Medical tourism in Australia
A scoping study

Department of Resources, Energy and Tourism

15 August 2011
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# Glossary of acronyms

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<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>ACHS</td>
<td>Australian Council on Healthcare Standards</td>
</tr>
<tr>
<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
</tr>
<tr>
<td>ATEC</td>
<td>Australian Tourism Export Council</td>
</tr>
<tr>
<td>CT</td>
<td>computed tomography</td>
</tr>
<tr>
<td>DIAC</td>
<td>Department of Immigration and Citizenship</td>
</tr>
<tr>
<td>DOHA</td>
<td>Department of Health and Ageing</td>
</tr>
<tr>
<td>DWS</td>
<td>district of workforce shortage</td>
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<tr>
<td>ESCAP</td>
<td>Economic and Social Commission for Asia and the Pacific</td>
</tr>
<tr>
<td>FWE</td>
<td>fulltime workforce equivalent</td>
</tr>
<tr>
<td>IMTJ</td>
<td>International Medical Travel Journal</td>
</tr>
<tr>
<td>ISQua</td>
<td>International Society for Quality in Healthcare</td>
</tr>
<tr>
<td>IVF</td>
<td>in vitro fertilisation</td>
</tr>
<tr>
<td>IVS</td>
<td>International Visitor Survey</td>
</tr>
<tr>
<td>JCI</td>
<td>Joint Commission International</td>
</tr>
<tr>
<td>MATRADE</td>
<td>Malaysian External Trade Development Association</td>
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<tr>
<td>MRI</td>
<td>magnetic resonance imaging</td>
</tr>
<tr>
<td>MRO</td>
<td>multi resistant organism</td>
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<tr>
<td>MSQH</td>
<td>Malaysian Society in Quality Health</td>
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<tr>
<td>MRSA</td>
<td>methicillin-resistant Staphylococcus aureus</td>
</tr>
<tr>
<td>NZ</td>
<td>New Zealand</td>
</tr>
<tr>
<td>PET</td>
<td>positron emission tomography</td>
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<tr>
<td>RET</td>
<td>(Department of) Resources, Energy and Tourism</td>
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<tr>
<td>SLA</td>
<td>statistical local area</td>
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<tr>
<td>TRA</td>
<td>Tourism Research Australia</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
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<tr>
<td>US</td>
<td>United States (of America)</td>
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Executive Summary

Medical tourism is defined as the process of patients travelling abroad for medical care and procedures, usually because certain medical procedures are less available or less affordable in their own country (Voigt et al. 2010).

Over the last two decades, there have been a number of forces driving increases in medical travel, including (Helble 2011):

- rising costs of healthcare in industrialised countries;
- differences in quality and accessibility of health services;
- information technology advances easing the access to information and knowledge transfer;
- lower transport costs;
- reduced language barriers; and
- trade liberalisation.

As a result, countries have increasingly investigated the potential economic benefits and public health costs of medical tourism (Smith et al. 2009). One study places the current market size at between 60,000 to 80,000 foreigners seeking medical treatment across an international border per year in 2008 (Ehrbeck et al. 2008). In contrast, another study estimated that 750,000 Americans travelled abroad for medical care in 2007 and predicted that this would increase to 1.6 million by 2012 (Deloitte 2008 and Deloitte 2009). In 2002, the value of trade in the sector was estimated at $US 30 billion for the health component and at $US 6 billion for the tourism component with more recent estimates of value up to $60 billion dollars with an annual growth rate of 20% (Macready 2007). Currently, there is no systemic collection of data to indicate the global size of this market, and estimations are wide and varied.

Deloitte Access Economics was commissioned by the Department of Resources, Energy and Tourism (RET) to conduct a scoping study on Australia’s viability as a medical tourism destination.

Current demand

Based on available data and information gathered from consultations, the medical tourism market in Australia is small and scattered. In 2010, visitors for medical reasons (around 12,800 people) comprised only 0.23% of total visitors in Australia – around 5.5 million people (TRA 2011). However, the number of medical visitors appears to be growing at a much faster rate compared to the total number of visitors. Between 2005 and 2010, the average annual growth rate of medical tourists was estimated to be around 14% compared to 2% for all tourists in the same period.

Although data quality is extremely poor, conservative estimates suggest that the average medical visitor spent about 14 nights in Australia, spending $3,973 on airfares, accommodation and other activities (including medical treatment and care). The major destinations for medical visitors in Australia include the main capital cities (Sydney,
Melbourne and Brisbane) and Tropical North Queensland (such as Cairns and the Whitsundays).

In contrast, the average visitor to Australia stayed for around 34 nights in total and spent $3,276 on airfares, accommodation and other activities. The major destinations for the average visitor in Australia were similar to those of medical tourists.

**Competitor and source markets**

Currently, the main source markets for medical tourism in Australia are Papua New Guinea and New Caledonia. The study also identified the following potential source markets for Australia as a medical tourism destination:

- the United States (US);
- New Zealand (NZ); and
- the United Kingdom (UK).

The major competitors for Australia in the medical tourism sphere are mainly those in South East Asia, and to a lesser extent, some Western European countries and Central and South America. These include:

- Singapore;
- India;
- South Korea;
- Thailand;
- Germany;
- Costa Rica; and
- Mexico.

Australia’s competitive advantage lies in its reputation as a provider of high quality healthcare that extends beyond the treatment to the post-operative and recovery stage. Australia is unable to compete on price alone, especially with South East Asian countries due to their lower capital and labour costs. Hence quality of care in key specialty areas are currently and will remain important niches for Australia.

**Key specialities**

The key specialities that are emerging in Australia and which could be further built in order to develop our medical tourism industry include:

- cosmetic or plastic surgery, including full body lifts following bariatric surgery and corrective plastic surgery after complications arise from procedures done in other countries;
- fertility treatment, in which Australia already has a world renowned reputation;
- bariatric surgery or weight loss surgery;
- dermatology including skin cancer checks and treatment; and
- to a lesser extent, cardiac surgery such as coronary artery stenting.
Scorecard comparisons

Deloitte Access Economics developed a number of scorecards comparing Australia with its main competitor and source countries based on an analysis of the literature and consultations. Scorecards covered a number of criteria, including relative price of services, quality of healthcare and level and type of government support.

• **Price competitiveness:** As expected, Australia ranks poorly in terms of its relative price of health services compared to its main competitors (India, Thailand and Singapore). However, it ranks the same, if not better, than its major source countries (the UK, New Zealand and the US).

• **Quality of healthcare:** Australia compares favourably against its Asian competitors (especially India) based on metrics such as prevalence of antibiotic resistance rates, state of the healthcare system and safety measures. It also ranks slightly higher than its main potential source market, i.e. the US.

• **Government support:** Because the size of the medical tourism market in Australia has been scant, the level of government support to encourage demand or expand supply has been limited. As a result, Australia does not compare well against its major competitors in this criteria. This is something that will need to be further developed if a medical tourism market is to be developed.

Overall, it is difficult for Australia to compete against its major competitors, even with a high quality product offering in most cases. Countries like South Korea, and to a certain extent Singapore and Thailand, can also provide acceptably high quality health care but at much lower prices. Most stakeholders acknowledged this as our competitive disadvantage, but suggested that Australia could market into a premium medical tourism niche for middle to higher income earners in economically booming economies such as China and India who are searching for the best quality care in particular specialties.

Current and future capacity – the supply chain

Careful consideration needs to be given to the current and future capacity of the Australian health system to accommodate medical tourism. Australia already faces several capacity constraints and gaps in its supply chain, as well as commercial and regulatory barriers and market failure, which are likely to impact on the capacity of Australia’s medical tourism supply chain to accommodate future demand for Australia as a medical tourism destination.

**Capital (bed capacity):** The most important factor impacting on Australia’s medical tourism supply chain is the capacity of Australia’s private hospital system. For the major medical tourism destinations in Australia such as Queensland, bed occupancy rates have been increasing towards capacity. This acts as a potential constraint on the medical tourism supply chain as most medical tourists will continue to rely on the private hospital system.

**Skilled workforce:** In addition, health professionals in the public sector are already in shortage in Australia. There are concerns that medical tourism will run the risk of furthering the workforce shortage by attracting health professionals from public hospitals to a more lucrative private market.
Commercial gaps: In Australia there are currently limited on-the-ground networks, such as referral agencies/clinicians, marketing companies and coordinators of medical records.

Regulatory gaps and Government support relativities: Visa application processes for medical tourists are relatively slow compared to competitors (e.g. India, which has an expedited visa process). Also, relative to competitors, Australia has lower levels of government support (e.g. India has lower import duties on medical equipment and subsidies on prime land for health facilities; Thailand, Singapore and Korea have tax breaks).

Market failures: Lack of information has meant that awareness of Australia as a medical tourism destination, and its competitive niches, is low relative to competitors.

Future demand, supply and strategic considerations

The underlying drivers of medical tourism demand have always existed in Australia, including high quality health services and low costs compared to the US. However, the full potential of these factors have yet to be realised. As a result, medical tourism supply in Australia remains scarce and disjointed, with few providers operating individually.

Australia’s share of the global tourism market is 0.6% by visitors and 3.3% by visitor expenditure, but Australia’s share of medical tourism market only around 0.001%. The reasons for this significant divergence are, primarily, lack of price competitiveness and the intentional quality enhancements and government support achieved by competitors. In the supply chain, there has been little for-purpose investment in infrastructure and inadequate medical and other health workforce training historically, as well as little development of commercial or regulatory facilitators. These factors have prevented the emergence of a co-ordinated industry with sufficient critical mass to be globally competitive.

While there is potential for the demand for Australia as a medical tourism destination to grow, the market is unlikely to grow organically to such an extent where Australia will begin to experience significant capacity constraint issues for domestic health services as a result of medical tourism.

In the key specialty areas and target markets outlined above, a potentially sustainable competitive advantage is unlikely to emerge and has not done so on a significant scale up until this point, unless there is a decision to intentionally address the supply chain issues summarised above.

Based on the major medical tourism markets globally and consultation processes for this scoping study, the potential benefits of medical tourism include:

- injection of foreign currency and investment into Australia;
- reinvestment into the local healthcare system; and
- a reduction in the external brain drain of medical professionals from Australia.

However, these potential benefits stemming from medical tourism in Australia need to be carefully weighed against the risks involved in developing a healthcare market for foreign patients. These risks include:

- an internal brain drain of medical professionals from public to private hospitals; and
• the cost of healthcare being bid up by foreign patient demand, thereby prejudicing local residents.

Careful planning would thus need to accompany any public sector investment in an Australian medical tourism industry, which recognises potential limitations due to competitive advantages of existing markets (notably Thailand, India and Singapore) and ensures that workforce and other capacity are expanded apace in Australia. Ways that could encourage demand and supply in Australia are summarised below.

• The supply of medical tourism is scarce and fragmented and as such, the market itself is not developed enough to attract medical tourists from other countries. Each individual provider in the supply chain needs to become more networked and coordinated in order for patients to easily navigate their way through the different steps. This includes on-the-ground networks in other countries (such as referral agencies/clinicians, marketing companies and coordinators of medical records).

• Many stakeholders have suggested that more government support (both financially and non-financially) is necessary for the development of the industry. This is supported by evidence in the literature where countries with high government support have a more developed medical tourism industry (such as in Singapore and India).

• There is little knowledge about Australia as a medical tourism destination in other countries. In part, this is because the market in Australia is small, but it is also because there is a lack of marketing and awareness about the availability of medical tourism within Australia’s own tourism marketing campaign. Stakeholders have suggested that it is necessary for Australia to participate (either attend or host) in international medical tourism or travel conferences to market Australia to other countries. In addition, representatives need to attend conferences or market in potential source countries to raise awareness of Australia as an attractive destination for medical tourism.

• Given the medical tourism market will be very small and niche in its product offerings, there needs to be some “piloting” of what services Australia can provide expertise in, and the source markets that they should be targeting. To do this, one stakeholder suggested for Australia to trial a few procedures in which they have a competitive advantage and market them to a few potential source markets to determine which should be developed into further.
1 Background

1.1 Scope and structure of this report

Deloitte Access Economics was commissioned by the Department of Resources, Energy and Tourism (RET) to build on a preliminary analysis conducted by RET on Australia’s viability as a medical tourism destination. The main findings of this study address:

• the current and future demand for Australia as a medical tourism destination, identifying individual markets and specialties; and
• the capacity of Australia’s medical tourism supply chain to accommodate this demand.

1.2 The medical tourism industry

Medical tourism is defined as the process of patients travelling abroad for medical care and procedures, usually because certain medical procedures are unavailable or unaffordable in their own country (Voigt et al. 2010). There is sometimes a distinction between ‘medical tourists’ and ‘medical travellers’, where medical tourists are those who travel overseas in addition to a planned holiday, usually for elective treatment such as cosmetic surgery or fertility treatment – while medical travellers generally travel overseas for the sole purpose of medical treatment, and more often than not seek more complex surgeries such as cardiac or orthopaedic treatment. For the purposes of this study, ‘medical tourists’ and ‘medical travellers’ are used interchangeably and synonymously, referring to both groups of people, as they both bring economic benefits to Australia. However, domestic medical tourism and Australians travelling abroad for medical care are excluded from scope.

Wellness tourism is separate to medical tourism, and usually describes people travelling for the purposes of maintaining or promoting their health and wellbeing. Wellbeing services may include:

• beauty, such as body and facial treatments;
• lifestyle, such as detoxification and rejuvenation; and
• spiritual, such as meditation and yoga retreats.

This study focuses specifically on medical tourism, although it is recognised that medical and wellness tourism are complementary and together form a broader health tourism sector (Voigt et al. 2010).

1.3 Methodology

For this preliminary analysis, desk research and a number of consultations were conducted with major stakeholders relevant to the medical tourism industry. Stakeholders included relevant Government departments, industry bodies in both health and tourism, private providers of medical tourism and medical tourism facilitators.

The consultation strategy including the list of relevant questions and stakeholders can be found in Appendix A.
This report draws on the information gathered from these consultations, as well as various data sourced from relevant agencies including Tourism Research Australia (TRA) and the Department of Immigration and Citizenship (DIAC).

It must be noted that medical tourism is still in very early stages and as such, the market in Australia is extremely small and scattered. Hence, any conclusions drawn based on consultations and the available data need to be considered with caution as the market is not mature enough to analyse accurately going forward.
2 Medical tourism around the world

2.1 Market size

Over the last two decades, there have been a number of forces driving increases in medical travel, including (Helble 2011):

- rising costs of healthcare in industrialised countries;
- differences in quality and accessibility of health services;
- information technology advances easing the access to information and knowledge transfer;
- lower transport costs;
- reduced language barriers; and
- trade liberalisation.

Increasingly, countries have investigated the potential economic benefits and public health costs of medical tourism (Smith et al. 2009). However, there is no systemic collection of data to indicate the global size of this market, and estimations are wide and varied.

At the lower end, the number of foreigners seeking medical treatment across an international border was estimated to be 60,000 to 80,000 people per year in 2008 (Ehrbeck et al. 2008). In contrast to this, the Deloitte Centre for Health Solutions estimated 750,000 Americans travelled abroad for medical care in 2007 and predicted that this would increase to 1.6 million by 2012 with a sustainable annual growth rate of 35% (Deloitte 2008; Deloitte 2009).

In 2002, the value of trade in the sector was estimated at $US 30 billion for the health component and at $US 6 billion for the tourism component with more recent estimates of value up to $60 billion dollars with an annual growth rate of 20% (Macready 2007).

A global consumer health survey (Deloitte 2011) provided some indication of the current volume of medical travellers across twelve industrialised and developing economies1 (n=15,735). It found that the proportion of respondents who had travelled outside their country to consult with a doctor, undergo a medical test or procedure, or receive treatment in the past year varied from less than 1% (in France, n=1,001, and Portugal, n=1000) to 8% (in China, n=1,000, and in Luxembourg, n=430). In the same survey, greater proportions of people reported willingness to travel outside their own country for necessary care (e.g. a joint replacement or heart surgery) as well as elective surgery (e.g. cosmetic surgery or dental treatment) compared to those who actually did travel for medical care in 2010.

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1 Belgium, Brazil, Canada, China, France, Germany, Luxembourg, Mexico, Portugal, Switzerland, the United Kingdom (UK) and the United States (US).
2.2 Reasons for medical travel

The main reason that people travel outside their home country is usually superior quality of medical treatment, technology or care offered in another country. However, respondents from the US also identified cost as a major driver for both elective and necessary surgery and those from Canada identified long waiting lists for necessary care (Deloitte 2011). In general, Voigt et al. (2010) noted that the main reasons for patients travelling to obtain medical care include (not in order of importance):

- cost savings;
- quality of healthcare;
- unavailability of services, drugs and surgery methods in the country of origin;
- long waiting lists associated with appropriate medical treatment;
- ability to remain anonymous and maintain privacy overseas (this is especially important for those who are obtaining procedures like cosmetic surgery);
- cultural affinity in terms of language, food and religion;
- geographical proximity; and
- the added benefit of a holiday.

The Deloitte global consumer survey (2011) demonstrates that perceived lower quality of health care and lower access to health technologies may explain why people choose to travel to another country to receive medical care. The survey showed that:

- In France (where less than 1% of the respondents reported travelling to another country for medical care), 50% felt that the quality of care in their country was comparable to the best in the world, and 49% felt that their physicians and hospitals had access to the latest technologies and treatments.
- In China, 8% of respondents travelled to another country for medical care, with only 13% believing that the quality of their health care was comparable to the best in the world. As well, only 24% believed that their physicians and hospitals had access to the latest technologies.

While this is not explored in the Deloitte (2011) survey, the ability of respondents to travel for medical care may be strengthened by their proximity to other countries with perceived higher quality medical care. For example, similar to France, less than 1% of Portuguese respondents also reported travelling for medical care. However, the reasons for this are not explained through their satisfaction with their health care system’s quality or availability of technology. The low proportion of Portuguese people travelling for medical care may be explained by their distance from countries with affordable higher quality medical care offerings, although the survey does not cover distance willing to travel.

It is similarly unclear from the survey whether patients would be willing to travel to Australia for medical care despite Australia’s reputation of providing high quality health services. Australia may be somewhat limited in capturing this market due to its distance from all the countries involved in the survey and the ability for these countries to access high quality (and potentially less expensive medical care) closer to their own borders. However, as discussed by stakeholders, Australia has a distinct advantage in capturing some market share of US outbound medical travellers, due to English being the main language.
and its similar culture. One stakeholder indicated that Australia would need to target the ‘premium market’ of high income earners who are searching for the best quality care.

2.3 Global competitors in medical tourism

Countries all over the world are becoming medical tourism destinations with some capturing the market through a reputation of high quality offerings (such as Germany) and others (such as Thailand) by offering medical treatment and luxurious accommodation for low prices.

Asia is the major region receiving medical tourists. In 2008, McKinsey and Company interviewed providers of medical travel and studied patient-level data; their analysis of medical travellers by point of origin is shown in Figure 2.1. The figure shows that Asia captured over 99% of medical travellers from Oceania, 95% from Africa, 93% from other countries within Asia, 45% from North America, 39% from Europe and 32% from the Middle East. Also of note were their findings that 26% of medical travellers from North America travel to Latin America and 58% of medical travellers from the Middle East travel to North America and 33% of medical travellers from Europe travel to North America (Ehrbeck et al. 2008).

Figure 2.1: Medical Travellers by point of origin

Source: Ehrbeck et al. (2008).
Note: Based on McKinsey and Company’s interviews with providers and patient-level data.

Within Asia, Thailand, India, Singapore, Malaysia and South Korea are strong participants in the medical tourism domain. In 2006-07, Thailand, Singapore and Malaysia alone earned over $US 3 billion from treating an estimated 2 million medical tourists (Pocock and Phua 2011). Latin America also receives large numbers of medical tourists, with Costa Rica being a popular destination for North American patients seeking cosmetic procedures (such as ‘tummy tucks’) due to its lower prices and close proximity. There is no consistent
worldwide data available regarding the actual numbers of medical tourists, however country specific data from various studies outlined below indicate increasing numbers.

Other countries are known for their specific specialities, such as South Africa – where cosmetic surgery is combined with luxury accommodation packages and safari tours. Hungary is also known for its high quality dental and cosmetic procedures, and these procedures can be obtained for 40-50% of the price paid in the US. In total, there are at least thirty countries competing in this sphere, with Dubai recently entering the market through the development of the Dubai Healthcare City (Deloitte 2010).

2.3.2 Thailand

Thailand is the market leader in the global medical tourism industry. It is estimated that the number of foreign patients in Thai hospitals has grown from 500,000 in 2001 to 1.4 million in 2006 (ESCAP 2009). The Tourism Authority of Thailand News Room reported that in 2008, 1.5 million foreigners visited Thai hospitals generating an estimated $US 6 billion for the Thai economy. On the background of this success, the Thai government is actively promoting Thailand’s health offerings on its Tourism Authority of Thailand website with the aim of doubling its medical tourism revenue by 2014 (France 2009). The Thai government has also implemented various incentives for foreign investment into healthcare including tax holidays, land ownership rights and permission to bring in foreign experts and technicians (Thailand Investment Review 2010).

The success of medical tourism in Thailand initially grew out of significant revenue drops suffered by private hospitals during the Asian financial crisis in 1997. Since then, with the support of the Thai government, Thai private hospitals have been marketing medical services to foreign markets.

One example of this is the Bumrungrad International Hospital in Bangkok. The hospital treats over 1 million patients per year with 420,000 of those being international visitors and had a turnover of over $US 317 million in 2010. Its service offerings include luxury hotel style accommodation, international restaurants, serviced apartments directly connected to the hospital, access to over 150 interpreters, embassy assistance, international insurance coordination and visa extension services. Its strength in attracting foreigners is supported through sixteen representative offices throughout Asia, Africa, the Middle East, Australia and New Zealand (Bumrungrad International Hospital 2010).

Accordingly, by early 2011, 14 hospitals in Thailand were Joint Commission International (JCI 2011) accredited which requires the quality and safety of their services to be assessed against strict international standards (see Box 1). The Thailand Investment Review (2010) reports that foreign patients from all over the world are attracted by:

- the promise of quality services;
- competitive prices, with some procedures costing as low as 10% of the price paid in North America and Western European countries; and
- a wide variety of services including cosmetic surgery, organ transplants, joint replacements, dental treatment, and positron emission tomography (PET) and

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2 http://www.tourismthailand.org/
3 http://www.jointcommissioninternational.org/JCI-Accredited-Organizations/
computed tomography (CT) scans for the detection of cancer, heart defects, brain disorders and other conditions.

In 2006, it was predicted that 49% of medical tourists travelling to Thailand were from Japan, with the US, the UK, Australia, the Middle East and other countries in South East Asia also contributing significant numbers (ESCAP 2009). A survey conducted by the Thai Department of Export Promotion found that 60% of foreigners seeking medical care in Thailand were expatriates in Thailand or in neighbouring countries, 10% were tourists who happened to be ill, and the remaining 30% travelled to Thailand specifically for medical services (Pachanee and Wibulpolprasert 2006).

Box 1: Joint Commission International Accreditation and Certification Program

The Joint Commission was established in 1951 in the US as a patient safety and quality care accreditation body. It is well known in the US, providing evaluation and accreditation for more than 9,500 hospitals and home care organisations and more than 6,300 other healthcare organisations that provide long term care, behavioural care, laboratory and ambulatory care services. In addition, it provides accreditation of more than 1,000 disease specific care programs. In 1994, the JCI grew from collaboration between the Joint Commission and Quality Healthcare Resources Inc. to provide education and consulting services to international clients. It is now effective in over 80 countries worldwide. In 2007, JCI received accreditation by the International Society for Quality in Healthcare (ISQua). This provides assurance that JCI’s standards, training and processes used to survey healthcare organisations meet the highest international benchmarks for accreditation entities.

The JCI website advertises the following benefits of JCI accreditation and certification:

- Improve public trust as an organisation that values quality and patient safety;
- Involve patients and their families as partners in the care process;
- Build a culture open to learning from adverse events and safety concerns;
- Ensure a safe and efficient work environment that contributes to staff satisfaction;
- Establish collaborative leadership that strives for excellence in quality and patient safety;
- Understand how to continuously improve clinical care processes and outcomes.

The JCI Accreditation and Certification Programs include Ambulatory Care, Care Continuum, Clinical Laboratory, Hospital, Medical Transport, Primary Care, and Clinical Care Program certification (standards applying to 15 specific disease programs such as heart failure and diabetes mellitus type 1 and type 2).

Accreditation under the Hospital Program includes meeting International Patient Safety Goals, meeting required standards for Access to Care and Continuity of Care, Patient and Family Rights, Assessment of Patients, Care of Patients, Anaesthesia and Surgical Patients, Medication Management and Use, Patient and Family Education, Quality Improvement and Patient Safety, Prevention and Control of Infections, Governance Leadership and Direction, Facility Management and Safety, Staff Qualifications, and Education and Management of Communication and Information.

The average cost for a full hospital survey in 2010 was $US 46,000, not including cost of living expenses for surveyors while on site e.g. transportation, meals and accommodation.

Source: JCI (2011).
2.3.3 Singapore

In 2006, over 410,000 foreigners travelled to Singapore specifically for healthcare and the Singaporean government aims to grow this figure to 1 million from 2012. As well, medical travellers to Singapore generated over $US 560 million for the economy in 2006 through the delivery of surgeries such as liver and heart transplantation, complex neurological procedures, joint replacements and cardiac surgery. Because Singapore has a low domestic population, its delivery of sophisticated and specialised medical care and retention of the best medical practitioners is highly contingent on it maintaining a critical mass of foreign patients (Singh 2009).

Government support for the medical tourism in Singapore is delivered through Singapore Medicine and is led by the Ministry of Health. It is supported by three government agencies — the Economic Development Board that promotes new investments in the healthcare industry; the Singapore Tourism Board which is in charge of marketing and developing overseas referral channels; and International Enterprise Singapore, which promotes the growth and expansion of the industry.

There has been much criticism aimed at Thailand and India arguing that their residents from lower socioeconomic backgrounds are unable to benefit from the large income generated by medical tourism. Singapore has largely avoided some of this because medical tourism takes place in corporatised hospitals that serve a government owned network (ATEC 2008) Publicly owned hospitals do not qualify for the same tax breaks designed to encourage private sector growth. Hence, in Singapore, revenues generated by medical tourism are fully taxable and thus profits can be reinvested back into the public health system (Pocock and Phua 2011).

In 2008, the Health Minister explained that one problem associated with medical tourism in Singapore is the drain of medical expertise from the public to the private sector where more attractive remuneration was available (Chee 2010). However, this problem is noticeably less pronounced compared to Thailand and Malaysia. Reasons contributing to this are summarised below.

- Singapore has managed to maintain relatively competitive public salaries and as a result, has a higher proportion of medical specialists working in the public sector (65%) compared to Thailand and Malaysia (25% to 30%) (Pocock and Phua, 2011); and
- Singapore has largely recruited foreign trained doctors. For example, in 2007, 400 foreign doctors were recruited from overseas in addition to more than 200 doctors graduating from local Singaporean institutions (Singapore Hansard, 3 March 2008 cited in Chee 2010).

While the workforce gap between public and private services in Singapore is smaller than in Thailand and Malaysia, healthcare costs have been escalating and are increasingly paid out-of-pocket by service users. In 2008, the average hospital bill was US $795 which was 30% more than the average cost in 2005. Methods used by the government to contain costs include:

- limiting conditions that are covered under Medisave or Medishield;
- the use of deductibles and maximum caps on claims and copayments; and
• The Singapore government has also allowed Medisave funds to be used at specific private hospitals in Malaysia in a bid to further curb rising out of pocket healthcare costs (Chee 2010).

While the cost of medical care is higher in Singapore than in Thailand or India, most of Singapore’s patients come from its neighbouring countries such as Indonesia (estimated at 50% in 2005) and Malaysia (estimated at 11% in 2005) (Chee, 2010). Further afield, Singapore is also attracting medical tourists from China, the Middle East and the US due to its affordability and clean image. Singapore now has 16 medical facilities that are JCI accredited, including 12 with hospital program accreditation.

2.3.4 India

Like estimates measuring the global size of medical tourism, estimates of the size of the Indian medical tourism markets are varied. McKinsey and Co., in collaboration with the Confederation of India Industries, estimated that in 2005, 150,000 medical tourists travelled to India and this was expected to increase by 15% each year (Confederation of Indian Industries and Mckinsey and Co. 2002 cited in Hazarika 2010). However, other estimates placed inbound medical tourism at approximately half a million foreign patients by 2004 and in 2005-06, another report placed industry estimates closer to one million (ESCAP 2009 and Gupta 2008). By 2012, the industry has been predicted to grow to $US 1 billion (Confederation of Indian Industries and Mckinsey and Co. cited in ESCAP 2009).

Medical tourists in India come from the Middle East, the UK, Canada and other developing countries, injecting $US 480 million into the economy in 2005 (The IndusView 2007). According to Gupta (2008), the Taj Medical Group receives 200 enquiries a day from around the world and arranges packages for 20 to 40 Britons per month to have operations in India. India captures the market through its low cost procedures ranging from heart surgery, joint replacements, hip resurfacing, cataract operations, cosmetic surgery, dentistry and gallstone removal.

India’s main strengths lie in its low wages, thereby making it one of the cheapest medical tourism destinations in Asia. Combined with its high prevalence of English language and high quality of medical professionals, India is one of the most popular destinations for medical tourism. The medical profession in India also has strong networks with the US, with around 30,000 doctors working in the US originating from India (Singh 2009).

The government of India has introduced incentives to encourage medical tourism in India including increasing depreciation rates (from 25% to 40%) to allow old equipment to be replaced by new equipment sooner, and expedited visas for medical tourists. Medical tourism is viewed as an export industry, hence lower import duties on specified medical equipment have been introduced to encourage the sector. Prime land has also been offered at subsidised rates to encourage the development of health infrastructure for medical tourists (Gupta 2008).

The government is of the belief that the revenues earned through medical tourism will help improve the capacity and quality of domestic healthcare services. However, research shows the contrary is occurring. For example, private hospitals have been known to refuse treatment for patients from lower socioeconomic backgrounds free of charge despite agreeing to do so as a condition of receiving government subsidies (Gupta 2008). Likewise,
Vijaya (2010) believes that in the context of a system where medical care is mostly paid for privately out-of-pocket, not through government subsidies, the income effect of medical tourism will not be great enough to offset cost increases in the domestic medical care market. This is mainly because of worsening shortages in healthcare resources as more medical personnel move from the public sector to the private sector. Bidding up the price of health services negatively and unfairly impacts on people from lower socioeconomic backgrounds.

In addition, medical tourism has profit maximisation as its key goal, meaning that the health sector is increasingly focused on implementing advanced technologies for those who can afford them and not expanding programs for those who are unable to pay. For example, the National Health Policy notes acute shortages in community services medical personnel who can treat the main burden of communicable disease among the domestic population (such as tuberculosis) and non-communicable diseases, such as cardiovascular disease, diabetes and asthma (National Health Policy 2002). However, there are anecdotal reports of an expansion in the numbers of expatriate doctors recruited to work in hospitals catering for medical tourists in primarily surgical specialities (Vijaya 2010).

To address quality and safety concerns, sixteen Indian hospitals are now JCI accredited under the hospital program and one is accredited under the ambulatory care program.

2.3.5 Malaysia

Similar to Thailand, in 1997 the Asian financial crisis caused a drop in the number Malaysian patients seeking care in Malaysian private hospitals. As a result, these hospitals explored an alternative off-shore target market. In 2007, Malaysian hospitals treated 341,288 foreign patients, earning an estimated $US 78 million from medical treatments including cardiothoracic procedures, cosmetic surgery, radiotherapy and radiology (Pocock and Phua 2011, ESCAP 2009 and Tourism Malaysia 2008). A 2006 market analysis indicated that these patients were mostly from Indonesia (72%), Singapore (10%), Japan (5%) and West Asia (2%) (U.S. Commercial Service 2006 cited in ESCAP 2009). Similar to these results, the Malaysian Tourism Promotion Board estimated from 2006-2008, 76.7% of these patients were from Indonesia, 3.4% from Japan, 2.7% from Europe, 1.8% from India, 1.3%-1.8% from China, 0.5%-1.0% from the Middle East and 1.1% from Singapore (Malaysian Tourism Promotion Board, 2006-2008 cited by Chee 2010).

Malaysia now offers modern medical facilities, large numbers of highly trained medical specialists who hold post graduate qualifications from the UK, Australia and the US, a wide use of English and competitive fees. Medical treatments are carried out in private medical centres that provide luxury accommodation in which the patient can recover and recuperate. The ability to provide medical procedures at low prices is Malaysia’s main competitive advantage over other proximal Asian nations and the Government is now focusing on improving the quality of services offered in order to attract more foreigners (ESCAP 2009).

In 1998, health tourism promotion in Malaysia began under the National Committee for the Promotion of Health Tourism. This committee has strong involvement from the Government bodies including the Health Ministry, the Ministry of Culture, Arts and Tourism and other government agencies such as the Malaysian Association of Tours and Travel Agencies. It also has private sector involvement from the Association of Private Hospitals of
Malaysia and Malaysian Airlines. The committee carries out promotional activities in collaboration with the Malaysian External Trade Development Association (MATRADE) and Tourism Malaysia.

In 2002, the target countries for Malaysia identified for promoting medical tourism were:
- countries with inadequate medical facilities such as Indonesia, Myanmar, Vietnam and Laos;
- countries with high costs of medical treatment such as Singapore, Japan and Taiwan; and
- countries with long waiting lists, i.e. the UK.

Middle class citizens from the Middle East and China were also targeted. In response, MATRADE and Tourism Malaysia have actively promoted health tourism in the Middle East, Myanmar, Vietnam, Jakarta and Surabaya, Sri Lanka, China, Vietnam and Cambodia (Ministry of Health 2002b cited in Chee 2007).

In addition to promotional activities, the Malaysian government has supported the medical tourism industry by relaxing regulations for advertising medical services and establishing an accreditation system for hospitals through the Malaysian Society in Quality Health (MSQH). MSQH accreditation was established in 1997 and allows hospitals to advertise a government certified standard of quality once attained and it is significantly less expensive than JCI accreditation (Chee 2010). However, perhaps in an effort to achieve greater foreign recognition, seven Malaysian hospitals are now JCI accredited under the hospital program and one under the ambulatory care program.

To facilitate further development of the medical tourism industry, the Government has also offered significant tax incentives. In 2009, revenues from foreign patients were exempted from income tax by 50% on the value of increased exports and in 2010, this rate was increased to 100%. In 2010, tax deductions were also announced for setting up international patient units and for the expenses of international accreditation. Private hospital operators can also claim double deduction on expenses incurred from advertising medical tourism overseas (Chee 2010).

2.3.6 Hong Kong

Hong Kong is not currently a key player in the medical tourism market due to lack of hospital capacity, high costs and a lack of private sector and government support. However, it has been recognised that Hong Kong is well placed to capture part of the medical tourism market in Asia due to its high quality healthcare services including advanced cancer treatments and Chinese medicine (Heung et al. 2011).

Currently, many patients travel to Hong Kong from mainland China for healthcare therapies ranging from basic medical check-ups to cancer care and Eastern therapies. Hong Kong has several private hospitals that are internationally accredited by the UK based Trent Accreditation Association and by JCI. In addition, since early 2010 private hospitals have also been assessed by the Australian Council on Healthcare Standards (Lee 2009 cited in Heung et al. 2010).
A major barrier for medical tourism in Hong Kong is the scarcity of land, thus making it extremely expensive to purchase land for building more hospital infrastructure and increasing capacity. However, the Hong Kong government is investigating public-private partnerships to help fund infrastructure and staffing requirements necessary for developing the industry (Heung et al. 2011).

### 2.3.7 Mainland China

Mainland China, like Hong Kong, does not currently have a well developed medical tourism industry and it is unknown how many people travel to China to seek treatments. However it is listed by medical tourism booking websites such as Surgery Planet (www.surgeryplanet.com) and China Connection Global Healthcare (www.chinaconnection.cc) as an emerging and desirable destination for those seeking a wide range of medical specialities at much lower prices than in the US. China’s strengths possibly lie in its offering of traditional Chinese medicine integrated with western medical technology. China currently has 11 hospitals accredited under the JCI hospital program.

China is also home to leading stem cell research and treatment hospitals and can provide treatments to medical tourists which may be considered experimental or which do not have regulatory approval in other countries. However, due to a lack of safety and efficacy data, western doctors discourage their patients from seeking these treatments. One of Asia’s largest neurological hospitals, Tiantan Puhua in Beijing, is in partnership with an American medical group and offers stem cell injections to people who have suffered a range of neurological injuries including damaged spinal cords, strokes, ataxia or cerebral palsy. Physical therapy and traditional Chinese medicine are also part of the treatment and a typical two month course costs $US 30,000 to $US 35,000 (Associated Press 2008).

### 2.3.8 Japan

Currently, the Japanese government is planning to replicate the successes of medical tourism in Singapore and Thailand. The International Medical Travel Journal reports that developing a successful medical tourism industry is part of Japan’s ten-year economic growth strategy to revive its economy (IMTJ 2010a). In 2010, Japan’s Economy, Trade and Industry Ministry announced plans to launch a new joint publicly and privately funded organisation with the sole aim of increasing medical tourism in Japan from a zero base. It is expected that China, Russia and the Middle East will become Japan’s main target market for medical tourists. Japan has only two hospitals that have been JCI accredited under the hospital program, one in 2009 and the other in 2011.

The Development Bank of Japan estimates that foreign demand for medical treatment in Japan will reach 430,000 people by 2020 and will have a value of ¥ 550 billion ($US 6.4 billion) (The Yomiuri Shimbun cited from Tourism and Aviation 2010). Accordingly, the Japanese government is considering creating a ‘medical service visa’ system and investigating the development of interpreting services at medical institutions. Due to Japan’s high per capita supply of medical technology devices such as magnetic resonance imaging (MRI) and PET, yet low utilisation rates in some areas, there are plans to take advantage of this existing infrastructure by offering foreigners full medical check-ups. Currently, some sightseeing tours in Nagasaki and Fukushima incorporate PET examinations and are already being marketed to potential customers in China (The Yomiuri Shimbun cited from Tourism and Aviation 2010).
Barriers to the development of medical tourism in Japan are not only intense competition from nearby South East Asian neighbours, but there are also very few doctors who are bilingual or multilingual. There is also a current shortage of doctors with only 2.2 doctors per 1,000 people compared to the OECD average of 3.1 per 1,000 people in 2008 (OECD 2011a). In order to recruit more doctors, Japan has already raised the limit on the number of medical training places available and is spending more on doctor education (Bloomberg Businessweek 2009).

2.3.9 Republic of Korea

Following the successes of Singapore and Thailand, the South Korean government has also announced its plans to promote medical tourism overseas to Japan, China, Russia and, more recently, the US. The government has designated 5% of hospital beds (or 2,046 beds) in the country’s 44 hospitals to foreigners seeking medical treatment in South Korea.

Over the past three years, the number of foreigners visiting Korea for medical treatment has been increasing – with 27,480 visitors in 2008, 60,201 in 2009 and according to the Health Ministry, 81,789 in 2010 (The Korea Herald 2010 cited in KPMG 2011 and Korea.net 2011). The government predicts this number to increase to 140,000 in 2012 (Korea.net 2011). However, it is not clear whether these figures are representative of people seeking Western medicine only or are a broader representation of those seeking traditional Oriental medicine as well as Western medicine. A more conservative Ministry of Health estimate puts the figure at 21,338 medical tourists visiting in 2010 with the major market being Korean Americans attracted by the availability of medical treatments at cheaper prices than in the US (Ministry of Health and Welfare 2011).

The Korean government promotes medical tourism to prospective patients through the Korean Tourism Organisation and participates in global medical tourism conferences such as the Seoul International Medical Tourism Congress that was last held in 2009. In 2010, three American subsidiaries of Korean companies purchased a Korean insurance package under which they will encourage 350 Americans to fly to Korea for the treatment of 14 different conditions including cancer and heart disease (Weber 2010). The government also held a marketing event in Dubai in 2010 in an effort to attract more Arab patients to Korea for medical services and has implemented guidelines around food, religious observances and clinical care that cater for the cultural tastes of Islamic patients.

South Korea’s biggest island, Jeju Island, is also in the process of creating the Jeju Healthcare town, a joint project between the Korean government and the private sector. Jeju Healthcare town aims to attract visitors from other Asian countries seeking medical check-ups, medical treatments and wellness treatments. Its location provides a major advantage as it is in the vicinity of 18 cities, all with populations of over five million people and all within two hours flight of Jeju Island (including Hong Kong, Shanghai, Beijing and Tokyo). The government aims to encourage foreign investment into Jeju Island through local tax exemptions, housing, special employment benefits for new employees, corporate tax incentives, registration tax incentives and property tax incentives (IMTJ 2009a).

Currently 20 South Korean medical facilities are JCI accredited with eight accredited under the hospital program and 12 under the ambulatory care program. Medical tourists visiting Korea mostly seek cosmetic surgeries and general check-ups, which in Korea include full body MRI scans. Korea has also been promoting its National Cancer Centre, which offers
proton therapy for treating prostate cancer. This is of great advantage to uninsured or under-insured patients from the US due to its much lower price. In addition, in 2010, proton therapy was only available at seven centres in the US, and Korea predicts these will soon reach their capacity. Hence, Korea’s National Cancer Centre plans to capture some of the spill-over from these centres (Kram 2010).

2.3.10 New Zealand

In 2010, the New Zealand Trade and Enterprise’s Investment team investigated the opportunities for New Zealand that may exist in the development of a medical tourism industry. Deloitte (2010) found that the current industry is very small with a limited number of existing facilities specialising in medical tourism. Clear benefits for the economy were predicted — for every $NZ 1 injected into the health system, medical tourism would contribute $NZ 0.58 to the tourism sector and $NZ 2.40 into the wider economy. The average medical tourism patient was estimated to inject $NZ 141,152 per procedure into the economy from inputs related to the medical procedure itself and from the tourism benefits such as flights, accommodation and companion travel (Deloitte 2010).

According to ATEC, the advantages that New Zealand has as a medical tourism destination lie in the fact that most physicians in New Zealand have received their training in New Zealand, the US and the UK, all of which have English as their first language (Hingerty et al. 2008). Although the costs for medical procedures in New Zealand are greater than for procedures in Singapore, Thailand or India, they are significantly less than that in the US. For example, procedures such as heart bypass surgery and valve replacements are less than 25% of the cost of the procedure in the US (Deloitte 2010). In addition, many private hospitals in New Zealand are accredited by Quality Health New Zealand which like JCI, is a member of the ISQua.

Companies such as Medtral New Zealand are already marketing a wide range of New Zealand’s medical services such as orthopaedic, cardiac, abdominal, gynaecological, urological and plastic reconstructive surgery and in vitro fertilisation (IVF) to potential customers in the US. Medtral offers quotations on packages including the procedure and associated expected hospital costs, air flights, accommodation pre and post surgery, boasting savings of up to 50% for customers from the US. Medtral automatically covers all patients with insurance, with coverage against unexpected prolonged hospitalisation, a follow-up operation in New Zealand and transport home via a private medical evacuation plane (Medtral 2011).

The Deloitte (2010) report points out that New Zealand has a strong public health system with essential healthcare provided free of charge which will provide an important fallback option for the domestic population in the context of rising prices for medical care. The report states that the current inflow of medical tourists is low hence there are no current capacity limitations in the health system.

2.3.11 United Arab Emirates

Dubai Healthcare City became fully operational in 2010 and has been designed as an international healthcare hub. It offers over 90 medical facilities, two hospitals and 2,000 healthcare professionals. It brings together a medical community (4.1 million square feet), a wellness community (19 million square feet) and a business community and claims to be
the largest international medical centre between South East Asia and Europe. It provides luxury outpatient resorts in tandem with clinical services (Dubai Healthcare City 2011).

Dubai Healthcare City’s focus on the international market is clearly articulated in its monthly publication in English called Health Matters which covers a broad range of health issues from plastic surgery after birth (outlining procedures available at Dubai Healthcare City) to sports psychology. Its international reputation is strengthened by an academic medical centre which consists of a University Hospital and a Harvard Medical School. Similarly, its safety and quality standards are ensured by the Centre for Healthcare Planning and Quality which has been established jointly with Partners Harvard Medical International (Dubai Healthcare City 2011). Dubai also offers the American Hospital where all physicians have recognised qualifications from the US and other western countries (American Hospital 2011).

Dubai Healthcare City has been designated a tax-free zone and will therefore be tax, custom and duty free in order to attract foreign investment (with no restrictions on foreign investment). However, the UAE is not as able to compete on price with the average cost of heart by-pass surgery in the UAE at $44,000, compared to $18,500 in Singapore, $11,000 in Thailand and $10,000 in India (AMEinfo.com 2008). The availability of lower prices internationally has motivated residents in the Gulf region to travel to Southeast Asia, China and India for medical care. Currently, Malaysia is capitalising on the Gulf’s outbound medical traffic by actively promoting their healthcare facilities and tourist attractions within the UAE (Freemantle 2010). In addition, UAE is still facing quality issues with the reported death of an Emirati woman in 2008 following liposuction treatment at a health clinic damaging their reputation (AMEinfo.com 2008). In an effort to improve their reputation for quality and safety, 33 hospitals in the UAE are JCI accredited under the hospital program, with 49 medical facilities JCI accredited in total for programs such as ambulatory care, clinical laboratory and diabetes outpatient services.

2.3.12 Germany

Since 2001, Germany has become a popular destination for medical tourists travelling from the Middle East. There has also been an increase in Russian patients travelling to Germany due to increased marketing efforts. In 2009, it was estimated that Germany attracted 70,000 patients from other countries for inpatient treatment (IMTJ 2010b). Plastic surgery, orthopaedic surgery, physical therapy and treatments for heart disease and infertility are among the most popular healthcare treatments utilised by Arabs in Germany. Arabic people are attracted to Germany for its offering of high quality medical treatment and high standards of confidentiality and security (Ala Al-Hamarneh 2006). Germany currently has five hospitals accredited under the JCI Hospitals Program and boasts comparable healthcare services to the US at more competitive prices.

Germany has well developed facilitators of medical tourism who provide assistance for obtaining visas, logistical assistance, multilingual and translation assistance, accounting and insurance services, VIP and security services, and additional travel and tourist services. Some of them have captured this flow of people from the Middle East by developing websites in Arabic (Ala Al-Hamarneh 2006).

Germany currently is looking further afield at attracting US patients for bone marrow diseases, organ transplantation and cancer oncology treatments (Vicuna and Ho 2009).
2.3.13 Latin America

As a medical tourism destination, Mexico has a major competitive advantage due to its proximity to the US. Accordingly, 40,000 to 80,000 American seniors spend their retirement in Mexico receiving healthcare and nursing home assistance (Health-Tourism.com 2011).

Mexico can also offer surgeries at 25% to 35% of the cost in the US, and hence attracts North Americans mainly for cosmetic, dental, orthopaedic and bariatric surgery (Deloitte 2008). Insurance companies are recognising the potential savings in Mexico and increasing coverage for procedures undertaken in Latin America. For example, Blue Shield of California currently has an Access Baja insurance plan with more than 3,000 members from the US who are sent to Mexico for medical treatment (Blue Shield of California 2011 and IMTJ 2011). According to the International Medical Travel Journal, the Mexican government predicts that Mexico can expect 650,000 medical visitors by 2020 (IMTJ 2011).

In preparation for the influx of medical tourists, Mexico currently has nine hospitals accredited under the JCI hospitals program. However, a possible barrier to the development of the industry is the persistent drug-related crime and violence issues in Northern Mexico which has reduced the number of US patients from more than 60 per month to 1 every three months in Monterry (IMTJ 2011).

North Americans also travel to Costa Rica for medical treatment in volumes, leading to an increase in property developments planned for healthcare facilities, recovery centres, hospice homes and wellness retreats. It is estimated that 200,000 health travellers sought treatment in Costa Rica in 2008, but there are no official counts available (IMTJ 2009b). In Costa Rica, wellness tourism and dentistry were the original drawcards, but now foreigners are attracted by Costa Rica’s low prices and most visit for treatment in diabetes, cardiology, urology, fertility, orthopaedics and neurology, with the main attraction being cosmetic surgery (IMTJ 2009c).
### Table 2.1: Summary of Australia’s major competitors in Asia Pacific

<table>
<thead>
<tr>
<th></th>
<th>Thailand</th>
<th>Singapore</th>
<th>India</th>
<th>Malaysia</th>
<th>Republic of Korea</th>
<th>New Zealand</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of medical tourists</strong></td>
<td>1.5 million in 2008</td>
<td>410,000 in 2006</td>
<td>Varied estimates: 500,000 to 1 million in 2005-06</td>
<td>341,288 in 2007</td>
<td>81,789 in 2010</td>
<td>Estimated to be around 150 per year.</td>
</tr>
<tr>
<td><strong>Key competitive advantage</strong></td>
<td>Low labour costs therefore low cost of medical treatment.</td>
<td>Known for high quality complex neurological procedures, joint replacement and cardiac surgery.</td>
<td>Low labour costs making it one of the least expensive destinations for medical treatment.</td>
<td>Lower cost medical treatment compared to other Asian nations.</td>
<td>Close proximity to 18 cities with populations over 5 million people.</td>
<td>Lower costs of medical treatment than in the US.</td>
</tr>
<tr>
<td></td>
<td>Well developed tourist destination with luxury accommodation offerings.</td>
<td>Reputation for high quality.</td>
<td>Government investment and promotion of the sector.</td>
<td>Luxury accommodation in private hospitals.</td>
<td>8 hospitals JCI accredited under the hospitals program.</td>
<td>Most physicians have trained in the US, UK and New Zealand.</td>
</tr>
<tr>
<td></td>
<td>14 JCI accredited hospitals.</td>
<td>Lower cost of medical treatment than in the US.</td>
<td>Government investment and promotion of the sector.</td>
<td>Government investment and promotion of the sector.</td>
<td>Much lower prices compared to the US. Especially in the area of proton therapy.</td>
<td>English is the first language of most physicians.</td>
</tr>
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</table>
## Initiatives to encourage industry development

<table>
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<tr>
<th>Thailand</th>
<th>Singapore</th>
<th>India</th>
<th>Malaysia</th>
<th>Republic of Korea</th>
<th>New Zealand</th>
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<tbody>
<tr>
<td>• Tax holidays, land ownership rights for foreign investors.</td>
<td>• High quality international marketing through SingaporeMedicine.</td>
<td>• Increased depreciation rates on old equipment</td>
<td>• International marketing through MATRADE.</td>
<td>• International marketing.</td>
<td>• The industry is still undeveloped</td>
</tr>
<tr>
<td></td>
<td>• Tax breaks for private investment</td>
<td>• Expedited visas for medical tourists.</td>
<td>• Relaxing regulation on advertising medical services.</td>
<td>• Foreign investment encouraged through tax exemption, housing and special employment benefits for employees, corporate tax incentives, tax incentives, registration tax incentives and property tax incentives</td>
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<tr>
<td></td>
<td></td>
<td>• Lower import duties on medical equipment.</td>
<td>• Establishment of a less expensive accreditation system.</td>
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<tr>
<td></td>
<td></td>
<td>• Prime land for the building of health infrastructure for medical tourists available at subsidised rates.</td>
<td>• Significant tax incentives.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Recently introduced significant tax incentives.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Future prospects

<table>
<thead>
<tr>
<th>Thailand</th>
<th>Singapore</th>
<th>India</th>
<th>Malaysia</th>
<th>Republic of Korea</th>
<th>New Zealand</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Aims to double revenue by 2014</td>
<td>• Aims to grow to 1 million medical tourists by 2012.</td>
<td>• Aims to grow to $US1 billion by 2012.</td>
<td>• Recently introduced significant tax incentives.</td>
<td>• Jeju Island is in the process of creating Jeju Healthcare town.</td>
<td>• Recent government investigation of the opportunities for New Zealand in developing this industry.</td>
</tr>
</tbody>
</table>
3 Demand for medical tourism

3.1 Drivers of medical tourism demand

Travel patterns in general are impacted by a complex and interrelated set of variables and disentangling these drivers, particularly on a market-by-market basis, can be challenging. Dissatisfaction with their own domestic health system, unavailability or low quality of appropriate treatment, and affordability of medical care in the domestic market are some of the biggest drivers of people travelling for medical care (Helble 2011).

Hence, the international demand for Australia as a medical tourism destination will be a reflection of a number of drivers. These include:

• relative cost of health services in Australia;
• availability of services (or higher quality services), drugs or surgery methods that are unavailable in other countries;
• the reputation of Australia as a safe destination for medical tourism, and a destination for high quality health services;
• exchange rates and income levels; and
• other factors including migration rules and regulations for medical treatment visas, Australia’s proximity to Asia and countries experiencing rapid economic growth, conjoint leisure tourism opportunities, anonymity and privacy, and cultural affinity.

3.1.1 Relative price of health services

As discussed in Chapter 2, countries such as Thailand, Singapore and India are major competitors in the global medical tourism market. This is mainly due to their cost advantage as a result of lower input costs (such as labour and other resources).

Based on information gathered from the consultations, most stakeholders indicated that Australia is unable to compete on the global medical tourism market based on price alone. The price of healthcare for most surgeries in Australia is significantly higher relative to its Asian neighbours, as shown in Table 3.1.

Table 3.1 provides a summary of selected surgery costs by country. Some comparator countries were included due to their major impact in the global market and intentional strategy of medical tourism market development (Thailand, Singapore, India, Korea) which make them natural competitors. Some countries have been included as high-income English-speaking potential source countries since this combination plays to Australia’s competitive advantage – moreover, the US is a huge market with high health care costs and NZ is very proximal. Costa Rica was included as a proximal competitor for the potential US market, and France due to its appetite for cosmetic surgery, where Australia may enjoy a competitive specialty niche. Moreover, at least some data were available for each of these countries.
### Table 3.1: Selected surgery costs by country ($US 2008)

<table>
<thead>
<tr>
<th>Surgery</th>
<th>USA</th>
<th>South Korea</th>
<th>Costa Rica</th>
<th>Singapore</th>
<th>Thailand</th>
<th>India</th>
<th>NZ</th>
<th>France</th>
<th>UK</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart bypass</td>
<td>$130,000</td>
<td>$34,150</td>
<td>$24,000</td>
<td>$16,500</td>
<td>$11,000</td>
<td>$9,300</td>
<td>$30,500</td>
<td>n/a</td>
<td>$24,544</td>
<td>$23,070</td>
</tr>
<tr>
<td>Heart valve replacement</td>
<td>$160,000</td>
<td>n/a</td>
<td>n/a</td>
<td>$12,500</td>
<td>$10,000</td>
<td>$9,000</td>
<td>$30,500</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Angioplasty</td>
<td>$57,000</td>
<td>n/a</td>
<td>n/a</td>
<td>$13,000</td>
<td>$13,000</td>
<td>$11,000</td>
<td>$8,500</td>
<td>n/a</td>
<td>$14,875</td>
<td>n/a</td>
</tr>
<tr>
<td>Hip replacement</td>
<td>$43,000</td>
<td>$11,400</td>
<td>$12,000</td>
<td>$9,200</td>
<td>$12,000</td>
<td>$7,100</td>
<td>$15,000</td>
<td>n/a</td>
<td>$14,000</td>
<td>$16,470</td>
</tr>
<tr>
<td>Knee replacement</td>
<td>$40,000</td>
<td>$24,100</td>
<td>$11,000</td>
<td>$11,100</td>
<td>$10,000</td>
<td>$8,500</td>
<td>$14,000</td>
<td>n/a</td>
<td>$16,625</td>
<td>$13,902</td>
</tr>
<tr>
<td>Hysterectomy</td>
<td>$20,000</td>
<td>$12,700</td>
<td>$4,000</td>
<td>$6,000</td>
<td>$4,500</td>
<td>$6,000</td>
<td>$6,000</td>
<td>n/a</td>
<td>n/a</td>
<td>$4,922</td>
</tr>
<tr>
<td>Spinal fusion</td>
<td>$62,000</td>
<td>n/a</td>
<td>n/a</td>
<td>$9,000</td>
<td>$7,000</td>
<td>$5,500</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Breast enlargement</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>$3,022</td>
<td>$2,972</td>
<td>$4,947</td>
<td>$7,613</td>
<td>$5,136</td>
<td></td>
</tr>
<tr>
<td>Facelift</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>$3,022</td>
<td>$2,972</td>
<td>$4,947</td>
<td>$7,613</td>
<td>$5,136</td>
<td></td>
</tr>
<tr>
<td>Liposuction</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>$5,028</td>
<td>$3,750</td>
<td>$5,777</td>
<td>$11,813</td>
<td>$6,675</td>
<td></td>
</tr>
</tbody>
</table>

Source: Voigt et al (2010); Deloitte (2010); Tattara (2010); Treatment Abroad (2008).

Note: Comparisons are in 2008 $USs and the Australian nominal exchange rate has appreciated against the $US subsequently, so price competitiveness may have eroded subsequently somewhat, at least for the US comparison. In purchasing power terms, the appreciation has not been as marked and the changing exchange rate would also affect the real cost per surgery in each country due to imports of medical surgery input items (e.g. US produced medical devices such as stents for heart surgery). Hence it is not clear exactly how cost relativities may have changed since 2008.
Table 3.1 shows that the cost of obtaining healthcare in Australia is still considerably cheaper compared to the US. Combining this with the fact that healthcare costs in the US continue to rise (Gan and Frederick 2011), many stakeholders recognise that Australia may be able to target North American patients for medical treatment based on lower prices and a developed, English-speaking economy.

Medical tourists from the US are predicted to grow from 750,000 travellers in 2007 to 1.6 million by 2012 with an estimated 35% annual growth rate (Deloitte 2009). Spending on medical tourism by US patients is projected to double from $40 billion per year in 2010 to $80 billion per year by 2017 (Deloitte 2009; Deloitte 2008). On top of this, insurance premiums are increasing in the US and in 2008, around 46 million people were uninsured and 29% of those who had insurance were underinsured with such low coverage that they often postponed medical care due to costs (DeNavas-Walt et al. 2009; Consumer reports 2007 cited in Gan and Frederick 2011).

In addition, US health insurance providers, especially those involved in company based health schemes, are looking at off-shore medical care options in an effort to offset escalating healthcare costs (ATEC 2008; Deloitte 2009). For example, Deloitte (2009) identified four insurance companies in the US who were piloting medical tourism countries and sending employees to Apollo Hospitals in India, Bumrungrad Hospital in Thailand and health facilities in Mexico. In addition, West Virginia and Colorado both attempted to enact legislation to fiscally incentivise employees to obtain medical care or medical procedures in foreign healthcare facilities through means such as waiving co-payments and deductibles and payment for round trip airfares (Deloitte, 2009). Neither of the bills came to fruition, but they show that state legislators in the US are looking at medical tourism as a potential alternative to healthcare in the US which is becoming prohibitively expensive.

For these reasons, there is potential for patients from the US to become a stronger source market for Australia in the medical tourism industry given Australia’s health services cost are still much cheaper than in the US.

### 3.1.2 Quality and availability of health services

Many of the stakeholders commented that while Australia cannot compete with many of the South East Asian and South American countries on cost, its competitive advantage lies in its reputation as a destination for high quality healthcare. Two stakeholders indicated that Australia provides very high quality post-operative care and recovery.

Each State and Territory in Australia provides legislation and policies regarding safety and quality standards for public and private hospitals within their jurisdiction. It is not mandatory in Australia for hospitals to achieve accreditation. However, the Australian Institute of Health and Welfare reports that, in June 2010, 85% of all public hospitals (accounting for 93% of public hospital beds) and 56% of private hospitals (accounting for 84% of private hospital beds) were accredited for quality and safety standards (AIHW, 2011). Accreditation is recognised through several bodies including the Australian Council on Healthcare Standards (ACHS) and the Quality Improvement Council which are both ISQua accredited (ISQua, 2011). Hospitals can also be certified as compliant with the International Organization for Standardization’s (ISO) 9000 quality family (AIHW, 2011).
general, a majority of Australian hospitals are currently providing a high quality service which meets internationally recognised standards.

Ehrbeck et al. (2008) found that quality drives most of today’s global market for medical travel with 40% of all medical travellers seeking the world’s most advanced technologies (Ehrbeck et al. 2008). For example, hip resurfacing, a less invasive alternative to hip replacements, was not available in the US until 2006 although it was available in Canada, Europe and some Asian countries (Food and Drug Administration 2008 cited in Hopkins et al. 2010). A further 32% of all travellers cited better quality care for medically necessary procedures as their reason for travel from their own countries which are usually in the developing world (Ehrbeck et al. 2008). For example, Singapore’s reputation for high-quality medical facilities and well trained doctors attracted more than 370,000 medical patients in 2005 and in 2004, these patients were mainly from Indonesia, Malaysia, the Middle East and the US (ESCAP 2009).

The metrics used for comparing the quality of health services in Australia against its competitors and source countries include:

- safety measures including hospital infection rates and readmission to an emergency room or hospital due to complications from surgery;
- bacterial and antibiotic resistance rates; and
- state of the healthcare system based on medical workforce and medical technologies.

**Safety measures**

The Commonwealth Fund International Health Policy Survey of Sicker Adults (Schoen et al. 2008) asks a series of questions to collect information about their experiences with their healthcare system. The following countries are included in the survey:

- Australia;
- Canada;
- France;
- Germany;
- Netherlands;
- New Zealand;
- UK; and
- US.

To compare the quality of surgery across these countries, two metrics are used:

- the proportion of surveyed hospitalised patients who reported an infection in hospital; and
- the proportion of surveyed patients who were readmitted to hospital or an emergency room for complications arising during recovery.

Chart 3.1 shows the comparison between Australia and other countries based on these two metrics. Of surveyed hospitalised patients in Australia, 7% reported an infection while they were in hospital, and 11% were readmitted to hospital or an emergency room from complications during post-operative recovery. For hospital infections, Australia is ranked equal fifth, outperforming New Zealand and the UK. For readmissions due to
complications, Australia is ranked equal fourth with NZ, behind the US, Netherlands and Canada.

![Chart 3.1: Metrics of quality by country](image)

<table>
<thead>
<tr>
<th>Country</th>
<th>Hospitalised patients reporting infection in hospital</th>
<th>Readmitted to Hospital or Went to ER from Complications During Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>Canada</td>
<td>18%</td>
<td>10%</td>
</tr>
<tr>
<td>France</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Germany</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>NZ</td>
<td>9%</td>
<td>6%</td>
</tr>
<tr>
<td>UK</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>US</td>
<td>14%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: Commonwealth Fund (2008).

**Bacterial and antibiotic resistance rates**

Medical tourism may increase the risk of acquisition and complicate the management of multi-resistant organisms (MROs), especially those travelling to developing countries for surgery. MROs are resistant to a number of different antibiotics and cause infections that are difficult to treat. Common MROs that may affect medical tourists are summarised below. Data for MRO prevalence across countries are scattered, incomplete and out of date.

- **New Delhi metallo-beta-lactamase-1 (NDM-1)** has been strongly associated with healthcare received on the Indian subcontinent. It has been shown to have transferred to other countries including US, Australia, Canada, Japan and some European countries (Rogers et al 2011).
- **Methicillin-resistant Staphylococcus aureus (MRSA)** is very prevalent in countries such as Japan, Hong Kong and Singapore (see Chart 3.2). This may be due to a number of factors such as people being able to purchase antibiotics over the counter at pharmacies, their proximity to South East Asian countries where prevalence is high, and antibiotic prescribing practices.
- The presence of strains of MRSA that were heterointermediately resistant to vancomycin (hVISA) has been found in Japan, India, South Korea, Singapore, Thailand and Vietnam (Song et al 2004);
- **Penicillin resistance rates** are very high in Japan, Taiwan, Korea, Hong Kong and Vietnam. Singapore, Sri Lanka, Thailand and Australia have moderately high rates.
Australia has an advantage in terms of the prevalence of bacterial and antibiotic resistance due to its geographic isolation and its antibiotic prescription practices. It is ranked fairly highly in the Asia Pacific region.

**Capacity of healthcare systems**

Australia fares well against its competitors for inbound medical tourists when comparing the capacity of their healthcare systems according to medical technology density, physician density and hospital bed number density. However, the following data presented need to be framed in the context of the capacity of Australia’s public and private hospitals which are approaching capacity and Australia’s medical workforce shortage which particularly affects regional Australia. Both these issues are explored further in Section 4.3.

As demonstrated by Chart 3.3, Australia has greater numbers of CT and PET scanners per 1,000,000 population than its main competitors in the Asia Pacific region – notably New Zealand, Thailand, the Philippines and Malaysia (data for Singapore and India were not available). Australia also out-competes these countries in terms of density of MRI machines, although New Zealand has a slighter greater density of MRIs. Australia also demonstrates a competitive advantage further afield recording greater densities across all three technologies than Costa Rica, Mexico and Saudi Arabia (information for Germany was not available). Other than South Korea and Japan, Australia’s density of diagnostic medical technology suggests that Australia may be better placed than most of its competitors to offer comprehensive medical check-ups and high quality diagnostics.
Chart 3.3: Medical technology per 1,000,000 people (2005-10*)

Source: WHO (2011a); OECD (2011a); OECD (2011b).
* Various years in this period for different countries, depending on data availability.

Chart 3.4 demonstrates that Australia has a higher density of physicians than its competitor countries, except Germany, in the medical tourism industry. This may indicate that Australia is better placed than its Asia Pacific neighbours to provide comprehensive medical care, especially in combination with its high density of medical technology as demonstrated above. While the low density of physicians in countries such as India and Thailand is not necessarily an indication of physician accessibility in the private sector, which is where medical tourists would be seeking treatment, medical tourists may consider that a low overall physician density in a country that heavily promotes medical tourism may be an indicator of poor healthcare equity among the local population.
Compared to most of its competitors in the Asia Pacific region, Australia has more hospital beds per 10,000 head of population. Japan and South Korea have a far greater hospital bed capacity with Japan demonstrating nearly four times the hospital bed numbers per capita of Australia. However, Australia has a far greater capacity of hospital beds to serve its domestic population than competitors – India, Singapore, Malaysia and Thailand. Similar to physician density, this may indicate that healthcare equity in the local populations of these countries will be worsened by increasing flows of foreigners seeking medical treatment in these countries. It also may be an indication that these countries are reaching capacity limits hence Australia could capitalise on their medical tourist overflows.
3.1.3 Availability of services, drugs or surgery methods

Pennings (2002) summarises the reasons why patients would travel overseas for services that are not accessible in their country of origin:

- a treatment may not be available in the origin country because there is a lack of expertise compared to other countries;
- a treatment is forbidden by law for moral reasons in origin country (as in the case of abortion or euthanasia);
- a treatment or drug is not available because it has not yet received approval by official pharmaceutical or therapeutical organisations; and
- certain patients may not be eligible for some treatments, for example if the patient is too old for reproductive treatments, or the patient is too young for bariatric surgery.

Voigt et al. (2010) highlights some of the highly specialised and niche medical procedures that some medical tourism countries have a reputation for:

- **Thailand**: gender reassignment surgery;
- **India**: hip resurfacing surgery, which provides a higher range of motion and shorter recovery time and was unavailable in Western countries for a period of time (though this procedure is now readily available in other countries);
- **China**: stem cell surgery and other experimental procedures;
- **Hungary**: dentistry; and
• **Singapore**: recently performed successfully the tooth-in-eye surgery\(^4\) that restores vision in formerly blind patients.

Many of the stakeholders indicated that Australia has strong potential to build a reputation for its expertise in bariatric surgery for obese patients, as well as fertility treatment for those with problems conceiving.

### 3.1.4 Exchange rates and income levels

The Australian dollar has risen more than 50% in trade-weighted terms over the last decade, but this appreciation has not been uniform – it has been most pronounced against the US dollar (and tied currencies), the Euro and the Pound and less so against the Japanese yen and the New Zealand, Singapore and Canadian dollars (and indeed the Australian dollar has depreciated relative to the Indian rupee) (Thomson Reuters 2011). At the same time, rates of economic growth have varied markedly around the globe, which is relevant since overall income is also a demand driver.

Tourism Australia recently commissioned Deloitte Access Economics to undertake a study on the impact of exchange rates on the tourism sector. According to a media release by Tourism Australia (2011), exchange rates are an important factor in explaining the travel choices of both Australian and international travellers, but other factors — most notably income — are more significant determinants of expenditure patterns.

The report found that exchange rate movements impact on patterns of international travel and that these relationships vary across Australia’s major source markets. South Korea and Hong Kong demonstrated the greatest responsiveness, but the magnitude of these impacts is modest and effects tend to be temporary. Leisure travellers tend to be the most sensitive to exchange rate movements. Medical travellers may respond to exchange rate movements in a number of ways:

• One stakeholder suggested that medical travellers may require treatment regardless of the cost (particularly if it is urgent treatment such as cardiac surgery). Hence, they may be less responsive to exchange rate movements compared to leisure travellers.

• According to some stakeholders, medical travellers tend to be high income earners and hence their responsiveness to small fluctuations in the exchange rate tends to be smaller.

• Lower income earners e.g. the underinsured from the US, may be more responsive to changes in the exchange rate. However, their degree of sensitivity is likely to depend on how Australia differentiates its medical offerings from competitor nations, which may also be disadvantaged from a cheaper $US. These medical travellers may be price sensitive, but may be more sensitive to their perceptions of higher quality medical care available in Australia compared to other countries offering similar treatments. The combined impacts of income elasticity, price elasticity and preferences are difficult to predict.

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\(^4\) Tooth-in-eye surgery (or Osteo-odonto-keratoprosthesis) is a medical procedure to restore vision in the most severe cases of corneal and ocular surface patients. It includes the removal of a tooth from the patient or a donor, and a lamina of tissue from the tooth is drilled and the hole is fitted with optics. The lamina is grown in the patients’ cheek for a period of months and is then implanted in the eye.
For all forms of tourism over the longer term, exchange rate movements have a more noticeable impact on the amount of money visitors expend during their stay. However, medical visitors are less likely or able than leisure visitors to substitute other services as a result of exchange rate movements.

3.1.5 Other factors

A number of other factors may impact on a patient’s decision to seek medical treatment and care overseas. These are summarised below (Voigt et al. 2010).

- **Anonymity and privacy:** For some patients obtaining procedures such as gender reassignment, cosmetic surgery and abortion, they may prefer anonymity and confidentiality. Travelling to another country such as Australia for medical treatment enables patients to the privacy that they desire (even in terms of accessing medical records).

- **Cultural affinity:** Australia is an attractive destination for medical tourists from the US, the UK and other English-speaking countries. Because medical terminology is often convoluted and the risks associated with medical procedures need to be understood clearly, language barriers are one of the major factors when a patient decides on their medical tourism destination. This point was echoed by many stakeholders. Sensitivity to cultural differences is also a major factor, with one stakeholder pointing out that they organise special Halal meals for their Middle Eastern clients.

- **Migration rules and regulations for medical treatment visas:** Australia maintains a comprehensive range of visa options that allow people to travel to Australia for a range of reasons (including as a tourist and for medical treatment). Visa rules need to be particularly strict for a number of reasons:
  - medical tourists may introduce bacteria or conditions into Australia such as tuberculosis, which is the reason why most visa applicants seeking to undertake medical treatment in Australia must undertake health examinations such as a chest x-ray to ensure that the threat to public health is minimised;
  - medical tourists may require medical treatment that may prejudice the access of local residents (i.e. those that are in short supply such as organ transplants); and
  - there is a risk that complications may arise during medical procedures, which leads to a very high risk that the person will not be able to depart Australia as a result. Also, they may require access to services and treatments that are in short supply such as fresh blood and blood products.

3.2 Competitor and source countries

The demand for Australia as a medical tourism destination depends on the relative offerings of other countries that are competing in this market as well as consumer preferences in targeted source markets.

According to the stakeholder consultations and the literature review in Chapter 2, Australia’s major competitor countries include:

- Singapore;
- India;
• Thailand;
• South Korea;
• to a lesser extent, South and Central America such as Costa Rica and Mexico.

These countries, particularly those in South East Asia, can provide specialised medical care at relatively low cost compared to Australia. This is a result of a combination of government incentives to encourage medical tourism (such as expedited medical visas for medical tourists and introducing increasing depreciation rates so that health technology can be replaced faster), as well as an ability to recruit internationally trained and accredited healthcare professionals.

In terms of Australia’s source markets, stakeholders have commented that Australia should ‘play to its strengths’ and target countries in which it has a competitive advantage. Stakeholders suggested possible target markets for Australia may include:

• **Pacific regions (particularly New Caledonia and Papua New Guinea):** Due to its proximity to Australia and – according to stakeholder consultations – the large number of expatriates (from the US, China and Japan) living in these regions, countries in the Pacific region are ideal source markets for medical tourism. Currently, many of Australia’s medical tourists are already from New Caledonia and Papua New Guinea (as indicated in the data and also through consultations).

• **North America:** US residents are facing increasing costs associated with healthcare and many are underinsured. As a result, the US is an obvious target market for Australia to obtain high quality healthcare at a much lower cost in an environment that is both culturally and linguistically familiar.

• **China:** Economic growth in China has far outpaced the development of the Chinese healthcare system. Inadequate spending, lack of access to affordable healthcare, inefficient use of healthcare resources and a lack of high quality patient care may mean more people from China with higher incomes will want to seek medical care from developed countries such as Australia.

• **Singapore:** One stakeholder observed that Singapore’s healthcare system may be rapidly progressing towards full capacity. As a result, Australia may start to receive some of the overflow of patients from the Singaporean medical tourism market. From this, Australia can begin to target these markets directly rather than merely receiving the overflow of patients. However, claims about Singapore’s capacity have been questioned in some reports and thus whether this source market exists is unclear.

### 3.2.1 Scorecard comparison

A scorecard has been developed to critically analyse Australia’s main competitor and source countries (as identified in the consultations). The scorecards will assess the ‘desirability’ of each country as a destination for medical tourism based on a number of criteria, including:

• relative price of services;
• quality of healthcare; and
• government assistance available to medical tourism suppliers and medical tourists to encourage development of the medical tourism industry.
These scorecards have been developed based on Deloitte Access Economics’ own analysis of the literature and information from consultations. It should be noted that it is often difficult to attribute scores or quantify ‘desirability’. Given the nature of these scorecards, they should only be used to compare countries within each criteria, and not across criteria, since there is no evidence available to weight the importance of each criterion.

Relative price of services

As discussed previously, Australia ranks fairly low in terms of the relative price of health services compared to the major competitor countries. India in particular can provide medical treatment at a fraction of the cost due to their low wages and low costs of capital. However, Australia ranks quite favourably against selected source markets, especially the US where healthcare costs are increasing considerably.

<table>
<thead>
<tr>
<th>Table 3.2: Price competitiveness of services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Competitors</strong></td>
</tr>
<tr>
<td>AUSTRALIA Low Med-Low Medium Med-High High</td>
</tr>
<tr>
<td><strong>India</strong> Low Med-Low Medium Med-High High</td>
</tr>
<tr>
<td><strong>South Korea</strong> Low Med-Low Medium Med-High High</td>
</tr>
<tr>
<td><strong>Costa Rica</strong> Low Med-Low Medium Med-High High</td>
</tr>
<tr>
<td><strong>Singapore</strong> Low Med-Low Medium Med-High High</td>
</tr>
<tr>
<td><strong>Thailand</strong> Low Med-Low Medium Med-High High</td>
</tr>
<tr>
<td><strong>Source</strong> Low Med-Low Medium Med-High High</td>
</tr>
<tr>
<td><strong>UK</strong> Low Med-Low Medium Med-High High</td>
</tr>
<tr>
<td><strong>NZ</strong> Low Med-Low Medium Med-High High</td>
</tr>
<tr>
<td><strong>France</strong> Low Med-Low Medium Med-High High</td>
</tr>
<tr>
<td><strong>US</strong> Low Med-Low Medium Med-High High</td>
</tr>
</tbody>
</table>

Source: Based on Deloitte Access Economics analysis from Table 3.1 and consultations.

Quality of healthcare

In terms of quality, Australia ranks fairly favourably against its South East Asian competitors, especially in terms of MROs and antibiotic resistance rates and state of the healthcare system. However, it does not necessarily rank best against more developed countries in terms of safety measures.

For the quality of healthcare, each country was ranked against other countries in each of the quality metrics (prevalence of MRSA, capacity of the healthcare system and safety measures – infections and readmissions). A weighted average was then calculated for each country based on their ranking. A score was then allocated based on their weighted ranking to give the scorecard comparison in Table 3.3.
Table 3.3: Quality of healthcare

<table>
<thead>
<tr>
<th>Country</th>
<th>Low</th>
<th>Med – Low</th>
<th>Medium</th>
<th>Med-High</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td></td>
<td></td>
<td></td>
<td>-7-</td>
<td></td>
</tr>
</tbody>
</table>

Competitors

<table>
<thead>
<tr>
<th>Country</th>
<th>Low</th>
<th>Med – Low</th>
<th>Medium</th>
<th>Med-High</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>-2-</td>
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Source: Based on Deloitte Access Economics analysis (as detailed above the table).

Government support

Government support for medical tourism may be in the form of:

- direct or indirect financial assistance to encourage supply of medical tourism, such as introducing tax breaks for private hospitals to attract foreign patients and coordinating marketing campaigns; and
- policies that stimulate the demand for medical tourism by making it easier for foreign patients to enter the country for medical tourism purposes, such as using the visa system to assist in facilitating an increase in the number of foreign patients.

The scorecard for government support is based on Deloitte Access Economics’ analysis of each country in terms of the level of government support they receive to encourage supply or stimulate demand for medical tourism.

A table summarising the different types and levels of government assistance in each country based on information collected from the consultations as well as the literature review can be found in Appendix B.

Table 3.4: Government support

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Source: Based on Deloitte Access Economics analysis (see also Appendix B).
3.3 Current demand for medical tourism

Data for the current demand for medical tourism is measured using an International Visitor Survey (IVS) from Tourism Research Australia (TRA). The IVS samples 40,000 departing, short-term international travellers over the age of 15 years who had been visiting Australia. Information is collected at the departure lounges of the eight major international airports in Australia, and includes questions about the number of nights spent in Australia, travel arrangements, reasons for visiting, places visited and expenditure on their trip. The results are then weighted to the Overseas Arrivals and Departures data supplied by DIAC with the assistance of the Australian Bureau of Statistics (ABS) to reflect the actual target population.

It is important to note that because the number of medical visitors in the IVS is relatively small compared to all visitors in Australia, there needs to be some caveats around the data used. According to the IVS methodology, the sizes of the 95% confidence intervals for estimates are summarised below. The larger the estimates are, the more accurate the estimate is (and the tighter the confidence interval is).

- For number of visitors less than 20,000, there is 95% chance that the estimate lies in the range: number of visitors ± 21.4%.
- For the number of nights below 100,000, the confidence interval is larger than the estimate itself (meaning the data is not accurate to any degree).
- For expenditure data less than $5 million, the confidence interval is also larger than the estimate itself.

For example, the total number of visitors in Australia for medical reasons in 2010 was 12,752. This means that there is a 95% chance that this number lies between 10,023 and 15,481.

Hence, given the small numbers associated with medical visitors, the data are highly volatile with large confidence intervals indicating a significant degree of inaccuracy. As such, any conclusions drawn from the data need to be considered with caution. As well, it is likely that the data are displaying random fluctuations rather than any conclusive evidence of changes in the number of medical visitors or the amount they expended on their trip.

3.3.1 Number of visitors, visitor nights and expenditure

According to the IVS, the total number of international visitors who travel to Australia for medical reasons is relatively small compared to the overall tourism market. Chart 3.6 shows the number of international visitors for medical reasons relative to other reasons. In 2010, visitors for medical reasons made up only 0.23% of total visitors in Australia (TRA 2011).

However, the number of medical visitors is growing at a much faster rate compared to the total number of visitors in Australia. Over the period 1999 to 2004, the number of medical visitors declined at an average annual rate of 6.19% compared to a 2.97% average annual growth rate for all visitors over the same period (TRA 2011). However, in the period 2005
to 2010, the average annual growth rate of medical visitors increased to 13.55% while the average annual growth rate for all visitors decreased to 1.52% (TRA 2011).

Chart 3.6 shows that the number of medical tourists increased significantly by 188% between 2008 and 2009. The increase is primarily due to a large increase in medical visitors from New Zealand, Japan, Papua New Guinea and New Caledonia.

The reasons for the sudden increase are unclear. However, given that the total number of visitors remained fairly constant over the same period, factors such as exchange rate movements do not appear to explain the sharp increase in medical visitors. Hence, other factors or events specific to medical tourism that may have contributed to the sudden increase are summarised below.

- The Australian Tourism and Export Council (ATEC) released two reports (Destination: Health and Health Tourism in Australia) on the benefits and the potential of the Australian health and medical tourism market.
- The first Australian Health and Wellness travel conference was held in 2009 leading to the Cairns declaration. More than 60 delegates representing tourism, health, medical and government sectors where experts from around the world discussed opportunities available to Australia in the health and medical travel sector.
- Towards the end of 2008 and early 2009, the Cairns Fertility Centre was established, offering a purpose-built facility targeting fertility services to international patients mainly from Japan and Papua New Guinea.

In contrast to the TRA increases, data provided by DIAC (2011) in Chart 3.7 suggest that the number of medical treatment visas granted by DIAC has trended downwards between 2006 and 2010. This data is not necessarily representative of the total number of medical visitors as visitors often just obtain a short stay holiday visa, particularly for those who enter Australia for more minor surgeries (such as minor cosmetic surgery and IVF).
Chart 3.7: Number of medical treatment visas granted by DIAC

Chart 3.8 shows the number of visitor nights and the average expenditure spent per medical visitor between 1999 and 2010. Expenditure includes the total amount of money a visitor spends in Australia as well as their airfares and package deals (which in the case of medical tourism may include accommodation, medical procedure and the cost of hospital nights).

‘Nights per visitor’ generally reflects that ‘total nights’ fluctuate in line with the number of visitors. However, in 2008-09 when there was a large increase in the number of visitors, the average number of nights per visitor decreased, which may suggest capacity constraints, a switch towards procedures which require fewer bed nights, or technology improvements which are gradually reducing average length of stay (e.g. laparoscopic procedures replacing formerly open procedures).

Expenditure per visitor has remained relatively flat over the past few years, particularly since 2008. Given that the number of visitors increased noticeably between 2008 and 2009, total expenditure also increased markedly over this period.
Based on information provided at the consultations, medical visitors are generally accompanied by only their partner or one or two family members. For more serious procedures such as bariatric surgery, cardiac surgery or complex cosmetic surgery, medical visitors and their companions rarely engage in other tourism activities in addition to their medical treatment. However, for less invasive procedures such as IVF and facelifts, they may partake in other activities such as shopping and sightseeing tours.

### 3.3.2 Countries of origin

Apart from New Zealand, the majority of medical visitors come mainly from Asia and the Pacific (TRA 2011). Chart 3.9 shows the top ten countries that medical visitors originated from over the five years to 2010. Of the total number of medical visitors in Australia between 2005 and 2010, 21% originated from New Zealand, 17% from Papua New Guinea and 13% from New Caledonia.

As discussed previously, the number of medical visitors is extremely small, meaning the accuracy and reliability of data by country of origin is questionable. Hence, only high level conclusions can be drawn from the data, rather than the sub-level breakdowns.

DIAC medical treatment visa data shows that for short stay visas, the top five major countries of origin include:
- France (these are mainly residents of New Caledonia travelling on French passports);
- Fiji;
- Indonesia;
- Vanuatu; and
- Papua New Guinea.
In comparison, international visitors entering Australia for all reasons in 2010 were predominantly from New Zealand, the UK, the US, China and Japan, as demonstrated in Chart 3.10. Given that currently, 9% of all visitors are from the US and 8% are from China, this further suggests that the US and China could potentially become target markets for medical tourism in Australia.
Chart 3.11 shows the top ten countries of origin by expenditure. The profile of the origin countries based on expenditure is not dissimilar to that based on the number of medical visitors. Papua New Guinea makes up 21% of total medical visitor expenditure, but only 17% of total visitors while New Zealand makes up only 12% of total expenditure despite 21% of total visitors are from New Zealand.

**Chart 3.11: Expenditure by country of origin for medical visitors (2005-2010 average)**

Source: Data from TRA (2011).

Once again it is important to caveat that because the number of medical visitors is extremely small, reliability of these expenditure data is questionable. Hence, only high level conclusions can be drawn from the data, rather than the sub-level breakdowns. It does not seem probable that 7% of expenditure on medical tourism is in fact from the Kyrgyz Republic, for example, and no implications for policy should be drawn from this.

Again, comparing to expenditure by all visitors in Australia in 2010, 39% of total expenditure comes from China, the UK, New Zealand and the US. In fact, visitors from China made up the largest proportion of tourism expenditure in 2010. This appears to be in line with one stakeholder who commented that Australia has the potential to target ‘premium’ medical tourists, i.e. higher income earners from China who are seeking the best quality health care regardless of the price.
3.3.3 Major destinations in Australia

Chart 3.13 shows that the major destinations for international medical visitors over the period between 2005 and 2010 were the major capital cities (Sydney, Melbourne, Brisbane and Perth), Gold Coast and Tropical North Queensland (which extends from Mission Beach/Tully in the south to Cape York in the north and Gulf Savannah to the west, and includes Cairns). The average number of international medical visitors to other major capital cities such as Darwin, Adelaide, Hobart and Canberra was relatively small.
The composition of major destinations in Australia for medical visitors is not dissimilar to that for all international visitors (Chart 3.14).

Source: Data from TRA (2011).
3.4 Projections of medical visitors

There does not appear to be a clear trend in the number of international medical visitors between 1999 and 2010. Hence, the methodology adopted to project the baseline number of medical visitors is a three year moving average. This means:

\[ \text{Projection}_t = \text{Mean}(Y_{t-1}, Y_{t-2}, Y_{t-3}) \]

where \( \text{Projection}_t \) = the projected number of visitors in time period \( t \); and
\( Y_{t-1}, Y_{t-2}, Y_{t-3} \) = the actual number of visitors in the previous three time periods.

Because the number of medical visitors is relatively small compared to all visitors in Australia, the data are highly volatile. It is also difficult to distinguish between random fluctuations in the data as opposed to true changes in the number of medical visitors. As a result, a sensitivity analysis has been carried out to project demand under two different scenarios.

- **Scenario 1 (high):** This scenario is based on a linear projection of medical visitors using a linear regression. The projections increase linearly and indefinitely into the future.
- **Scenario 2 (low):** This scenario treats the sudden increase in medical visitors between 2008-09 as a random fluctuation in the data or a one-off shock that will not be sustained over the long run. Hence, the outlying data point is removed and projections are made from 2008 to 2020.

Chart 3.15 shows the projections to 2020 for the baseline scenario and the two sensitivity analyses. Under the baseline scenario, it is projected that there will be 12,863 medical visitors in Australia by 2020. For the two sensitivity scenarios, there are expected to be 7,162 medical visitors under the low scenario, and 15,441 medical visitors under the high scenario by 2020.

**Chart 3.15: Projections of the number of international medical visitors**

Source: Data from TRA (2011) and Deloitte Access Economics projections.
As the projections show, even if a ‘high growth’ scenario is adopted and medical tourism is projected to grow indefinitely into the future, the number of medical tourists will still only reach around 15,500 people by 2020. In contrast, TRA projects that total inbound tourists will reach 8.4 million people by 2020. This means that even under the ‘high growth’ scenario, medical tourism is still only projected to make up 0.18% of the total tourism market by 2020. Hence, this is not a large enough market for Australia to have capacity constraints in absorbing an increase in medical tourists over the next ten years.

Importantly, changes in the drivers of demand (as discussed previously) or ‘shocks’ to the medical tourism market will cause the projections to deviate from the projected trends. The likely effects of the key drivers of Australia as a medical tourism destination are summarised below.

- The relative cost of health services in Australia may become more expensive due to the $A appreciating significantly against the $US. However, given the cost differences between surgeries in Australia and the US are quite substantial, the relative cost of health services in Australia will most likely still be cheaper compared to the US despite an appreciation of the exchange rate. That said, it may be the case that medical travellers are attracted to other competitor countries if they perceive the cost of health services in Australia to be higher as a result of exchange rate movements.

- If Australia is to target ‘premium’, higher income earning medical tourists from emerging economies such as China and India, relative incomes will become a major driver of demand. Given recent economic and debt developments in high income countries in the wake of the global financial crisis, and the instability of the global economy, demand for Australia as a medical tourism destination may fall, especially people who are obtaining non-urgent surgery (such as cosmetic surgery). However, for medical travellers who travel to obtain urgent medical treatment such as heart surgery or bariatric surgery, global instability may have less of an impact – particularly from economies less affected by debt and slower growth.
4 Supply of medical tourism

4.1 Medical tourism supply chain and process

The capacity of the Australian medical system as a medical tourism destination will depend on the capacity of Australia’s medical tourism supply chain. An extension of RET’s preliminary analysis of Australia’s medical tourism supply chain is illustrated below.

Figure 4.1: Australia’s medical tourism supply chain

Medical travellers from overseas may enquire directly with providers and organise each step of the supply chain on their own. Alternatively, an established medical tourism facilitator may organise or assist in the organisation of each step in the supply chain.

According to information gathered at the consultations, medical tourism facilitators work to organise each step in the supply chain for their clients. Based on information gathered
from the consultations, the process of a typical medical traveller involves the following steps.

1. Patient makes an enquiry directly to a medical provider, or through the medical tourism facilitator.
2. The facilitator organises the procedure and the appropriate clinician or surgeon in Australia and provides the patient with a quote.
3. The clinician or surgeon will usually dictate the hospital in which the procedure will take place, as well as other ancillary services such as pathology and x-rays.
4. The facilitator will organise the accommodation and ensure the operation theatre, hospital bed and nurses are all booked and confirmed.
5. Once the patient arrives in Australia, the staff from the medical tourism facilitator will usually meet them and organise transportation for them to ensure they arrive at their medical consultations.
6. The facilitator organises the postoperative care as well as any other allied health services that the patient may need during recovery, such as physiotherapy and medication counselling.
7. The facilitator also ensures that the patient recovers sufficiently prior to them leaving the country, and that all medical records are sent back to a doctor (such as the referral doctor) from the country of origin.

Based on the stakeholder consultations, medical tourists generally have no scope for tourism activities prior to receiving medical treatment. Patients are generally required to attend pre-arranged consultations immediately to determine suitability of treatment and confirm medical records. In addition, it is unusual for patients to engage in tourist activities prior to procedure. While there is scope for tourism activities after recovery and before departure, most medical tourism providers consulted suggested that medical patients seldom engage in other tourist activities apart from accommodation, some shopping and restaurant meals. Patients receiving less invasive surgeries may participate in tours and sightseeing activities, for example, patients receiving IVF treatment at the Cairns Fertility Clinic usually combine treatment with a tour of Tropical North Queensland.

The medical tourism market at present is small and fragmented in Australia. As such, the supply of medical tourism does not currently exist as a networked chain, but rather comprises a scattered number of medical providers, facilitators, tourism providers and allied health services operating in isolation from each other.

One stakeholder commented that for a medical tourism industry to be developed in Australia, all the major players in this supply chain need to work together as a network and coordinate their services. These players include:

- doctors and surgeons;
- other health and medical professionals such as nurses and allied health services;
- hospitals;
- coordinators and facilitators of medical tourism;
- accommodation services;
- allied health services; and
- travel agents.
A few stakeholders indicated that language barriers are frequent, especially for patients from Japan, Indonesia and those from the Pacific Islands (including New Caledonia). Nearly all the private providers and facilitators have medical interpreters on-site to ensure patients understand all the risks and medical terminology associated with their treatment plan.

4.2 Gaps, barriers and opportunities

As discussed in Chapter 3, the medical tourism sector in Australia is currently extremely small compared to the tourism sector as a whole. Through the consultations, we identified only a handful of known medical tourism facilitators and providers. Many stakeholders acknowledged that even if the medical tourism industry is developed, it is likely to be a small niche market in comparison to the general tourism sector.

Based on the consultations, the average number of medical travellers varies significantly across providers and medical tourism facilitators, with indicative estimates below.

- Medical facilitators commented that on average, they receive between 20 and 50 patients a year. One facilitator indicated that between August 2009 and January 2011, it has only received a total of around 30 patients.
- One private provider noted that they receive about 20 to 30 patients a year for fertilisation procedures.

4.2.1 Commercial gaps

There are a number of commercial reasons why the medical tourism market is currently small in Australia which, if addressed, could assist in the development of the market.

In Australia there are currently limited on-the-ground networks, such as referral agencies/clinicians, marketing companies and coordinators of medical records. Stakeholders suggested that each individual provider in the supply chain needs to become more networked and coordinated in order for patients to easily navigate their way through the different steps. This includes on-the-ground networks in other countries and, potentially, an industry association within Australia.

In addition, representatives of the industry need to attend conferences or undertake strategic marketing in potential source countries to promote Australia as an attractive destination for medical tourism, as well as engage in targeted marketing for their own particular niche. A ‘vicious circle’ of diseconomies of scale, geographic distance and communication fragmentation in the industry has prevented this so far.

Given the medical tourism market will be very small and niche in its product offerings, one suggestion in the consultation process was that there needs to be some “piloting” of what services Australia can provide expertise in, and the source markets that they should be targeting. To do this, one stakeholder suggested that Australia trial a few procedures in which they have a competitive advantage and market them to a few potential source markets to determine which should be developed into further.
4.2.2 Regulatory gaps and Government support relativities

Chapter 2 and Section 3.1.5 suggested visa application processes for medical tourists are relatively slow and tight compared to competitors (e.g. India, which has an expedited visa process). Also, relative to competitors, Australia has lower levels of government support (e.g. India has lower import duties on medical equipment and subsidies on prime land for health facilities; Thailand, Singapore and Korea have tax breaks), as illustrated through the scorecard analysis in Section 3.2.1 and, in particular Table 3.4.

Many stakeholders suggested that more government support (both financially and non-financially) is necessary for the development of the industry. This is supported by evidence in the literature where countries with high government support have a more developed medical tourism industry (such as in Singapore and India). However, from an economic and policy perspective, there needs to be clearly identified reasons why one industry should be supported rather than another. Market failure represents one economic reason why government may intervene to support an industry (see next section). The desire to retain or develop domestic capability to meet strategic defence or security objectives is an example of a non-economic reason for government assistance.

It was not entirely clear from the consultation process what economic or policy reasons would justify government investment in medical tourism in Australia. One suggestion was that incentives and government-sponsored marketing to trigger demand for Australia as a medical tourism destination would have positive flow on effects to different segments of the supply chain in expanding their services, and would encourage private sector development. The implication is that a virtuous circle would be created and the industry would become self-sustaining in time. Start-up industry support from government is justifiable if there is a market failure at this early stage of industry development.

4.2.3 Market failures

Market failure is an economic concept describing situations where the allocation of goods and services by a free market is not efficient and thus not optimal. Market failures are often associated with information asymmetries, non-competitive markets, principal-agent problems, externalities, or public goods. If market failures occur, government intervention may improve social outcomes, for example through taxation (e.g. an industry that pollutes), support (e.g. provision of police services or subsidies for health services) or direct intervention to correct the externality (e.g. provision of information or anti-trust regulation). Some types of government policy interventions (e.g. quantitative restrictions, bailouts, and wage or price controls) may also lead to an inefficient allocation of resources (“government failures”) so it is important that any government intervention is well thought out and carefully implemented based on sound economic and policy consideration.

Some stakeholders mentioned that information asymmetry is problematic for the Australian medical tourism industry relative to Asian competitors. There is little knowledge about Australia as a medical tourism destination in other source countries. In part, this is because the market in Australia is small, but it is also because there is a lack of marketing and awareness about the availability of medical tourism within Australia and our

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5 Pareto efficiency means there exists no other market equilibrium where a market participant may be made better-off without making someone else worse-off.
competitive strengths. Stakeholders suggested that it is necessary for Australia to participate in international medical tourism or travel conferences to increase information about Australia to other countries – attending and/or hosting such events.

It is not clear from stakeholder consultations whether government intervention is perceived as necessary to correct current information asymmetries, or whether better commercial networks within the industry would be sufficient to address this barrier.

4.2.4 Key specialities

From consultations with current providers of medical treatment to international patients, the main procedures that are currently being provided to medical visitors are summarised below.

- Cosmetic or plastic surgery, including full body lifts following bariatric surgery and corrective plastic surgery after complications arise from procedures done in other countries.
- Fertility treatment (including in vitro fertilisation or IVF) for those who are experiencing difficulties conceiving. These procedures are generally non-invasive and require little or no recovery time. However, there are no guarantees that the procedure will be successful and patients may need to return for subsequent procedures.
- Bariatric surgery (also known as weight loss surgery) is common among adults and adolescents who are obese.
- Dermatology including skin cancer checks as well as treatment.
- To a lesser extent, cardiac surgery such as coronary artery stenting. One medical tourism facilitator commented that many cardiologists travel overseas to treat international patients (rather than have them travel to Australia).

A number of procedures were mentioned as currently being provided to international patients, but to a lesser extent. These include:

- pregnancy, delivery and recovery;
- oncology;
- gynaecology;
- orthopaedic (but it is difficult to compete with countries like India who can offer hip and knee replacements at a fraction of the cost); and
- dentistry.

A facilitator of medical tourism noted that Australia has very high quality postoperative care and recovery services and they use this to attract medical travellers from overseas.

4.3 Current and future capacity

Careful consideration needs to be given to the current and future capacity of the Australian health system to accommodate medical tourism. Australia faces several medical capacity constraints that will undoubtedly restrict the development of medical tourism.
4.3.1 Private hospital capacity

The most important factor impacting on Australia’s medical tourism supply chain is the capacity of Australia’s health system, in particular the private hospital system. According to the Productivity Commission (2009), public hospitals in Australia had an average occupancy rate of 87% in 2007-08, while private hospitals had an average occupancy rate of 76%, which has been increasing since 2002-03.

The Productivity Commission noted that average occupancy rates above 85% may lead to inefficient patient flows, regular bed shortages and periodic bed crises. Once average bed occupancy rises to over 90%, access block crises are routinely expected (Productivity Commission 2009).

Chart 4.1 shows the average bed occupancy of private hospitals since 2002-03. It can be seen that for the major medical tourism destinations in Australia such as Queensland, bed occupancy rates are increasing towards 85% capacity. This acts as a potential barrier to the medical tourism supply chain as most medical tourists will rely on the private hospital system.

**Chart 4.1: Private hospital bed occupancy rates by major medical tourism destination**

Going forward, there is potential for the private hospital sector to expand if demand for private hospitals increases e.g. as a result of favourable changes to private health insurance regulation as the public health system becomes less sustainable due to demographic ageing. Alternatively, continued higher costs in major potential source markets such as the US or capacity issues such as in Singapore, may also stimulate investment in capital and facilities in the Australian private health sector, and may therefore address some of the emerging capacity issues. Finally, if a medical tourism market were to be intentionally developed, for commercial or government policy reasons, stakeholders believed that
investments in private hospitals and other health capital and facilities could be achieved with relatively short lags.

However, it is important to emphasise that based on consultations and the current size of the market, it is unlikely that the medical tourism market will grow so as to have significant impacts on Australia’s private hospital sector. In fact, the consultations and the literature have shown that most medical tourism providers invest and build into their own facilities the capability to service both local residents and international patients. Without intentional interventions to cultivate medical tourism, international patients are likely to remain an almost insignificant minority overall across Australia, meaning there is likely to be minimal impact on the existing capacity of the private hospital system.

4.3.2 Medical and other health workforce shortage

As the Department of Health and Ageing (DoHA) and other stakeholders have indicated, health professionals in the public sector are in shortage in Australia. This is particularly the case in regional and remote areas where medical professionals trained overseas are needed to fill the gap through programs such as the International Recruitment Strategy.

Figure 4.2 shows the Districts of Workforce Shortage (DWSs) in Australia where there are medical workforce shortages⁶, defined as geographical areas where the population need for healthcare has not been met. Population needs are considered unmet if residents have access to Medicare services less than that of the national average.

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⁶ DoHA determines whether an area is given DWS status largely by its doctor to population ratio, based on ABS statistical local area (SLA) population data and Medicare Australia billing date for full time workload equivalence (FWE). FWE is defined at http://www.phcris.org.au/fastfacts/fact.php?id=4833 as ‘a measure of medical workforce supply that takes into account the differing working patterns of doctors. FWE is calculated by dividing each doctor’s Medicare billing by the average billing of full time doctors for the year. There is no cap on a doctor’s FWE. That is, a doctor with 50% of the average billing for full time doctors is counted as 0.5, a doctor billing at the average is counted as 1.0, and a doctor billing at 150% of the average is counted as 1.5.'
DoHA and state health departments commented that medical tourism runs a risk of furthering the workforce shortage by attracting health professionals into a more lucrative private market. This internal brain drain of medical professionals from the public to the private health sector has substantial potential implications for Australia, which aims for universal healthcare access for all residents. Currently, however, the number of medical tourists is so small that it does not have a significant impact on overall demand pressure on the health system compared to other factors (e.g. demographic ageing).

4.3.3 Supply of accommodation and other tourism-related activities

Because the medical tourism sector is quite a niche market and would be relatively small compared to the overall tourism sector, it was anticipated by tourism industry bodies that it would have minimal effect on the capacity of the tourism sector.

The 2020 Tourism Industry Potential is a government and industry aspiration for the tourism industry going forward. It highlighted that increased investment and utilisation of current capacity is required for the industry to become more productive and competitive. It is estimated that between 40,000 and 70,000 rooms are needed for occupancy rates of 75% to meet the Potential. Tourism Australia commented that if a medical tourism industry is to be developed, the demand for accommodation will need to be incorporated into the Potential to ensure capacity is able to meet demand.

New rooms are needed mainly for the capital cities, while quality rather than quantity needs to be the focus for regional Australia. Given that most medical visitors travel to the
major capital cities and Tropical North Queensland for treatment, additional capacity (as opposed to quality) would be the focus of any expansion.

**Summary**

Given that the medical tourism market is still relatively small and fragmented in Australia, the supply chain is not currently operating as a cohesive network. Rather, medical tourism facilitators, medical providers, tourism providers and allied health services are operating as scattered units because a mature medical tourism market does not exist.

Furthermore, stakeholder consultations and analysis suggest that the medical tourism market is unlikely to grow, organically, to such an extent that it will have a large impact on the supply chain going forward. This view was based on perceived competitive disadvantage on the demand side (due to price, quality, distance and other factors) but also – on the supply side – due to commercial gaps, regulatory barriers, relatively little Government support, possible market failure due to poor information about the Australian medical tourism potential, emerging bed capacity constraints and skilled workforce shortages.

Most providers and facilitators of medical tourism agreed that the market could develop, at best, as a niche market specialising in few high quality offerings in which Australia has world renowned expertise and a competitive edge.

For the medical tourism market to develop in this manner, there would need to be incentives for the supply chain to expand. These may include:

- developing more coordinated networks of medical tourism providers within the supply chain e.g. through an industry association;
- developing marketing strategies to raise awareness and build Australia’s reputation as an attractive destination for niche medical tourism;
- considering government support (financial or non-financial) to encourage both demand and supply of medical tourism in Australia; and
- trialling a few procedures in which Australia has a competitive advantage and market these to a few potential source countries to determine what our product offering and source targets would optimally be.
5 Implications of medical tourism

5.1 Potential benefits

5.1.1 Injection of foreign currency and investment into Australia

In countries that supply medical tourism, it is claimed that an important benefit is the injection of foreign currency and foreign capital into the economy. This can be reinvested by building newer more sophisticated healthcare facilities and supporting growth and scale economies in the health industry, which potentially benefits the domestic population when seeking healthcare.

For example, the Chief Financial Officer for Penang Adventist Hospital, Michael Wong, says medical tourism revenue meets about 25% of the hospital’s bottom line and that:

*Medical tourists help greatly in accelerating our ability to acquire and upgrade to newer and better medical equipment and assist doctors and medical teams in their treatment plans (Michael Wong from Penang Adventist Hospital).*

The end result is “better outcomes and quality of care” (Davis 2008 p. 43). There is also evidence from Thailand that medical tourism brings in far greater income than the resources it consumes such as staff time (Davis 2008). In addition, improving the quality and standard of medical care in private healthcare facilities may act as a driver for the public system to upgrade and improve its offerings (Constantinidis 2009), though this is less likely to be of benefit in Australia where public sector offerings are already high quality.

Medical tourism also generates highly skilled jobs which some have argued may help enable developing countries to escape from economic dependency (Bookman and Bookman 2007 cited in Chee 2010). In Australia, improvement in medical training opportunities for domestically educated doctors may exist if private hospitals are more willing or incentivised through medical tourism industry development to provide more training opportunities. Currently, a significant proportion of medical training takes place in public research hospitals. Attracting the private sector to provide more training may enable more doctors to obtain specialist training and in the long-run, may help alleviate waiting times for elective surgery in Australia.

In a more direct manner, revenues raised from this industry (e.g. through taxation) can be used to improve public health services for the benefit of the domestic population.

One stakeholder commented that Singapore is beginning to invest in Australia as a medical tourism destination and, as a result, invest into Australia’s healthcare infrastructure. Singaporean investors are looking to have purpose built facilities and hospitals that can service foreign patients, particularly the overflow of patients from Singaporean healthcare market that is close to capacity. This not only expands the capacity of Australia’s healthcare system, but it also improves the quality of healthcare in Australia for local residents.
Countries with a small population such as Singapore also claim that medical tourism enables them to maintain advanced medical care and technology and attract the best medical practitioners by providing a large enough demand for these services (Singh 2009).

5.1.2 Reduce external brain drain of medical professionals

For developing countries such as India and Thailand, it is argued that the development of a medical tourism industry will decrease the rate of migration of medical practitioners to more developed countries. For example, Apollo Hospitals and Fortis Healthcare both located in India have both been on recruitment drives to attract Indian nationals who are medically trained. Anecdotal evidence from Thailand indicates that medical professional salary increases and higher quality hospital facilities driven by the medical tourism industry is attracting overseas trained Thai medical graduates back home (ESCAP, 2009).

However, in the past, the external brain drain of doctors in pursuit of greater opportunities and higher salaries has been traditionally from developing countries to developed countries. It does not appear to be a problem Australia has faced due to Australia’s high quality medical training opportunities and healthcare facilities. One government stakeholder suggested that external brain drain was unlikely to be a problem facing the Australian healthcare system in the future. In contrast to this, ATEC (2008) points out that, at its broadest level, investment in medical tourism by governments overseas is driven by the global contest for skilled people. In the context of a critical global shortage of skilled medical practitioners partially due to an ageing population, national governments are investing in the global health economy not only to retain their practitioners, but also to attract skilled practitioners and achieve knowledge transfer from other countries. ATEC cites Dubai Healthcare City as an example of a facility with enormous capacity but a potential lack of staff whereby the government plans to import medical practitioners. ATEC warns that for:

Australia, with its internationally regarded medical teaching establishments and methods, the potential for a significant outflow of Australia’s health providers should not be underestimated (ATEC, 2008 p. 13).

5.1.3 Reinvestment into the local healthcare system

Concerns were raised by many stakeholders over the capacity of the Australian healthcare system to accommodate an increase in international patients. It has been noted by other stakeholders that medical tourism has the potential to provide an investment stream for providers, which can then be used to improve the quantity and quality of healthcare in Australia. Some creative ways to prevent the medical tourism industry from impeding accessibility of healthcare services for local residents have been developed by some stakeholders and other providers internationally.

For example, one provider in Cairns has a purpose-built day hospital with two operating theatres to accommodate international patients that attend. The facility also services local residents in Cairns, thereby adding to the pool of healthcare services in the area. The facility is in close proximity to other related services such as pathology, ultrasound services, a scientific laboratory, medical consulting suites, allied health services such as acupuncture, massage, on-site serviced apartments, a day spa, retail outlets, a restaurant and a delicatessen.
In addition, the same provider in Cairns recruits medical professionals from overseas in order not to erode the existing health workforce which is in short supply. The medical professionals are then trained further in Australia and again, are able to also service local residents. Hence, this model invests into the existing local skills base and benefits local residents in the longer term.

Another stakeholder also mentioned that Australia could also market itself to attract foreign investment into the medical tourism industry. Section 5.1.1 provided an example of this sort of investment into Australian health infrastructure being undertaken by Singaporean investors.

5.1.4 Benefits to the tourism industry

While many stakeholders suggested that most medical tourists do not engage in tourism activities, those who receive minor or non-invasive treatment (such as IVF) generally do participate in activities such as shopping and sightseeing tours. In addition to this, all medical tourists require accommodation during their pre and post operation period. Hence, there are flow-on effects to the tourism industry overall.

As shown in the International Visitors Survey, one of the most popular destinations for medical visitors in Australia is Tropical North Queensland where a major part of Australia’s tourism activity takes place. Hence, current areas of high tourism demand (e.g. the Great Barrier Reef, the Daintree Rainforest) can be marketed in conjunction with medical care to attract even more visitors to those areas.

As well, one stakeholder suggested that Australia has the potential to develop a niche market in offering executive medical check-ups to medical tourists. Given that medical check-ups are usually non-invasive and require very little time, these medical tourists are able to combine tourism activities with healthcare.

5.2 Potential risks

Whether the benefits identified above have translated into reality is not clear. However, there are some risks associated with a medical tourism industry that have emerged from existing medical tourism sectors in other countries. Many of these risks were echoed by stakeholders in the consultations.

5.2.1 Internal ‘brain drain’ from public to private sector

The corporatised medical tourism industry has been heavily criticised for creating two tiered healthcare systems. For example, in India, corporate hospitals agree to treat patients from lower socioeconomic backgrounds for free in return for government subsidies that assist in attracting medical tourists. However, Sengupta (2011) pointed out that to date, corporate hospitals have dishonoured these agreements (Sengupta 2011).

In India, the medical tourism industry has further driven the brain drain of specialists from the public to the private system and movement of specialists to large urban centres. While most physicians in India train in public hospitals, most are later attracted to private hospitals and the medical tourism industry as it is more lucrative. This means the public
sector is indirectly supporting the private sector, which has an estimated value of $90 to $100 million annually (Sengupta 2011). The incentives are distorted as, rather than being taxed to enable redistribution of some profits from medical tourists, the industry receives numerous tax concessions to encourage investment and growth. Hence, public funds that may have otherwise provided better healthcare for people from lower socioeconomic backgrounds are instead diverted towards providing healthcare services and facilities for more affluent domestic patients and foreigners (Hopkins et al. 2010).

As discussed in Chapter 4, the potential internal brain drain of medical professionals from the public to the private health sector has potentially substantial implications for Australia. Australia already has a health workforce shortage and the development of a medical tourism sector runs a risk of diverting skilled medical practitioners from the public sector.

The Malaysian and Singaporean Governments have reassured the public that the medical tourism industry will not affect the quality of healthcare delivered to their domestic populations. However, in Malaysia, the proportion of medical practitioners working in the public sector decreased from 53-59% in 1972-80 to around 42% in 2000-06, suggesting that medical practitioners are gradually being attracted to the private sector (Chee 2010). Singapore also faces the same problem but it has been less pronounced due to policies discussed in Section 2.3.2. Both Malaysia and Singapore now need to recruit specialists from other countries to support their public health systems.

Thailand has also faced this internal ‘brain-drain’ where medical tourism has contributed largely to pay discrepancies between public and private sectors. Thailand has seen the movement of specialists from public teaching hospitals in urban areas to private hospitals that cater for foreign patients. This push towards privatisation has also led to the closure of many provincial public hospitals which have been unable to finance services. The problem is amplified by the shortage of medical practitioners in Thailand and the high quality medical care available now largely positioned in private hospitals is unaffordable to a majority of Thais (Saniotis 2007).

The Thai government has tried to compensate for this, making high contributions to the public health sector in Thailand (around 65% compared to India where public expenditure is around 17% of total expenditure). Therefore, in Thailand, when public sector costs increase or in times of crisis, people who cannot afford to access health services in the private sector are able to use the public sector. Citizens in countries where a high percentage of healthcare costs are privately contributed do not have this fall back option (Vijaya 2010).

### 5.2.2 Rising cost of healthcare

Ultimately, a growing private sector as a result of medical tourism may drive up healthcare costs for local residents by increasing demand for, and hence the wages of, private health specialists. Higher costs can filter through to the public sector via pressure to match wages in order to stem the outflow of specialists and other healthcare professionals. Increasingly, in countries such as Singapore, these rising costs have been met by users of health services.

In 2010, the Singaporean government allowed their citizens to use their compulsory savings scheme funds (Medisave funds) in specific private hospitals in Malaysia where healthcare is cheaper (Khalik 2010). One year later, a private hospital group in Malaysia reported record increases in the number of Singaporeans seeking hospitalisations and day surgeries.
(Cheong 2011). This indicates that perhaps the Singaporean government has outsourced the provision of affordable healthcare to Malaysia as a result of medical tourism (Chee 2010).

This is a major issue for Australia in terms of medical tourism. Popular medical tourism procedures such as fertility treatment is subsidised by the government through Medicare. DoHA commented that once existing health services start servicing international patients at the higher end of the income spectrum, the price of specific procedures may be bid up. This means that any rising cost of procedures as a result of medical tourism may be borne by the government.

### 5.3 Lessons from history and abroad

It is evident from the analysis that building a successful medical tourism industry requires strong collaboration between both public and private sectors. Within government, there must be equal representation from trade and tourism ministries and health ministries in order for their policy objectives to be met equally. If this does not occur, trade and tourism objectives such as maximising economic growth through foreign investment in health may be met at the expense of health policy aims such as universal and equitable access to healthcare (Pocock and Phua 2011). In developing countries, redistributive financing mechanisms, such as taxing revenues from medical tourism, are needed to offset the increase in healthcare treatment costs which are driven by medical tourism (Chanda 2002). In addition, policies to stem the flow of medical professionals from the public to the private healthcare sector are needed to ensure ongoing access to quality healthcare for the domestic population.

#### 5.3.1 Redistributive policies

Presently, Australia has a high quality public health system that aims to provide universal healthcare for all citizens. Therefore, access to life saving surgeries and other healthcare is not tied to one’s ability to pay – although waiting lists for some services and other access constraints currently exist in the public health sector. Unlike most South East Asian countries exporting healthcare, it also appears that foreigners would travel to Australia for access to high quality rather than lower cost services. Therefore, it is less likely here than abroad that medical tourism will raise the cost of healthcare significantly, particularly if workforce and other capacity is intentionally expanded apace. Maintaining the public system will require ongoing investment from the government and policies to ensure a ‘brain-drain’ into the private sector and a two tier healthcare system does not develop.

In Singapore, several public hospitals were corporatised in the 1980s to enable greater exposure to market competition and thus a lowering of costs and an increase in quality (Wagstaff 2005). However, these hospitals are still publicly owned, enabling the government to tax revenues that accrue from medical tourism and reinvest profits into the public health system. Malaysia and Thailand are following suit by allowing some surgeons in public hospitals to operate a private wing for private patients including medical tourists. Pocock and Phua (2011) suggested private hospitals that provide services to foreigners should also provide services to a certain percentage of the domestic population. To some degree, this would also minimise the risks associated with relying only on international patients (Hadi 2009).
It has been argued that, rather than benefiting local populations, corporatisation of private hospitals has meant profits from medical tourism are moving off-shore to entities in different countries that are investing in private hospital networks. For example, India’s second largest healthcare group, Fortis, merged with Singapore/Malaysia’s largest private healthcare group, Parkway. Malaysia’s sovereign wealth, Kazanah subsequently took over Parkway, hence moving profits generated from medical tourism in Singapore and India into Malaysia (Pocock and Phua 2011).

In addition to this, it has been questioned whether public healthcare interests will be best served in countries where the state has such great interests in private healthcare. The off-shore flow of profits from medical tourism is further served by the World Bank and International Monetary Fund’s neoliberal policies that require debtor nations such as India to remain open to foreign investment and provide tax breaks to projects funded by foreign investment (Meghani 2011).

Hence, if medical tourism is to be developed in Australia, one consideration would be that profits from medical tourism are redistributed back into the Australian health and tourism sector for the benefit of local Australians or, at least, not to their detriment.

5.3.2 Preventing the internal brain-drain

Thailand has introduced policies to mitigate the adverse impact of an internal movement of medical professionals from the public to the private healthcare system partly driven by increasing inbound medical tourism. On the supply side, these measures include three years of compulsory public service for medical graduates and incentives for doctors to work in rural locations. Incentives include a hardship allowance, overtime and special service allowances. As a result, graduates in remote rural districts can earn a salary equivalent to a senior doctor in a central urban location with 25 years experience. To further retain doctors in rural areas, the government now recruits new medical students from high schools in rural districts to be educated in a local university and local hospitals. The number of places in medical schools has also been increased to cater for the growing population. On the demand side, the government promotes preventive care to curb the population’s reliance on interventional healthcare (Cattaneo 2009).

In Australia, there are currently no such large salary increases to incentivise doctors to work in rural areas. Rather, rural recruitment and retention relies on other means (e.g. visa restrictions for overseas trained doctors).

Further measures to decrease the rate of internal brain drain have been suggested such as introducing standard fees for doctors regardless of whether the patient is local or foreign. Alternatively, medical practitioners may be required to pay a fee to leave the public sector if they have used public funds for their training (Pocock and Phua 2011).

5.3.3 Coordinated marketing approach

A coordinated approach is needed due to the myriad of stakeholders involved which includes:

- tour operators;
- private practitioners;
• clinics and hospitals;
• research institutes;
• ministries;
• professional bodies; and
• investors.

In countries such as Thailand where inbound medical tourism has been successful, the positions of all stakeholders in the market are taken into consideration with extensive horizontal administrative structures. Successful countries such as Cuba also have an agency dedicated to marketing and promoting medical tourism overseas. Cuba’s state run trading company SERVIMED is administered by the Ministry of Health and brings together tour operators and travel agents from target markets to prepare health packages that include air travel (Cattaneo 2009).

The consultations also uncovered similar findings. A few stakeholders noted that it is important for Australian medical tourism providers to establish strong networks in the target markets. This allows for a more coordinated marketing approach as well as a deeper understanding of the target market and the procedures patients require.

5.4 Facilitating Australian medical tourism

5.4.1 Medical tourist/treatment visas

Currently, DIAC issues short stay 675 visas (less than three months) and long stay 685 visas (between 3 and 12 months) for people wishing to enter Australia for medical treatment or consultations (DIAC 2011). However, most stakeholders noted that patients often do not require a medical treatment visa for minor medical treatment types such as some cosmetic surgery and IVF. Hence, this is currently not a substantial regulatory barrier, but has the potential to be should a medical tourism market be developed.

From an immigration perspective, the current Medical Treatment Visa needs to be further developed and should serve several purposes (some of which are already covered currently).

• A treatment plan developed by a doctor in conjunction with the patient needs to be lodged with the visa application to certify the patient is receiving medical treatment in Australia. The aim of this is to prevent people who would otherwise be ineligible to enter Australia to use medical treatment as a means of entering the country.

• The visa needs to regulate the types of procedures that international patients can enter Australia for. Currently, non-residents wishing to immigrate to Australia must fulfil the health requirement, which includes the requirement that they are not likely to need medical treatment that is currently in short supply (such as organ transplants or blood products). The medical tourist visa needs to have a similar list of procedures that are in short supply and that are likely to prejudice the access of local residents.

• The visa also needs to adequately ensure that when complications arise with a medical procedure, there are provisions for the patient to extend their stay for a limited period of time. There also needs to be oversight on behalf of medical practitioners and
authorities that patients do not overstay their visa, or use their condition as an excuse to permanently remain in Australia.

5.4.2 Insurance and liability issues

The most important regulatory issues identified by stakeholders for the development of the medical tourism industry are insurance and liability.

Stakeholder consultations revealed that currently, medical tourists seeking treatment in Australia are responsible for the purchase of their own medical insurance in their country of origin. In Australia, there is no mandatory policy that an international patient seeking medical treatment in Australia must purchase medical insurance. The short stay and long stay medical treatment visas available in Australia only require that a person provides evidence that they have enough money to support themselves and any accompanying friends and family while in Australia and that “adequate payment arrangements are in place for your treatment” (DIAC, Phil Jacomb, pers. comm. 29 June 2011). Hence, there is no legislative requirement that a person hold medical insurance when seeking treatment in Australia.

One medical facilitator consulted stated that all medical travellers should hold international healthcare insurance due to the risk of complications arising. For example, a surgeon may uncover another serious problem during a relatively simple surgery which may require a person to stay in Australia for longer. Another facilitator stated that there are often enquiries about organising medical insurance but this is not currently in their domain. Should complications arise and the patient be required to stay in Australia longer than intended, an extension of the medical visa was described as “fairly easily achieved”.

However, consultations with facilitators revealed that complications resulting in prolonged hospital stays are not currently a problem and are considered ‘rare’. One facilitator reported that most complications are minor and usually only require a time extension of up to one week. Another stakeholder reported that none of their patients had experienced complications since they began operating. Complications arising due to travel pre and post surgery such as the development of deep vein thrombosis and pulmonary embolisms was raised as a risk, however, one stakeholder reported that the doctors were aware of this and provided recommendations as to when travel was safe and how to mitigate risks.

Consultations with government departments revealed a higher level of concern surrounding unanticipated complications leading to an extended period of medical care in Australia. Concern was expressed that should inbound medical tourism increase in Australia, a rise in complications, especially from cosmetic surgery, may put extra pressure on public hospitals where these patients would potentially be admitted, or could increase the risk on treatments and services which are in short supply such as organ transplants and fresh blood.

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7 Another potential difficulty with insurance may be that if someone has a pre-existing condition this condition may be excluded from their policy and thus the insurance would not indemnify them against any complications arising from having that condition. However, most people taking out insurance for medical tourism would probably seek to insure specifically for their perceived risk and not take out a policy which did not cover them for complications.
Therefore, in a suggested framework for regulating the medical tourism industry, Turner (2010) suggests that all clients arranging international healthcare with the assistance of a medical tourism company should be required to purchase compulsory medical travel insurance (Turner, 2010). In the context of no internationally accepted legal framework to regulate medical tourism, it is unclear who is liable in the case of medical treatment provided abroad (Nemie and Kassim 2009)). As mentioned by Lum (2009), the process for a patient from the US is likely to be that their primary physician and insurance provider endorses their choice to travel overseas for surgery, so it is unclear as to who is liable if the patient suffers post-surgical complications after returning home (i.e. whether it is the primary care doctor, the surgeon or the insurance company). There are also uncertainties surrounding whether the patient, after accumulating unexpected out-of-pocket costs for treatment of the complications, sue domestically or abroad (Lum 2009).

Presently there seems to be little opportunity for patients to seek legal redress following unsatisfactory outcomes from medical treatment in Australia. One medical tourism facilitator mentioned that legal redress by a patient would need to be actioned from within Australia. Another mentioned that one of their clients was not happy with the outcome of surgery and had been offered a repeat surgery at her own expense. She had declined this and returned to her home country for the procedure to be repeated.

Issues of legal recourse by the medical tourists have been raised in countries where there is presently a large medical tourism industry, but there remains a large amount of uncertainty (Lum 2009). Further development of the medical tourism industry in Australia will require a closer inspection of the issue of liability and the effect that this may have on medical professional insurance premiums and thus the effect on healthcare.

5.4.3 Parallels with the education tourism market

There are similarities between the higher education international student sector and the medical tourism industry. Similarities include:

- the fee structure where, like international students, the costs of medical treatment in Australia for foreigners will not be subsidised by the government;
- both industries rely strongly on upholding a good reputation to attract future customers;
- fees paid by international students provide income for Australian universities and likewise, it is envisaged that revenue generated from the medical tourism industry will provide income for the Australian healthcare system; and
- like higher education institutions, public health institutions receive taxpayer supported government funding in order for services to be publicly delivered and their expansion relies on government support.

If Australia is to develop a medical tourism industry it can learn important lessons from the higher education international student sector especially in the context of the recent downturn in enrolments and the role of reputational factors.

The higher education international student sector has grown rapidly over the last decade with international student enrolments more than doubling over that period. In 2009, the higher education international student sector was estimated to add a total value of $16.5 billion to the Australian economy (Deloitte Access Economics 2011). However, 2010 started
to see a decline in international student commencement and enrolment numbers across all education sectors and a slowing in the growth of higher education sector commencements. The key factors contributing to the downturn were multifarious and included the rise in the Australian dollar, changes to student visa regulations, changes to the General Skilled Migration program and reputational factors (Deloitte Access Economics 2011).

The impact of the loss of Australia’s reputation as a safe destination was considerable and is thought to be a large causative factor in the decline of Indian student enrolments. Following a series of violent attacks on Indian students in Melbourne in 2009, Australia received damaging publicity in the Indian press. A travel advisory was also issued by the Indian government warning of the dangers to its citizens due to increasing violence in Melbourne. As a result, the number of Indians enrolling in the education sector in 2010 decreased by 49% compared to 2009.

The growth in international students coming into Australia’s vocational education and training sector was rapid and led to the expansion of private colleges – some established solely to provide students with a qualification needed to obtain permanent residency in Australia. However, reports of private colleges failing to maintain basic education standards, poor record keeping and poor financial management followed by the closure of Meridian colleges, leaving 3,000 students displaced resulted in the Indian and Chinese governments issuing warnings against Australian private colleges.

These two recent events indicate that our source markets for international student education can be highly reactive to reputational factors. This will be of equal importance for the development of Australia’s reputation as a safe country where high quality medical procedures can be obtained, especially in the context of strong competition to supply such services. Deloitte Access Economics (2011) has suggested that a more concerted effort be made to ensure public safety in areas frequented by international students. Additionally, promoting a “greater understanding of international cultures and languages in Australia are central to improving the student experience and perception of Australia as a safe and welcoming destination”, a message that is equally important to Australia’s development as a medical tourism destination (Deloitte Access Economics 2011, p. viii).

### 5.5 Conclusion

Chapter 5 has provided a discussion of the potential benefits and risks that Australia will face if the government embarks on developing the medical tourism industry as a major policy thrust. This discussion is based on the experiences of markets abroad mostly from within Asia where the interests of public health potentially come second to the interests of developing medical tourism into a successful export. This must be taken into account in drawing conclusions on how the industry would operate within Australia. Should this industry develop, the major potential risks to Australia’s public health system could be similar to those in Asia, and include the risk of an internal brain drain of the medical workforce from the public to the private sector where more attractive remuneration may be available. This could potentially raise the costs of medical care in both the public and private sector, working against the policy objective of universal access to affordable medical care.
However, at this early stage, Australia does have the capability to introduce measures to manage these risks. As outlined, these include expanding the medical workforce and other capacity in certain medical treatment areas in order to meet any increase in demand driven by medical tourists. Potential strategies include more strategic recruitment of overseas trained health professionals and encouraging foreign investment for infrastructure creation. Other measures include: introducing standard fees for procedures regardless of whether the patient is domestic or foreign; introducing an exit fee for doctors if they wish to exit the public sector for the private sector prior to a previously agreed time frame; ensuring that profits earned through the industry are taxed and this income is redistributed back into the public health system to offset any cost pressures; and introducing policies that require private hospitals treating medical tourists to treat a certain percentage of the domestic population.

As demonstrated in earlier sections of the report, Australia’s competitive advantage in capturing medical tourists is through its offering of high quality medical treatment in niche areas, not low cost. Hence it is envisaged that the market in Australia will not develop to the same magnitude as those in South East Asia. Due to Australia’s inability to compete on cost and distance from other countries, it is predicted that demand may only develop in certain niche areas such as cosmetic surgery, bariatric surgery, orthopaedic surgery and IVF. Foreigners who seek medical services within Australia are likely to be those who are wealthy enough to access Australia’s high quality offerings, from countries where either they cannot access similar treatments due to availability, quality or price. It is therefore likely that Australia’s medical tourism industry will be small and contained to specialised areas which do not affect the public health system adversely overall.

Australia has a lot to benefit from a medical tourism industry. This includes injection of foreign investment into the health care system which may enable infrastructure creation and increased training places for health professionals; the potential to reduce external brain drain and injection of foreign currency into the tourism industry. However, in order to capitalise on these benefits, policies need to be developed to mitigate the risks; insurance and liability issues need to be further explored; and ways in which medical treatment visas can be adjusted in order to help increase industry regulation need to be investigated. Successful international promotion and marketing of the availability of medical treatments in Australia and the advantages which treatment and tourism in Australia has over competitor nations may need government investment if this is deemed a policy goal. In addition, a coordinated approach between government health, tourism and trade departments has been shown to be necessary in order to ensure the interests of the domestic population, government and industry stakeholders are represented.
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Appendix A: Consultation plan

Stakeholders consulted

Government departments
- Department of Immigration and Citizenship
- Department of Health and Aging (DoHA)
- Department of Trade and Investment, Queensland
- New South Wales Department of Health
- Tourism Australia
- Tourism Research Australia
- Tourism Queensland
- Tourism New South Wales

Industry bodies
- National Tourism Alliance
- Australian Tourism Export Council (ATEC)
- Australian Private Hospitals Association
- Australian Nurses Federation
- Australian Medical Association

Medical tourism brokers/agencies
- AustAsia Pacific Health Services (Gold Coast, Queensland)
- Nip and Tuck Solutions (Gold Coast, Queensland)
- Medichol (Gold Coast, Queensland)

Medical tourism facilities
- Cairns Fertility Clinic and Cairns Central Day Hospital (Cairns, Queensland)
- PIVET healthcare in Western Australia (affiliation of the Cairns Fertility Clinic) (Perth and Bunbury, Western Australia).

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Austrade and the Tourism and Transport Forum were approached but declined participation.
Questions for stakeholders

Table A.1: Questions for consultations

<table>
<thead>
<tr>
<th>Questions</th>
<th>Relevant stakeholders</th>
<th>Medical tourism brokers</th>
<th>Medical tourism facilities</th>
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<tbody>
<tr>
<td>Medical tourists</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>What are their usual demographics (e.g. gender, age group etc)?</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>How many potential medical tourists make enquiries into your services annually eg, through websites?</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>How many medical tourists do you treat annually?</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>Apart from obtaining medical care while in Australia, do medical tourists usually participate in other tourism activities?</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>How often do medical tourists have language difficulties or require interpreters to explain the procedures and risks to them?</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>Friends and family</td>
<td></td>
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<td></td>
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<tr>
<td>Are medical tourists usually accompanied by their friends and/or family?</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Do their friends and/or family participate in other tourism activities while they are in Australia?</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>The process</td>
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<td></td>
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<tr>
<td>What is the process from when a person decides to seek medical care overseas to when the person departs from Australia following medical care?</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>What other services are medical tourists linked to e.g. accommodation, restaurant meals, shopping and excursions</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>What is the size of your business (e.g. staff numbers, number of clients, change in turnover/revenue)</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>How do you promote your services?</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Who are some of the other major providers of medical tourism in</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
Who do you see as major competitor countries in the medical tourism sector?

<table>
<thead>
<tr>
<th>Medical care</th>
<th>✓</th>
<th>✓</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td>Types of procedures common for medical tourism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What services/procedures/facilities are offered by the business?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have affiliations with other service providers such as</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hotels/resorts for accommodation, physiotherapists for recovery etc?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What are the three most important services that the business offers?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Complications associated with procedures for medical tourists

<table>
<thead>
<tr>
<th>Legal aspects</th>
<th>✓</th>
<th>✓</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td>What legal aspects are there that facilitate or hinder the development of medical tourism in Australia?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How can the regulatory environment be changed to assist the development of medical tourism in Australia?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Consultation method

The consultation process involved several steps.

1. Recruitment and contact

Deloitte Access Economics in collaboration with RET decided on a selection of relevant stakeholders to consult. RET provided Deloitte Access Economics with the contact details from some of the stakeholders. For others, Deloitte Access Economics contacted them and obtained a point of contact for the consultations who was familiar with medical tourism. RET provided letters of support for the study, that were emailed to stakeholders who Deloitte Access Economics wished to consult, should they have required further clarification or detail about the processes and their potential involvement.

Each selected stakeholder was invited to participate in the consultations individually via telephone or email. Stakeholders had the choice to opt out of the consultation during this stage of the recruitment process.

There were two full days of consultations in elapsed time and the number of consultations depended on the length of time of each consultation. The length of consultations was around 45 minutes on average.

2. Develop consultation scripts

Deloitte Access Economics developed consultation scripts in collaboration with RET after finalising the questions of interest. These scripts guided the consultation process to ensure questions were consistent across all consultations.

A template for taking notes at each consultation was also developed so that the notes were consistent and could be easily merged after the consultations were completed. This aided the collation of data and information for the report.

3. Consultation phone call

Once Deloitte Access Economics finalised the list of stakeholders who were willing to participate in the consultations, an appropriate time to telephone them for the consultation was established. At least two staff members were present at each consultation, allowing one to speak and the other to take extensive notes.
## Appendix B: Government support

### Table B.1: Summary of the level and type of government assistance by country

<table>
<thead>
<tr>
<th>Country</th>
<th>Current government stance</th>
<th>Government involvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>Government supportive of medical tourism—deemed an export and eligible for fiscal incentives. Strategic aim in National Health Policy 2002</td>
<td>Collaboration of Ministry of Commerce, Department of Export Promotion and Ministry of Health to promote Thailand’s health facilities. Very strong private sector promotion to foreign markets—indeed private sector promotion possibly stronger than public sector.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Strong Government support. Ambitions to become the leading healthcare provider in Asia by 2010</td>
<td>Government promotion through the MNCPTH which involves the MOH, Ministry of Culture, Arts and Tourism, and other tourism associations.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Strong government support as government is seeking to reduce reliance on manufacturing Not mentioned in the national health plan 2010 as a strategic aim</td>
<td>Singapore’s Tourism Board, Ministry of Trade and Industry’s Economic Development Board and the MOH collaborates to promote through SingaporeMedicine. Three key growth areas identified: eye, heart and cancer treatment</td>
</tr>
<tr>
<td>Singapore</td>
<td>Most integrated policy stance. Launched SingaporeMedicine in 2003 Target to attract one million patients by 2012</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>Government currently exploring the potential for an industry. In 2009, the Government announced medical tourism as one of its growth areas.</td>
<td></td>
</tr>
<tr>
<td>South Korea</td>
<td>Strong government support as government is seeking to reduce reliance on manufacturing Not mentioned in the national health plan 2010 as a strategic aim</td>
<td>Korea Medicine Overseas Promotion formed in 2007 from the government affiliated Korea Health Industry Development Institute and the Korea Tourism Organisation. Korean International Medical Service in association with the Ministry of Health also introduced with an emphasis on promoting medical tourism to travel agencies and foreign insurance companies.</td>
</tr>
<tr>
<td>Japan</td>
<td>Developing a medical tourism industry is part of Japan’s 10-year economic growth strategy. A new organisation was announced in 2010 to foster this. The current emphasis is on interpreting and visa services.</td>
<td></td>
</tr>
<tr>
<td>Medical visa status</td>
<td>India</td>
<td>Thailand</td>
</tr>
<tr>
<td>---------------------</td>
<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td>Medical visa available</td>
<td>Medical visa available</td>
<td>Medical visa available</td>
</tr>
</tbody>
</table>

**Government incentives for industry**

- **India**: Increased depreciation rate on medical equipment, reduced customs duties on specified life saving equipment from 25% to 5%. Government is taking interest in international quality assurance of hospitals.

- **Thailand**: Thai government incentives for foreign investment into healthcare include tax holidays, land ownership rights and permission to bring in foreign experts and technicians.

- **Malaysia**: Tax incentives for building hospitals, using medical equipment, staff training and service promotion. The government plays a strong role in marketing medical travel into Malaysia at trade missions overseas. Government is coordinating with private hospitals, tour agencies and other relevant bodies to develop packages to attract more travellers.


- **Australia**: The government has invested in Jeju Healthcare town and companies that invest in it will receive local tax exemptions, provisions for housing, special employment benefits for newly hired employees, corporate, registration and property tax incentives. Government is actively targeting the Middle East through direct promotion in Dubai.

- **South Korea**: Increased depreciation rate on medical equipment, reduced customs duties on specified life saving equipment from 25% to 5%. Government is taking interest in international quality assurance of hospitals.

- **Japan**: Increased depreciation rate on medical equipment, reduced customs duties on specified life saving equipment from 25% to 5%. Government is taking interest in international quality assurance of hospitals.

*Source: Gupta (2008); ESCAP (2009); Pocock and Phua (2011).*
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