00%
I36	Nonrheumatic tricuspid valve disorders	0	2	2	0.00%	0.00%	0.00%
D09	Carcinoma in situ of other and unspecified sites	0	2	2	0.00%	0.00%	0.00%
F98	Oth behav emotion disord onset usual occur childhd adoles	0	2	2	0.00%	0.00%	0.00%
E13	Other specified diabetes mellitus	0	2	2	0.00%	0.00%	0.00%
Q50	Cong malforms ovaries fallopian tubes and broad ligaments	0	2	2	0.00%	0.00%	0.00%
B59	Pneumocystosis	0	2	2	0.00%	0.00%	0.00%
S44	Injury of nerves at shoulder and upper arm level	0	2	2	0.00%	0.00%	0.00%
S38	Crush inj / traum amputat part of abdo low back and pelvis	0	2	2	0.00%	0.00%	0.00%
Q38	Other congenital malformations of tongue- mouth and pharynx	0	2	2	0.00%	0.00%	0.00%
J39	Other diseases of upper respiratory tract	0	2	2	0.00%	0.00%	0.00%
T31	Burns class according to extent of body surface involved	0	2	2	0.00%	0.00%	0.00%
S90	Superficial injury of ankle and foot	0	2	2	0.00%	0.00%	0.00%
H71	Cholesteatoma of middle ear	0	2	2	0.00%	0.00%	0.00%
N00	Acute nephritic syndrome	0	2	2	0.00%	0.00%	0.00%
Z87	Personal history of other diseases and conditions	0	2	2	0.00%	0.00%	0.00%
R01	Cardiac murmurs and other cardiac sounds	0	2	2	0.00%	0.00%	0.00%
N97	Female infertility	0	2	2	0.00%	0.00%	0.00%
B15	Acute hepatitis A	0	2	2	0.00%	0.00%	0.00%
B25	Cytomegaloviral disease	0	2	2	0.00%	0.00%	0.00%
H70	Mastoiditis and related conditions	0	2	2	0.00%	0.00%	0.00%
C33	Malignant neoplasm of trachea	0	2	2	0.00%	0.00%	0.00%
R03	Abnormal blood-pressure reading- without diagnosis	0	2	2	0.00%	0.00%	0.00%
P36	Bacterial sepsis of newborn	0	2	2	0.00%	0.00%	0.00%
E73	Lactose intolerance	0	2	2	0.00%	0.00%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
B05	Measles	0	2	2	0.00%	0.00%	0.00%
F80	Specific developmental disorders of speech and language	0	2	2	0.00%	0.00%	0.00%
L29	Pruritus	0	2	2	0.00%	0.00%	0.00%
O91	Infections of breast associated with childbirth	0	2	2	0.00%	0.00%	0.00%
J30	Vasomotor and allergic rhinitis	0	2	2	0.00%	0.00%	0.00%
D76	Certain dis invol lymphoretic tis and reticulohistiocyt sys	0	2	2	0.00%	0.00%	0.00%
P11	Other birth injuries to central nervous system	0	2	2	0.00%	0.00%	0.00%
B54	Unspecified malaria	0	2	2	0.00%	0.00%	0.00%
Z71	Persons encount health servs oh counsel and med advice NEC	0	2	2	0.00%	0.00%	0.00%
L57	Skin changes due chronic exposure to nonionizing radiation	0	2	2	0.00%	0.00%	0.00%
C04	Malignant neoplasm of floor of mouth	3	1	4	0.07%	0.00%	0.00%
B86	Scabies	1	1	2	0.02%	0.00%	0.00%
S45	Injury of blood vessels at shoulder and upper arm level	1	1	2	0.02%	0.00%	0.00%
T73	Effects of other deprivation	1	1	2	0.02%	0.00%	0.00%
D26	Other benign neoplasms of uterus	1	1	2	0.02%	0.00%	0.00%
A31	Infection due to other mycobacteria	1	1	2	0.02%	0.00%	0.00%
F45	Somatoform disorders	0	1	1	0.00%	0.00%	0.00%
M02	Reactive arthropathies	0	1	1	0.00%	0.00%	0.00%
F14	Mental and behavioural disorders due to use of cocaine	0	1	1	0.00%	0.00%	0.00%
S87	Crushing injury of lower leg	0	1	1	0.00%	0.00%	0.00%
D03	Melanoma in situ	0	1	1	0.00%	0.00%	0.00%
T33	Superficial frostbite	0	1	1	0.00%	0.00%	0.00%
R77	Other abnormalities of plasma proteins	0	1	1	0.00%	0.00%	0.00%
D16	Benign neoplasm of bone and articular cartilage	0	1	1	0.00%	0.00%	0.00%
Q02	Microcephaly	0	1	1	0.00%	0.00%	0.00%
I97	Postprocedural disorders of circulatory system NEC	0	1	1	0.00%	0.00%	0.00%
A20	Plague	0	1	1	0.00%	0.00%	0.00%
Q17	Other congenital malformations of ear	0	1	1	0.00%	0.00%	0.00%
Z01	Oth special examins investigs persons no complaint or diag	0	1	1	0.00%	0.00%	0.00%
C00	Malignant neoplasm of lip	0	1	1	0.00%	0.00%	0.00%
D38	Neo uncert or unkn behav middle ear/resp/intrathor organ	0	1	1	0.00%	0.00%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
Z02	Examination and encounter for administrative purposes	0	1	1	0.00%	0.00%	0.00%
L85	Other epidermal thickening	0	1	1	0.00%	0.00%	0.00%
D23	Other benign neoplasms of skin	0	1	1	0.00%	0.00%	0.00%
I15	Secondary hypertension	0	1	1	0.00%	0.00%	0.00%
E43	Unspecified severe protein-energy malnutrition	0	1	1	0.00%	0.00%	0.00%
G54	Nerve root and plexus disorders	0	1	1	0.00%	0.00%	0.00%
H51	Other disorders of binocular movement	0	1	1	0.00%	0.00%	0.00%
H50	Other strabismus	0	1	1	0.00%	0.00%	0.00%
F12	Mental and behavioural disorders due to use of cannabinoids	0	1	1	0.00%	0.00%	0.00%
J67	Hypersensitivity pneumonitis due to organic dust	0	1	1	0.00%	0.00%	0.00%
Q89	Other congenital malformations- not elsewhere classified	0	1	1	0.00%	0.00%	0.00%
L13	Other bullous disorders	0	1	1	0.00%	0.00%	0.00%
S75	Injury of blood vessels at hip and thigh level	0	1	1	0.00%	0.00%	0.00%
T66	Unspecified effects of radiation	0	1	1	0.00%	0.00%	0.00%
M18	Arthrosis of first carpometacarpal joint	0	1	1	0.00%	0.00%	0.00%
E56	Other vitamin deficiencies	0	1	1	0.00%	0.00%	0.00%
H27	Other disorders of lens	0	1	1	0.00%	0.00%	0.00%
D34	Benign neoplasm of thyroid gland	0	1	1	0.00%	0.00%	0.00%
F81	Specific developmental disorders of scholastic skills	0	1	1	0.00%	0.00%	0.00%
K01	Embedded and impacted teeth	0	1	1	0.00%	0.00%	0.00%
O08	Comps following abortion and ectopic and molar pregnancy	0	1	1	0.00%	0.00%	0.00%
O88	Obstetric embolism	0	1	1	0.00%	0.00%	0.00%
I09	Other rheumatic heart diseases	0	1	1	0.00%	0.00%	0.00%
Q96	Turner's syndrome	0	1	1	0.00%	0.00%	0.00%
N42	Other disorders of prostate	0	1	1	0.00%	0.00%	0.00%
A17	Tuberculosis of nervous system	0	1	1	0.00%	0.00%	0.00%
D65	Dissem intravascular coagulation [defibrination syndrome]	0	1	1	0.00%	0.00%	0.00%
J41	Simple and mucopurulent chronic bronchitis	0	1	1	0.00%	0.00%	0.00%
C23	Malignant neoplasm of gallbladder	0	1	1	0.00%	0.00%	0.00%
B78	Strongyloidiasis	0	1	1	0.00%	0.00%	0.00%
R76	Other abnormal immunological findings in serum	0	1	1	0.00%	0.00%	0.00%
C21	Malignant neoplasm of anus and anal canal	0	1	1	0.00%	0.00%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
R46	Symptoms and signs involving appearance and behaviour	0	1	1	0.00%	0.00%	0.00%
T86	Failure and rejection of transplanted organs and tissues	0	1	1	0.00%	0.00%	0.00%
D04	Carcinoma in situ of skin	0	1	1	0.00%	0.00%	0.00%
H31	Other disorders of choroid	0	1	1	0.00%	0.00%	0.00%
H01	Other inflammation of eyelid	0	1	1	0.00%	0.00%	0.00%
H90	Conductive and sensorineural hearing loss	0	1	1	0.00%	0.00%	0.00%
G52	Disorders of other cranial nerves	0	1	1	0.00%	0.00%	0.00%
A03	Shigellosis	0	1	1	0.00%	0.00%	0.00%
D10	Benign neoplasm of mouth and pharynx	0	1	1	0.00%	0.00%	0.00%
O35	Mat care for known or suspect fetal abnormality and damage	0	1	1	0.00%	0.00%	0.00%
D14	Benign neoplasm of middle ear and respiratory system	0	1	1	0.00%	0.00%	0.00%
E41	Nutritional marasmus	0	1	1	0.00%	0.00%	0.00%
Z61	Problems related to negative life events in childhood	0	1	1	0.00%	0.00%	0.00%
Q68	Other congenital musculoskeletal deformities	0	1	1	0.00%	0.00%	0.00%
L42	Pityriasis rosea	0	1	1	0.00%	0.00%	0.00%
Z60	Problems related to social environment	0	1	1	0.00%	0.00%	0.00%
D05	Carcinoma in situ of breast	0	1	1	0.00%	0.00%	0.00%
M96	Postprocedural musculoskeletal disorders NEC	0	1	1	0.00%	0.00%	0.00%
E24	Cushing's syndrome	0	1	1	0.00%	0.00%	0.00%
R80	Isolated proteinuria	0	1	1	0.00%	0.00%	0.00%
B83	Other helminthiases	0	1	1	0.00%	0.00%	0.00%
Q26	Congenital malformations of great veins	0	1	1	0.00%	0.00%	0.00%
O90	Complications of the puerperium- not elsewhere classified	0	1	1	0.00%	0.00%	0.00%
E74	Other disorders of carbohydrate metabolism	0	1	1	0.00%	0.00%	0.00%
F48	Other neurotic disorders	0	1	1	0.00%	0.00%	0.00%
E25	Adrenogenital disorders	0	1	1	0.00%	0.00%	0.00%
G21	Secondary parkinsonism	0	1	1	0.00%	0.00%	0.00%
Z72	Problems related to lifestyle	0	1	1	0.00%	0.00%	0.00%
M34	Systemic sclerosis	0	1	1	0.00%	0.00%	0.00%
R70	Elev erythrocyte sediment rate and abnorm of plasma visc	0	1	1	0.00%	0.00%	0.00%
E30	Disorders of puberty- not elsewhere classified	0	1	1	0.00%	0.00%	0.00%
S50	Superficial injury of forearm	0	1	1	0.00%	0.00%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
T04	Crushing injuries involving multiple body regions	0	1	1	0.00%	0.00%	0.00%
N25	Disorders resulting from impaired renal tubular function	0	1	1	0.00%	0.00%	0.00%
S23	Dislocation sprain/strain of joints & ligaments of thorax	0	1	1	0.00%	0.00%	0.00%
L23	Allergic contact dermatitis	0	1	1	0.00%	0.00%	0.00%
O86	Other puerperal infections	0	1	1	0.00%	0.00%	0.00%
G70	Myasthenia gravis and other myoneural disorders	0	1	1	0.00%	0.00%	0.00%
Q74	Other congenital malformations of limb(s)	0	1	1	0.00%	0.00%	0.00%
P96	Other conditions originating in the perinatal period	0	1	1	0.00%	0.00%	0.00%
C11	Malignant neoplasm of nasopharynx	0	1	1	0.00%	0.00%	0.00%
L91	Hypertrophic disorders of skin	0	1	1	0.00%	0.00%	0.00%
Z42	Follow-up care involving plastic surgery	0	1	1	0.00%	0.00%	0.00%
B07	Viral warts	0	1	1	0.00%	0.00%	0.00%
H91	Other hearing loss	0	1	1	0.00%	0.00%	0.00%
P55	Haemolytic disease of fetus and newborn	0	1	1	0.00%	0.00%	0.00%
D82	Immunodeficiency associated with other major defects	0	1	1	0.00%	0.00%	0.00%
P13	Birth injury to skeleton	0	1	1	0.00%	0.00%	0.00%
A74	Other diseases caused by chlamydiae	0	1	1	0.00%	0.00%	0.00%
B58	Toxoplasmosis	0	1	1	0.00%	0.00%	0.00%
L75	Apocrine sweat disorders	0	1	1	0.00%	0.00%	0.00%
P83	Other conditions of integument specific to fetus and newborn	0	1	1	0.00%	0.00%	0.00%
R12	Heartburn	0	1	1	0.00%	0.00%	0.00%
R64	Cachexia	0	1	1	0.00%	0.00%	0.00%
Z23	Need for immunization against single bacterial diseases	0	1	1	0.00%	0.00%	0.00%
B16	Acute hepatitis B	0	1	1	0.00%	0.00%	0.00%
L10	Pemphigus	0	1	1	0.00%	0.00%	0.00%
P15	Other birth injuries	0	1	1	0.00%	0.00%	0.00%
P39	Other infections specific to the perinatal period	0	1	1	0.00%	0.00%	0.00%
Z65	Problems related to other psychosocial circumstances	0	1	1	0.00%	0.00%	0.00%
C65	Malignant neoplasm of renal pelvis	0	1	1	0.00%	0.00%	0.00%
B26	Mumps	0	1	1	0.00%	0.00%	0.00%
Z76	Persons encountering health services in other circumstances	0	1	1	0.00%	0.00%	0.00%

Code	Description	Visitor	Local	Total	Visitor	Local	Total
E71	Disord branched-chain amino-acid metab + fatty-acid metab	0	1	1	0.00%	0.00%	0.00%
C13	Malignant neoplasm of hypopharynx	0	1	1	0.00%	0.00%	0.00%
K00	Disorders of tooth development and eruption	0	1	1	0.00%	0.00%	0.00%
Z25	Need for immunization against other single viral diseases	0	1	1	0.00%	0.00%	0.00%
F99	Mental disorder- not otherwise specified	0	1	1	0.00%	0.00%	0.00%
J33	Nasal polyp	0	1	1	0.00%	0.00%	0.00%
Q10	Congen malformations of eyelid lacrimal apparatus & orbit	0	1	1	0.00%	0.00%	0.00%
P76	Other intestinal obstruction of newborn	0	1	1	0.00%	0.00%	0.00%
P94	Disorders of muscle tone of newborn	0	1	1	0.00%	0.00%	0.00%
N72	Inflammatory disease of cervix uteri	0	1	1	0.00%	0.00%	0.00%
D28	Benign neoplasm of other and unspec female genital organs	0	1	1	0.00%	0.00%	0.00%
S88	Traumatic amputation of lower leg	4	0	4	0.10%	0.00%	0.00%
S33	Disloc sprain and strain joint ligs lumbar spine and pelvis	3	0	3	0.07%	0.00%	0.00%
L84	Corns and callosities	1	0	1	0.02%	0.00%	0.00%
D39	Neoplasm uncert or unkn behaviour of female genital organs	1	0	1	0.02%	0.00%	0.00%
Z32	Pregnancy examination and test	1	0	1	0.02%	0.00%	0.00%
H72	Perforation of tympanic membrane	1	0	1	0.02%	0.00%	0.00%
F53	Mental and behav disorders assoc with the puerperium NEC	1	0	1	0.02%	0.00%	0.00%
T61	Toxic effect of noxious substances eaten as seafood	1	0	1	0.02%	0.00%	0.00%
S95	Injury of blood vessels at ankle and foot level	1	0	1	0.02%	0.00%	0.00%

Appendix F – Factor Analysis Tables

Table F.1 Type of holiday maker (Table 6.10)

	Familiarity Seekers	Excitement Seekers	Activity Seekers	Security Seekers
Lots of attractions	0.08	0.17	**0.84**	0.15
Close to home	**0.54**	-0.02	0.16	0.15
Lots of activities available	0.12	0.18	**0.85**	0.03
Similar culture	**0.76**	-0.06	0.09	0.11
Safe reputation	**0.57**	0.10	0.23	0.09
English spoken	**0.74**	-0.16	-0.02	0.24
Opportunity to meet new people	0.14	**0.62**	0.13	0.28
Different cultures	**-0.40**	**0.66**	0.25	-0.02
Don't have to fly to get there	**0.65**	-0.05	-0.24	-0.31
Recommendation from friends	0.16	-0.07	0.26	**0.79**
Recommendation from media sources	0.11	**0.45**	-0.04	**0.70**
Excitement of new place to explore	-0.08	**0.79**	0.11	-0.07
Familiar sights/places/people	**0.45**	-0.37	-0.09	**0.42**

Table F.2 Groupings from Factor analysis of Kabnoff's Scale (Table 6.12)

	Challenge	Relaxation	Socialising	Physical welbeing	Family relations	Stimulus	Self actualisation
Organise Own Itinerary	-0.07	0.14	-0.10	0.00	-0.12	-0.01	**0.86**
Doing things that are personally meaningful	0.05	0.02	-0.06	0.20	0.13	0.12	**0.81**
Relaxing	-0.07	**0.67**	0.34	-0.25	-0.16	-0.09	0.30
Giving mind/body a rest	0.00	**0.82**	0.20	-0.07	-0.03	0.03	0.13
Bringing family closer together	0.00	0.04	0.12	0.05	**0.93**	0.10	0.01
Enjoy family life	0.08	0.15	0.18	0.13	**0.91**	-0.01	0.00
Getting away from responsibilities of normal life	0.09	**0.72**	-0.28	0.19	0.28	0.18	-0.15
Having a change from daily routine	0.02	**0.69**	-0.15	0.32	0.22	0.03	-0.01
Making new friends	0.11	0.10	**0.68**	0.12	0.17	0.29	-0.18
Enjoying people's company	-0.02	0.14	**0.68**	0.20	0.15	**0.40**	-0.11
New and different experiences	-0.02	0.04	0.19	0.00	0.02	**0.86**	0.06
excitement and stimulation	0.17	0.06	0.10	0.16	0.04	**0.81**	0.05
Using your skills and abilities	0.25	-0.20	0.39	**0.43**	0.15	0.19	0.21
Developing new skills and abilities	0.34	-0.15	0.21	**0.44**	0.16	0.36	0.22
Keeping phyisically fit	0.08	0.06	0.10	**0.79**	0.08	0.16	0.12
Health	0.06	0.14	0.13	**0.82**	0.04	-0.03	0.01
Gaining the respect and admiration of others	**0.45**	-0.09	**0.64**	0.12	0.10	-0.02	0.00
Showing others what you are capable of	**0.64**	-0.02	**0.53**	0.14	0.05	-0.01	-0.04
Being involved in competitive pursuits	**0.67**	-0.01	0.30	0.13	0.13	-0.13	0.02
Testing yourself in difficult and demanding situations	**0.70**	-0.07	0.04	0.36	-0.03	0.09	-0.06
Organising activities of teams and groups	**0.81**	0.03	-0.02	-0.03	0.00	0.14	-0.02
Gaining positions of leadership	**0.87**	0.10	0.01	-0.06	-0.01	0.09	0.04

Table F.3 Groupings from Factor Analysis of Information Sources (Table 6.14)

	Media Reliant	Opinion seekers	Independent Thinkers
Own experience	-0.12	0.06	**0.82**
Reports in the news	**0.81**	-0.01	0.12
Government sources	**0.77**	0.08	-0.08
Recomendation from friends	-0.06	**0.89**	0.08
Recomendation from travel agent/tour operator	**0.49**	**0.62**	-0.03
TV holiday programs	**0.59**	**0.45**	0.01
Guidebooks	0.34	0.00	**0.71**
Articles	**0.73**	0.11	0.24

Table F.4 Driver types by factor analysis (Table 8.8)

	Keep-going driver	Cautious	Careful	Knowledge
Familiar with local roads	0.18	-0.13	0.04	**0.84**
Find driving on left strange	0.19	**0.85**	0.11	-0.12
Never drive when forecast advises against it	-0.37	**0.56**	0.07	**0.54**
Drive in the snow	**0.84**	0.00	0.00	-0.08
Drive when I am overtired	**0.79**	0.11	-0.09	0.26
Never drive with alcohol in system	-0.08	0.09	**0.80**	0.13
Drive slowly on unfamiliar roads	-0.12	0.32	**0.53**	-0.26
Always carry a mobile phone	**0.43**	-0.34	**0.57**	0.12

Table F.5 Factor analysis of statements relating to hill-walking/climbing (Table 9.16)

	Expert	Reckless	Careful	Over confident
Always wear appropriate gear	**0.74**	-0.21	0.18	-0.26
Always carry a compass/map	**0.73**	0.08	0.22	0.18
Never let anyone know where intend to go	0.06	**0.80**	0.12	0.16
Always let someone know when intend to return	**0.72**	-0.01	-0.07	-0.07
Always carry emergency rations	**0.82**	-0.12	-0.18	0.16
Never check the weather forecast	0.08	**0.85**	-0.01	-0.06
Never walk/climb when advised against it	0.03	-0.14	**0.62**	**-0.52**
Never walk alone	-0.07	0.01	**0.87**	0.17
Always carry mobile phone	-0.06	-0.01	0.09	**0.89**
An experienced walker/climber	**0.78**	0.22	-0.11	-0.25
Often drink alcohol	-0.28	**0.73**	-0.35	-0.08

Table F.6 Factor analysis of questions relating to responsibility for safety (Table 10.2)

	1	2	3
Visitor	-0.088	-0.096	**0.771**
Area Tourist Board	**0.702**	0.223	0.352
National Tourist Board	**0.634**	0.242	**0.483**
Local Government	**0.880**	0.053	-0.070
National Government	**0.858**	0.072	0.143
Police services	**0.674**	0.199	-0.251
Mountain Rescue Services	**0.465**	0.146	-0.120
Site/land Owners	**0.498**	**0.527**	-0.172
Tour Operators	0.018	**0.887**	-0.084
Travel Agents	0.183	**0.818**	0.174
Accommodation Providers	0.223	**0.799**	-0.088