An Overview of the Medical Tourism Industry in Bangalore, India

Version 1.0

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INTRODUCTION

Medical tourism occurs when patients travel internationally to obtain privately-funded medical care. Medical tourism is a global practice, with hospitals and clinics in a diverse array of destination countries vying to treat such international patients. India is one of these destination countries. In this document we provide an overview of Bangalore, India's nascent medical tourism industry. This overview has been generated based on information gleaned from media and policy sources, field notes taken during site visits to public and private health care facilities in the country, immersive observational research, and informal conversations with various stakeholders in Bangalore's medical tourism industry.

Our research group is interested in developing a better understanding of the health equity impacts of medical tourism on destination countries. In other words, we are interested in understanding if and how medical tourism is helpful and/or harmful to people living in destination countries and their health. India is one of four countries that our work is focused on, which is why we have produced this profile. The medical tourism industries in Barbados, Guatemala, and Mexico are also being examined. We are studying the medical tourism industries and their impacts in these countries as part of an international grant funded by the Canadian Institutes of Health Research. You can learn more about our research by visiting: www.sfu.ca/medicaltourism/.

In the sections that follow we offer some general information on Bangalore and its health system before going into detail about key developments in its medical tourism industry. Complementing the main text, five Appendices provide additional detailed insights. Appendix 1 offers a content analysis of the media coverage of medical tourism in Bangalore. In Appendix 2 we provide a narrative synthesis of policy documents regarding medical tourism in Bangalore, Karnataka and India. Appendix 3 is a summary of key agencies and actors involved in medical tourism development in Bangalore and India. Appendix 4 is a map of the medical tourism facilities in Bangalore, and Appendix 5 offers the trade and investment treaties in India.

1.0 THE CONTEXTUAL SETTING

1.1   The Karnataka State

Bangalore is the capital city of the state of Karnataka, one of the four southern states of India. The state has a geographical area of 191,791 km², or 5.83% of India's total geographical area, making it the eighth largest Indian state. Karnataka has a very diverse set of cultures, geographies, and languages, and is known for its emphasis on intellectual capital. It is also the only state which shares borders with all the other southern states. It has four natural regions – the coastal region, the Western Ghats Region, the northern plains and the southern plains (Planning and Statistics Department, Government of Karnataka [PSD–GOK], 2006).
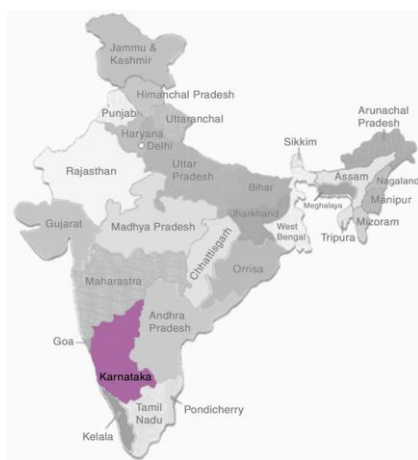
Karnataka has 30 districts, 176 sub–districts and 29,340 villages (Government of India, Ministry of Home Affairs [GOI-MOHA], 2011). It has a total population of 61,130,704. The population density is 319 people per km². The rural population of Karnataka comprises nearly 62% of the population,

Figure 1 – Location of Karnataka State
Source: www.mapsofindia.com

although this is down from nearly 66% in 2001, indicating increasing urbanization in the region. The literacy rate in the state is 75.6% (Government of India, Ministry of Home Affairs, 2011). The sex ratio is one of the most balanced in the country (968 females for every 1,000 males) in comparison with the national sex ratio (933 females for every 1,000 males). The Gender Equity Index (GEI) for education enrolment in Karnataka in
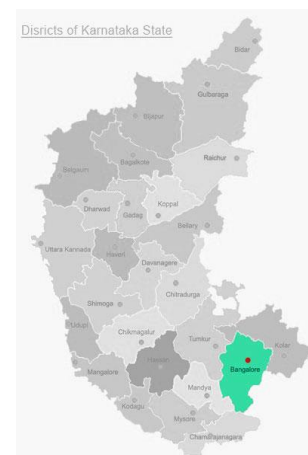
Figure 2 – Location of Bangalore
Source: www.mapsofindia.com

2009–10 was .9882, where 1 equals perfect equality in male and female education (Sarva Shikshana Abhiyana Karnataka, 2009–10). For India the GEI for education was .66 in 2012 (Social Watch, 2012). Karnataka is ranked 12th in India on the Human Development Index (HDI) at 0.519; higher than the overall HDI for India at 0.467 (Gandhi, et al., 2011). The life expectancy at birth (projected for 2011–2015) is 68 years for males and 72.3 years for females (Central Bureau of Health Intelligence [CBHI], 2011).

1.2   Bangalore

Bangalore, officially named Bengaluru, lies in the southern part of Karnataka It has a pleasant climate throughout the year, with moderate temperatures ranging from 18℃ to 32℃. It is the fifth largest metropolis in India, with a total population of 9,588,910 in Greater Bangalore, nearly 91% of whom reside in the urban area. Population growth in Bangalore was 46.68% over the past decade. The sex ratio is less balanced with 908 females for every 1,000 males. The literacy rate in Bangalore is 84% (GOI–MOHA, 2011). Bangalore is also a knowledge hub, with premier institutes like the Indian Institute of Science, National Institute for Advanced Studies, Tata Institute of Fundamental Research, Indian Institute of Management, Indian Space Research Organization, and many more housed in the city. Also, due to its prominent IT industry it is also known as the 'Silicon City' of India. Due to its greenery, parks, and tree lined streets, it is also called the 'Garden City' of India (Sudhira, Ramachandra and Bala Subrahmanya, 2007). In 2000, *Wired* magazine identified 46 global hubs of technological innovation; Bangalore ranked 11th and was given a score of 13 out of a possible 16 points (United National Development Programme, 2001).

1.3   Economy of Karnataka

Karnataka's Gross State Domestic Product (GSDP) for 2012–2013 (at constant prices) was 56 billion USD with a per capita income of 818 USD, and a growth rate of 5.9% over the previous year. The three most important sectors contributing to the state GSDP were the agriculture sector with 15.3%, the industry sector with 25.9%, and the service sector with 58.8%, which has become increasingly important in recent years owing to the IT sector boom. In 2009–2010, the overall unemployment rate in the state was 4.2% and the youth

unemployment rate was at 7%, comparing favourably with overall figures from India of 6.6% and 9.4% respectively. In 2009–2010, 23.6% of the population (14.2 million people) lived below the poverty line, even though there was an improvement of 9.7 percentage points when compared with the 2004–2005 data (Planning, Programme Monitoring & Statistics Department, Government of Karnataka, 2012–13). The Gini coefficient of consumption, an equality measure where 0 equates to perfect equality (all persons have an equal portion of what is being measured) and 1 equates to perfect inequality (one person has all of what is being measured), for Karnataka in 2004–2005 was 0.23 for rural areas and 0.36 for urban areas (PSD–GOK, 2006).

1.4   Health Indicators

The infant mortality rate in 2011 for Karnataka was 35 per 1,000 live births, while the corresponding figure for India was 44 (Sample Registration System [SRS], 2012). The maternal mortality ratio in 2007–2009 was 178 maternal deaths for every 100,000 live births, while for India the ratio was 212 (Office of Registrar General, 2011). The crude birth rate for Karnataka was 18.8 per 1,000 people, while India's was 21.8; the crude death rate was 7.1 for both Karnataka and India; the natural growth rate for Karnataka was 11.7 per 1,000 people, India's rate was 14.7 (SRS, 2012). Table 1 provides an overview of the various indicators for Karnataka and India.

In Karnataka, 71.6% of births were attended by skilled personnel, both within institutions and home deliveries, in 2007–2008; while for India overall it was 52.3% (International Institute for Population Sciences [IIPS], 2010). Karnataka has a high level of childhood immunization, with 76.7% of children having complete immunization, 85.1% immunized for measles, and 84.8% for diphtheria, pertussis, and tetanus; compared to 54%, 53.5%, and 63.4% in India overall, respectively (IIPS, 2010). In 2011, among children less than 5 years of age, there were 49 deaths from acute diarrheal disease (out of 591,989 cases), 182 deaths due to pneumonia (out of 1,629,997 cases), one death each due to diphtheria and measles, and no deaths due to neonatal tetanus or whooping cough (CBHI, 2011). Overall, Karnataka's health indicators are in the middle-range in comparison with the other 27 Indian states.

Table 1: Health Indicators for Karnataka and India compiled from various sources

Indicator	Karnataka	India
Infant Mortality Rate (2011)	35	44
Maternal Mortality Ratio (2007–2009)	178	212
Under 5 mortality rate (2009)	50	64
Crude birth rate (2011)	18.8	21.8
Death rate (2011)	7.1	7.1
Natural Growth rate	11.7	14.7
Total number of births attended by skilled personnel (2007–2008)	71.6%	52.3%
Number of children with complete immunization	76.7%	54.0%
Number of children with no immunization	0.7%	4.6%
One year olds getting measles vaccine	85.1%	53.5%
One year olds getting Diphtheria, Pertussis and Tetanus vaccine	84.8%	63.4%

1.5   Karnataka's Health System

Karnataka has a three-tier rural public health system – primary, secondary and tertiary. In terms of access, at the primary level the system provides one health Sub-Centre (SC) for every 5,000 people, one Primary Health Centre (PHC) for every 30,000 people, and one Community Health Centre (CHC) for every 100,000 people. At the secondary level there is one District Hospital (DH) for every 500,000 people, and at the tertiary level there are the medical colleges and speciality hospitals.

Karnataka has been reporting a surplus of facilities, in 2008, the total number of SCs was 8,143, exceeding the determined need of 7,369, as per the 2001 population census; similarly there were 2,195 PHCs and 323 CHCs, relative to the determined need of 1,211 and 303, respectively (Ministry of Health and Family Welfare, 2008). By 2012, the number of SCs, PHCs, and CHCs reached 8,810, 2,310 and 180, respectively (Ministry of Health and Family Welfare, 2012). The reduction in the number of CHCs represents the categorization of 146 of them to sub–district ('Taluk') hospitals. Karnataka had a total of 919 hospitals and 63,741 beds in 2010 within the public health system. Of these, 468 were hospitals in rural areas with a total of 8,010 beds, and 451 were hospitals in urban areas with a total of 55,731 beds. The average population served per public hospital is 63,309, and the average population served per bed is 913 (CBHI, 2011).

India as a whole, and the state of Karnataka, is becoming increasingly urbanized, approximately 80.8 million of whom represent the urban poor in India (Paul, et al., 2011). There have been some attempts made by the government since independence to build up the rural public healthcare system; however efforts to improve the urban public healthcare system have been sporadic. There is a near absence of primary care in urban areas, with a much larger focus on tertiary healthcare. India's public health care expenditures and health workers are heavily skewed in favour of urban health centres; with the ratio of health providers for urban and rural at 4:1, and with 30% of all public health expenditure allocated for urban allopathic care (Planning Commission of India, 2011).

Within Bangalore there are a multitude of agencies responsible for the city's healthcare delivery system. Bruhat Bangalore Mahanagarapalike (Greater Bangalore Municipal Corporation) provides primary and secondary health services in the inner core areas of Bangalore through its Urban Health Centres (UHC), dispensaries, maternity homes, and referral hospitals. In the outer wards (which were rural and have been merged into Bangalore due to city expansion) the services are provided by the directorate of health and family welfare according to the rural healthcare norms. There are hospitals run by the Employee State Insurance (ESI) for its subscribed employees and hospitals run

by the Department of Medical Education as teaching hospitals. Finally, there is the National Institute for Mental Health and Neurosciences (NIMHANS), a functionally autonomous institute funded in part through the federal government and other charitable organizations, which has been designated a Centre of Excellence for mental health.

1.6 Expenditures on Health

Consistent with national trends for low spending on public health over the past several decades, Karnataka's track record on health expenditure has been anything but encouraging. At the national level, public health expenditure in 1991 was a dismal 1.3% of GDP; but owing to subsequent structural adjustment programs, this dropped to 0.9% of GDP in 1999 (Srinivasan, 2003). In 2005, with the introduction of National Rural Health Mission (NRHM) there was a push to increase public health spending; however by 2008–2009, it had increased only marginally to 1.1% of GDP out of a total national expenditure on health of 4.13% of GDP. In Karnataka spending on public health has been increasing in absolute terms since 2005, but even as of 2010–2011, this was only at 0.69% of the GSDP. Even when the NRHM federal funds are included it only adds up to 0.87% of the GSDP. As a percentage of the total state budget, only 3.9% is spent on health. The per capita public health expenditure by the health department for 2008–2009, was $4.16 USD, however when funding from other health-related departments (i.e., the Woman and Child Development department which supports nutrition programming) and NRHM are included, it works out to $8.93 USD (Yareseeme and Aiyar, 2010).

Another characteristic feature of the expenditure patterns are the high levels of private spending on health. Private healthcare spending predominates in Karnataka; in 2008–2009, 72.9% of the total expenditure on health was through private out-of-pocket funding, with public funding comprising the remainder. Eighty-six percent of all outpatient visits and 60% of inpatient visits occurred in the private sector. The population covered by health insurance is negligible at less than 5%, which is due in part to the high proportion of informal labour, representing approximately 92% of the labour force. Out-of-pocket health expenditures have been estimated to push nearly 4% of the population below the poverty line (Rao, et al., 2011).

1.7 Human Resources for Health

Every level of the three-tier public health system has a specific set of health worker requirements. Table 2 shows the situation of health workers for the years 2005 and 2011 by position. The government of India launched the National Rural Health Mission (NRHM) in 2005 to strengthen the public health system. Since then, there have been significant increases in health worker numbers. However, within certain job categories there are still substantial shortages, particularly for multipurpose workers and medical specialists (NRHM, 2011). For a long time, the government of Karnataka has been lamenting the shortage of specialists and has announced a plethora of schemes (including insurance schemes) to 'harness' the capacities available in the private sector under the rubric of Public Private Partnerships (PPP) (Directorate of Health and Family Welfare, Government of Karnataka, n.d.).

Table 2: Health workers in Karnataka – Source: Common Review Mission, 2011

Category of Staff	Sanctioned	2005 (% of sanctioned unmet)	2011 (% of sanctioned unmet)
Multi-Purpose Worker(Female) – Auxiliary Nurse Mid-Wife (ANM)	10025	6795 (32.2%)	8999 (10.2%)
Multi Purpose Worker(Male)	5810	2715 (53.3%)	4090 (29.6%)
Lady Health Visitor (Sr. ANM)	1432	370 (74.2%)	1162 (18.9%)
Staff Nurse	7810	4965 (36.4%)	11559 (0%)
Lab Technicians	2197	1345 (38.8%)	2180 (0.8%)
Pharmacists	2691	1643 (38.9%)	2318 (13.9%)
Medical Officers	2586	1104 (57.3%)	2344 (9.4%)
Specialists	2600	1107 (57.4%)	1622 (37.6%)

Health worker shortages in some specialty areas are more pronounced, such as mental health. Comparing the current situation to the assessed needs of the population, Karnataka only employees 198 of the 527 psychiatrists needed; 69 of the 762 clinical psychologists needed; 56 of the 1,052 physical social workers needed; and 175 of the 245 psychiatric nurses needed (CBHI, 2011).

India has approximately 600,000 registered physicians, one physician for every 2,000 patients, well below the WHO norm of one for every 1,000 patients (Sinha, 2012). India was ranked 52nd out of the 57 countries ranked by the World Health Statistics Report of 2011 for health worker crisis. India had a health worker density of 19 for every 10,000 people in the population, comprised of 6 doctors, and 13 nurses and midwives (World Health Organization, 2011). In Karnataka, the number of registered allopathic doctors in 2011 was 91,461; only 4,928 within the public health system, and the remaining 86,533 in the private system. If physician access is recalculated based on access to public health care, the physician-patient ratio becomes one for every 11,933 people, even farther from WHO norms. But if the private practitioners are also included then the ratio comes down to 1:642 (CBHI, 2011). Recently the NRHM has also provided for co-location of the practitioners of Indian systems of medicine and homeopathy – Ayurveda, Yoga, Unani, Siddha, Homeopathy (AYUSH) – in the public health systems (National Rural Health Mission, 2005). Karnataka has 35,698 registered AYUSH practitioners which could potentially bring down the doctor-patient ratio further. Karnataka does considerably better in meeting the nurse-patient ratio norm of 3 per 1,000, such that in 2011 they achieved nearly 3.25 nurses per 1000 population (Battacharjee, 2012). In regards to urban-rural disparities in access, in 2007 in Karnataka there was one basic allopathic doctor for every 596 urban inhabitants, while there was only one doctor for every 7,993 rural inhabitants (Sivanandan, 2007). There are regional disparities as well; in South Karnataka there were 30 doctors for every 100,000 people, while in North Karnataka there are only 25 for every 100,000 people (NRHM, 2010-11). Recently, the Karnataka government passed a bill in the Assembly making one year of rural service compulsory for all undergraduate and postgraduate doctors, graduating in the state, and failure to comply results in heavy fines (iGovernment, 2012).

In 2011, there were 334 allopathic medical colleges; 154 government-owned and 180 private-owned, with an annual intake of 41,500 entrants, and 21,100 post-graduate (PG) seats. Various steps have been taken to overcome the shortages, including adding an additional 8,217 medical seats and 5,120 PG seats since 2009-2010. Recognizing shortages in the rural areas of the country, there have been policies to encourage rural posting (Sundararaman and Gupta, 2011; Sachan, 2013); for the postgraduate entrance, additional weightage (in terms of grades for entrance to PG seats) at the rate of 10% (subject to a cap of 30%) for every year of service in rural areas has been given (Medical Council of India, 2009).

Migration of health workers

The Indian community overseas is estimated to be approximately 25 million people, making it the second largest diaspora population (Hazarika, Bhattacharyya and Srivastava, 2011). Indian doctors constitute the largest number of foreign trained physicians in the US (4.9%) and the UK (10.9%), the second largest in Australia (4.0%), and the third largest in Canada (2.1%) (Rao, et al., 2011). There are an estimated 60,000 Indian physicians in the UK and 35,000 physicians in the US. One study found that more than half of the trained health professionals (54%) from a premier public institute, All India Institute of Medical Sciences, had migrated abroad to the US (Kaushik, et al., 2008). The number of nurses emigrating is also a cause for concern. The number of new Indian nurses registering in the UK rose from 30 to 3,551 between 1998 and 2005; with similar trends in the US, rising from 417 new nurses in 2000, up to 5,281 in 2007 (Rao, et al., 2011).

Several consecutive governments have followed a *laissez-faire* approach to migration. There has been no comprehensive policy on labour emigration and the last effort made was through the Emigration Act of 1983 which deals with safeguarding the interests of the contractual migrant Indian workers. The governments have had a positive approach to the issue of migration for various reasons, such as the easing of pressure on domestic labour markets, and the economic benefits of remittances. Migration, however, also results in substantial losses in financial investment and human capital, as higher education in India is mostly government subsidized (Hazarika, et al., 2011).

There is a recent trend towards reverse migration (although not substantial) due to the increased opportunities and better facilities in India. Some of the reasons given for returning include family ties, cultural values, and a social commitment to serve the country (Hazarika, et al., 2011).

1.8   Mortality and Morbidity

Communicable diseases continue to be the major underlying cause for mortality and morbidity in the country. At the same time, non-communicable diseases have emerged as the second largest cause for morbidity in India. The number of cases of coronary heart disease and diabetes is set to reach 61 million and 46 million by 2015, respectively (CBHI, 2011).

1.9   Select Indicators of the Social Determinants of Health

Child Malnutrition

India has gained a reputation as having some of the highest child malnutrition rates in the world. According to National Family Health Survey (NFHS) of 2006, 42.5% of children under five are underweight, 48% are stunted and 19.8% are wasted (IIPS, 2007). In the same survey the figures for Karnataka were 37.6%, 43.7% and 17.6%, respectively, consistent with national rates (IIPS, 2008). With a total of 150 million children under 5 years of age malnourished, India is home to one-third of the world's undernourished children. This has led some authors to comment that India fares worse than most of Sub-Saharan Africa in regards to child malnutrition (Pada, 2010), although some have challenged the methodology of these calculations (Jagannathan, 2013; Panagariya, 2013). Nevertheless, it remains a fact that India and Karnataka suffer from considerable child malnutrition.

Drinking Water

Various parameters pertaining to household drinking water are captured by the Indian census, such as, the sources of water and the distance of the water source from the household. In 2011, across India, 43.5% of households had access to tap water (32% treated and 11.6% untreated); an improvement from 36.7% in 2001. Of the remaining households, 11% accessed water from the

wells, 42% from handpump / borewell, and 3.5% were from other sources of water like tanks, lakes, etc. In Karnataka, 66.1% of households had access to tap water (41.2% treated and 24.8% untreated), up from 58.9% in 2001; while 9% of households accessed well water, and 21.5% had access to handpump / tubewell water. A total of 44.5% of households had access to drinking water sources within their premises, 37.3% accessed water near their premises, and 18.2% accessed water from sources beyond 100 metres in urban areas and 500 metres in rural areas in Karnataka (GOI–MOHA, 2011).

Sanitation

India fares poorly in terms of availability of sanitation facilities. In 2011, 53.1% of households did not have any type of latrine facilities, although this is an improvement over 63.6% in 2001 (GOI–MOHA, 2011). In stark contrast to this, 63.2% of households have a telephone connection, 53.2 % of which are mobile phones (Sunderarajan, 2012). In 2011 in Karnataka, 48.8% of households did not have any type of latrine facilities, rising to 71.6% in rural areas.

1.10 Governments' Engagement with Private Facilities (concessions and waivers)

Both the federal and state governments have tried various schemes to 'harness' the existing potentials within the private sector by extending them various concessions. One prominent policy is the provision of land and other facilities at a concession rate in exchange for free outpatient services and a certain percentage of in-patient beds to the economically weaker sections (EWS, the term utilized in India for low-income populations). However, some private providers have been found in violation of this, and in one case the Delhi High Court indicted a private hospital for not following the rules (Kumar, 2007). Recently the information commissioner had penalised the Delhi directorate of Health Services for failing to monitor the implementation of this rule which resulted in denial of treatment for an EWS patient, pointing to weak regulatory mechanisms in place for contractual enforcement (Subrahmaniam, 2010). Similarly, the federal government had provided customs duty exemptions for import of machinery to four categories of hospitals in Karnataka in 1988 on the condition that the hospitals provide free treatment to EWS, failing which the

exemptions would be withdrawn. Some of these hospitals are now engaged in medical tourism. The Karnataka High Court in its judgement on 19th July 2011, taking cognisance of the violation of the conditions by the various hospitals, directed the hospitals to provide free treatment for at least 20% of their inpatients annually instead of recovery of the customs duty or confiscation of the equipment, which had since become obsolete (High Court of Karnataka, 2007).

Recently both the federal governments and the state governments have started certain health insurance schemes for the EWS, by purchasing care from the private providers. There is a Thayi Bhagya scheme (maternity benefit) through the Karnataka government (and similar schemes by other states) in which private providers have been engaged for delivery of maternal health services on a capitation payment system. Another scheme is the Rashtriya Swasthya Bima Yojana (the national health insurance scheme, RSBY) of the federal government run by the labour ministry. This scheme provides for free treatment for patients from EWS for the secondary hospitalization care in empaneled private facilities. The reimbursement is operationalized through an insurance company on a fee-for-service basis for specific procedures at pre-determined rates. The insurance premiums for the enrolled population by the insurance company are paid by the government. A third scheme (and its various state variants) is the Vajpayee ArogyaSri scheme in Karnataka, in which the government, through a trust, reimburses empaneled hospitals for the treatment of patients from EWS. The reimbursement is on a fee-for-service basis for a set of approved tertiary/quaternary surgical procedures at pre-determined rates.

Under the 'deemed export' category hospitals are entitled to various duty and tax concessions, for instance, waiver from all duties for import of medical equipment (Ministry of Commerce and Industry, 2007). Also, the hospitals are entitled to a duty credit scrip equivalent to 10% of the foreign exchange earned by them in the previous financial year. In order to further enhance the export of specific services, the government of India has initiated a Services Export Promotion Council (SEPC), for which healthcare is one of the 14 services identified in its 2003-2004 budget. The government also announced the availability of credit on a long term capital basis for hospitals of 100 beds

or more. Finally, the rate of depreciation for medical equipment was increased from 25 percent to 40 percent; more rapid depreciation reduces profits that may be subject to taxation which incentivizes the purchase of medical equipment largely for private facilities, although it also generates losses to public revenues (Government of India, 2003–04).

2.0 MEDICAL TOURISM SITES IN BANGALORE

Bangalore houses nearly 15 major hospitals which cater to international medical travel. Some have speciality services like orthopaedics, oncology, or reproductive health, but most of them are multi-speciality hospitals. The study team visited six hospitals; Apollo hospital, Columbia Asia hospital, Fortis hospital, Manipal hospital, Mallya hospital, and Narayana Hrudayalaya, to undertake a tour of the facilities and understand their processes for medical tourism. Four hospitals – Columbia Asia, Fortis Hospital, Manipal Hospital and Narayana Hrudayalaya – provided a facility tour, while the other two provided interviews with the international marketing divisions of the hospitals. A snowballing technique was employed, wherein some personal contacts or organizational contacts were utilized to get in touch with someone at these facilities, moving along until the key persons responsible for medical tourism in the organization had been reached. The following sections present information on these sites and findings from the facilities tours.

2.1   Apollo Hospitals, Bangalore

Apollo Hospitals group was one of the pioneers of medical tourism. They first entered Bangalore with a joint ventures with Mallya Hospitals, which was then called Apollo Mallya hospitals, followed by a joint venture called Sagar Apollo hospitals (now Sagar hospitals). The present facility on Bannerghatta Road, Bangalore was built in 2006, and by 2008, it started getting international patients.

Figure 3 – Apollo Hospitals
Source: www.apollohospitalsbangalore.com

The hospital has 300 beds and houses state-of-the-art facilities. It offers all the major treatments, but primarily treats international patients for orthopaedics, cardiology, neurology, neurosurgery, oncology, transplants (although not heart transplants), and ear, nose and throat. Apollo has recently

opened up a new 80 bed facility in another area, Jayanagar, where they provide orthopaedic, neurology and pulmonology services. Signage around the facility was in English and the local language, Kannada. Photography was prohibited, impairing the team's ability to take photos of the facilities. The Jayanagar facility was not visited as it was relatively new; at the time it had not received any foreign investment.

The Bannerghatta road facility has received accreditation from the Joint Commission International (JCI), which is displayed in several prominent places around the facility. Their most recent accreditation was in 2012.

The facility serves both national and international patients, however the study team did observe a separate wing called the 'Platinum Wing' which had an exclusive international patient focus. The facility has in-house translators for Arabic, but other languages, such as French, are outsourced to translation agencies. It provides guest houses within the hospital premise for patients and their caretakers, with additional housing nearby. Doctor-patient and nurse-patient ratios do not differ between local and international patients. The facility does not focus explicitly on tourism, as the patients it receives have limited resources. Medical tourists do not form a major part of its revenues, although the number of patients is increasing each year, with the facility expecting approximately 1000 patients in 2013, primarily from the Middle East and Africa, particularly, Central Africa.

Nearly 70% of the facility's doctors have receievd some form of training abroad, in the UK or the US. All of the nurses in the facility were trained in India. All of the doctors employed were full time consultants with the facility, none of whom worked in the public health system. Similarly, none of the nurses worked within the public health system either.

The international marketing division for Apollo Hospitals, located in Chennai, allocates patients to the various Apollo facilities based on their requirements; nearly 45% of whom are treated at the Chennai facility.

The marketing division also participates in various road shows in foreign countries to promote their services. They have ties with the ministry of tourism on the 'Incredible

Figure 4 – Marketing division, Apollo Hospitals
Source: www.apollohospitalsbangalore.com

India' campaign, and are one of the 300 hospitals listed in the brochure of Incredible India. They also have ties with various ministries of health in African and Middle-Eastern countries, information centres and collaborations with physicians abroad, and advertisements for various treatments like minimal invasive heart surgery, and total knee and hip replacement surgeries and for sports injuries.

2.2 Columbia Asia, Bangalore

Columbia Asia has two hospitals in Bangalore, one near Hebbal and another near Yeshwantpur. A hospital staff member provided the study team with a guided tour of the Yeshwamtpur facility.

The facility has a prime location in an old area serving as the gateway to Bangalore on the Mumbai-Bangalore highway. Yeshwantpur is housed in one of the largest posh housing complexes in Bangalore, called Brigade Gateway. The facility, built in 2010, has 130 beds; the Hebbal facility has 90 beds. International patients primarily receive orthopaedic, cardiac and ear, nose and throat services. However, the facility offers all major specialties, including neurology, neurosurgery, oncology, bariatric surgery, dermatology, gastroenterology, nephrology, urology, pulmonology, rheumatology, obstetrics and gynaecology, pediatric surgery and vascular surgery. The group is rapidly expanding, with new facilities slotted in Pune, Ahmedabad, Meerut and Chandigarh, as well as a recently opened 11 bed clinic in Doddaballapur, near the new airport. Signage at the Yeshwantpur facility is in both English and Kannada, and while the faculty list was prominently displayed, no degrees were

mentioned. The study team was discouraged from taking photographs of the facility.

The facility has accreditation from the National Accreditation Board for Hospitals and Healthcare Providers (NABH), and did not see the purpose in gaining accreditation from an international agency. The accreditation credentials were prominently displayed at various locations and also advertised prominently on their website, the most recent accreditation being June 2011.

This facility does not focus exclusively on medical tourism, although they are relatively new to the area, opening services to medical tourists in 2008, and marketing to this population in 2010. Although there is no separation between the local and the international wards, the facility charges different rates for foreign patients which are higher. The majority of the patients come from Kenya, Nigeria, and Ethiopia, but they also receive patients from Oman, Iraq, Bahrain, Sri Lanka, Bangladesh, Maldives, and Myanmar. Medical tourists comprise approximately 10-12% of the total patients, and the facility treats anywhere between 25 and 300 foreign patients per month. They offer specific concierge services to patients, help them with their visas and registration, and have ties with Thomas Cook Travel Agency.

All of the doctors employed by the facility are private consultants, and do not work within the public health system. The nurses are also solely employed within the private system.

Channel marketing is employed to market their services. They also take their doctors on international continuing medical education (CME) trips to raise awareness about the latest technologies and their website carries testimonials.

The facility is 100% foreign owned, and is promoted by the investment management company Columbia Pacific in the US. The facility has not received any tax breaks or concessional lands from the government.

2.3   Fortis Hospitals

Fortis Healthcare is a large chain of hospitals within India, operating in 11 countries worldwide. They have a total of 76 hospitals, and over 12,000 beds, 600 primary care centres, 191 day care specialty centres, 230 diagnostic centres, and 23,000 staff. The five facilities in Bangalore are at Bannerghatta Road, Cunningham Road, Nagarabhavi, Rajajinagar, and Sheshadripuram. The operations in Bangalore started with the acquisition of the Wockhardt

Figure 5 – Fortis Hospital
Source: authors of this report

group of hospitals in 2009. The facility visited was the Fortis hospital, Bannerghatta Road. It is a 400 bed, gated hospital. Signage is in English and Hindi, although in some places the signage was in Kannada as well. Some of the signage was targeted at international patients, i.e., Arabic. There were boards listing staff with their foreign degrees emphasized. Personal testimonials are posted on their website. The facility is publicly owned by the Fortis Healthcare and Religare Enterprises group and is 100% Indian-owned.

The facility had accreditation from JCI, as well as from the NABH. Both accreditations were prominently displayed throughout the facility.

Fortis Hospital has a strong referral system which works both domestically and internationally. Since Fortis was initially part

Figure 6 – Accreditations, Fortis Hospital
Source: authors of this report

of the Ranbaxy Group, it has a large network of foreign doctors to assist with referrals; in addition to this, it runs medical camps in many countries, especially

within Africa, building relations with doctors who then refer their complex patients to Fortis hospitals in Bangalore.

The facility has over 150 consultants and 800 other para-medical staff, and offers super-specialty tertiary care services for approximately 40 specialties, including cardiology, cardiac surgery, urology, neurology and neurosurgery, orthopaedics, digestive care, emergency care, and critical care. The facility also hosts blood bank services, preventive health services, a diagnostic and catheterization laboratory, diet counseling, physiotherapy and rehabilitation, laboratory and micro biological services, stress management, and a 24-hour pharmacy.

Foreign medical graduates from countries with less developed medical infrastructure come to the Fortis hospital for 15-20 days to observe the execution of medical treatment procedures. When they go back, they can send across patients for advanced medical procedures in India. These physicians usually come from African countries, such as Nigeria, Tanzania, Sudan, and Malawi, as well as Iran, Iraq, Oman and a few others. The facility usually has 3 or 4 doctors per month, sponsored by their home governments. Sometimes oil companies in these countries will sponsor their own physicians to participate in observational practices in Fortis.

The facility does not focus exclusively on medical tourism, nor are there separate wards for medical tourists; although the services most often used by medical tourists are within the deluxe wards. Patients come to Fortis from 55 countries worldwide, with 50% from Africa, 6-7% from the United Arab Emirates, and 3-4% from the UK,

Figure 7 – Divisions at Fortis Hospital
Source: authors of this report

US, and Australia. The facility has in-house Arabic translators, and receives approximately 40-50 medical tourists per month, comprising 22% of all patients and approximately 20% of all revenues. The patients they receive are mostly uninsured, cannot afford expensive treatments in their home country, or come from a country where waiting lists for procedures are too long.

2.4 Mallya Hospitals

This was one of the first such facilities offering medical tourism to start in Bangalore. In 1991 it began as Apollo Mallya hospital in collaboration with the

Apollo Hospitals Chennai. It is located in the central business district of Bangalore. It is a 220 bed

facility, and there is very limited space available for expansion. However the group also operates a

1000 bed medical college hospital on the outskirts of

Figure 8 – Entrance of Mallya Hospital
Source: http://mallyahospital.net/

Bangalore. Signage was in both English and Kannada, and very worn out. The list of doctors and their faculty was displayed, but no degrees were mentioned. Medical tourism patients are

Figure 9 – Exterior of Mallya Hospital
Source: http://mallyahospital.net/

primarily non-resident Indians from the US, the UK and New Zealand. Most of the non-resident Indian patients come from the Middle East. The facility is 100% Indian and private owned.

The facility has accreditation from the NABH and the International Organization for Standardization for a quality management system, both of

which are prominently displayed on the front wall. The last certificate was issued in July 2011.

The facility does not focus on medical tourism, as it does not have the bed capacity to take in international patients. No translators are available in-house. The patients generally come with English speaking attenders, however, the facility sometimes does experience problems with Arabic patients who come without such attenders and who are unable to communicate in English. The facility does not provide any tourism related services. There is no differentiation in the wards between the local and the international patients. The facility is also empanelled to provide government services, including services for the EWS, as well as for government employees, such as the police, the local municipal and central government. The hospital is also empanelled within the Suvarna Arogya Chaitanya scheme, which provides treatment for serious health conditions of children studying in public and semi-public schools, that is reimbursed through the government.

Most of the doctors have Indian degrees, but many also have foreign diplomas or fellowships. All of the doctors are private consultants not associated with the public health system. Nurses are all trained in India, although some have been outside of India on various fellowships.

The facility does not do any marketing. Whatever medical tourism they receive is through word of mouth, which is approximately 2-3 patients per month.

2.5   Manipal Hospital

Manipal hospital is one of the leading hospitals in Bangalore catering to international medical travel. The facility was started by one of the oldest and most prestigious medicial colleges in the state, the Kasturba Medical College. The facility visited by the study team is a relatively large hospital with 650 beds. It is also located in a very prime area, near the old airport. There have not been any expansions within the premises, but the hospital has opened up new facilities elsewhere in the city, and has also recently closed down one of the facilities in Rajarajeshwarinagar, citing the faclility as being unviable. Signage at

the hospital was bilingual, in both English and Kannada. Various faculties were listed but there was no list of doctors. The facility caters to all the major specialties, and is privately-owned by the TMA Pai Foundation.

Figure 10 – Manipal Hospital
Source: http://www.manipalhospitals.in/

The facility is accredited by the NABH, which is displayed at the entrance to the facility. The facility has been accredited since February 2011.

The facility has been catering to medical tourists for quite some time. It has in-house translators for Arabic and Swahili. For other languages the facility hires the services of an outside agency. The facility offers concierge services to their tourists and provides its own accommodations for care-givers. Currently, the facility does not have a separate wing for the medical tourists, but an exclusive international wing is being planned. The facility has a different price structure for domestic and international patients, such that international patients pay nearly 30% more. There has been an increase in the number of international patients coming to the facility.

The facility has empanelled itself for providing services to EWS patients, as well as certain categories of government employees, such as the police, and local and central government employees.

The facility has been actively marketing to medical tourists for three years. The facility receives its patients mainly from Africa, the Middle East, and Maldives. Recently, the facility has started receiving patients from Canada, the US and the UK. There is an international marketing division which caters to these patients. There is a chat room provided on their website for initial discussions with prospective patients. This chat room is maintained by a different team. Once a patient has finalized his/her visit, the case is turned over

to patient coordinators who provide concierge services. Patient testimonials are also provided on their website.

2.6 Narayana Hrudayalaya

Narayana Hrudayalaya, located near the border of Karnataka and Tamil Nadu, is a large, privately-owned hospital complex with 3000 beds, and an 80 bed ICU. This facility was built in 2001, and became known for its cardiac care service, 'Hrudaya' in Kannada translates to 'heart'. Chairman,

Figure 11 – Narayana Hrudayalaya Hospital
Source: Narayana Health, 2014

Dr. Devi Shetty, known for his entrepreneurial skills, was aware of the advantages of economies of scale, and thus actively worked with the government to develop an insurance scheme for farmers. An insurance scheme called 'Yeshaswini' was launched for the farmers, who were already in a collectivized co-operation movement, wherein they were to pay a premium of 30 rupees per month, with a matching contribution from the state government. This was a groundbreaking insurance scheme that led the way for similar schemes in the country. The hospital, known for its specialty in pediatric cardiology, now has all the super specialties, with a separate facility for cardiac cases, and a separate facility for multispecialities. Signage was all bilingual.

The facility has JCI accreditation, which has been displayed at the enquiry area. The last accreditation was in January 2011. They have also have accreditation from the NABH.

Medical tourists, primarily from Bangladesh, the Middle East, Africa, and Malaysia, have been attending this facility since its inception. Nearly 15-20% of the patients treated at the facility are medical tourists, approximately 500 patients per month. Medical tourism has seen an increase of 30% in the last year. In-house translation services are available for French and Arabic, all other languages require outside agencies to be hired. The facility has an in-house

travel agency, provides concierge services, and has its own accommodation facilities; in addition to this it has ties with hotels, and Lufthansa airlines.

The facility has been actively marketing their medical tourism services for three years. A centralized international division, based in Bangalore, distributes cases to units depending on the required treatment. The facility has a unique marketing strategy, including telemedicine connectivity established with 52 cities in Africa and 450 telemedicine centers
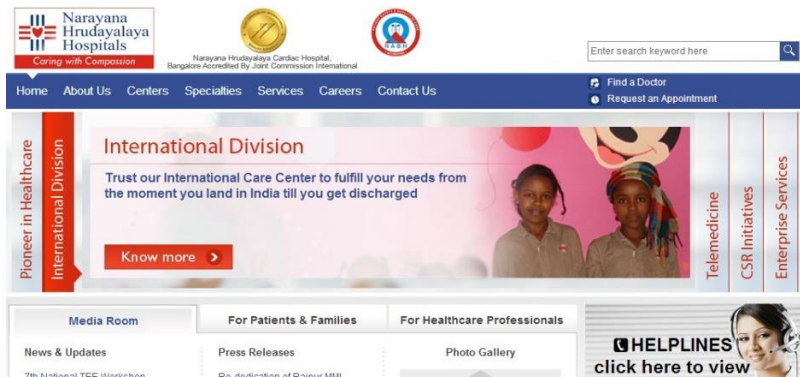
Figure 12 – International Division, Narayana Health
Source: http://www.narayanahealth.org/

worldwide. Continuing Medical Education (CME) is conducted through telemedicine, with 10 CMEs conducted each month (8 in English and 2 in French). The facility has ties with physicians in various locations who send their patients' radiological, ECG and such other reports over telephone lines, which specialists at the facility then review, and provide consultation to the patients. Other forms of marketing tactics employed are taking doctors outside of the country, conducting medical camps, and running advertisement campaigns in countries that allow this. They also transmit live surgeries over the internet to build overseas patient/physician confidence in their services.

The facility has empanelled itself to all government sponsored insurance schemes. Interestingly since it is on the border of Tamil Nadu it is also empanelled on the insurance schemes run by the Government of Tamil Nadu.

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APPENDIX 1 – CONTENT ANALYSIS OF MEDIA COVERAGE OF MEDICAL TOURISM IN BANGALORE

A review of the media reports about medical tourism in Bangalore was done during the months of July to September 2012. The media reports provide the various aspects of medical tourism that are debated and discussed in the state/city. The first section will provide the methodology of the media review followed by the analysis according to the equity aspects of the study: the impact on health human resources; government involvement; investment and infrastructure; impacts on public health care; and impacts on private health care.

A1.0 Methodology

An internet based search with the search words "Medical Tourism" and "Bangalore" was done within each of the archival sections of English national newspapers and magazines, along with their Bangalore editions, as well as the local city based newspapers. While newspapers in the local vernacular, Kannada, were also searched, their switch to web based publications only and an inability to determine the terminologies required in Kannada, resulted in a search that did not yield any results. The national level English newspapers which were scanned included the Daily News and Analysis (DNA); the Deccan Chronicle; the Deccan Herald; the Frontline; The Economic Times; The Hindu; The New Indian Express (IE); and The Times of India. The local / city level newspaper that was used was The Bangalore Mirror. A total of 700 articles were scanned from these media sources. Articles published outside of the time period between July 2007 and August 2012 were rejected. The articles were then scanned for relevance; articles which mentioned medical tourism in other cities, but only merely mentioned Bangalore were considered minimally relevant; and articles which talked about medical tourism in the context of health, wellness or reproductive tourism were excluded. A total of 36 articles were selected for the final media analysis. Table 3 provides the details of the selection criteria of the articles.

Table 3: Selection criteria of the articles for media analysis

Classification	Number of articles
Exclusion because of publication date	310
Exclusion because of lack of focus on Bangalore	204
Exclusion for not adhering to the definition of medical tourism within this study (health tourism, wellness tourism, reproductive tourism, transplant tourism)	149
Final selection of articles relevant to the study	37
Total	700

A2.0 Bangalore – The Destination

The favourable climate of Bangalore makes it a preferred destination, a fact highlighted by media sources, as well as the fact that the patients and their care-givers also can have a quick holiday with many nearby tourist attractions, such as Mysore (Deccan Chronicle, 2011). Bangalore previously lacked an international airport, making Chennai and Mumbai preferred destinations, however this has recently changed. Having an international airport is essential to the success of medical tourism in a city, as patients consider inter-city travel to be less than optimal (DNA, 2010a). Bangalore may become the healthcare hub by 2014 (Bhushan, 2009). Despite Bangalore's advanced standing in IT, patient experiences with technology have yet to be smooth; this, combined with a lack of infrastructure, are holding Bangalore back from realizing its potential as a medical tourism destination (DNA, 2010a).

A3.0 Impacts on Health Workers

There has been extensive media coverage regarding human resources components of medical tourism. There are media reports praising the competence of the medical doctors of the various facilities here, that patients

visit India for specialized treatments such as cancer and cosmetic surgeries, is seen as a testament to the capabilities of the medical fraternity. Medical tourism is viewed as bringing health human resources back to India, due in part to the economic recession of 2008–2009, which is contributing to the 'reverse brain drain'. Returning with them are their foreign clientele, bringing revenues to the hospitals in Bangalore. At the same time, the incomes of the patients in the west have not increased and hence are coming to India for cheaper procedures. The city offers lower cost of living for medical staff in comparison with cities in Europe and the US (Deccan Chronicle, 2011). Bangalore has the highest number of medical colleges in India and produces 30,000 doctors every year, which is more than the US's 25,000 doctors per year (Bhushan, 2009). The Institute for Clinical Research has started a 2 year M.B.A in Healthcare Management with specialization in Medical Tourism or Hospitals Operations Management in the final year (Hindu, 2010a). One news story reported on a strike by the Bangalore chapter of the Indian Medical Association (IMA), over the dissolution of the Medical Council of India (MCI) due to corrupt practices. One of the striking doctors was quoted praising what MCI had done for the nation by working towards making India a medical tourism destination (Hindu, 2010b). There were also reports about the high rate of turnover of nurses, reported as high as 40% (DNA, 2010a). During the inauguration of a cancer unit at a mission hospital, a union minister lamented the fact that Bangalore boasts of catering to medical tourism when it has huge shortfalls in healthcare workers and calls for reorientation of the medical curriculum to stem the tide (Dev, 2011; Hindu, 2011). It has been highlighted that gearing medical graduates' training towards tertiary care (in a country which needs more emphasis on primary health care in an effort to improve public health) is inappropriate (Vedantam, n.d.).

A4.0 Government Involvement in Medical Tourism

Karantaka's tourism ministry sent its representatives, as part of an all India delegation to promote India's tourism, to the convention of Travel Agents Association of India (TAAI) held in Dubai between September 29th and October 1st 2009 (Hindu, 2009a). To promote medical tourism, the Karnataka State Tourism Development Corporation's (KSTDC) Mr. Vinay Luthra announced that

the government is planning to provide accreditation for the hospitals as gold and silver facilities, along the same lines as star status for hotels. These hospitals could then be promoted by the tourism department (Bennur, 2009).

The minister for tourism of the state has at various times mentioned the government's intention of promoting medical tourism in the state (Hindu, 2008a; Hindu, 2009b). Karnataka announced its tourism policy for 2009–2015, in which medical tourism is one of the streams that will be promoted, along with adventure tourism, heli-tourism, and cruise tourism (Hindu, 2008a; DNA, 2009). At the federal level, the tourism ministry had announced that the *Large Revenue Generating* (LRG) status (in which approved projects could get financial assistance or subsidy from the government) would be provided for the hospitality sector to boost tourism (Deccan Herald, 2011).

One of the most debated topics at the policy level pertains to the medical visas issued for patients travelling to India. Industry sources lament the lack of flexibility in issuing medical visas, citing that patients do not want to come on tourist visas, as they are given only for a month, and the potential exists for the patient to be arrested in the situation that the treatment goes on beyond a month (Bhushan, 2009). It takes about 15 days to process the medical visas in India, while Singapore does theirs overnight, and hence potential patients from Bangladesh and other south Asian countries might be lost (Economic Times, 2010). The federal tourism minister says that the ministry is trying to resolve the issues pertaining to the medical visas with the External Affairs Ministry (Deccan Herald, 2011).

The issue of inadequate general infrastructure of the city is also attributed as another factor which has hindered growth in medical tourism (DNA, 2010a). There is a complaint against the government that they are not extending enough concessions for the hospital sector. The closure of one of the branches of Manipal Hospital in Bangalore is attributed to this, despite the boom in medical tourism (Eshwar, 2012).

There is a ten year master plan developed by the KSTDC to develop a medical hub near the new international airport in Bangalore. The government is planning to buy 12,000 acres of land near the airport, of which 300 acres would

be earmarked for the medical hub using a Public–Private Partnership model. The resort would have 200 beds, with the government planning to invite foreign investors to set up hospitals. A market study by the Jones Lang LaSalle Meghraj (JLLM) property consultants hired by the Karnataka Industrial and Infrastructure Development Corporation (KSIIDC) found significant demand–supply gaps in the medical and hospitality segment, they suggested three hospitals in 26 acre area at the Devanahalli Business Park near the airport. Two hospitals of 680 beds and a third with 560 beds were proposed (Hindu, 2008b).

A5.0 Investment and Infrastructure

This section looks into the various statements made with respect to hospital sector investments and infrastructure focusing on medical tourism. There have been announcements from both industry and government regarding such investments; however, the successful implementations of such announcements are unverified. Narayana Hrudayalaya was developing a hospital on 35 acres of land near the airport sanctioned to it by the Karnataka Industrial Area Development Board (KIADB) (DNA, 2010b). Similarly, Apollo was also planning for a hospital and had sought 15 acres for its medical tourism facility (DNA, 2010b). A private equity firm Fire Capital was to invest 750 million USD in real estate which would be used in part to build two 300 bed hospitals, one in Bangalore and one in Jaipur (Hindu, 2008c). Switzerland's Smile Dental Clinics have teamed up with the Global Tech Park to start a USD $3 million dental care clinic in Bangalore (Rau, 2009). There was a promise by non-resident Indians from the US to the then Chief Minister Mr. B.S. Yediyurappa, during his visit to the US, to invest in medical tourism in the state (Sharma, 2009). Apart from this, Indian hospitals starting facilities abroad also have made the news, for instance, a news item mentions about Narayana Hrudalaya building a hospital in Cayman Islands near the US to cater to the US patients (Bangalore Mirror, 2012).

A6.0 Impacts on Public Health Care – The Paradox

The paradox of Bangalore catering to medical tourism, while simultaneously being unable to meet local healthcare service needs has been widely debated. Residents of Rajarajesjwari Nagar have to travel nearly 15 kms to access a government facility in Malleshwaram (Sastry, 2010); a city in which local

residents must pay out of pocket for expensive cancer treatments (Charan, 2007). The discrepancy between policy incentives that stimulate private facilities which contribute to public-private health human resource migration on the one hand; and the cost advantage experienced by medical tourists on the other hand has been highlighted (Goswami, et al., 2008). The reaction to the Lancet report about the superbug New Delhi Metallo-beta-lactamase-1 (NDM-1) as being "unscientific", "MNC-pharma conspiracy" and aimed at weakening the medical tourism industry has been captured by the media (Bidwai, 2008). Industry sources have highlighted that about 25% of hospital rooms are singles or suites not utilized by the locals, suggesting that medical tourism is simply filling in the gaps. Alternatively, industry sources have argued that medical tourists should not benefit at a cost to local patients, and that medical tourism should be viewed as '*icing on the cake*', such that it should only ever be an additional revenue source once quality healthcare has been delivered to the local population (DNA, 2010a) .

A7.0 Impacts on Private Health Care

A7.1 The Economic Aspects of Medical Tourism

The economic aspect of medical tourism is the most common theme espoused by the media, and is suggested to be the most important reason why people travel to Bangalore for medical treatment. The fact that the treatment costs, including travel costs, are a fraction of the costs incurred by the patients in their home countries is the most quoted statement in the media (Golikeri, 2009; Ramakrishnan, n.d.). Other reasons cited for medical travel include long waiting lists for procedures in countries like the UK and Canada; and at the other end of spectrum, the lack of facilities in low and middle income countries from Asia and Africa (Goswami, et. al., 2008). Some of the other reasons for medical travel to Bangalore include internationally accredited facilities; English speaking staff; patients provided with dedicated staff; private rooms; translators; and even private chefs catering to the taste preferences of the patients (Rao, 2008). Another interesting reason for medical travel to Bangalore was for corrections of damages incurred while undergoing medical treatment in Singapore or Thailand. The patients are quoted to be appreciative of the

professional and caring support from the Indian providers, unlike in Thailand (Charan, 2009). There are concierge services also offered to help medical tourism patients and their care givers (Bangalore Mirror, 2009).

A7.2 Volume of Travel

The volume of patients travelling to Bangalore for medical treatment is another important topic that has caught the attention of the media. The figures quoted vary significantly both in volumes and the year. One media source had hospital spokespersons quoting the percentage of patients arriving for treatment at approximately 25% from the South Asian countries, 23% from the Middle East, 20% from Africa, 10% from the US, the UK and Canada, and about 22% from the rest of the world (Golikeri, 2009). Of the patients coming from Bangladesh, 80% went to Kolkata and Chennai and only about 20% to Bangalore. Narayana Hrudayalaya, a noted hospital in Bangalore catering to medical tourism has around 22% of its patients as foreigners (Charan, 2009); while another, Global hospital, has about 12–14 patients per month at its Bangalore facility (Golikeri, 2009). Bangalore also reached the coveted mark of 10,000 medical travellers in 2010, which was about 66% higher than the 6,000 who had arrived in 2009 (Dewan, 2011).

A7.3 Promotion of Medical Tourism

The various steps taken to promote medical tourism by the healthcare industry, the government, and policy makers, have received quite a bit of media space, with media also doing its part to promote the activity. Camilla Parker Bowles, the Duchess of Cornwall and wife of Prince Charles, arriving in Bangalore to undergo a weeklong stay at a wellness center, was seen as a boost to the medical tourism industry in Bangalore (Hindu, 2010c). There has been mention of the National Accreditation Board of Hospitals giving an accreditation certificate to Narayana Hrudayalaya, the first Bangalore institution to receive this (Hindu, 2008d). Wockhardt Hospitals (subsequently bought by Fortis Hospitals) enlisted with the US Companion Global Healthcare Insurance company, increasing the likelihood of insured US patients coming to the hospital for treatment. Wockhardt already had a special division to facilitate medical tourism, and is one of the many hospitals in India to be accredited by

the Joint Commission International (Hindu, 2008e; Rao, 2008). A visit from the Lion's Club of Tanzania in 2005 resulted in the organization of 29 cardiac care patients being brought to Narayana Hrudayalaya for treatment (Kerur, 2009).

A8.0 Conclusion

The preceding sections demonstrate that medical tourism has been generating discussion within the media. While most of the media coverage has been positive, there have been questions raised about the active promotion of the activity in the face of healthcare shortages. Some of the reports have simply been policy announcements either by the industry or the government.

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APPENDIX 2 – NARRATIVE SYNTHESIS OF POLICY DOCUMENTS REGARDING MEDICAL TOURISM IN BANGALORE, KARNATAKA AND INDIA

The Department of Tourism, both at the federal and state level, have primarily been taking initiative to frame policies concerning medical tourism. One of the earliest efforts was from a report in 2000 by two industry leaders Mr. Mukesh Ambani and Mr. Kumaramangalam Birla. This report advocated for harnessing the potential of exporting healthcare to foreign patients. It called upon the government to *"develop and promote India as a destination of affordable and high quality medical services, to the global health care industry"* (Ambani and Birla, 2000, p.69). This led to the government's announcement of a formal medical tourism policy in the national health policy, drafted in 2002 (Ministry of Health and Family Welfare, 2002). This policy legitimized for the first time the role of the private sector in healthcare delivery. In order to encourage providers of secondary and tertiary services increase their overseas clientele the national health policy (p.38) proposed:

> …extending to their [hospitals] earnings in foreign exchange, all fiscal incentives, including the status of "deemed exports", which are available to other exporters of goods and   services

Medical Visa

In June 2005, the Indian government introduced a special 'Medical Visa' for tourists and their attendants wishing to come to India for medical treatment. The visa is issued for a period of 1 year, which could be further extended; whereas a tourist visa is valid only for 6 months and cannot be converted or extended beyond that period. There is a visa provision for the attendants and family members as well. There is an additional rule that the visitor, along with the accompanying person, has to register with the Foreigners Regional Registration Offices (FRRO) (Government of India [GOI], Ministry of Tourism, 2011) within 14 days of arrival in India.

Tourism Policy

The national tourism policy of 2002 exclusively recognizes the need to promote medical tourism. The policy calls for branding and selling based on customer segmentation (GOI Ministry of Tourism, 2002). But when it comes to details, most of the policy prescriptions are for health and wellness tourism. Another document titled 'accreditation of wellness centres' released by the ministry of tourism, in collaboration with the National Accreditation Board of Hospitals, involves guidelines for accreditation of wellness centres, and details the incentives provided for the wellness centres, including financial support to accredited centres for participation in domestic and international tourism events (GOI Ministry of Tourism, n.d.). Similarly the Karnataka Tourism Policy of 2009–2014 calls for active promotion of medical tourism but also conflates it with health and wellness tourism (Government of Karnataka, Department of Tourism, 2009). The policy recognizes the increased importance of developing standards for Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH) in light of the growing medical tourism industry. An accreditation system is being planned in order to prevent unauthorized and illegitimate practices. It plans to grade the centres as either gold leaf or silver leaf for rejuvenative wellness centres (without curative services), and platinum leaf for curative wellness centres. A working group on tourism for the 12th five year plan set up by the planning commission recommended specific roadshows for the aggressive promotion of medical tourism and also calls for streamlining of the medical visa scheme and immigration process to improve the flow for medical travellers (GOI Ministry of Tourism, 2011).

Promotion of Medical Tourism

The Indian government has initiated many steps to promote medical tourism in India. The Ministry of Tourism and the Government of India, in collaboration with Confederation of Indian Industry (CII) and Indian Healthcare Federation (IHCF), have created the Incredible India campaign in which a major focus has been placed on medical tourism. They have brought out a brochure called "Incredible India – The global healthcare destination". This brochure, containing information about the various procedures and the partner hospitals and wellness centres, is used for promoting medical tourism in various roadshows in different countries. Similar publicity material like compact discs (CDs) and

films on medical tourism are produced and provided to the India tourism offices attached to the various Indian embassies. These materials are used in the various international travel fairs, such as the London and India Tourism Board, Berlin Road Show and more. The ministry also extends financial support to the medical tourism service providers for promotional activities through the Marketing Development Assistance (MDA) scheme (GOI Ministry of Tourism, 2009).

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APPENDIX 3 – SUMMARY OF KEY AGENCIES AND ACTORS INVOLVED IN MEDICAL TOURISM DEVELOPMENT IN BANGALORE AND INDIA

Medical Tourism Providers

Providers of medical tourism services in Bangalore have been advocacting with
the ministry of tourism to initiate certain policy changes, such as lifting the ban
on the sale of liquor in Bangalore beyond 11 p.m in the 4 and 5-star hotels, to
allow international guests arriving in the night to utilize the bar facilities.
Similarly, they are advocating for the waiver of luxury taxes for the hospital
rooms. They are also working towards homogenising the entry taxes of tourist
vehicles to the different southern states. At present each state has its own entry
taxes and there is considerable variation.

Trade Bodies

Federation of Indian Chamber of Commerce and Industries (FICCI) – A national
trade body which actively champions the cause of the industries. It also
organizes many international and national workshops and exhibitions on
medical tourism.

Confederation of Indian Industry (CII) – Another influential trade body which regularly holds dialogues with the policy makers and also petitions the various ministries to promote the interests of the industry. In fact, the CII along with the Indian Healthcare Federation (IHCF) produced a 600 page report and submitted it to the Ministry of Health as a result of which the National Accreditation Board of Hospitals and Healthcare Providers (NABH) was established.

Bangalore Chamber of Industries and Commerce – An industry body which is set up to further the interests of the industry. The chamber acts as the back end support organization for the industry and champions its cause. The chamber has its own democratic structure. There are posts of President, Senior Vice- President and Vice-president who get periodically elected. The Chamber has a secretary general and deputy secretaries who do the back end work, such as arranging appointments with the ministries, drawing up policy briefs, etc., for the members to support their advocacy work. They also organize periodic workshops and bring various stakeholders together.

Government Ministries

Ministry of Tourism – Both at the federal level and at the state level, they are active in the formulation of policies and promoting the medical tourism industry. At the national level, there is a standing campaign called '*Incredible India'* through which roadshows are conducted internationally. The campaign has brought out a brochure which has the list of hospitals offering medical tourism facilities. The ministries are also actively involved in extending support to the health and wellness operators. They also are actively grading the various facilities to increase confidence in the facilities.

Ministry of Home Affairs – They are the main agency responsible for the issuaance of medical visas for the visiting patient and accompanying attendants. The ministry also helps with the paper work pertaining to deaths of the patients.

Ministry of Foreign Affairs – The ministry has a role to play in issuing visas and in the renewal of visas. The Ministry also has Foreign Residents Registrations offices to register all the foreigners who enter the country.

Autonomous Entities

Quality Council of India – This is an autonomous agency responsible for issuing the accreditation to the facilities through the National Accreditation Board of Hospitals and Healthcare Providers (NABH).

Medical Tourism operators or agencies –Medical tourism operators, who sometimes have a specialization in tourism and travel and established international contacts utilize their expertise to facilitate international medical travel.

APPENDIX 4 – MAP OF THE MEDICAL TOURISM FACILITIES IN BANGALORE
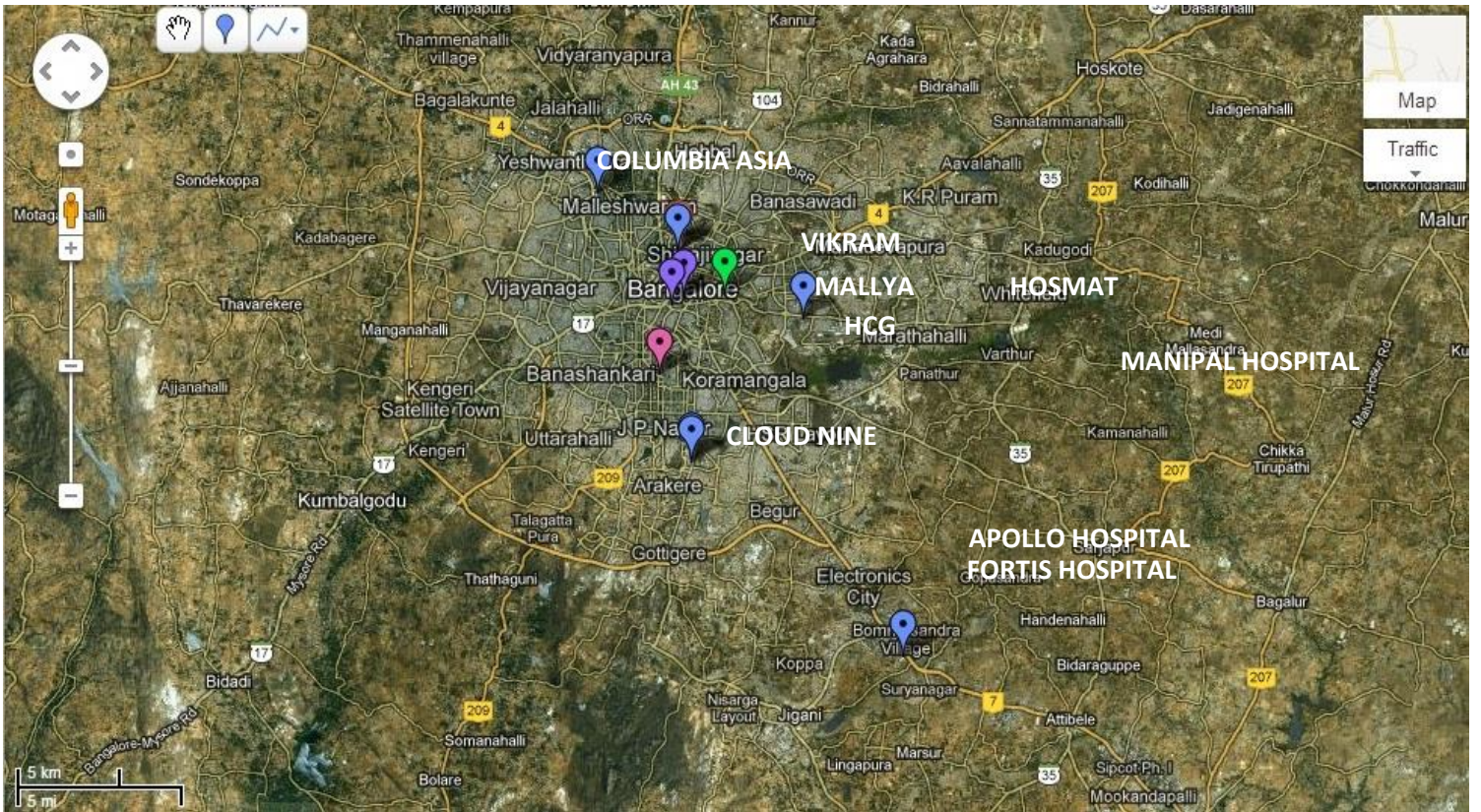
APPENDIX – 5 TRADE AND INVESTMENT TREATIES – INDIA

GATS Commitments

Worldwide, most trade and investment pertinent to medical tourism takes place outside of bilateral, regional or international trade and investment treaties. Such treaties, however, can influence growth in medical tourism and international patient flows. The World Trade Organization's (WTO) General Agreement on Trade in Services (GATS) is one such treaty. GATS requires WTO members to progressively remove barriers to trade in health services. This can include trade in health services through four specific channels (known as 'modes') (WTO, n.d.):

1. The supply of cross–border health services (such as telemedicine, or laboratory testing)

2. The supply of health services for international consumers (such as medical tourism)

3. The presence of foreign direct investment in health services (such as foreign direct investment in a health facility)

4. The movement of health workers (such as allowing foreign health professionals to practice within the country)

There are two categories in which barriers to trade can be altered: market access (removing barriers to foreign goods, investors or service providers) and national treatment (regulating foreign goods, investors or service providers the same as domestic ones). GATS allows WTO member countries to choose which of the four modes and the two categories they will 'liberalize' (the formal term for removal of trade barriers), and for which service sectors – these are what are known as the country's 'GATS commitments'. Countries can also apply specific limitations to these GATS commitments. GATS commitments are binding, which means that they cannot be ignored or altered. These commitments lead to a trade dispute if another WTO member country believes that a government is deviating from them, with obligations for compensation should the offending country lose the dispute.

India has made liberalization commitments under GATS. One commitment allows cross-border hospital services, primarily for diagnostic assistance (obtaining 'second opinions' from foreign medical institutions) and research (Mode 1). Another commitment removes restrictions on the entry of foreign patients (Mode 2). These commitments make it easier for Indian medical tourism facilities to arrange pre- or post-treatment services across borders. It also encourages referral programs for patients so that, if required, their medical diagnoses can be done online, which helps to create a client base in foreign markets and thus contribute to growth in medical tourism. India has also opened its private hospital market to foreign investors (Mode 3), nominally imposing a ceiling of 74% foreign investment but in practice allowing it to be 100%, which has been the case with some private hospital chains in the country. India also requires that foreign investment "bring in [the] latest technology for treatment."(WTO, 1994) This same conditionality applies to its many bilateral agreements (described below) and is consistent with the country's intention to develop leading edge medical facilities for its own citizens, as well as to attract foreign patients. India also requires that "publicly funded services be available only to Indian citizens or be supplied at differential prices to persons other than Indian citizens" (WTO, 1994), which opens the possibility that earnings from medical tourism could be used to cross-subsidize services for Indians.

Regional and Bilateral Trade Agreements

India has concluded several regional and bilateral trade agreements.

Regional treaties include:

- Association of Southeast Asian Nations (ASEAN)

- Asia Pacific Trade Agreement (APTA)

- Global System of Trade Preferences among Developing countries (GSTP)

- MERCOSUR (the South American Common Market)

- South Asian Free Trade Agreement (SAFTA)

- SAARC (South Asian Agreement for Regional Cooperation)

- South Asian Preferential Trade Arrangement (SAPTA)

Not all of these regional treaties have implications for health services. For example, only some South Asian countries (under SAARC) have committed to liberalize their health sectors; other countries are liberalizing only some of their health sub-sectors; and others are making no commitments at all (Khatun and Ahamad, 2011).

Bilateral treaties include agreements with: China, Chile, Afghanistan, Bhutan, Finland, Japan, Malaysia, Nepal, Singapore, Sri Lanka, Republic of Korea, New Zealand, Australia and with some African countries. India has made extensive liberalization commitments under market access and national treatment in its agreements with Singapore, Malaysia, Japan and the Republic of Korea. All five countries have fully liberalized trade in GATS Modes 1 (cross-border health services) and 2 (health services for international consumers), with the one exception of Singapore's exclusion of Mode 1 trade. The agreements also call for negotiations for mutual recognition of the education or experience, licenses, and certification of doctors, dental and nursing personnel, and other health professionals (Department of Commerce, n.d). Agreement on this would make health professional movement across borders much easier (Mode 4 trade). Mutual recognition negotiations are part of several other bilateral agreements to which India is party. Several of these treaties also include some liberalization in foreign investments (Mode 3) in health, tourism and social services (Department of Commerce, 2009), similar to India's multilateral (WTO) GATS commitments.

In 2010, India reported receiving around 1612 foreign tourists for medical purposes from Malaysia, 645 from Singapore, 168 from Japan and 96 from the Republic of Korea, though these figures do not capture all MT flows into India (Ministry of Tourism, 2010). Interestingly, all five countries are considered emerging markets for medical tourism (so there may be some competition amongst them based on cost as well as quality), and India's full liberalization with these countries is indicative of its interests in tapping these markets for its own medical tourism growth.

India's regional and bilateral trade commitments are thus indicative of interests in gradual liberalization of its health care. Its focus on Modes 1 and 2 (cross-border services, and international patients) is clearly intended to increase the flow of foreign patients.

Bilateral Investment Promotion and Protection Agreements (BIPAs)

BIPAs (also known as BITs, or bilateral investment treaties) serve primarily to guarantee the rights of foreign investors, and were created to protect the investments of capital exporting countries in developing economies and the former socialist republics (Dhar, Joseph, & James, 2012). Of particular concern with BIPAs is the inclusion of investor-state dispute settlement procedures, allowing foreign private investors to initiate arbitration against a government when they believe their investment has been expropriated due to regulatory or legislative change. This is worrisome as it may shift authority over dispute resolution away from local jurisdictions and shift power to relatively wealthy investors.

GATS contains a list of general exceptions to its commitments that a country can use to justify new measures necessary to protect human, animal or plant life or health. Moreover, individual investors or companies cannot initiate a dispute under WTO rules, only another member country can. With BIPAs, however, private foreign investors can initiate a dispute, and even when an expropriation is considered to be for a public purpose, and does not discriminate against foreign in favour of domestic investors, there is a requirement for "fair and equitable compensation."

According to UNCTAD (2012), while expropriation includes traditional concepts such as nationalization, it has also been extended to include regulatory measures enacted by the state in the protection of public interest that may diminish the economic value of the investment. As a result, attempts by India to increase regulatory protections for its citizens could be undermined or made financially prohibitive by the requirement that compensation be paid to private foreign investors.

India has signed 82 BIPAs since 1994, effectively overriding protections put in place under WTO trade treaties such as GATS. While GATS may permit the temporary nationalization of private health care investments (such as private health care facilities) during a public health crisis, BIPAs would demand compensation for lost revenue during this time to private foreign investors, paid with interest. Furthermore, foreign investors wishing to dispute a nationalization or regulatory change affecting their investment would be able to 'cherry-pick' from the most favourable conditions among the 82 BIPAs in effect (Egli, 2006).

One area of concern for India pertains to the deviation from their model BIPA surrounding the language of an investment, which has been broadened in BIPAs signed with France, Korea, Italy, Kuwait, and Mexico in particular (see Dhar, et al., 2012). As Dhar et al. (2012) note, "the definition of investment holds the key to the determination of expropriation (p.117)." They suggest that the more exacting countries are in their definition of investment, the fewer claims of expropriation they are likely to have brought to arbitration. Dhar et al. (2012) conclude that India's desire to attract foreign investment led to frequent deviations from their model BIPA language, which in a time of recession has opened them up to numerous arbitration cases from companies seeking ambiguities in these investment agreements to compensate for their reduced profit margins.

For a full list of India's BIPAs see:
http://finmin.nic.in/bipa/bipa_index.asp?pageid=3

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