

## **International trends in health tourism: Implications for thermal spring tourism in the Western Cape Province of South Africa**

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### **Abstract**

Travel to thermal springs for the sake of health and healing can be traced at least as far back as the ancient Greeks and Romans, with the earliest forms of tourism being based on apparent curative powers of mineral-rich thermal waters. There are 11 thermal springs in the Western Cape, seven of which have been developed into a total of eight resorts. Only one of these resorts has a focus on health, with appropriate facilities, the others functioning primarily as family leisure resorts. Internationally there has been a move by traditional thermal spring resorts to offer a combination of health (medical and wellness) services in combination with leisure activities. In the light of the rapidly growing demand for healthy holidays in other parts of the world, it may be that a potentially lucrative natural resource, mineral-rich thermal water with a long tradition of healing, is not being adequately utilized as part of the Western Cape's tourism offering. This literature-based article traces the development of thermal spring health tourism internationally, and questions why such an industry is not being developed in South Africa, and in the Western Cape in particular, given the excellent resources currently available. Recommendations are made for location-specific medical and wellness thermal spring tourism product development in the Western Cape that focus on the utilisation of locally available natural resources and benefit local communities.

**Keywords:** Health tourism, wellness tourism, medical tourism, thermal springs, thermal spas, Western Cape, South Africa.

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### **Introduction**

People have used thermal mineral water since ancient times to cure ailments such as rheumatism, skin infections and poor digestion (Goodrich, 1994). Travel to thermal springs for the sake of health and healing can be traced at least as far back as the ancient Greeks and Romans, with the earliest forms of tourism based on apparent curative powers of mineral-rich thermal waters. The Romans laid

great stress on both the therapeutic and social value of thermal springs, which they called *thermae*. Many of the famous European baths, such as Aix-les-Bains and Vichy in France, Aachen and Baden-Baden in Germany and Bath in England, were developed by the Romans (Towner, 1996).

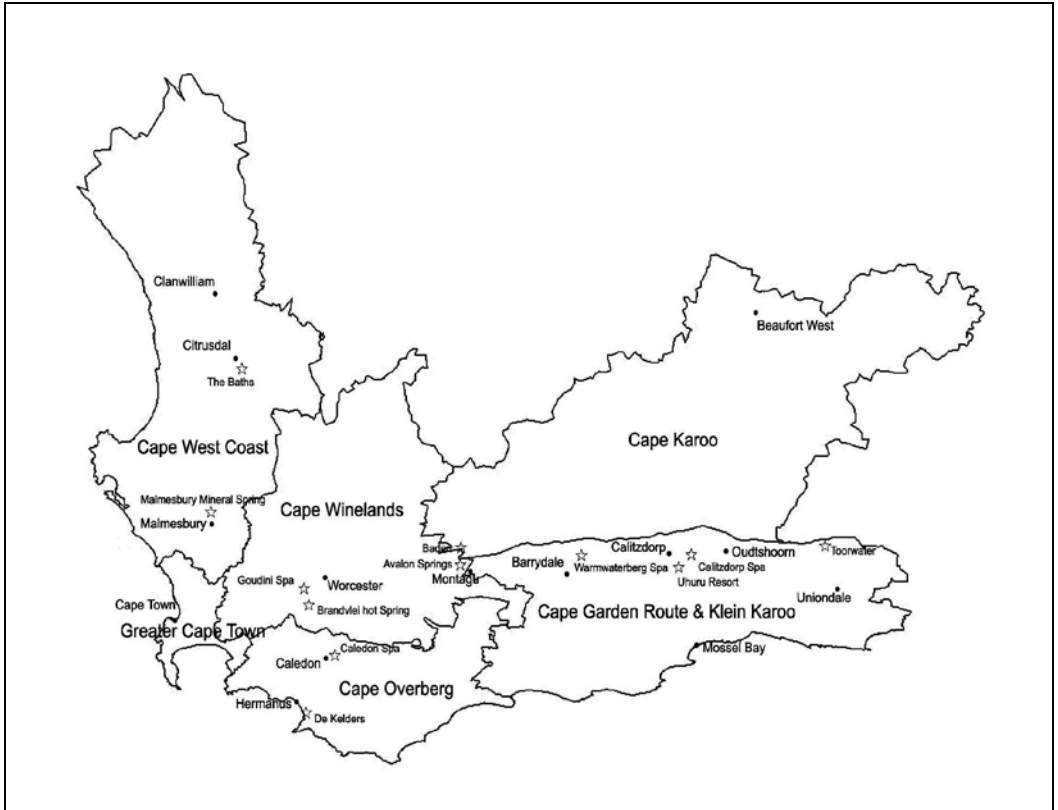
It is largely a matter of opinion where the dividing line should be drawn between thermal and non-thermal mineral water used for health purposes. Ghersetich, Brazini, Hercogova, & Lotti (2001) classify mineral water as cold (less than 20°C), hypothermal (20°C-30°C), thermal (30°-40°C) and hyperthermal (more than 40°C). The concentration of minerals and trace elements in thermal water is directly determined by the composition of the subsurface rock environment through which it passes as it rises, and Tshibalo, Olivier & Venter (2010) point out that this leads to an interesting anomaly, where two adjacent springs may differ significantly with regard to their thermal and chemical properties.

South Africa has some 87 documented thermal springs (Tshibalo *et al.*, 2010), although only about one-third of these have been developed into resorts of various sizes. Most of South Africa's thermal springs have been used at some time in the past for medicinal purposes, both by European settlers after they arrived in the 17<sup>th</sup> century, and by indigenous tribes before them (Booyens, 1981). While the Dutch settlers arrived with a well-developed health spa culture, cultivated in the famous European spa resorts, it was the indigenous people who led them to springs that they had been using for centuries as places of healing. The earliest holiday destinations in South Africa were developed around thermal springs, and include Caledon and Montagu in the Western Cape, Aliwal North in the Eastern Cape, Warmbaths (Bela Bela) in Limpopo and Badplaas in Mpumalanga.

There are eleven thermal springs in the Western Cape (Figure 1), including both developed and undeveloped springs. Currently there are eight thermal spring resorts in the province, namely Caledon Spa, Goudini Spa (near Worcester), The Baths (near Citrusdal), Avalon Springs (Montagu), Baden Klub (Montagu), Warmwaterberg Spa (near Barrydale), Calitzdorp Spa and Uhuru Guest Farm, recently developed adjacent to Calitzdorp Spa, utilizing the same water source. Caledon has a sophisticated health spa, offering a wide range of wellness and beauty treatments, and a limited range of beauty treatments is available at Avalon Springs and Goudini Spa. Medical treatments are not offered at any of the Western Cape's thermal spring resorts.

Of the undeveloped springs in the Western Cape, Toorwater, near Uniondale, which once operated as a small holiday resort, currently has no facilities or services, not even a swimming pool, but campers are now slowly returning. Brandvlei, near Rawsonville, is situated on property belonging to the Department of Correctional Services, and also has no facilities for bathing. A shopping mall

has been built on the site of the warm spring in Malmesbury, and although the water can still be accessed via a manhole, there are also no bathing facilities. The pools at De Kelders, situated in a sea-cliff cave, are also not open to the public at present, but they can be visited with the permission of the owner.



**Figure 1:** Thermal springs and tourism regions in the Western Cape  
(Source: Compiled by the authors)

The study of the therapeutic effects of naturally occurring thermal mineral water is known as balneology. Balneotherapy, the use of balneology in medical treatments, is defined as ‘a natural approach to health and healing that uses hot spring water, gases, mud and climatic factors as therapeutic elements’ (Altman, 2000: 180). While ‘taking the waters’ is one of the oldest forms of medical treatment, it has, however, always been difficult to establish an exact correlation between chemical composition and balneological, or healing, properties of thermal water. Throughout the ages interest in the use of thermal water in medicine has fluctuated from century to century and from country to country. The medical world has viewed it with differing, often contrasting, opinions, from very enthusiastic to extremely critical, and from beneficial to harmful (Van Tubergen & Van der Linden, 2002). Today, however, thermal water (spa) therapy is receiving renewed attention from many medical specialties and health tourists, and is undergoing a revival.

Different types of thermal water have different therapeutic effects, depending on the content of elements such as bicarbonates, sulphur, sulphates, chlorides, radon, iron, calcium, magnesium, potassium, lithium, arsenic and silica (Altman, 2000; Košić, Pivac, Romelić, Lasić & Stojanović, 2010). Waters used in balneotherapy are thus classified according to mineral content and known balneological (healing) properties, although a number of different classifications exist and there is no universal acceptance of any single classification (Kristmannsdóttir & Björnsson 2003; Petraccia, Liberati, Masciullo, Grassi & Fraioli, 2006; Varga, 2010). Eight different types of ‘medicinal’ thermal waters have been distinguished in South Africa (Kent, 1952).

### **Recent developments in international health tourism**

Since the 1980s there has been a rapid expansion of ‘health tourism’, what the International Union of Official Travel Organisations (IOUTO, 1973, cited in Hall, 1992: 151) defines as ‘the provision of health facilities utilising the natural resources of a country, in particular mineral water and climate’. There are, however, many definitions of health tourism, and there is considerable debate in the academic literature on this topic (e.g. Goodrich, 1994; Ross, 2001; Messerlu & Oyama, 2004; Erfurt-Cooper & Cooper, 2009; Smith & Puczkó, 2009). While both mineral water and climate have historically been key ingredients of health tourism, these concepts are no longer included in most contemporary definitions. Health tourism has been more generally defined as ‘the attempt on the part of a tourist facility or destination to attract tourists by deliberately promoting its health-care services and facilities, in addition to its regular tourist amenities’ (Goodrich, 1994: 228), or simply as ‘any kind of travel to make yourself or a member of your family healthier’ (Mary Tabacchi, a well-known authority on spa management, quoted in Ross, 2001: 1).

Health tourism is generally sub-divided into medical tourism, such as travel to undergo surgery or other medical treatment, and wellness tourism, which involves helping healthy people stay healthy, both physically and mentally. Wellness tourism, which includes pampering and feel-good treatments, massage, herbal wraps, exfoliating scrubs, manicures, pedicures and other beauty treatments, incorporating elements of lifestyle, physical, mental and spiritual wellbeing, and one’s relationship to oneself, others and the environment, has experienced phenomenal growth in recent years (Smith & Puczkó, 2009). Thus, while the primary aim of medical tourism is the curing of illness, the primary aim of wellness tourism is the prevention of illness.

More than half a century ago Lowenthal (1962: 124) asked the question: ‘What better purpose is there for travel than to restore one’s health, physical or mental?’ Health tourists are looking for something new and different in their trips, but at the same time seek meaningful experiences (Messerlu & Oyama, 2004). While

people will gladly invest in their health, they are also eager to be entertained, to be active in sports and to consume local culture. A wide variety of health-related services can be supplied, ranging from fitness, nutrition, skin care and stress management, to nature and cultural experiences, and sporting activities. Traditional treatments can be integrated with alternative ones, including healing therapies from local cultures (Smith & Puczkó, 2009).

As the international health tourism product has changed, so too have there been changes in the thermal spring/mineral spa tourism product. The increase in demand for 'wellness', facilities and experiences, focusing on a healthy lifestyle, as well as fitness and relaxation (Bell & Vazquez-Illa, 1996), was initially accompanied by a decline in demand for the medically-oriented services offered by traditional mineral spas. However, a growing recognition of the benefits of preventative medicine now includes a revival of the tradition of 'taking the waters' as an antidote to the stresses of urban living (Gilbert & Van De Weert, 1991; English Tourism Council, 2002).

Consequently a new kind of health spa travel has emerged worldwide in recent years (Erfurt-Cooper & Cooper, 2009), where the curative properties of mineral waters are successfully combined with wellness treatments and therapies, as well as with enjoyable holidays; in effect a combination of medical, wellness and recreational tourism. The challenge for modern thermal spring resorts is thus to incorporate older water-based healing traditions into the satisfaction of current demand for wellness in a leisure environment. This change of focus has led several historic thermal spring destinations, such as Spa in Belgium and Bath in England, to update their facilities and reinvest in their natural resources, combining the use of healing waters with new and upgraded wellness services (Smith, 2009). The basic offerings of such centres are wide-ranging and varied, and include thermal baths, but with a range of treatments available, such as balneotherapy and hydrotherapy (water-based exercise), face and body beauty treatments, massage, alternative therapies for relaxation, slimming cures, aromatherapy and other new-age treatments.

From a supply side perspective, marketing differentiation strategies for tourism products particularly supports wellness tourism development (Messerlu & Oyama, 2004), and as competition continues to intensify, wellness tourism is often used as a means to differentiate a destination. In a report that sets out to predict wellness tourism trends up to the year 2020 (Wellness Tourism Worldwide, 2011), it is pointed out that there is a very high risk that the supply of wellness tourism products and services may become too standardized, and that several common wellness services, such as saunas and massage, may lose their differentiating power and become entry-level services offered by all wellness providers. Tourism regions need to identify health and wellness assets which will help to create unique selling propositions, distinctive brands and consequently more competitive destinations (Wellness Tourism Worldwide, 2011). Natural healing resources, including thermal waters, are predicted to increase in popularity, as evidenced by the growing interest

in other non-invasive approaches to healing and wellness, and planners need to consider the significance of alternative and complementary medical treatments (Wellness Tourism Worldwide, 2011).

### **Health tourism in South Africa and the Western Cape**

The South African health spa industry is relatively new; at the time of a survey conducted in 2011 (Global Spa Summit, 2011), most spas in South Africa were less than 10 years old. There are currently very few links between South Africa's health tourism industry and its thermal springs. South Africa's national tourism website (South African Tourism, 2011) promotes a number of products under the labels 'Health and Wellness', namely Treatments (African-inspired, mud facials, crystal massage), Therapies (vinotherapy, fynbos therapy), Medical (surgery, dental), Retreats (spiritual), Open Mind (song and sound safaris, drumming workshops), and Spas (destination spas, day spas, health hydros). No thermal spring resorts are included, which may be because these resorts currently have family leisure as their primary function, despite the fact that at least three thermal spring resorts in South Africa (Forever Warmbaths, Forever Badplaas and Caledon Spa) do have sophisticated wellness centres.

In South Africa wellness tourism tends to be closely linked to and packaged with outdoor activities, such as adventure tourism, safaris and beaches. South Africa has numerous (non-thermal) spa resorts that combine spa visits with game viewing, golf, wine tasting and nature-based tourism, while indigenous plants and traditional African healing rituals are increasingly incorporated into their treatment offerings. Spiritual retreats are also gaining in popularity, tending to offer a variety of alternative therapies, meditation, wellbeing workshops and spiritual guidance (Global Spa Summit, 2011).

In 2009 the South African government stated that it was developing a national strategy for medical tourism, to promote South Africa as a cost-effective international medical tourism destination (Global Spa Summit, 2011). The inaugural South African Health Tourism Congress was held in July 2009, its aim being to stimulate the health tourism market in South Africa, focusing primarily on medical tourism, and to foster greater cooperation in this sector. Following the Congress it was decided that the industry should organize itself into an association, as well as establish guidelines and codes of conduct. As a result, the Medical Tourism Association of South Africa (MTASA) was established as a trade association representing the medical, health and wellness tourism industry; its main purpose being to promote South Africa as a destination of choice for health, wellness and medical care, in combination with holidays. The South African Spa Association was also recently established, as a result of tremendous growth in the spa industry, not only in the number of spas, but also in the diversity of spa types and therapies

available, which has resulted in the necessity to define and unite the spa industry, and to ensure a consistent quality experience for the spa visitor.

A large variety of sophisticated spa therapies are offered in South Africa, including in the Western Cape, but unfortunately no thermal spring resorts, not even those which do offer wellness treatments, appear to be listed among the members of the Medical Tourism Association of South Africa or the South African Spa Association.

### **Opportunities for thermal spring development in the Western Cape**

In light of the rapidly growing demand for healthy holidays in other parts of the world, it may be that a potentially lucrative natural resource, mineral-rich thermal water with a long tradition of healing, is not being adequately utilized as part of the Western Cape's tourism offering. The Western Cape has all four of what Niv (1989) describes as the basic characteristics which can transform a destination into a leading centre for all types of health tourism, namely good natural resources, including hot mineral springs, a stable, comfortable climate all year round, a good medical system, and attractive scenic locations. The combination of thermal water with a good climate, spectacular scenery, abundant wildlife and interesting culture could result in unique and very attractive tourism products. Countries such as New Zealand, Hungary and Japan have developed their thermal spring resources to the extent that thermal spring tourism now plays a major role in attracting international and domestic tourists to these countries (Erfurt-Cooper & Cooper, 2009). Some countries, including Turkey, Argentina and Chile, are now prioritizing thermal spring development in their strategic tourism development plans (Akcohan, 2005; Miranda, 2005; Go Chile, 2011). Developing countries, particularly those in Africa, could utilise their thermal spring resources as combined leisure and health (medicinal and wellness) resorts, and at the same time grow their tourism industries and contribute to the development and wellbeing of surrounding communities.

Of the eight different types of 'medicinal' thermal waters found in South Africa (Kent, 1952), three occur in the Western Cape, namely indifferent waters, chalybeatic waters and salt waters (Table 1). Each water type has specific therapeutic uses (Kent, 1952), and stories abound of amazing 'cures' that have taken place over the years (Proctor, 1948; Booyens, 1981).

Indifferent waters, also known as simple thermal waters, are good for both drinking and bathing. These waters contain small amounts of dissolved solids, without any dominant mineral, and are found at The Baths, Goudini Spa, Brandvlei, Avalon Springs and Baden in the Western Cape (Kent, 1952). Drinking this water helps to purify the system and eliminate toxins from the body, and bathing in it helps to reduce stress, increase body temperature and general circulation, relieve muscle and joint pain, and aids in the relief of rheumatic and other locomotive disorders (Altman, 2000).

**Table 1:** Thermal waters of the Western Cape

Water types	Description	Locations	Temperature (°C) <sup>1</sup>	pH <sup>1</sup>
Indifferent	Low mineral content, no dominant mineral	Goudini Spa	43	6.2
		Avalon Springs	41	7.1
		Baden Klub	39	6.2
		The Baths	41	6.4
		Brandvlei	57	5.9
Chalybeatic	Contain significant amounts of iron in solution, often accompanied by manganese	Caledon Spa	49	6.2
		Warmwaterberg Spa	41	6.3
		Calitzdorp Spa/Uhuru Resort	44	6.8
		Toorwater	38	7.1
Salt	Contain significant amounts of sodium chloride	Malmesbury	33	7.4
		De Kelders	21	6.7

Source: Compiled from Kent, 1952; <sup>1</sup> = temperature and pH measured on-site by the authors, 2012

Chalybeatic waters contain significant amounts of iron in solution, frequently accompanied by manganese (Kent, 1952). Iron-rich water is often slightly brownish in colour, and is also good for both drinking and bathing. It helps to prevent and treat iron-deficiency anaemia, to reduce mental fatigue and stress and calm the nerves, as well as to nourish the blood with oxygen and promote the formation of red blood cells, thus helping to maintain the body's metabolism and increasing resistance to disease (Altman, 2000). All the chalybeatic springs in South Africa occur in the Western Cape, namely at Caledon Spa, Warmwaterberg Spa, Calitzdorp Spa and Toorwater (Kent, 1952).

Salt, or saline, waters contain significant amounts of sodium chloride (Kent, 1952). Sodium is an essential component of many body fluids, such as blood, tears and perspiration, and chloride helps regulate fluids both in and out of body cells, facilitates the digestion of food and the body's absorption of nutrients, and helps transmit nerve impulses to and from the brain (Altman, 2000). Salt waters are particularly recommended for bathing, and are used for treating skin diseases, rheumatic disorders, arthritis, central nervous system and peripheral nerve diseases, and post-traumatic, orthopaedic and post-operative disorders (Altman, 2000). There are two sources of saline thermal water in the Western Cape, the tepid spring at De Kelders and Malmesbury Hot Spring (Kent, 1952).

Thermal springs in the Western Cape, including both established resorts and undeveloped springs, could be utilised for health tourism by developing facilities for both medical tourism (balneotherapy, recovery and rehabilitation), and wellness tourism. In terms of mineral content alone, there would seem to be considerable potential for the development of balneological treatments at all of the thermal springs. In order to add value to the current product, and attract new markets without impacting negatively on current markets, each resort should consider packaging its



own balneological products, aimed particularly at the international market, as well as the 'retired' domestic market. For example, four-night midweek, low-season packages, consisting of accommodation and specialized daily health-related programmes.

Two of the undeveloped springs appear to be particularly suited to the development of medical tourism products. The warm salt spring in Malmesbury is currently completely unutilized. It is close enough to Cape Town for day-trips, and given the water content, could be investigated for the treatment of dermatological diseases. A dermatological clinic, offering both outpatient and multi-day services, could be set up in the vicinity of the spring. Such a development would no doubt also act as a catalyst for the establishment of guest houses and restaurants in the vicinity of the spring, as well as stimulate general tourism development in Malmesbury. Similarly, the water source in the cave at De Kelders could be investigated for the treatment of dermatological diseases, possibly in combination with thalassotherapy (sea-water treatments). An added attraction is the unique cave environment of De Kelders, and the potential for using it for speleotherapy and the treatment of respiratory diseases.

Recovery after surgery, as well as rehabilitation from illness, are important components of the medical tourism industry. In 2008 South Africa received 410 000 medical tourists, or 4.3% of all international inbound tourists to the country (Global Spa Summit, 2011). Medical tourism in South Africa is often packaged with safaris/game viewing, recovery in a (non-thermal) spa resort, and other tourism activities. Thermal spring resorts are well suited to promote themselves as recovery destinations for medical tourists who have undergone cosmetic or other surgery. Not only would the general environment be relaxing and conducive to healing, but the effect of the medicinal waters could aid in building up strength, reducing inflammation and pain, assist in the healing of wounds, strengthen the immune system and speed up recovery in general.

Each thermal spring resort in the Western Cape needs to research the availability of natural resources found in its immediate vicinity that could be incorporated into location-specific medical or wellness tourism offerings. Resorts/springs that are located in wine producing areas (Goudini Spa, Brandvlei Hot Spring, Avalon Springs and Baden Klub, as well as Calitzdorp Spa and Uhuru Guest Farm), could, for instance, investigate the development of vinotherapy, a treatment already being offered in these areas by non-thermal spas (South African Tourism, 2011). Vinotherapy utilizes the antioxidant properties of grapes, and incorporates the skins, stalks and seeds (in fact a recycling of the residues of wine-making) into various detoxifying, re-energising and anti-aging treatments, including facials, massage and body scrubs. Similarly, The Baths is situated in the Cederberg Mountains region, the area known for rooibos and buchu (agathosma) plants. Rooibos, prepared and consumed as a tea, has antioxidant, anti-inflammatory and anti-allergic properties,

while buchu has diuretic and antiseptic properties, and is also useful for the relief of rheumatism.

All of the Western Cape's thermal springs are located within the Cape fynbos region, the floral biome unique to the Western Cape. Already a number of non-thermal spas are offering 'fynbos therapy', spa treatments using the antioxidant properties of certain types of fynbos in skin creams and essential aromatherapy oils (South African Tourism, 2011). Fynbos products could be incorporated into both medical and wellness thermal spring tourism products, particularly in therapeutic steam rooms and saunas. Health products, such as skin creams, developed from local herbal plants and used as part of thermal spa treatments, should be made available for visitors to purchase and take home. This will also create economic opportunities for local communities, both in the harvesting of the raw materials and in the manufacture and sale of health products, thus spreading the economic benefits of tourism beyond the resorts themselves.

Verschuren (2004) remarks that international health tourists are not only starting to see the spa experience as a way to stay healthy and look good, but are looking to do this in an environment that emphasises simplicity and getting back to basics. Thermal spring resorts in the Western Cape, particularly Warmwaterberg Spa, Calitzdorp Spa and The Baths, are well placed to capitalize on this trend, where the quiet, rural, rustic atmosphere is seen as part of their attractiveness.

## **Conclusions**

There appears to be considerable potential for the development of thermal spring health (medical and wellness) tourism products in the Western Cape, based on available resources. This would, however, require further medically-based research into the medicinal properties of the various waters. The Global Spa Summit (2011) encourages the development of a scientific database for spa and wellness methods that is accessible to industry, consumers and governments, suggesting that this information could be used for promotional purposes, as well as to build acceptance of spa and wellness methods.

The Global Spa Summit (2011) stresses that, in order to offer a truly differentiated product, offerings need to be location-specific, focusing on local natural assets and the environment, as well as being authentic and drawing on local traditions, skills and ingredients. Recommendations have been made for medical and wellness thermal spring tourism product development in the Western Cape that will go some way towards meeting these requirements. Ultimately, though, it is the combination of clean air, attractive scenery, a pleasant climate and friendly people that, together with the mineral-rich thermal water, provide the basic ingredients for a satisfying, and healthy, holiday.

## References

- Akcoban, A. (2005). Elderly Tourists' Attraction to Geothermal Tourism. [www.turkishweekly.net](http://www.turkishweekly.net) [6 November 2011].
- Altman, N. (2000). *Healing Springs – the Ultimate Guide to Taking the Waters*. Rochester: Healing Arts Press.
- Bell, R.A & Vazquez-Illa, J. (1996). Planning for a Competitive Strategy in a Declining Industry: Positioning Spain's Arnedillo Spa Hotel. In L. Harrison & W. Husbands (Eds.), *Practicing Responsible Tourism: International Case Studies in Tourism Planning, Policy and Development* (pp. 555-573). New York: John Wiley & Sons.
- Booyens, B. (1981). *Bronwaters van Genesing: Die Tradisionele Warmbronwaterkultuur in Ons Volksgeneeskunde*. Cape Town: Tafelberg.
- English Tourism Council (2002). *Health Benefits Fact File - The Market Opportunities for Health Tourism in England*. London: English Tourism Council.
- Erfurt-Cooper, P. & Cooper, M. (2009). *Health and Wellness Tourism – Spas and Hot Springs*. Bristol: Channel View Publications.
- Ghersetich, M.D., Brazini, B., Hercogova, J. & Lotti, T. M. (2001). Mineral Waters: Instead of Cosmetics or Better Than Cosmetics? *Clinics in Dermatology*, 19, 478-482.
- Gilbert, D.C. & Van De Weert, M. (1991). The Health Care Tourism Product in Western Europe. *Revue de Tourisme*, 2, 5-9.
- Global Spa Summit (2011). Wellness Tourism and Medical Tourism: Where Do Spas Fit? 5<sup>th</sup> Annual Global Spa Summit, Bali. [www.globalspasummit.org](http://www.globalspasummit.org) [4 June 2011].
- Go Chile (2011). Hot Springs in Chile. <http://www.gochile.cl/en/guides/thermal-springs-in-chile.html> [23 September 2012].
- Goodrich, J.N. (1994). Health Tourism: A new positioning strategy for tourist destinations. In U. Muzaffer (Ed.), *Global Tourist Behaviour* (pp. 227-238). New York: International Business Press.
- Hall, C.M. (1992). Review - Adventure, sport and health tourism. In B. Weiler & C. M. Hall (Eds.), *Special Interest Tourism* (pp.141-158). London: Belhaven Press.
- Kent, L. (1952). *The Medicinal Springs of South Africa*. Cape Town: South African Railways Publishing and Travel Department.
- Košić, K., Pivac, T., Romelić, J., Lasić, L. & Stojanović, V. (2010). Characteristics of Thermal-Mineral Waters in Backa Region (Vojvodina) and their Exploitation in Spa Tourism. *Renewable and Sustainable Energy Reviews*, 15, 801-807.
- Kristmannsdóttir, H. & Björnsson, O. G. (2003). Balneological Prospects in Iceland Using Geothermal Resources. Proceedings of the International Geothermal Conference, Reykjavik, Iceland, Sept. 2003. [www.jardhitafelag.is/media/PDF/S03Paper055.pdf](http://www.jardhitafelag.is/media/PDF/S03Paper055.pdf) [10 June 2010].
- Lowenthal, D. (1962). Tourists and thermalists. *Geographical Review*, 52 (1),124-127.

- Messerlu, H. & Oyama, Y. (2004). Health and Wellness Tourism - Global. *Travel & Tourism Analyst*, August.
- Miranda, F. J. (2005). Health Tourism: A Healthy Policy for Argentina. Proceedings of the World Geothermal Congress 2005, Antalya, Turkey. [www.geothermal-energy.org/pdf/IGAstandard/WGC/2005/2102.pdf](http://www.geothermal-energy.org/pdf/IGAstandard/WGC/2005/2102.pdf) [30 August 2012].
- Niv, A. (1989). Health Tourism in Israel: A Developing Industry. *Revue de Tourisme*, 4, 30-32.
- Petraccia, L., Liberati, G., Masciullo, S.G., Grassi, M. & Fraioli, A. (2006). Water, mineral waters and health. *Clinical Nutrition*, 25, 377-385.
- Proctor, W.A. (1948). Cape Argus. Cape's Medicine River. *The Argus*, 31 December.
- Ross, K. (2001). *Health Tourism: An Overview*. [www.hospitalitynet.org](http://www.hospitalitynet.org) [5 April 2011].
- Smith, M. (2009). Case Study 3 – Regeneration of a Historic Spa Town: A Case Study of Spa in Belgium. In M. Smith & L. Puczko (Eds.), *Health and Wellness Tourism* (pp. 295-299). London: Butterworth-Heinemann.
- Smith, M. & Puczko, L. (2009). *Health and Wellness Tourism*. London: Butterworth-Heinemann.
- South African Tourism (2011). Health and Wellness. [www.southafrica.net](http://www.southafrica.net) [23 September 2012].
- Towner, J. (1996). *An Historical Geography of Recreation and Tourism in the Western World 1540-1940*. Chichester: John Wiley & Sons.
- Tshibalo, A. E., Olivier, J. & Venter, J. (2010). South Africa Geothermal Country Update (2005-2009), Proceedings World Geothermal Congress 2010, Bali.
- Van Tubergen, A. & Van der Linden, S. (2002). A brief history of spa therapy. *Annals of Rheumatic Diseases*, 61, 273-275.
- Varga, A. (2010). Problems with classification of spa waters used in balneology. *Health*, 2 (11), 1260-1263.
- Verschuren, F. (2004). *Discussion Paper: Spa and Wellness Tourism – A New Product Portfolio at The Canadian Tourism Commission*. Vancouver: Canadian Tourism Commission.
- Wellness Tourism Worldwide (2011). Wellness: for Whom, Where and What? [www.wellnesstourismworldwide.com](http://www.wellnesstourismworldwide.com) [11 September 2011].