Tourism Review

Emerald Article: Health and medical tourism: a kill or cure for global public health?

C. Michael Hall

Introduction

Health and medical tourism: a kill or cure for global public health?

C. Michael Hall

C. Michael Hall is a Professor in the Department of Management, University of Canterbury, Christchurch, New Zealand.

Abstract

Purpose – *The major purpose of this introduction to the special issue of* Tourism Review *on health and medical tourism is to outline some of main issues that exist in the academic literature in this rapidly developing field.*

Design/methodology/approach – *The paper reviews relevant health and medical tourism and cognate literature.*

Findings – *The paper identifies some of the interrelationships between different areas of health and medical tourism, including wellness and wellbeing tourism, dental tourism, stem-cell tourism, transplant tourism, abortion tourism, and xeno-tourism. Key to defining these areas are the relationships to concepts of wellness and illness and the extent to which regulation encourages individuals to engage in cross-border purchase of health services and products. Key themes that emerge in the literature include regulation, ethics, the potential individual and public health risks associated with medical tourism, and the relative lack of information on the extent of medical tourism.*

Social implications – *The development of international medical tourism is demonstrated to have potentially significant implications for global public health.*

Originality/value – *The paper covers an extensive range of academic literature on international medical tourism which indicates the different approaches and emphases of research in different disciplines as well as the ideological and philosophical differences that exist with respect to health medical tourism. The paper also notes that some of the individual and public health risks of medical tourism are not usually incorporated into assessments of its potential economic benefits.*

Keywords *Tourism, Medical treatment, Public health, International travel*

Paper type *General review*

1. Introduction

Medical and health tourism have emerged as one of the fastest growing areas of academic research interest in both tourism and health studies (Balaban and Marano, 2010; Crooks *et al.*, 2010; de Arellano, 2007; Economic and Social Commission for Asia and the Pacific (ESCAP), 2009; Hopkins *et al.*, 2010; Kangas, 2010; Karuppan and Karuppan, 2010; Leahy, 2008; Morgan, 2010; Reed, 2008; Underwood and Makadon, 2010; Whittaker, 2008). However, travel for health reasons is nothing new and has long been recorded as a driver of visitors to thermal springs and coastal locations (Becheri, 1989; Chambers, 1999; Hall, 1992, 2003; Hembry, 1990; Lanquar, 1989; Mesplier-Pinet, 1990; Niv, 1989; Towner, 1996; Walton, 1983). Yet there has clearly been a qualitative and quantitative change in how health and medical tourism is reported and understood. Table I details the number of articles on medical and health tourism and cognate terms recorded in the Scopus database. Even disregarding issues of definition, discussed below, it is apparent that there has been

The contribution of the anonymous referees to this special issue of the journal is gratefully acknowledged.

Table I Articles on medical and health tourism and cognate terms in Scopus database

	Type of tourism									
Year	*Medical*	*Health*	*Spa*	*Transplant*	*Reproductive/fertility*	*Dental*	*Stem cell*	*Surgery*	*Abortion*	*Xeno*
2011	12		1	3	1					
2010	126	13	2	21	7	4	16	2		
2009	60	16	5	21	5	6	5			
2008	34	7		18	2	8		1		
2007	28	5	2	6	3	3		1		
2006	12	6		2	4					
2005	5	6	1	2	10					
2004	1	1	1		1					1
2003	4	7			1					
2002	2	2	1		1					1
2001	2									
2000	1	1	1							
1999	1	1	1							
1998		2								
1997	2	1								
1996			1						1	
1995		2								
1994										
1993	1	1						1		
1992									1	
1991		1								
1990	1	4	1							
1989		1								
1988		1								
1987										
1986	1									
1985		1								
1984			2							
1973								1		
1963	1									
Total	294	79	19	73	35	21	21	6	2	2

Note: Accessed 1 February 2011

a massive shift of awareness in medical and health studies, and to a lesser extent, the tourism literature, on the significance of voluntary international mobility for health-related reasons.

This paper aims to provide an overview of the academic medical and health tourism literature and identify key themes and issues as a means of introducing this special issue of *Tourism Review* on health tourism. However, before examining the literature the paper will first discuss some of the issues surrounding definitions of health and medical tourism.

2. Defining health and medical tourism

Health tourism was defined by the International Union of Tourist Organizations (IUTO), the forerunner to the United Nations World Tourism Organization, as ''the provision of health facilities utilizing the natural resources of the country, in particular mineral water and climate'' (IUTO, 1973, p. 7). Goeldner (1989, p. 7) in a review of the health tourism literature, defined health tourism as ''(1) staying away from home, (2) health [as the] most important motive, and (3) done in a leisure setting.'' Goodrich and Goodrich (1987, p. 217) and Goodrich (1993, 1994) defined health tourism in terms of the narrower concept of health-care tourism as:

> [. . .] the attempt on the part of a tourist facility (e.g. hotel) or destination (e.g. Baden, Switzerland) to attract tourists by deliberately promoting its health care services and facilities, in addition to its regular tourist amenities.

Goeldner (1989) recognized five components of the health tourism market, each of these identifies a more specific market segment which can have categories of health-related tourism attached to it:

1. Sun and fun activities (leisure tourism).
2. Engaging in healthy activities, but health is not the central motive (outdoor recreation, adventure tourism, sports tourism, and wellness tourism).
3. Principle motive for travel is health (e.g. a sea cruise or travel to a different climate) (health tourism and wellness tourism).
4. Travel for sauna, massage, and other health activities (spa tourism and wellness tourism).
5. Medical treatment (medical tourism and dental tourism).

However, while the above classification is useful for identifying elements of the demand for health and spa tourism it fails to acknowledge the importance those health products and spas play in destination or attraction marketing and promotion or as a component of tourism development strategies. Therefore, Hall (2003), in seeking to provide a definition, consistent with official definitions of tourism, suggested that health tourism be defined as:

> [. . .] a commercial phenomena of industrial society which involves a person travelling overnight away from the normal home environment for the express benefit of maintaining or improving health, and the supply and promotion of facilities and destinations which seek to provide such benefits (Hall, 2003, p. 274).

On this basis spa tourism is a component of health tourism that relates to the provision of specific health facilities and destinations which traditionally include the provision of mineral and thermal waters but which may also be used to refer to tourist resorts which integrate health facilities with accommodation. Spas are not only used by those who are looking for cure from diseases such as arthritis, back pain syndrome, obesity, trauma, asthma, sterility, and post surgical rehabilitation, but also by guests who are seeking relaxation as well as beauty and longevity treatments (Marvel, 2002). Pollmann (2005) in reviewing the activities of the International Spa Association identified seven different types of spas:

1. *Club spa.* Primary purpose is fitness, spa services on a day-use basis.
2. *Cruise ship spa.* Fitness, wellness, spa cuisine menu choices and other spa services aboard a cruise ship.
3. *Day spa.* spa services offered on a day-use basis.
4. *Destination spa.* On-site accommodation, spa cuisine, spa services, educational programming and physical fitness offered to improve lifestyle and health enhancement of guests.
5. *Medical spa.* Integrated spa services as well as conventional and complementary therapies and treatments in order to provide wellness and medical care, e.g. hospitals that offer spa treatments.
6. *Mineral spring spa.* Traditional spa with an on-site source of mineral, thermal or seawater used for hydrotherapy treatments.
7. *Resort/hotel spa.* Fitness, wellness, spa cuisine menu choices and other spa services offered by and located within a resort or hotel.

One of the difficulties in defining health tourism is that it has historically been a term more associated with Europe than the America's (Goodrich, 1994; Hall, 2003). Nevertheless, the term has come to be more widely used internationally along with the notion of medical tourism. Such changes have also been accompanied by an understanding of health that focuses on wellness and prevention as well as curing illness (Nahrstedt, 2004). According to Messerli and Oyama (2004, p. 9):

> [. . .] wellness can be defined as the balanced state of body, spirit and mind, including such holistic aspects as self-responsibility, physical fitness/beauty care, healthy nutrition, relaxation, mental activity and environmental sensitivity as fundamental elements.

Nevertheless, difficulties of definition are also evidenced by the manner in which the different types of spas, and spa tourism (González and Brea, 2005; Mak *et al.*, 2009), noted above,

clearly overlap substantially with wellbeing, wellness, and health tourism concepts (Chen *et al.*, 2008; Erfurt-Cooper and Cooper, 2009; Ivanisevic, 1999; Konu *et al.*, 2010; Kušen, 2002; Magdalini and Paris, 2009; Mair, 2005; Rodrigues *et al.*, 2010; Smith and Puczkó, 2009), although the terms are utilised in the business and tourism literature rather than in medical research.

Medical tourism is similarly a contested term. ESCAP (2009, p. 1), in a report on medical tourism in the Asia-Pacific region, defines ''medical travel'' as:

> [...] the international phenomenon of individuals travelling, often great distances, to access health-care services that are otherwise not available due to high costs, long waiting lists or limited health-care capacity in the country of origin,

and medical tourism referring:

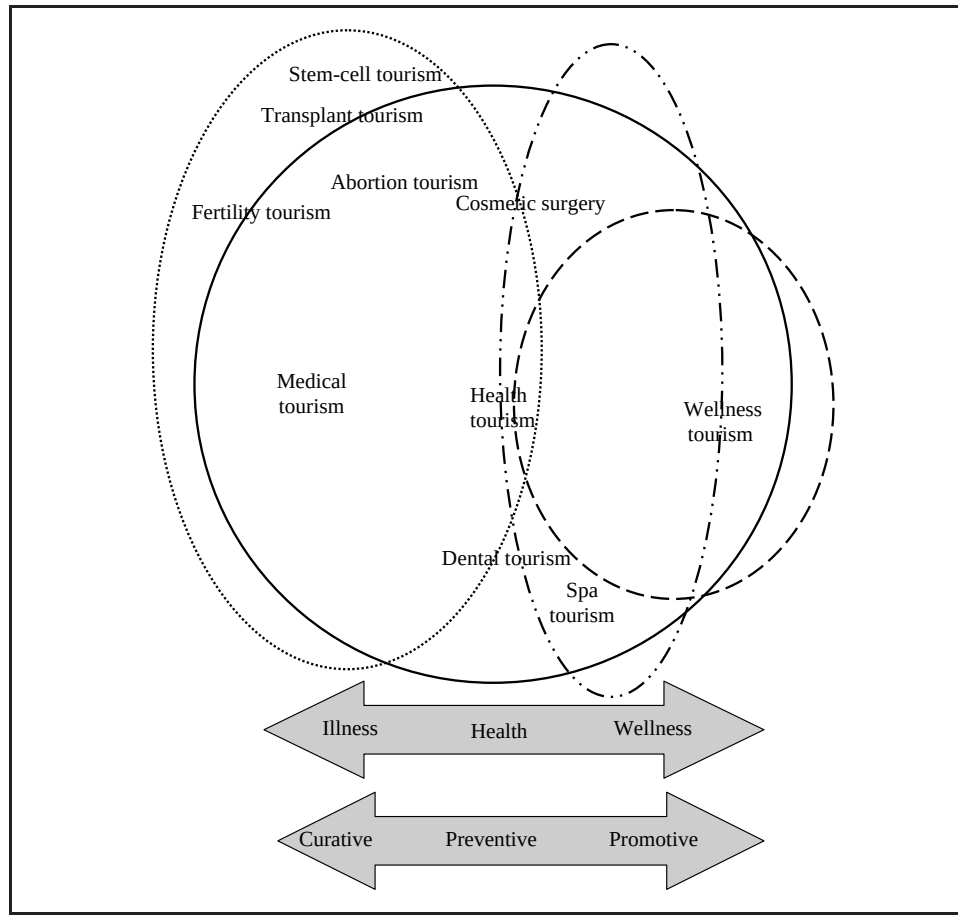
> [...] specifically to the increasing tendency among people from developed countries to undertake medical travel in combination with visiting tourist attractions. Medical tourism is often seen as adding medical services to common tourism.

In contrast, in the medical and health studies literature, medical tourism is usually understood as a more generic term that simply refers to ''foreign travel for the purpose of seeking medical treatment'' (Balaban and Marano, 2010, p. e135), with or without a holiday or the consumption of tourism services (Connell, 2006; Turner, 2007b).

Figure 1 shows a representation of the medical, spa and wellness tourism within the overall context of health tourism and presents them in relation as to whether they are focussed on continuums of wellness to illness, and promotion of health to preventive and curative health approaches. It should be stressed that these continuum are ideal relationships and that some categories of medical tourism, such as fertility and abortion tourism are closely connected to issues surrounding the regulation and commodification of the body and perhaps highlight the ethical and political complexities that phrases such as wellness and health tourism can hide.

Medical tourism is usually curative in focus, with health services being consumed internationally for one of the five reasons. First, cross-border medical services are cheaper than those available in the medical tourism generating country (economic cost dimension) (Milstein and Smith, 2006), and/or may be available in a more timely manner (time cost dimension) (Eggertson, 2006; MacReady, 2007). This has certainly been a major factor behind the growth of ''dental tourism'' for example (Sterle *et al.*, 2009; Turner, 2008). Second, medical services can be consumed in a relatively exotic location in conjunction with a holiday (commercial behavioural dimension) (Connell, 2006). Third, as a result of migration and the demands of a global labour market, expatriates and migrants may return to their country of origin for medical treatment for cultural, family and language reasons (a non-commercial behavioural dimension) (Lee *et al.*, 2010). Fourth, the regulatory structures that restrict availability of a medical service in the generating country do not exist in the destination country (regulatory cost dimension). This dimension can also be further broken down by differentiating between regulation that makes some services completely unavailable even though the medical technology exists, i.e. abortion whereby a woman has to travel internationally so as to have an abortion procedure that would not be legal in their country of origin – what is sometimes termed ''abortion tourism'' (Gilmartin and White, 2011; Nowicka, 1996; Serrano Gil and García Casado, 1992), and where procedures are regulated because they are regarded as highly experimental in the country of origin, as in the case of stem-cell medicine (''stem-cell tourism'') (MacReady, 2009) and some fertility and reproductive procedures (''fertility,'' ''procreation,'' and ''reproductive tourism'') (Bergmann, 2011; Cohen, 2006; Inhorn and Patrizio, 2009; Matorras and Pennings, 2005; McKelvey *et al.*, 2009; Pennings, 2002; Shenfield *et al.*, 2010; Spar, 2005; Storrow, 2005; Voigt and Laing, 2010). It should also be noted that some forms of government-funded assistance with reproduction is illegal in some countries, for example to gay couples, so that some forms of fertility and reproduction tourism are regulated on the basis of who is requesting the treatment rather than the nature of the treatment *per se*. A fifth reason for medical tourism may lie in the non-availability of a organ for transplant in the country of origin

Figure 1 Interrelatedness of health and medical tourism domains



of the medical tourist (Bramstedt and Xu, 2007). This area is particularly controversial because of concerns over organ trafficking (Scheper-Hughes, 2003), and is also linked to issues of medical regulation (Reed, 2008).

The different dimensions of medical tourism are clearly not mutually exclusive, particularly as the regulation of medical and health services also has implication for costs and waiting times for treatments. Indeed, the regulative dimension of international trade in health services is arguably fundamental to the development of the various forms of health and medical tourism.

3. Key themes and issues

Health and medical tourism research focuses on a number of themes. In part these depend on the disciplinary and cultural context within which the research has taken place. For example, much of the research within tourism and business studies has focussed on ways within which the medical tourism market can be identified, marketed to, and the tourism product developed (Cormany and Baloglu, 2011; García-Altés, 2005; Michalkó and Rátz, 2010; Reddy *et al.*, 2010; Spiegel *et al.*, 2008) although a number of more critical reflections on the topic also exist (Connell, 2006; Mair, 2005). Nevertheless, critical to understanding the academic context in which research on medical and health tourism takes place are the different ideologies and philosophies that surround the provision of health care in different countries and the design of health care systems. This is particularly the case with respect to the extent to which health provision should be commodified and promoted as any other kind of service export, and to which the decision to engage in medical tourism becomes one of the personal choice and the use of market solutions to health provision

(Blumenthal, 2006; Milstein and Smith, 2007; Reddy *et al.*, 2010; United States Senate Special Committee on Aging, 2006; Vijaya, 2010).

However, if the commoditisation of individual health is acceptable in some jurisdictions then new questions arise as to where the limits of commodification should lie, and the ethical (and medical) demands of the individual versus the ethical demands of groups (Widdows, 2011). Ethical issues remain one of the most studied areas of medical tourism (Crozier and Baylis, 2010; Hunter and Oultram, 2010; Lunt and Carrera, 2010; Shetty, 2010). Issues raised in this context include the extent to which medical services should be exported while local populations suffer ill-health and/or poor or no medical services (de Arellano, 2011; Sengupta, 2011); the purchase of human body parts for transplant tourism and the potential for organ trafficking (Luscombe, 2010; Schiano and Rhodes, 2010); travel for reasons of assisted suicide in the case of terminal illnesses (Huxtable, 2009; Mullock, 2010; Ost, 2010; Shaw, 2009); and stem cell tourism (Chandler, 2010; Devereaux and Loring, 2010; Murdoch and Scott, 2010; Reimer *et al.*, 2010; Sipp, 2010; Zarzeczny and Caulfield, 2010).

Another key issue with respect to medical and health tourism is its potential biosecurity risks with respect to humans acting as vectors for disease and drug-resistant bacteria (Fernando *et al.*, 2010; Hall, 2005, 2010; Wilson, 2010). Medical tourism is intrinsically different from general tourism activities with respect to increasing biosecurity risks because individuals who engage in medical tourism are deliberately travelling to a medical environment and engaging in medical practices that potentially exposes them to new pathogens and microbiologic fauna and flora (Kumarasamy *et al.*, 2010). Hall and James (2011) identify a number of examples from the literature of tourism related nosocomial infections include the role of travel in the spread of noroviruses (gastric flu); complications following arthroplasty (joint replacement) (Cheung and Wilson, 2007) and aesthetic/cosmetic/plastic surgery (Centers for Disease Control, 2004; Furuya *et al.*, 2008; Handschin *et al.*, 2007; Jeevan *et al.*, 2011; Newman *et al.*, 2005a, b); Hepatitis B as a result of unhygienic hospital conditions, and hepatitis C virus infections as a result of holiday haemodialysis (Bhattacharya *et al.*, 2009). Balaban and Marano's (2010) review of studies of commercial organ transplanation also suggest a higher incidence of post-operative tissue rejection and severe infectious complications among transplant tourists compared to other transplant patients. Similarly, substantial concerns have been raised about the health risks associated with xenotransplantation and ''stem cell tourism'' (Kiatpongsan and Sipp, 2008; Kimball and Hodges, 2010; Nelson, 2008). Furthermore, the risks inherent in medical tourism raise new ethical issues for health professionals. In the same way that concerns are raised about treating illnesses and health complications that are clearly linked to risky behaviours such as smoking, alcohol and drug abuse, to what extent are health professionals obliged to treat patients whose problems have arisen from medical tourism (Asai and Jones, 2007), especially when medical tourism is clearly at odds with a health model that encourages long-term relationships between practitioners and patients.

Given concerns over public and individual health risk it is therefore no surprise that increasing attention is also being given to how medical and health tourism should be regulated (Hanna *et al.*, 2009; Reed, 2008; Turner, 2011) as well as the broader regulation of health dimensions of international mobility (Hall, 2011). Yet the regulation of medical tourism faces the same issues as the regulation of other goods and services that carry potential health or environmental risks in that the primary regulatory structures are economic, and the World Trade Organization regime in particular, rather than risk oriented (Hall, 2011). In such a situation it is possible that the potential contribution of medical tourism to endangering public health may come under the ambit of the World Health Organization's International Health Regulations but individual risks, such as those that arise from medical malpractice, must certainly will not.

4. Conclusion

Health and medical tourism is a complex area of study. Many governments, international agencies, private health providers and even some medical practitioners see it as a means of economic development that may cross-subsidise domestic health access (ESCAP, 2009;

Vijaya, 2010) and provide a competitive cure for the problems facing the global health system (Horowitz and Rosensweig, 2007; Underwood and Makadon, 2010). In contrast, others see it as part of a process of marketisation and economisation of public health services already under pressure from neoliberal political agendas; further reinforcement of the commoditisation of the body; and also reinforcing gaps between have and have-nots both within and between societies (Sengupta, 2011; Turner, 2007a, b; Vijaya, 2010).

Undoubtedly the benefits and risks attached to medical tourism both for individual and collective public health are a significant area for future research (Crooks *et al.*, 2010; Fernando *et al.*, 2010; Talbot *et al.*, 2010; Turner, 2011). Such research must include contributions not only from medical and health research but also from tourism studies. It is hoped that this special issue of *Tourism Review* makes at least a small contribution to a better understanding of the field.

References

Asai, R. and Jones, K. Jr (2007), ''Ethical moment: am I obligated to treat a patient whose need for emergency care stems from dental tourism?'', *Journal of the American Dental Association*, Vol. 138, pp. 1018-9.

Balaban, V. and Marano, C. (2010), ''Medical tourism research: a systematic review'', *International Journal of Infectious Diseases*, Vol. 14, p. e135 (Suppl 1) (14th International Congress on Infectious Diseases (ICID) Abstracts).

Becheri, E. (1989), ''From thermalism to health tourism'', *Revue de Tourisme*, Vol. 44 No. 4, pp. 15-19.

Bergmann, S. (2011), ''Fertility tourism: circumventive routes that enable access to reproductive technologies and substances'', *Signs*, Vol. 36 No. 2, pp. 280-9.

Bhattacharya, S., Price, N., Boxall, E., Adu, D., Lipkin, G., Smith, S. and Osman, H. (2009), ''Holiday haemodialysis and imported hepatitis C virus infection: a series of sixteen cases in two large haemodialysis units'', *Journal of Clinical Virology*, Vol. 4 No. 4, pp. 296-9.

Blumenthal, D. (2006), ''Employer-sponsored health insurance in the United States – origins and implications'', *New England Journal of Medicine*, Vol. 355 No. 1, pp. 82-8.

Bramstedt, K.A. and Xu, J. (2007), ''Checklist: passport, plane ticket, organ transplant'', *American Journal of Transplantation*, Vol. 7 No. 7, pp. 1698-701.

Centers for Disease Control (2004), ''Brief report: nontuberculous mycobacterial infections after cosmetic surgery – Santo Domingo, Dominican Republic, 2003-2004'', *Morbidity and Mortality Weekly Report*, Vol. 53 No. 23, p. 509.

Chambers, T.A. (1999), ''Fashionable disease: promoting health and leisure at Saratoga Springs, New York and the Virginia Springs, 1790-1860'', unpublished PhD dissertation, Department of History, College of William and Mary, Williamsburg.

Chandler, J. (2010), ''Stem cell tourism: doctors' duties to minors and other incompetent patients'', *American Journal of Bioethics*, Vol. 10 No. 5, pp. 27-8.

Chen, J.S., Prebensen, N. and Huan, T.C. (2008), ''Determining the motivation of wellness travellers'', *Anatolia*, Vol. 19 No. 1, pp. 103-15.

Cheung, I.K. and Wilson, A. (2007), ''Arthroplasty tourism'', *Medical Journal of Australia*, Vol. 187 Nos 11-12, pp. 666-7.

Cohen, J. (2006), ''Procreative tourism as a last resort'', *Gynecologie Obstetrique Fertilite*, Vol. 34 No. 10, pp. 881-2.

Connell, J. (2006), ''Medical tourism: sea, sun, sand and . . . surgery'', *Tourism Management*, Vol. 27, pp. 1093-100.

Cormany, D. and Baloglu, S. (2011), ''Medical travel facilitator websites: an exploratory study of web page contents and services offered to the prospective medical tourist'', *Tourism Management*, Vol. 32 No. 4, pp. 709-16.

Crooks, V.A., Kingsbury, P., Snyder, J. and Johnston, R. (2010), ''What is known about the patient's experience of medical tourism? A scoping review'', *BMC Health Services Research*, Vol. 10, p. 266.

Crozier, G.K.D. and Baylis, F. (2010), ''The ethical physician encounters international medical travel'', *Journal of Medical Ethics*, Vol. 36 No. 5, pp. 297-301.

de Arellano, A.B.R. (2007), ''Patients without borders: the emergence of medical tourism'', *International Journal of Health Services*, Vol. 37 No. 1, pp. 193-8.

de Arellano, A.B.R. (2011), ''Medical tourism in the Caribbean'', *Signs*, Vol. 36 No. 2, pp. 289-97.

Devereaux, M. and Loring, J.F. (2010), ''Growth of an industry: how US scientists and clinicians have enabled stem cell tourism'', *American Journal of Bioethics*, Vol. 10 No. 5, pp. 45-6.

Eggertson, L. (2006), ''Wait-list weary Canadians seek treatment abroad'', *CMAJ: Canadian Medical Association Journal (journal de l'Association medicale canadienne)*, Vol. 174 No. 9, p. 1247.

Erfurt-Cooper, P. and Cooper, M. (2009), *Health and Wellness Tourism: Spas and Hot Springs*, Channel View, Bristol.

ESCAP (2009), *Medical Travel in Asia and the Pacific. Challenges and Opportunities*, United Nations and Social Commission for Asia and the Pacific, Bangkok.

Fernando, G.A.T.P., Collignon, P.J. and Bell, J.M. (2010), ''A risk for returned travellers: the 'post-antibiotic era'', *Medical Journal of Australia*, Vol. 193 No. 1, p. 59.

Furuya, E.Y., Paez, A., Srinivasan, A., Cooksey, R., Augenbraun, M., Baron, M., Brudney, K., Della-Latta, P., Estivariz, C., Fischer, S., Flood, M., Kellner, P., Roman, C., Yakrus, M., Weiss, D. and Granowitz, E.V. (2008), ''Outbreak of mycobacterium abscessus wound infections among 'lipotourists' from the United States who underwent abdominoplasty in the Dominican Republic'', *Clinical Infectious Diseases*, Vol. 46 No. 8, pp. 1181-8.

García-Altés, A. (2005), ''The development of health tourism services'', *Annals of Tourism Research*, Vol. 32 No. 1, pp. 262-6.

Gilmartin, M. and White, A. (2011), ''Comparative perspectives symposium: gender and medical tourism interrogating medical tourism: Ireland, abortion, and mobility rights'', *Signs*, Vol. 36 No. 2, pp. 275-80.

Goeldner, C. (1989), ''39th congress AIEST: English workshop summary'', *Revue de Tourisme*, Vol. 44 No. 4, pp. 6-7.

González, M.E.A. and Brea, J.A.F. (2005), ''An investigation of the relationship among service quality, customer satisfaction and behavioural intentions in Spanish health spas'', *Journal of Hospitality & Leisure Marketing*, Vol. 13 No. 2, pp. 67-90.

Goodrich, J.N. (1993), ''Socialist Cuba: a study of health tourism'', *Journal of Travel Research*, Vol. 32 No. 1, pp. 36-42.

Goodrich, J.N. (1994), ''Health tourism: a new positioning strategy for tourist destinations'', *Journal of International Consumer Marketing*, Vol. 6 Nos 3-4, pp. 227-37.

Goodrich, J.N. and Goodrich, G.E. (1987), ''Health-care tourism – an exploratory study'', *Tourism Management*, Vol. 8, pp. 217-22.

Hall, C.M. (1992), ''Review. Adventure, health and sports tourism'', in Weiler, B. and Hall, C.M. (Eds), *Special Interest Tourism*, Belhaven Press, London, pp. 141-58.

Hall, C.M. (2003), ''Health and spa tourism'', in Hudson, S. (Ed.), *International Sports & Adventure Tourism*, Haworth Press, New York, NY, pp. 273-92.

Hall, C.M. (2005), *Tourism: Rethinking the Social Science of Mobility*, Prentice-Hall, Harlow.

Hall, C.M. (2010), ''Crisis events in tourism: subjects of crisis in tourism'', *Current Issues in Tourism*, Vol. 13 No. 5, pp. 401-7.

Hall, C.M. (2011), ''Biosecurity, tourism and mobility: institutional arrangements for managing tourism related biological invasions'', *Journal of Policy Research in Tourism, Leisure and Events*, Vol. 3 No. 3 (in press).

Hall, C.M. and James, M. (2011), ''Medical tourism: emerging biosecurity and nosocomial issues'', *Tourism Review*, Vol. 66 No. 1/2, pp. 118-26.

Handschin, A.E., Banic, A. and Constantinescu, M.A. (2007), ''Pulmonary embolism after plastic surgery tourism'', *Clinical and Applied Thrombosis/Hemostasis*, Vol. 13 No. 3, p. 340.

Hanna, S.A., Saksena, J., Legge, S., Ware, H.E. and Sending, N.H.S. (2009), ''Sending NHS patients for operations abroad: is the holiday over?'', *Annals of the Royal College of Surgeons of England*, Vol. 91 No. 2, pp. 128-30.

Hembry, P.M. (1990), *The English Spa, 1560-1815: A Social History*, Athlone Press, London.

Hopkins, L., Labonté, R., Runnels, V. and Packer, C. (2010), ''Medical tourism today: what is the state of existing knowledge'', *Journal of Public Health Policy*, Vol. 31 No. 2, pp. 185-98.

Horowitz, M.D. and Rosensweig, J.A. (2007), ''Medical tourism – health care in the global economy'', *Physician Executive*, Vol. 33 No. 6, pp. 24-6, 28-30.

Hunter, D. and Oultram, S. (2010), ''The ethical and policy implications of rogue medical tourism'', *Global Social Policy*, Vol. 10 No. 3, pp. 297-9.

Huxtable, R. (2009), ''The suicide tourist trap: compromise across boundaries'', *Journal of Bioethical Inquiry*, Vol. 6 No. 3, pp. 327-36.

Inhorn, M.C. and Patrizio, P. (2009), ''Rethinking reproductive 'tourism' as reproductive 'exile''', *Fertility and Sterility*, Vol. 92 No. 3, pp. 904-6.

International Union of Tourism Organizations (IUTO) (1973), *Health Tourism*, United Nations, Geneva.

Ivanisevic, G. (1999), ''Marine remedies of the island of Losinj – the basis for the development of health and spa tourism'', *Turizam*, Vol. 47 No. 2, pp. 132-49.

Jeevan, R., Birch, J. and Armstrong, A.P. (2011), ''Travelling abroad for aesthetic surgery: informing healthcare practitioners and providers while improving patient safety'', *Journal of Plastic Reconstructive and Aesthetic Surgery*, Vol. 64 No. 2, pp. 143-7.

Kangas, B. (2010), ''Traveling for medical care in a global world'', *Medical Anthropology: Cross Cultural Studies in Health and Illness*, Vol. 29 No. 4, pp. 344-62.

Karuppan, C.M. and Karuppan, M. (2010), ''Changing trends in health care tourism'', *Health Care Manager*, Vol. 29 No. 4, pp. 349-58.

Kiatpongsan, S. and Sipp, D. (2008), ''Offshore stem cell treatments'', *Nature Reports Stem Cells*, 3 December.

Kimball, A.M. and Hodges, J. (2010), ''Risky trade and emerging infections'', in Institute of Medicine (Ed.), *Infectious Disease Movement in a Borderless World*, The National Academies Press, Washington, DC, pp. 110-8.

Konu, H., Tuohino, A. and Komppula, R. (2010), ''Lake wellness – a practical example of a new service development (NSD) concept in tourism industries'', *Journal of Vacation Marketing*, Vol. 16 No. 2, pp. 125-39.

Kumarasamy, K.K., Toleman, M.A., Walsh, T.R., Bagaria, J., Butt, F., Balakrishnan, R., Chaudhary, U., Doumith, M., Giske, G.C., Irfan, S., Krishnan, P., Kumar, A.V., Maharjan, S., Mushtaq, S., Noorie, T., Paterson, D.L., Pearson, A., Perry, C., Pike, R., Rao, B., Ray, U., Sarma, J.B., Sharma, M., Sheridan, E., Thirunarayan, M.A., Turton, J., Upadhyay, S., Warner, M., Welfare, W., Livermore, D.M. and Woodford, N. (2010), ''Emergence of a new antibiotic resistance mechanism in India, Pakistan, and the UK: a molecular, biological, and epidemiological study'', *Lancet Infectious Diseases*, Vol. 10 No. 9, pp. 597-602.

Kušen, E. (2002), ''Health tourism'', *Tourism*, Vol. 50 No. 2, pp. 175-88.

Lanquar, R. (1989), ''La Filière du Tourisme de Santé'', *Revue de Tourisme*, Vol. 44 No. 4, pp. 25-30.

Leahy, A.L. (2008), ''Medical tourism: the impact of travel to foreign countries for healthcare'', *Surgeon*, Vol. 6 No. 5, pp. 260-1.

Lee, J.Y., Kearns, R.A. and Friesen, W. (2010), ''Seeking affective health care: Korean immigrants' use of homeland medical services'', *Health and Place*, Vol. 16 No. 1, pp. 108-15.

Lunt, N. and Carrera, P. (2010), ''Medical tourism: assessing the evidence on treatment abroad'', *Maturitas*, Vol. 66 No. 1, pp. 27-32.

Luscombe, R. (2010), ''The declaration of Istanbul on organ trafficking and transplant tourism'', *CANNT Journal (Journal ACITN)*, Vol. 20 No. 2, pp. 6-7.

McKelvey, A., David, A.L., Shenfield, F. and Jauniaux, E.R. (2009), ''The impact of cross-border reproductive care or 'fertility tourism' on NHS maternity services'', *BJOG: An International Journal of Obstetrics and Gynaecology*, Vol. 116 No. 11, pp. 1520-3.

MacReady, N. (2007), ''Developing countries court medical tourists'', *Lancet*, Vol. 369 No. 9576, pp. 1849-50.

MacReady, N. (2009), ''The murky ethics of stem-cell tourism'', *The Lancet Oncology*, Vol. 10 No. 4, pp. 317-8.

Magdalini, V. and Paris, T. (2009), ''The wellness tourism market in Greece – an interdisciplinary methodology approach'', *Tourismos*, Vol. 4 No. 4, pp. 127-44.

Mair, H. (2005), ''Tourism, health and the pharmacy: towards a critical understanding of health and wellness tourism'', *Tourism*, Vol. 53 No. 4, pp. 335-46.

Mak, A.H.N., Wong, K.K.F. and Chang, R.C.Y. (2009), ''Health or self-indulgence? The motivations and characteristics of spa-goers'', *International Journal of Tourism Research*, Vol. 11 No. 2, pp. 185-99.

Marvel, M. (2002), ''Spa tourism in Central & Eastern Europe'', *Travel and Tourism Analyst*, December, pp. 1-25.

Matorras, R. and Pennings, G. (2005), ''Reproductive exile versus reproductive tourism'', *Human Reproduction*, Vol. 20 No. 12, pp. 3571-2.

Mesplier-Pinet, J. (1990), ''Thermalisme et curistes: les contraintes'', *Revue de Tourisme*, Vol. 45 No. 2, pp. 10-17.

Messerli, H.R. and Oyama, Y. (2004), ''Health and wellness tourism – global'', *Travel and Tourism Analyst*, August, pp. 1-54.

Michalkó, G. and Rátz, T. (2010), ''Hungarian spa destinations in the tourism-oriented property market'', *Foldrajzi Ertesito/Hungarian Geographical Bulletin*, Vol. 59 No. 2, pp. 131-46.

Milstein, A. and Smith, M. (2006), ''America's new refugees – seeking affordable surgery offshore'', *New England Journal of Medicine*, Vol. 355 No. 16, pp. 1637-40.

Milstein, A. and Smith, M. (2007), ''Will the surgical world become flat?'', *Health Affairs*, Vol. 26 No. 1, pp. 137-41.

Morgan, D. (2010), ''The growth of medical tourism'', *OECD Observer*, Vol. 281, pp. 12-13.

Mullock, A. (2010), ''Overlooking the criminally compassionate: what are the implications of prosecutorial policy on encouraging or assisting suicide?'', *Medical Law Review*, Vol. 18 No. 4, pp. 442-70.

Murdoch, C.E. and Scott, C.T. (2010), ''Stem cell tourism and the power of hope'', *American Journal of Bioethics*, Vol. 10 No. 5, pp. 16-23.

Nahrstedt, W. (2004), ''Wellness: a new perspective for leisure centers, health tourism, and spas in Europe on the global health market'', in Weimermaier, K. and Mathies, C. (Eds), *The Tourism and Leisure Industry: Shaping the Future*, Haworth Hospitality Press, New York, NY, pp. 181-98.

Nelson, B. (2008), ''Stem cell researchers face down stem cell tourism'', *Nature Reports Stem Cells*, 5 June.

Newman, M.I., Camberos, A.E., Clynes, N.D. and Ascherman, J.A. (2005a), ''Outbreak of atypical mycobacteria infections in US patients traveling abroad for cosmetic surgery'', *Plastic and Reconstructive Surgery*, Vol. 115 No. 3, pp. 964-5.

Newman, M.I., Camberos, A.E., Ascherman, J., Zienowicz, R.J. and Vaccaro, J.J. (2005b), ''Mycobacteria abscessus outbreak in US patients linked to offshore surgicenter'', *Annals of Plastic Surgery*, Vol. 55 No. 1, pp. 107-10.

Niv, A. (1989), ''Health tourism in Israel: a developing industry'', *Revue de Tourisme*, Vol. 44 No. 4, pp. 30-2.

Nowicka, W. (1996), ''The effects of the 1993 anti-abortion law in Poland'', *Entre nous*, Nos 34-35, pp. 13-15.

Ost, S. (2010), ''The de-medicalisation of assisted dying: is a less medicalised model the way forward?'', *Medical Law Review*, Vol. 18 No. 4, pp. 497-540.

Pennings, G. (2002), ''Reproductive tourism as moral pluralism in motion'', *Journal of Medical Ethics*, Vol. 28 No. 6, pp. 337-41.

Pollmann, S.K. (2005), ''Health tourism in Hungary'', unpublished Graduate Diploma, Department of Tourism, University of Otago, Dunedin.

Reddy, S.G., York, V.K. and Brannon, L.A. (2010), ''Travel for treatment: students' perspective on medical tourism'', *International Journal of Tourism Research*, Vol. 12 No. 5, pp. 510-22.

Reed, C.M. (2008), ''Medical tourism'', *Medical Clinics of North America*, Vol. 92 No. 6, pp. 1433-46.

Reimer, J., Borgelt, E. and Illes, J. (2010), ''In pursuit of 'informed hope' in the stem cell discourse'', *American Journal of Bioethics*, Vol. 10 No. 5, pp. 1-2.

Rodrigues, Á., Kastenholz, E. and Rodrigues, A. (2010), ''Hiking as a relevant wellness activity – an exploratory study of hiking tourists in Portugal'', *Journal of Vacation Marketing*, Vol. 16 No. 4, pp. 331-43.

Scheper-Hughes, N. (2003), ''Keeping an eye on the global traffic in human organs'', *Lancet*, Vol. 361 No. 9369, pp. 1645-8.

Schiano, T.D. and Rhodes, R. (2010), ''Transplant tourism'', *Current Opinion in Organ Transplantation*, Vol. 15 No. 2, pp. 245-8.

Sengupta, A. (2011), ''Medical tourism: reverse subsidy for the elite'', *Signs*, Vol. 36 No. 2, pp. 312-9.

Serrano Gil, A. and García Casado, M.L. (1992), ''La objeción de conciencia en materia de aborto'' (''Conscientious objection in the matter of abortion''), *Revista de enfermeria*, Vol. 15 No. 163, pp. 45-6.

Shaw, J.J.A. (2009), ''Recent developments in the reform of English law on assisted suicide'', *European Journal of Health Law*, Vol. 16 No. 4, pp. 333-49.

Shenfield, F., de Mouzon, J., Pennings, G., Ferraretti, A.P., Nyboe Andersen, A., De Wert, G. and Goossens, V. (2010), ''Cross border reproductive care in six European countries'', *Human Reproduction*, Vol. 25 No. 6, pp. 1361-8.

Shetty, P. (2010), ''Medical tourism booms in India, but at what cost?'', *The Lancet*, Vol. 376 No. 9742, pp. 671-2.

Sipp, D. (2010), ''Hope alone is not an outcome: why regulations makes sense for the global stem cell industry'', *American Journal of Bioethics*, Vol. 10 No. 5, pp. 33-4.

Smith, M. and Puczkó, L. (Eds) (2009), *Health and Wellness Tourism*, Elsevier, Oxford.

Spar, D. (2005), ''Business and medicine: reproductive tourism and the regulatory map'', *New England Journal of Medicine*, Vol. 352 No. 6, pp. 531-3.

Spiegel, J.M., Gonzalez, M., Cabrera, G.J., Catasus, S., Vidal, C. and Yassi, A. (2008), ''Promoting health in response to global tourism expansion in Cuba'', *Health Promotion International*, Vol. 23 No. 1, pp. 60-9.

Sterle, A., Balázs, P. and Delgado, J. (2009), ''Travelling for teeth: characteristics and perspectives of dental care tourism in Hungary'', *British Dental Journal*, Vol. 206 No. 8, pp. 425-8.

Storrow, R.F. (2005), ''Quests for conception: fertility tourists, globalization and feminist legal theory'', *Hastings Law Journal*, Vol. 57 No. 2, pp. 295-330.

Talbot, E.A., Chen, L.H., Sanford, C., McCarthy, A. and Leder, K. (2010), ''Travel medicine research priorities: establishing an evidence base'', *Journal of Travel Medicine*, Vol. 17 No. 6, pp. 410-5.

Towner, J. (1996), *An Historical Geography of Recreation and Tourism in the Western World 1540-1940*, Wiley, Chichester.

Turner, L. (2007a), '''First world health care at third world prices': globalization, bioethics and medical tourism'', *BioSocieties*, Vol. 2, pp. 303-25.

Turner, L. (2007b), ''From Durham to Delhi: 'medical tourism' and the global economy'', in Cohen-Kohler, J.C. and Seaton, M.B. (Eds), *Comparative Program on Health and Society Lupina Foundation Working Papers Series 2006-2007*, Munk Centre for International Studies, University of Toronto, Toronto, pp. 109-32.

Turner, L. (2008), ''Cross-border dental care: 'dental tourism' and patient mobility'', *British Dental Journal*, Vol. 204, pp. 553-4.

Turner, L.G. (2011), ''Quality in health care and globalization of health services: accreditation and regulatory oversight of medical tourism companies'', *International Journal for Quality in Health Care*, Vol. 23 No. 1, pp. 1-7.

Underwood, H.R. and Makadon, H.J. (2010), ''Medical tourism: game-changing innovation or passing fad?'', *Healthcare Financial Management: Journal of the Healthcare Financial Management Association*, Vol. 64 No. 9, pp. 112-114, 116, 118.

United States Senate Special Committee on Aging (2006), ''The globalization of health care: can medical tourism reduce health care costs?'', paper presented at the Senate Hearing, 109th Congress, Second Session, Government Printing Office, Washington, DC, June 27.

Vijaya, R.M. (2010), ''Medical tourism: revenue generation or international transfer of healthcare problems?'', *Journal of Economic Issues*, Vol. 44 No. 1, pp. 53-69.

Voigt, C. and Laing, J.H. (2010), ''Journey into parenthood: commodification of reproduction as a new tourism niche market'', *Journal of Travel and Tourism Marketing*, Vol. 27 No. 3, pp. 252-68.

Walton, J. (1983), *The English Seaside Resort: A Social History 1750-1914*, Leicester University Press, Leicester.

Whittaker, A. (2008), ''Pleasure and pain: medical travel in Asia'', *Global Public Health*, Vol. 3, pp. 271-90.

Widdows, H. (2011), ''Localized past, globalized future: towards an effective bioethical framework using examples from population genetics and medical tourism'', *Bioethics*, Vol. 25 No. 2, pp. 83-91.

Wilson, M.E. (2010), ''Global travel and emerging infections'', in Institute of Medicine (Ed.), *Infectious Disease Movement in a Borderless World*, The National Academies Press, Washington, DC, pp. 90-104.

Zarzeczny, A. and Caulfield, T. (2010), ''Stem cell tourism and doctors' duties to minors – a view from Canada'', *American Journal of Bioethics*, Vol. 10 No. 5, pp. 3-15.

About the author

C. Michael Hall is a Professor in the Department of Management, University of Canterbury, Christchurch, New Zealand; Docent, Department of Geography, University of Oulu, Finland; and Visiting Professor, Linnaeus University School of Business and Economics, Kalmar, Sweden. Co-editor of *Current Issues in Tourism* he has published widely in the areas of tourism, mobility, environmental history, and gastronomy. C. Michael Hall can be contacted at: michael.hall@canterbury.ac.nz