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**Health Services Trade in Contemporary China:
Analysis of Medical Tourism
Prevalence and Policy Implications**

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Section One: Literature Review

Global significance of Medical Tourism

With the rise of medical technology, education, and resources in developing nations around the world, the international health services sector is increasingly growing and broadening its consumer market [6]. Regions such as Singapore, India, Jordan, Turkey, Malaysia, and Thailand are continually advancing medical care to provide patients of elective surgical procedures timely healthcare fraught with fewer regulatory barriers than that found in the health systems of many Western and European nations around the world [6]. Moreover, patients and insurers alike are utilizing the benefits of international health services to seek more patient centered care at significantly reduced costs [15]. This provider and consumer market for medical care sought specifically outside of one's home country is commonly known as "medical tourism." Also recognized as health services trade, health tourism, and medical outsourcing, depending on the procedure type and the patients' reasons for seeking medical care (critical procedures sought globally for financial reasons are often termed "medical outsourcing," while wellness travel packages, alternative therapies, and cosmetic procedures are often referred to as "health tourism"), medical tourism is a rapidly growing economic market in the international health arena, specifically in emerging economic nations with low construction and labor costs [16].

Importance of Medical Tourism in China

The potential for medical tourism to promote international health standards and healthcare quality is a powerful concept when one considers the economic incentives driving this sector of the global health care market. Similar to the competition generated by international free-trade markets, especially with respect to commercial products and technology (e.g. automobiles, electronic devices, home appliances), the health services sector also utilizes the market incentives of medical tourism to increase competition amongst providers who consequently draw patients through more advanced or patient-centered care at costs lower than that of the consumers' home country [18]. Such a market may potentially resolve the continuing issue of increasing health expenditures in developed nations and the existence of substandard healthcare in emerging economic regions. Furthermore, the broadening of the healthcare market to include all international providers effectively increases competition and drives costs down for both insurers and patients while raising revenue for developing countries [16].

China is one such emerging nation whose rapidly growing market-driven economy is subsequently motivating health care change. One of the most quickly rising economic countries in the world with a yearly GDP growth rate of 9.6%, China spends only approximately 5.5% of its \$10.17 trillion GDP (US dollars) on public health care compared to the US rate of 15.3% of yearly GDP spent on health care expenditures [12]. Despite the annual increase in national health care costs, the actual proportion of government funding towards public health has undergone a dramatic 20% decrease in spending since 1980 [11]. Thus, with the dismantling of the labor communes and Cooperative Medical System (CMS) that once supported all rural health care during the 1950s and 1960s, the rise and fall of the Cultural Revolution in the late 1960s and early 1970s resulted in a sudden dearth of systematic public health organization and funding throughout China's rural villages and countryside [10]. What had historically been a practical means of dispersing preventative medicine and primary health care to poor villages and towns via "barefoot doctors" funded by the Cooperative Medical System's collected fees, soon evolved into a capitalist-driven fee-for-service health care system concentrated in the urban regions of wealthier populations with greater insurance coverage [11]. With less government funding to support health care, public and private hospitals alike are currently being driven to raise revenue to meet the demand for medical services required by its population of 1.3 billion people [12]. As the thriving business of medical tourism boosts the economies of its Asian neighbors (e.g. Singapore, Thailand, Malaysia), it is this study's premise that China may potentially develop into a key medical tourism destination within the global market of health services trade due to its recent investments in advanced medical technology and growing need for additional revenue to sustain its swelling domestic population.

What is known about medical tourism?

Medical tourism is a broadly defined and often general description that encompasses a wide variety of medical services. This research, however, utilizes the terms “medical” or “health tourism” to specify a subgroup within the broader sector of health services trade that considers only non-cosmetic and non-organ transplant elective surgical procedures and alternative therapies sought specifically outside the patients’ home country [self-ascribed definition by author]. Treatments and procedures thus identified in this research as medical tourism include such services as coronary artery bypass graft surgery (CABG), knee-replacement surgery, total hip-replacement or hip resurfacing surgery, and coronary angioplasty.

Popular in such regions as Singapore, Thailand, the United Arab Emirates, Jordan, Philippines, Malaysia, Lithuania, Israel, India, Hong Kong, and Cuba [4], medical tourism is a thriving business, particularly with respect to elective surgical procedures that require long waiting queues or incur exponentially high costs in other regions of the world. India has risen as the topmost medical tourism provider in the delivery of highly complex medical services, such as cardiovascular and hip-replacement surgery. Similarly, Singapore, Malaysia, and Thailand have emerged as leading players within the global health tourism arena, as demonstrated by their many Joint Commissioned Internationally Accredited hospitals (JCI is a US-based accrediting agency) and variety of services in fields ranging from neurology to organ transplantation [14]. Sitting at the top in terms of patient-drawing power is Thailand with over 400,000 patients treated per year, followed closely by Malaysia (roughly 100,000 patients per year), India, and Singapore [6].

Market incentives and economic benefits

Cost comparison has shown that medical procedures in nations such as India can cost less than one quarter of the costs of equivalent services performed in the US for practices such as hip-replacement orthopedic surgery [10]. The extreme differences in patient expense for elective surgeries conducted abroad can be further exemplified by the price of cardiovascular procedures in India, which touts rates for cardiac bypass surgery less than one tenth the cost of that in the US, and heart valve replacement in which the US charges seventeen times more than India for identical procedures [10]. Such findings on the disparities in the costs of international health services in conjunction with global market competition of medical procedures points to the realization that even top-spending health providers in developed areas such as the US are not necessarily providing the most cost-efficient medical care to patients. Therefore, competing international providers offering equal services at severely reduced prices may potentially resolve the health-spending fiscal problems in nations around the world, while promoting greater investment of advanced quality care in developing regions in need of such additional foreign revenue [16].

As proclaimed by global health expert analysts, “trade liberalization increases competition which, in turn, reduces costs” [6]. The chief global advantage of broadening the medical services trade market, however, is the potential that such a sector has in promoting healthcare quality advancement and systems reform in developing nations—an idea that may apply to China’s current need for health care reform and growth in medical innovation. The concept that “health services trade offers countries the opportunity to enhance their health systems through trading health technology in areas where other countries have comparative advantages” [8] is intriguing when one considers how the economic incentives that lower labor costs in developing regions have drawn much investment in establishing more advanced health care. Such consequently produces systems-wide health quality improvements in infrastructure, medical education, and technological capacity in that region allowing patients seeking care from abroad to receive equitable services (up to par or higher than) that in their home nations. On the consumer side, the quality of health care is improved when sought from foreign providers since patients can now access “specialized treatments unavailable at home or avoid long waiting lists in their home countries” [6]—factors that greatly affect the timeliness, efficacy, and efficiency of good quality care as defined by the IOM roundtable standards for quality health care [1].

Alternatively, the global medical tourism providers in the international health services network also reap the benefits of the market in that the attraction of foreign patients and, most importantly, foreign currency, allows for the “increase [of] foreign exchange earnings, [provision of] employment for health care

personnel, and [obtainment of] related career and financial benefits from economies of a scale that would help to upgrade their health service sector as a whole” [6]. As a result, the present difficulties in developing regions such as China concerning the continuous emigration of health professionals to regions of more advanced health facilities and capabilities, also known as “brain drain” [4], could, according to researcher Pierre-Henri Brechat, be potentially forestalled if there exists a well-organized market system of bringing patients to the countries and increasing health systems standards in the medical professionals’ home regions [4].

China is therefore a potential candidate to serve as a key player in the medical tourism market in that it is a developing nation with low labor costs, advanced medical technical skill (high density patients in China have promoted surgical expertise due to the sheer volume of surgeries performed relative to that in other regions of lower population density), and a dire need for foreign revenue to supplement its decreased government funding for public health care. Furthermore, medical tourism may serve as the necessary motivating force to trigger the nation towards seeking higher health care quality standards in both its urban and rural populations.

Information gaps in Chinese health care

Despite the possibility that China’s health system holds in terms of its existing and future capabilities, whether or not the nation can function as a major player in the global health services market and viably serve as an international patient base for medical care is an unanswered question. To the knowledge of the current author, there are presently no existing data or research conducted on medical tourism in China that considers the impact such would have on the Chinese health care system and its domestic population. Without specific quantitative or qualitative analysis on medical tourism in China, the potential benefits or negative effects of medical tourism on China’s national health care demand and provision of services is undetermined. This lack of data consequently diminishes the country’s ability to impose public policy, regulate foreign revenue, or address the difficulties that a medical tourism market may have towards deepening the nation’s currently disparate urban-rural health care systems. Thus, the present absence of information and knowledge concerning China’s participation in the international health tourism market is a critical problem when considering the policy implications that accompany this new health services sector. Such policies that must be addressed include government re-allocation of revenue incurred from foreign medical tourism spending, regulation of quality of care, and government involvement or support in the development of international health care standards and technology [11].

These policy implications directly emphasize the necessity to attain international health care accreditation in order to secure consumers from abroad [5]. Medical tourism thus compels Chinese hospitals and medical providers to raise healthcare quality standards, advance medical services, and incorporate increased technology to match that in Western nations—factors of a good quality health system that patients in every nation seek. Nevertheless, numerous challenges face China in the form of inequity, legal or regulatory issues, and public distrust in the Chinese health care system [11]—all factors that must be examined and resolved before participation and investment of international health services in China by both foreign investors and the Chinese Ministry of Public Health can be realized. This therefore calls for a general assessment of the Chinese health care system and its individual providers at both the macro and micro-levels of its health care infrastructure. Extensive review of Chinese medical procedures for common elective surgeries, chronic ailments, and alternative therapies or treatments in comparison to international or Western standards of health care by a global review committee or regulatory body is essential for the ethical establishment of a medical tourism sector in China [10]. Nevertheless, the necessity of such a group in China has yet to be publicly addressed since the extent to which health tourism has developed in the country is not yet known nor are its health care quality standards in comparison to that of international benchmarks.

Research aims and objectives

The current study utilized a qualitative research approach and seeks to satisfy three chief objectives in order to gain a better understanding of the viability of medical tourism in China and its health policy

implications on the presently reforming Chinese health system. These three objectives are as follows:

- 1) Which top elective procedures or treatments are currently being sought in China by foreign patients?
- 2) What are the plans of action for hospitals pursuing or interested in participating in the global medical tourism market?
- 3) What are the general public, health provider/professional, and political reactions and projections are regarding the development of health tourism in China?

Through a series of interviews, surveys, and literary research, this study will evaluate the present status of medical tourism in China through identification of what forms of medical care are provided to foreign patients, the direction in which medical tourism is moving in Chinese hospitals and clinics, and assess the public and provider views regarding the development of a medical tourism sector in China. Through collection of information in each of these three main areas of exploration, the aims of this paper will seek to include an assessment of what barriers to entry into the medical tourism market exist for China, the unique medical services or alternative therapies that Chinese providers may offer to the global health care market, and what impact that a rising medical tourism market within China may have on its domestic health care policy and provision of care. To answers to the three questions will subsequently allow a more formal understanding of what policy actions involving the medical tourism sector in China that must be employed as a means of resolving existing or emerging health care quality issues in China.

Section Two: Research Plan

Motivation

Seeking to gain a better understanding of how diverse health systems around the world compared to health care management, policy, and reform in the United States, the study's researcher pursued a 10 week internship opportunity at a Chinese hospital in Beijing where one experienced first-hand the vast differences in health care infrastructure and policy design in China compared to that in the US. Upon meeting health professionals, administrators, and policy makers, however, one gathered a widespread sense of dissatisfaction and mixed hope regarding the Chinese health care system. While increased medical technology and expertise is on the rise throughout the nation's top hospitals and medical centers, decreased government funding towards the public hospitals and preventative medicine is driving up costs for Chinese patients—many of whom pay directly out-of-pocket for medical services on a fee-for-service basis (i.e. rural poor with no health insurance). The change in government policy, dismantling of the socialist-style health care, and gradual movement towards a market-driven economy following the fall of the Cultural Revolution in 1976 all contributed towards the present promotion of a profit-maximizing health care system in China [10]. Consequently, the pressure to generate revenue in order to sustain high population demand is thus driving Chinese providers to order excess use of medical technology (e.g. MRI, CAT scans) and prescription of pharmaceutical drugs—all of which are further exacerbating the health disparities due to the poor's inability to afford care [10].

Medical tourism, a resource of additional revenue may potentially resolve such current funding woes for the Chinese health care system, yet such a novel and yet to be globally recognized market within China raises questions concerning the impact such may have on the nation's reforming health system and domestic health care demand.

The research questions that this paper seeks to explore therefore assesses three key areas of China's status in the current medical tourism market and its potential to further develop as a major medical provider at the international level. Questions that this research paper will examine include:

- 1) Which top elective procedures or treatments are currently being sought in China by foreign patients?
- 2) What are the plans of action for hospitals pursuing or interested in participating in the global medical tourism market?

- 3) What are the general public, health provider/professional, and political reactions and projections are regarding the development of health tourism in China?

The broader ideas driving this research can be defined as a dual-objective plan in which I seek to determine the current pattern and prevalence of medical tourism in China, and evaluate how such may impact the overall Chinese health care system and current reforms process.

Methods- Study Population

Evidence for analysis and examination of the study's objectives will be drawn from secondary literature resources (i.e. articles and papers on global medical tourism), and primary data collection (phone or e-mail based interviews with international health providers, professionals, administrators, and medical tourism agents based around the world). Ten resources have been chosen in this study to representatively sample the broad array of providers, administrators, and officials that compose the Chinese health care system. Interviewees include chief administrators or directors of foreign relations at the following hospitals or organizations:

- 1) The New Century International Children's Hospital
- 2) Beijing Public Children's Hospital
- 3) Hua Shan Hospital in Shanghai
- 4) Tianjin TEDA Cardiovascular Hospital
- 5) YuQuan Hospital of TsingHua University
- 6) Peking Union Medical College Hospital
- 7) Beijing United Family Hospital and Clinic
- 8) De An International Hospital
- 9) Shenzhen Nanshan Public Hospital
- 10) Deputy Director of the Division of European, American and Oceanian Affairs and Department of International Cooperation within the Chinese Ministry of Health.

These primary resources have been identified as suitable interview subjects due to their varying rolls in the public, private, and governmental divisions of the Chinese health care system and whose opinions, responses, and perspectives may contribute towards a composite picture of the current status of medical tourism in China. Primary information via first-person interviews will also be gathered from global medical tourism agencies to provide a consumer's perspective regarding the pursuit of health tourism in China. Five such private for-profit organizations and companies to be interviewed are: Med Journeys, Medical Tourism, Planet Hospital, Parkway Health Care, and VAMED Health Care (health care operations and consulting company with a branch in Beijing, China). The four medical tourism agencies were identified via online searches to be the most popular and well-known groups that specifically coordinate US and UK medical tourism trips abroad.

Sampling Criteria and Justification

Primary resources and interview subjects in this study may be subject to sampling bias as interviewees may choose to refrain from participation due to limitations caused by the logistical time constraints of the study (i.e. conflicts in schedule may prevent subjects from sparing time to answer questionnaires or submit to phone interviews in the time span of this project). An additional source of selection bias is personal inhibition since fear of implicating criticism towards the Chinese government's management of the country's health care system may reduce both participation and full disclosure from interview subjects. Since hospitals, providers, and administrators in this study have been predominantly identified on a personal referral basis, sampling bias may also be introduced through non-random selection of participants despite efforts to gather a comprehensive collection of individuals from all aspects of the Chinese health care infrastructure.

Ethical concerns to be considered in this research project include confidentiality of those health professionals being interviewed and that of their respective hospital centers or institutions. Full

confirmation of personal confidentiality must first be clearly indicated prior to first-person interviews while collecting primary resource information, and aliases will be used in this report wherever possible.

Data Collection Methods

Interviews will be conducted either via phone conversation or through e-mail based questionnaires. A set of four different interviews will be drafted to address the four chief subject types to be interviewed in this project. These four interview formats include questions geared towards hospital medical professionals (i.e. MD's, nurses, technicians), hospital administrators (i.e. upper level management, directors of hospital departments), health officials (i.e. Ministry of Health officials), and foreign-based medical tourism agents. Due to the lack of published data and publicly released statistics on medical outcomes in China, the most appropriate means of acquiring information on China's participation in medical tourism is via interviews of health care personnel. Such a method of qualitative data collection in the form of individual opinions, experiences, and projects may introduce bias into the study depending on the particular research participant. This method, however, is a more feasible means of uncovering China's health tourism status given the lack of access to data on healthcare outcomes and statistics in China—a consequence of strict government regulation of hospital information and the absence of any formal quality of care analysis within the public health system.

An example interview guide for one of the three identified target groups of this study is shown at the end of this research plan. Collected information will be thoroughly examined in the context of the interviewee. In other words, opinions drawn from health professionals concerning China's ability to develop a medical tourism market will be assessed in light of the interview subject's function within the Chinese health care framework, his or her experiences and history with the health system, and exposure to international health care standards and quality measurements. This method of analysis will be utilized to evaluate all primary interview data to formulate a comprehensive qualitative assessment of medical tourism in China and recognize what impact such may have on the general health system in terms of policy and health care delivery. [See Appendix, interviews A, B, C]

Section Three: Research Results

Question 1: Which top elective procedures or treatments are currently being sought in China by foreign patients?

The presence of medical tourism activities in China when considered in the traditional sense of patients seeking medical care abroad is chiefly anecdotal and without much quantitative evidence. Although all interviewed medical tourism agencies had no present partnerships or past incidences of clients seeking care in China, interviews with Shenzhen Public Hospital (in the province of Shenzhen, China) revealed a budding stem cell therapy clinic for treating neuro-degenerative diseases (i.e. multiple sclerosis, paralysis, stroke) that is presently drawing a steady flow of patients from predominantly neighboring Asian countries as well as the US and several European nations. Moreover, Huashan Hospital described many of its acclaimed specialties that draw patients from outside China--namely neurosurgery, oncology, reconstructive surgery, dermatology, and Integrated Traditional Chinese and Western Medicine. VAMED Healthcare also cited general trends in patients from Mongolia and Russia who travel to China for specialized tertiary care, specifically in cardiovascular surgery. Nevertheless, which procedures are most popular or appealing to medical tourists seeking health care services in China is still relatively unknown due to lack of quantitative records on such information. Many of the health professionals from several interviewed hospitals all agreed that China has exceptional technical and surgical outcomes (due to its high population density and thus enormous number of surgeries conducted per day) in all specialties as well as the unique ability to provide alternative therapies not found elsewhere around the world, such as stem cell therapy (still in clinical human trials in China), Traditional Chinese Medicine (TCM), and Integrated Traditional Chinese and Western Medicine.

Nevertheless, interviews with several medical tourism agencies did reveal analysis-based conclusions (drawn from datasets gathered by the respective agencies) regarding what they deemed to be the most

common medical tourism services around the world and in what regions patients sought such care. Such findings highlighted the top medical tourism procedures sought internationally, which include cosmetic services (consists of 50% of all medical tourism activity), orthopedic surgery (i.e. hip and knee-replacement surgeries), bariatric surgery (i.e. gastric bypass, lap band), in-vitro fertilization therapy, and spinal or ankle fusion. These global medical tourism trends, although not documented in China, can nevertheless provide insight as to what services may be of potential value in China—a critical factor when Chinese hospitals are seeking to invest resources in areas with the greatest patient drawing power.

Questions 2: What are the plans of action for hospitals pursuing or interested in participating in the global medical tourism market?

TEDA (Tianjin Economic Development Area) Cardiovascular International Hospital, in the province of Tianjin, China, is a 600 bed facility with a capacity to conduct 10,000 surgical operations per year and 15,000 interventional therapies per year. With a direct government subsidy of only 5%, despite its status as a Chinese public hospital, the TEDA Cardiovascular International Hospital depends on a tiered payment system in which wealthier patients pay higher costs for more spacious facilities, faster care, and more personalized services. Residing on special floors designated as “VIP clinics,” patients who can afford to undergo therapy or treatments on such floors provide the necessary profits to close the financial gap incurred due to the lack of government funding. With regards to whether or not such “VIP clinics” would be an apt setting for medical tourist patients, the TEDA Cardiovascular International Hospital foreign relations manager remarked that the hospital would not produce enough revenue from international patient care to make investment in the promotion of medical tourism an economically profitable endeavor. Due to government capping of prices for medical services, the foreign relations manager explained how the hospital must charge uniform rates to all patients, whether they are domestic or foreign.

Though additional revenue from international patients seeking care at the hospital in one of its “VIP clinics” could serve as an alternate resource to provide needed funding, the necessary costs that would be required of the hospital to market itself to the global patient base, seek JCI accreditation, and staff its facilities with multi-lingual professionals (only 5% of the staff can currently communicate in English in TEDA hospital) would far outweigh the profits that would be derived from medical tourism. As a result, the TEDA Cardiovascular International Hospital, despite boasting modern facilities, top patient care, internationally educated medical staff, and unparalleled specialized care in cardiovascular health, does not see any incentive to invest in medical tourism in the near future and thus has no plans to reach out to foreign patients or seek international accreditation (a very costly and extensive process).

In contrast, Huashan Hospital, of Shanghai, China, has views regarding medical tourism that sit on the opposite side of the spectrum relative to that of TEDA Cardiovascular International Hospital. One of the top three public hospitals in Shanghai, Huashan Hospital already carries the signs of a hospital paving its way through the global health care market with its “World Wide Medicine Center” that predominantly treats foreign patients and emphasizes a bilingual staff. Citing similar financial woes to that of TEDA Cardiovascular International Hospital, the Huashan Hospital foreign relations director similarly proclaimed how the hospital budget gap due to lack of government subsidy has driven it to seek alternative funding methods. As a result of such self-sufficiency in addition to a motivated hospital leadership, the Huashan Hospital invested greatly in raising its standards and advancement of medical care, thus appealing to non-local (provinces outside of Shanghai) Chinese patients and ex-patriot residents alike with greater abilities to pay higher prices for faster and more personalized medical care. Speaking for the hospital president who deems international patient care to be an invaluable means of promoting further advancement of medical standards throughout the hospital as well as providing much needed funding, the foreign relations director described how Huashan Hospital was actively seeking to establish itself not only as an acclaimed hospital throughout China, but in the global context as well. With many partnerships with international hospitals and academic institutions including Massachusetts General Hospital, Harvard Medical School, Harvard Medical International, Tufts University, and Joselin Diabetes Center, Huashan Hospital is seeking to further infuse Western medical technologies and health care delivery style into its hospital system in addition to one day seeking accreditation from the Joint Commission International. It is the hospital’s hope that such investments and changes to healthcare

delivery will serve to funnel additional revenue to the hospital from a broader patient base, particularly medical tourists, while motivating the hospital to raise health care quality standards and technology.

New Century International Children's Hospital, a joint public-private hospital in Beijing, China, carried similar beliefs to that of Huashan Hospital in that it sees medical tourism as a rising global trend that will one day pervade China as the country modernizes and becomes increasingly market-driven. The hospital is therefore actively in the process of seeking accreditation from the Joint Commission International, conducts weekly staff-wide English-training classes, and is one of the few Chinese hospitals to offer an interactive English website. In addition, the hospital differs from other Chinese health centers in its establishment of a "patient services" manager whose job is to ensure that patient-centered care is the priority of all hospital personnel, which contrasts to conventional Chinese hospital practice that focuses on systematic efficiency at the cost of less personalized patient care and attention.

Question 3: What are the general public, health provider/professional, and political reactions and projections are regarding the development of health tourism in China?

VAMED Healthcare, an international developer and operator of hospital systems and healthcare delivery, has had a branch established in Beijing, China for over thirty years. Its primary functions in China have revolved, predominantly, in the design of hospitals and the introduction of new health and information technology systems in clinics and hospitals throughout the country. Though the senior representatives of VAMED Healthcare see potential in China for the rise and growth of medical tourism, they do not hesitate to describe what factors in modern day China prevent the nation from finding a solid foothold in the medical tourism market. Namely, such factors include the lack of third party organizations based in China or elsewhere that are familiar with Chinese hospitals, health care providers, geography, and culture to serve as intermediary resources for foreign patients seeking care in the nation. According to VAMED, the absence of such a third party group to facilitate and assist international patients in seeking and receiving care at a Chinese hospital in a timely, affordable, and patient-centered manner is a crucial missing component. Without such intermediaries who are knowledgeable in the Chinese language, health care quality, standards, and hospital facilities, the international patient in China will find it exceedingly difficult if not impossible to identify which provider amongst the vast array of clinics and hospitals throughout China is most appropriate for his medical needs.

Furthermore, VAMED projected that the greatest source of international patients seeking care in China would first arise from the neighboring Asian countries, such as Taiwan, Indonesia, and Japan. As the medical tourism market expands and gains in popularity throughout China, VAMED predicted that the nation could potentially then tap into patient bases in Europe and the Americas. According to the VAMED representatives, the chief obstacle that China must combat, however, is not the actual drawing of patients from abroad—but the level of health care quality and transparency throughout the country's hospitals. Without an emphasis to reach international standards of health care via accreditation by international health care agencies (i.e. Joint Commission International) and a policy of transparency in terms of healthcare quality reporting, international patients will be reluctant to seek care in China despite lower cost incentives. In fact, it is generally observed that many ex-patriots and wealthy Chinese today still seek care for critical or advanced medical conditions in nations outside of China.

In terms of which hospital providers would be the likeliest candidates to participate in China's future medical tourism market, VAMED noted the growing trend of urban public hospitals in China that are becoming increasingly privatized and self-sufficient. Such is due, mainly, to the decreased government funding to such public providers, and the concentration of current Chinese health care reform on the rural, non-urban health centers throughout China. Therefore, the greatest opportunity to deliver health care to medical tourists would arise, ultimately, in the Chinese private health sector. With the high density of patients seeking care in overcrowded and under funded public hospitals, VAMED projected that the private health care industry would be the only providers with the available resources, both in terms of finance and personnel, to accommodate an in-flow of international patients. Nevertheless, VAMED noted that China's current private health sector is remarkably small and underdeveloped and oftentimes still dependent on partner public hospitals for more advanced equipment and medical technologies. VAMED did not rule out the potential role for public hospitals in medical tourism, yet acknowledged that whether or

not such occurred would depend significantly on the hospital management and its degree of foresight regarding China's role in the global health market. More importantly, the physician-patient culture in China is markedly different from that generally accepted in most western nations. Citing major drawbacks to include the lack of doctor-patient communication (some hospitals even train physicians to maintain minimal eye contact with patients so as to avoid questions and thus prolong examinations), unmaintained hospital facilities, inadequate hygiene standards, and hospitals systems based on efficiency rather than patient centeredness, VAMED explained how these behaviors and methods are now deeply entrenched in Chinese-style health care delivery and incompatible with westernized expectations of health care by visiting patients.

Similarly, a professor of the Guangdong Health Bureau and former Chinese Ministry of Health official expressed comparable views with respect to the public health sector's minimal role in a future medical tourism market in China. "The government funds only the Chinese public health care sector, and it is likely that the public will not be receptive to the idea of the government subsidizing public hospitals to provide medical care to foreign patients. The opportunity for the rise of medical tourism in China would rest entirely within the private health sector. The government is currently too busy with the current Chinese health care reform to invest any resources in medical tourism," the former government health official proclaimed when asked what role the Chinese government may have with respect to promotion or regulation of medical tourism in China. Therefore, the Chinese government's involvement in medical tourism is projected to be minimal and essentially a non-priority in comparison to China's other pressing health care difficulties that the nation is addressing in its present health care reforms process.

Medical tourism agencies based both in the United Kingdom and in the US, however, see a wealth of medical tourism opportunity China despite the absence of any evidence that such a market currently exists in the nation. All three interviewed medical tourism agencies affirmed that they do not currently nor have they ever established relationships with health care partners in China, although they are in favor of one day sending patients to China for medical care. Yet, they stipulated that such would be dependent on whether or not Chinese health care providers could overcome language barriers and offer competitive prices in the context of global health services prices (i.e. prices competitive with that in India and Thailand for similar procedures). One agency, in particular, noted that both Chinese-Americans and Chinese-Canadians would be prime consumer targets for a medical tourism market in China. Nevertheless, with the tri-part priorities of quality, cost, and patient-centered care held by all medical tourism patients worldwide—China must first overcome significant quality reporting, service standards, and language challenges before it can consider reaching out to patients around the globe.

Section Four: Discussion

Evidence gathered from the array of interviews conducted on healthcare professionals in both the public and private health care arenas, as well as that from government officials and global medical tourism agencies, all indicate that China is capable of one day functioning as a key player within the international medical tourism market. It was generally agreed by all interview subjects, however, that the government is unlikely to invest or promote China's pursuit of medical tourism and it is therefore left to the vision and motivation of individual hospital leaders to pro-actively raise health care quality standards to match those internationally, emphasize bilingual capabilities, provide open quality reporting of its medical outcomes, and foster a sense of patient-centered care throughout all levels of its staff. With the pressing need for additional revenue to cover hospital budget deficits as a result of insufficient government funding, some public hospital professionals believe that medical tourism is an innovative means of funneling foreign revenue into the domestic coffers of the Chinese public health sector. With such aid, the public health sector could then distribute the funding to subsidize more care for its domestic patients (especially those seeking care from more rural or impoverished regions of China), invest in more advanced health care technology and equipment (i.e. PET scanners and MRIs), and conduct much needed facility maintenance operations (clinics, examination rooms, and waiting areas throughout many Chinese public hospitals commonly fall into disrepair and are never re-furnished, remodeled, or repainted after their initial construction) [Table 1].

Alternate views also from other hospital providers, however, stress that strict government capping of prices ultimately makes medical tourism costly and unprofitable for public hospitals. Such is due to the fact that participation in the medical tourism market would require huge time and financial investments that consist of raising quality standards to that of the international level, training a bilingual staff, and marketing to a global patient base—all cost-intensive projects that some providers fear may draw resources potentially away from serving the domestic Chinese populations [Table 2]. Other hospital leaders in the public health sector disagree, however, and cite that medical tourism in China will inevitably arise from health care market trends observed elsewhere around the world, and that it is precisely the driving force necessary to stimulate the urban public health sector to pursue higher quality outcomes and re-center its focus of care to revolve around the patient rather than the provider [Table 1].

In comparing the views of the interviewed health care operations and consulting group as well as those of US- or UK-based medical tourism agencies, there is a general consensus that present day China is still hugely unprepared to become a major provider in the international medical tourism market in the near future. Such is chiefly due to significant barriers in the form of the lack of English-speakers amongst medical staff, a culture of health care delivery that is strikingly non-Western (provider centered hospital systems rather than patient-centered), and medical facilities that oftentimes do not give just representation of the level of surgical and technical skill conducted within its walls (though urban public hospitals are widely known to have the most superior surgeons and physicians throughout the nation, these same hospitals are often poorly maintained and never renovated). These are all key features that compose what most medical tourism patients deem to be crucial factors that shape their choice of health care provider overseas.

Although it is generally agreed across the board of interviewed Chinese health professionals, policymakers, and international agents that hospitals and providers in China are not yet ready for immediate large scale movement towards integration in the global health services market—they nonetheless see potential in China's future participation in medical tourism. There is a diversity of opinions regarding whether or not the public or private health sectors should target medical tourism, and what parties should be responsible for promoting it in China. While some see it as an option solely reserved for the private health sector, others stress that the lower costs and more experienced providers of public hospitals make the public health sector more appealing to medical tourists. Furthermore, although external observers to the Chinese health system (medical tourism agencies) see government participation as crucial towards the effective promotion of medical tourism in China—Chinese health care leaders and policymakers unanimously agree that such involvement from the Chinese Ministry of Health or any other governing body is unlikely. Thus, it is at the hands of individual Chinese hospitals leaders as to whether or not they invest in medical tourism projects, international accreditation, and global patient marketing. Some Chinese hospitals, both public and private, have already undertaken several of these steps or are in the process of planning such changes. Still others have no intention to invest resources in the area of facilitating international patient care as they do not deem such to be a practical or cost-effective endeavor.

Policy Implications

Despite projections that Chinese government regulation or involvement in medical tourism is improbable, one should still consider what impact a rising medical tourism market may have on the Chinese health system and in what way the government may be forced to address such issues. One concern expressed by Chinese providers is that the financial incentives of medical tourism may steer hospitals away from the delivery of care to domestic patients, and thus shift resources towards international patients. Such a dilemma calls for some government regulation of how much public funding and resources public hospitals may legally invest in foreign patient care. Given the minimal amount of government subsidy to the urban public health care sector (ranging from 5% to a third of public hospital revenue), however, such may not be a concern since investments in medical tourism projects by public hospitals may be derived solely from privately-incurred revenue. Another policy implication of medical tourism in China is that once public hospitals begin to accrue foreign revenue, to what extent should the government be involved in terms of deciding how such profits should be invested, utilized, or distributed? Since the public hospitals are essentially owned and under the rule of the Chinese Communist Party and the Chinese Ministry of Health,

there is the option that medical tourism-derived foreign revenue may be re-allocated to the rural public health centers or retained within the urban public hospitals as such leaders have already proclaimed their need for additional revenue to cover the vast majority of hospital costs not funded by the Chinese government.

In addition to policies concerning public health sector investment in medical tourism and utilization of foreign revenue, there is the policy issue involving how the Chinese government should respond to the potential influx of international patients seeking visitation to China for the purpose of medical care. Whether or not the government instills or modifies tourism and travel policies regarding VISA acquirement by foreigners seeking medical care can greatly affect the feasibility of traveling to China by medical tourists around the world. More importantly, since medical tourism is also predicted by many interviewed health care providers to be a significant factor within the Chinese private health sector, how readily the government allows independently-owned private hospitals to establish themselves in China can hugely influence the rise and spread of medical tourism. Whether or not the government enforces regulations or policies that require dual-ownership of private hospitals in China (affiliation of the foreign or independently run hospital to a public hospital or institution in China, i.e. the New Century International Children's Hospital is a private hospital jointly owned by the Beijing Public Children's Hospital) can also affect the feasibility with which private hospitals may arise in China and consequently the opportunity for the growth of medical tourism.

Study Limitations

Limitations of this study revolve mainly about the selection of subjects interviewed and the form in which the study information was gathered. Although the individuals interviewed were sought to create a composite spectrum of diverse perspectives from backgrounds such as Chinese medical professionals, hospital managers and directors, government health officials, international health care consulting groups, and medical tourism agencies, since the interview subjects were sought through person-to-person referrals and connections, there is likely some bias in the selection of views in comparison to a random survey of individuals from all tiers of the Chinese health care system. Nevertheless, due to the specific nature of the medical tourism market, it is more likely to occur in well-developed, urban regions of China and in those hospitals (both public and private) offering higher quality care. Thus, this study naturally did not select for views drawn from primary and secondary-tier hospitals based predominantly in rural China in which medical tourism would not be a present, and instead focused on subjects based in more prominent hospitals throughout China (based in Beijing, Shanghai, Tianjin, Shenzhen, and Guangdong) with greater potential to participate in the Chinese medical tourism sector. Although some may claim that such interview methods introduces selection bias, it may be countered that the study in fact narrows down the range of subjects within the broad Chinese health care system to a group of providers, health professionals, and policymakers that are most directly involved in areas of health care relevant to a potential medical tourism market in China.

Another limitation of this study consists of the mode of data collection. Due to the widespread lack of documentation throughout the Chinese public health system, interviews with directors and provides based in public hospitals could provide no concrete quantitative evidence or statistics on number of procedures per year provided to foreign patients or what the most popular services sought by international patients were. Responses to interview questions concerning how many foreign patients seek care at the hospitals and for what services were purely qualitative and anecdotal, and thus cannot provide accurate estimates as to the extent to which medical tourism has progressed in China. However, interview subjects were candidly open about hospital outcomes and services, and such individuals did not hesitate when questioned about China's potential drawbacks in seeking to become involved in medical tourism. Despite concerns at the start of the study that extreme government censorship and control over Chinese opinions and views on their own health system and government regulation would influence subject responses, interviewees were surprisingly frank when discussing public dissatisfaction in government funding of the public health system and the need for Chinese hospitals to achieve higher health care standards in order to meet international levels.

Future Directions

With the lack of quantitative information regarding the existence of medical tourism in China, this study provides a preliminary qualitative overview of what current procedures patients from abroad are seeking or are likely to seek in China, how Chinese hospitals are preparing or investing in medical tourism projects, and what predictions and opinions the Chinese public and those in health professional field or in government have in terms of China's likely stance on medical tourism in the future. As hospitals develop, modernize, and deliver health care to patients in China in the coming years, future study on this topic would produce great insight into the topic of medical tourism by conducting empirical tests on any evidence or statistical trends that may be observed in Chinese health care. Such future studies could examine the in-flow of international patients seeking care in Chinese hospitals and documenting what procedures or treatments that such patients are seeking. Furthermore, cost-benefit analysis of the amount of hospital dollars spent on medical tourism projects and the revenue incurred from medical tourism visits per year would be particularly powerful in measuring the quantitative advantages of medical tourism in public in need of alternative funding resources. Econometric analysis conducted on such gathered data would not only support or refute current projections regarding the future benefits of medical tourism investment and promotion in China—but provide invaluable evidence for the subsequent formulation of health policy design and reform in China's evolving health care system. Though the government today may not deem medical tourism as a crucial sector within its health system, future data revealing that medical tourism does or does not in fact substantially affect hospital revenues may greatly alter their stance on the Chinese public health sector's participation in global medical tourism and, as a consequence, policy design and implementation that may regulate, restrict, or promote medical tourism in China.

Works Cited:

1. Berwick, D. 2002. A User's Manual for the IOM's 'Quality Chasm' Report *Health Affairs* 21(3):80-90, 2002.
2. Blendon, Schoen, DesRoches et al. 2002. "Inequities in Health Care: A Five-Country Survey," *Health Affairs* 21, 3 (May 2002): 182–91
3. Bodenheimer, T. 1999. The American Health Care system: *The Movement for Improved Quality in Health Care*: Volume 340:488-492 February 11, 1999 No 6
4. Brechat, P.H. 2005. *Globalization in Health Care: is int'l standardization of quality a step toward outsourcing?* *International Journal for Quality in Health Care* vol. 17 no. 4
5. Donahue, T., van Ostenberg, P. 2000. *Joint Commission International Accreditation: relationship to four models of evaluation*. *Int'l Journal for Quality in Health Care*; Volume 12, number 3, pp. 243-246
6. Janjaroen, W.S., Supankunti, S. 2002. *International Trade in health services in the Millennium: The Case of Thailand*
7. Mudur, G. 2004. *Hospitals in India woo Foreign Patients*: *BMJ*;328:1338 (5 June), doi:10.1136/bmj.328.7452.1338
8. Smerd, J. 2006. *A Ticket to Lower Costs*. *Workforce Management*; 11-20-2006, Vol. 85 Issue 22, p1-33, 5p, 2c,
9. Twaddle, A. 1996. *Health Systems Reform—Toward a Framework for International Comparisons*. *Soc. Sci. Med.* Vol 43, No. 5, pp. 637-654.
10. Hillier, S., Shen, J. *Health care systems in Transition: People's Republic of China, Part I: an Overview of China's healthcare system*. *Journal of Public Health Medicine*. Vol 18, No. 3, pp. 258-265.
11. Wang, H., Xu, T., Xu, J. *Factors Contributing to High Costs and Inequality in China's Health Care System*. *JAMA*. 2007. Vol. 298 No. 16:1928-1930.
12. CIA World Factbook: <https://www.cia.gov/library/publications/the-world-factbook/print/ch.html>. Retrieved 3-5-08.
13. <http://www.healthcaretours.com/medical-procedure-price-comparison.asp>, Retrieved March 7, 2008.
14. Joint Commission International website: <http://www.jointcommissioninternational.org/>. Retrieved 3/10/08.
15. Alsever, J. *Basking on the Beach, or Maybe on the Operating Table*. *New York Times*. Oct 15, 2006.
16. Epstein, A., Smith, M. Will the Surgical World Become Flat. *Health Affairs*. 26 No.1 (2007): 137-141.
17. Shimo, Alexander, Maclean. *New Hot Spots for Surgery*. *Travel Agents: Health*. Vol 120. Issue 122. 2007.
18. North America: Medical Tourism Industry Rapidly Growing. *Oxford Analytica*. <http://www.oxan.com/display.aspx?ItemID=DB129920> . Oct 5, 2006.

Table 1: Projected Advantages of Medical Tourism in China

Cost	Services	Benefits
<ul style="list-style-type: none"> • Low hospital/clinic construction costs • Low labor costs • Government capping of all medical services costs makes prices highly competitive with that of other nations 	<ul style="list-style-type: none"> • High patient densities translate into high quality medical outcomes for surgical procedures • Unique services not offered elsewhere: Traditional Chinese Medicine, stem cell therapy, integrated medicine 	<ul style="list-style-type: none"> • Medical tourism a source of additional revenue for public hospitals that receive little government funding • Incentive for hospitals to modernize and raise quality of care standards to match that of int'l levels

Table 2: Projected Disadvantages of Medical Tourism in China

Cost	Services	Drawbacks
<ul style="list-style-type: none"> • Significant investments required of hospitals to spend on staff training (i.e. English classes, patient services training) • Accreditation by international body a very extensive and costly process (may take several years to complete) • Expensive marketing and advertising costs 	<ul style="list-style-type: none"> • Chinese health care delivery is physician-centered (not patient-centered) • Very few internationally accredited hospitals in China (only 3 hospitals) • Significant language barrier • Public hospital facilities/clinics poorly maintained • No third party organization to facilitate delivery of care to medical tourism patients • No government support or regulation • Lack of quality reporting 	<ul style="list-style-type: none"> • Investment in medical tourism projects may draw resources from the public health sector and thus deprive domestic populations of care • Shifting of specialties and resources to those services more appealing to foreign patients • Investments of medical tourism projects more costly than the observed benefits

Appendix:

A. Medical Tourism Questions: Chinese Hospitals

What types of **services** provided?

- Does hospital specialize in specific departments/procedures?
 - o Oncology, neurology, orthopedics, cardiology
- Alternative therapies provided?
 - o Stem Cell therapy
 - o Traditional Chinese Medicine
- Hospital providers—any physicians/nurses/staff members internationally educated?
 - o Any medical training abroad?
 - o Board certified in other nations?
 - o Language capabilities
- Hospital relations/partnerships with overseas institutions/providers/organizations?

Services provided to **Foreign/international** patients?

- Which services/treatments/procedures sought by overseas patients?
- Special services/facilities especially catering to international pts.?
 - o VIP clinics/wings
 - o Post-operative therapies/recuperative amenities
- Patient demographics
 - o Home country
 - o Medical needs/history
 - o Reasons for seeking care in China
 - o Referral method- (friends/family/agency/internet)
- Payment/Coverage
 - o Out-of-pocket
 - o Reimbursed by health insurance company?
- Internationally accredited?
 - o JCI/ISO?
 - o Alternate quality measurement organization?

What is potential for **China as a key player** in global MT market?

- Chief advantages/drawbacks?
- Which services most likely to attract patients?
- Greatest barriers to int'l healthcare delivery in China
 - o Communication:
 - Language barriers?
 - Physician/provider-to-patient interaction
 - o Methods of healthcare delivery/ Service:
 - Quality of care (accreditation?)
 - patient-centered care?
 - o Cultural:
 - Awareness/acceptance for other cultures/religions?
 - o Facilities/environment
 - Healthcare facilities
 - Local/external attractions?
 - o Government policy?
 - Feasibility of acquiring visas
 - Gov-regulation of alternative therapies/elective surgeries?
 - o Costs:
 - Competitive prices?
 - Payment/Insurance coverage?

B. Medical Tourism Agency Questions

How is MT most accurately **defined**?

- All elective surgeries/treatments/procedures
 - o cardiovascular, orthopedic, oncology, dentistry, ophthalmology
 - o alternative therapies (TCM, stem cell therapy)
 - o organ transplantation
 - o cosmetic surgery
- MT industry = medical services/treatments (unit of trade) utilized (purchased) by foreign patients (consumers)

MT Agency **Process of Patient Referral**?

- How are partnerships with overseas hospitals formulated?
 - o Team of qualified doctors/nurses to assess providers & pt needs?
 - o Agency's own accreditation/quality measurement system?
 - o "middleman"/independent agent to organize & assess int'l providers acc. to pt. standards?
 - o Importance of JCI accreditation?
 - Diff. standards/level of quality measurement relative to US JCHO
- Relations w/global health ins. companies/self-insured employers?

How did today's billion \$ MT industry **arise**?

How can you **quantify** global MT market?

- Statistics on **market size** of entire MT industry
 - o Or aggregate generated revenue of chief MT nations
 - India, Thailand, Singapore, Malaysia
- Statistics on **consumer size** of entire MT industry
 - o Or aggregate consumer numbers from chief MT nations
 - India, Thailand, Singapore, Malaysia
- Identify TOP international MT **hospital providers**
 - o **Where** are these hospitals located?
 - o Process/method of **healthcare delivery** in such hospitals
 - Highlight critical features: patient-centered care (service, technical quality, environment, post-op therapies)
 - o Hospital provider relations to **external attractions**
 - Medical + Tourism packages for recovering patients?
 - Discounted flights/accommodations/local attractions?
- Most demanded MT **services** in each hospital (specialties)
 - o **Which patients** seeking such services & **why**?
 - Gather any data/statistics
 - Patient/Consumer Demographics:
 - Home nation- healthcare delivery system in home country?
 - Insurance coverage- uninsured/underinsured?
 - Medical needs
 - o int'l treatment sought due to time-sensitivity of pt's medical status?
 - o Rare therapy/treatment found nowhere else?
 - **Cost of services & payment**
 - Competitive prices of popular procedures
 - o Which providers/nations most competitive for which services & Why?
 - Participating global health **insurance companies**?

MT in China- What is the **current status in China**?

- Any patients referred to Chinese hospitals?
- Which services sought in China?
- Which hospitals provide MT services?
- Purposes for seeking care in China?

What is potential for **China as a key player** in global MT market?

- Chief advantages/drawbacks?
- Which services most likely to attract patients?
- Which hospitals?
- Greatest barriers to int'l healthcare delivery in China
 - o Communication:
 - Language barriers?
 - Physician/provider-to-patient interaction
 - o Methods of healthcare delivery/ Service:
 - Quality of care (accreditation?)
 - patient-centered care?
 - o Cultural:
 - Awareness/acceptance for other cultures/religions?
 - o Facilities/environment
 - Healthcare facilities
 - Local/external attractions?
 - o Government policy?
 - Feasibility of acquiring visas
 - Gov-regulation of alternative therapies/elective surgeries?
 - o Costs:
 - Competitive prices?
 - Payment/Insurance coverage?

C. Medical Tourism Questions: Chinese Ministry of Health

- What medical tourism exists today in China?
 - o Which services?
 - o Where are the patients from?
- What role may the Chinese government have in regulating medical tourism?
 - o What policies would apply?
 - o Which current policies would conflict?
 - o Which policies must be formed?
- In what ways may the government facilitate or hinder medical tourism in China?
- What future do you project for the rise or growth of medical tourism in China?
 - o Public or private health sector?
 - o How would medical tourism affect health care reform, or vice versa?