

Global trading in health services: potential trade and system-based challenges for traders

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Abstract

Many countries with excess capacities for health services leverage them to increase their GDPs by engaging in cross-border trading (CBT) of health services. CBT of health services may be limited due to trade challenges arising from the General Agreement on Trade in Services (GATS (Modes 1-4) and Non-GATS agreements) and system-based (e.g. health or legal system) challenges. The objective of this study was to learn whether trade or system-based challenges to CBT of health services exist, and if they do, do they challenge CBT of health services. The authors (researchers) employed an Arksey and O'Malley scoping review methodology to identify peer-reviewed and gray literature discussing trade and system-based challenges to CBT of health services. Electronic searches utilized a browser (Google Chrome™ or Mozilla Firefox®) and an internet web search engine (Google™ (e.g. Web, Scholar and News plus News Archives) or Microsoft Bing®: Attempts = 0) or a metasearch engine (DuckDuckGo®: Attempts = 0) to query databases (Public = Google, Google Scholar, EBSCO and Medline) and Private = Lexis Advance®). Results and analysis of retrieved articles identified trade challenges in GATS Modes 1-4 (e.g. resource reallocation and costs) and Non-GATS (e.g. protectionist trade policies) and system-based barriers (e.g. medical and regulatory liability, health privacy regulation and business regulation). Trading in Modes 2 (medical and health tourism) and 4 (medical manpower exchange) enjoyed the greatest share of these markets, although Mode 3 trades (foreign commercial presence) may be a growing market. In conclusion, countries, including Thailand and its ASEAN partners, may face trade- and system-based challenges to expansion of their CBTs in health services. More studies are necessary to learn the true impact on CBTs in health services.

Keywords: ASEAN, cross-border, health, services, barriers

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1. Introduction

Globalization is a process that alters the economics, politics, environments and societies of nations. [1] It also increases the interdependence and integration of social spheres within societies worldwide. [2] Globalized human behavior changes knowledge, travel patterns, lifestyles and trade practices, which can alter markets and GDPs of countries, either positively or negatively. [3] One example of this duality may be the 2008 global economic meltdown triggered by the financial collapse of a single financial link in a tightly woven, interdependent network of international financial institutions. [4, 5] Risky lending practices in the US housing market that triggered the 2008 crisis were based on lenders believing they could control their risks while they made financial gains. Unfortunately,

the US market lenders were wrong, and when they lost control, they produced a wave of financial losses that spread worldwide. [6, 7] Not only were they wrong about their abilities to control risks and losses, but also, they failed to recognize the degree of interconnectedness in their globalized financial markets. Reality is globalization creates financial risks and benefits, which may also produce challenges for a variety of country-based systems.

One country-based system affected by globalization is a health care delivery system. An example of the impact of globalization on a health care delivery system might be the 2014 Ebola virus outbreak. Ebola went from a hemorrhagic fever virus associated with Africa to a globalized virus resulting in expenditures of international capital and health resources. [8] Not only did Ebola kill its African victims, but it also claimed the lives of foreign and domestic health workers tending its victims. The world took notice

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when Ebola-infected visitors and health workers returning from affected hotspots in Africa used high-speed transportation systems to carry them and the virus beyond Africa.

Countries responded by instituting public health measures that infringed upon human rights, safety and free movements of health workers and trade, which imposed financial and human costs. Not only can globalization move communicable diseases threats from old to new place, but also, it can shift the epidemiology and incidence of noncommunicable diseases (NCDs) from low to high by globalizing lifestyles. [9, 10] Globalization of communicable and noncommunicable disease has its costs. [11, 12] And policymakers are adopting laws and policies to limit the effects of globalization on their populations and health care delivery systems. [13]

If true, then why do some countries in and outside ASEAN adopt laws, regulations and policies enabling them to globalize their health systems to engage in cross-border trading (CBT) of health services locally, regionally and internationally? Thailand, for example, treated nearly 2.4 million foreign patients in 2014 and spent nearly 14% of its total budget or approximately 4.5% of GDP on health industry in 2015. [14] Thailand also outsourced its ASEAN partners in health care delivery, and the Thai government continues supporting the “Medical Hub of Asia” policies. Its “Super Cluster” policy offers foreign businesses the incentive to invest in Thailand, especially its health markets. Thailand continues enacting trade policies favoring expansion, not contraction, to become a regional medical hub. Thailand with partners in the ASEAN Economic Community also maintain mutual recognition agreements (MRAs) to share health services and medical manpower across their borders. [15]

Many countries outside ASEAN are also liberalizing their trade and national laws, regulations and policies to prevent trade and system-based challenges becoming barriers to their expansion of CBT of health goods and services. After all, there is a growing global acceptance of health care as a tradeable good or commodity that can be exchanged within a globalized health care market for financial gains. [16, 17] Thailand and its ASEAN partners are examples of countries doing well in this market, and their success pushes other countries to mirror them. Success, however, may be contingent on the presence or absence of trade or system-based challenges to CBT of health goods and services. Challenges may arise from trade agreements or policies and can also be system-based (e.g. health or legal system (laws, regulations, or policies)). [18] Are there trade (GATS and Non-GATS) and system-based health or legal system challenges to CBT of health services? If there are, then do they impact CBT of health services? If they do, then do they pose challenges to countries in or outside ASEAN? The objective of this study is to learn whether trade or

system-based challenges to CBT of health services exist, and if they do, do they challenge CBT of health services? The authors performed a modified Arksey and O’Malley scoping review of the literature to identify literature and accomplish the objective of this qualitative study.

2. Materials and Methods

2.1. Arksey and O’Malley scoping review

The researchers (authors) performed a modified Arksey and O’Malley scoping review (modification: steps 2-5 performed, not steps 1 or 6 below) To learn whether trade or system-based challenges to CBT of health services exist or not, and if they do, whether such challenges become barriers to the CBT of health services market. [19, 20] *A priori* deletion of steps 1 (identifying a research question) and Step 6 (consulting key stakeholders), based on the presences of a preexisting research question and the absence of a consulting group. Researchers executed the following steps: (2) locating relevant sources, (3) selecting articles based on inclusion and exclusion criteria, (4) sorting, organizing and studying information and (5) collating, summarizing and reporting information to map electronic, English-based articles. Researchers also imposed criteria for publication currency in (4) *a priori* to a range of 2000 to 2016. The authors also retained the most recent article when they identified multiple articles providing the same or similar content (≤ 5 years).

2.2. Search format

Researchers utilized a web browser (Google Chrome™ or Mozilla Firefox®) and a single internet search engine (Google™ (e.g. Web, Scholar and News plus News Archives or Microsoft Bing®) or a metasearch engine (DuckDuckGo®: N = 0 attempts) to query e-English-based bibliographic databases in the public (Google™, Google Scholar™, EBSCO® and Medline®) and private (Lexis Advance®)) domains. Keyword searching of documents utilized find-advanced search options available in Adobe Acrobat Standard DC® (Edit-Find or Advanced Search) or Microsoft Office 2016 Word® (Edit-Find or Advance Find) to search for keywords within documents.

Keyword search terms included: cross-border (CB), general, agreement, health, service, law, policy, litigation, barrier, suit, ASEAN, Thailand, medical and Hub. Combinations of terms queried depended on articles returned and their relevancy. To limit returns, the researchers excluded terms: organ, transplant, surrogacy and similar topics and they also excluded articles discussing disease-specific topics. Searches focused on natural language methods. Boolean search routines were available, if necessary (Boolean Search = 0). Types of literature sought included: peer-reviewed journals (legal (LJ) or nonlegal (NLJ)); governmental

(GR) or nongovernmental (NGR) reports; book chapters (BC), white papers (WP), or commentary (e-news, -blog and -professional site articles (e.g. law firm articles)). Print media documents were reviewed only if an electronic copy was unavailable (Print Media = 0).

2.3. *Qualitative methods and analysis*

The researchers performed a keyword search to identify information for qualitative review and analysis. [20] The text (Title → Abstract → Body) was manually mined to extract information and identify relevant information using tools that identified keywords (not performing program-based data analytics or meta-analysis). Researchers also employed a text search tool available in Microsoft Word® (Find) or Adobe Reader® (Edit → Find) to locate keywords. Researchers applied descriptive statistics, when permissible, because information was qualitative.

3. Results and Discussion

3.1. *Search return results*

The initial queries researchers attempted returned over 2,000 peer and nonpeer reviewed articles, governmental and nongovernmental reports, books, book chapters and working papers. Attempts to narrow returns by adjusting keywords returned too many returns (~1000). Terms were limited to: cross-border, trade, health, barrier, litigation or suit and GATS) to more specific terms: cross-border (CB), general, agreement, health, service, trade, law, policy, litigation, barrier, suit, ASEAN, Thailand, medical and Hub. Researchers also narrowed the literature sources to law journals (LJs) and nonlaw journal articles (NLJs), nongovernmental reports (NGRs), book chapters (BCs) and working papers (WPs)). Management of terms and restrictions on materials along with the use of a scoping methodology may result in loss of materials.

Researchers finally identified 104 articles within the range of 2000-2016 (2000 and 2009 (N = 41: LJ = 15, NLJ = 19, NGR = 4, BC = 1 and WP = 2) and 2010 and 2016 (N = 64: LJ = 16, NLJ = 33, NGR = 7, BC = 4 and WP = 4)) for information review. Of the 104, 41 or 40% addressed Thai CBT of health services or medical hub experiences. Publications increased from 2000 to 2016, which may reflect either (1) CBT of health services trading as a topic of increasing interest, or (2) a result of the researchers' choice of search methodology or terms. Initial returns suggest CBT of health services may be a popular topic publication or an important area of study.

3.2. *CBT health services trade frameworks*

Cross-border trading (CBT) of health services have their costs and benefits, which may serve as factors to push or pull countries and participants toward favoring or disfavoring trades in this market. Reviewed authors

or commentators framed their discussions CBT of health services in terms of the WTO's General Agreement on Trade in Services (GATS) and its four service supply sectors or Modes (1-4). [21] GATS is a multi-lateral, general framework, which is based on Articles of the Agreement (framework) plus Annexes, which serves as the basis for these trades. [24] Countries that support CBT of health services were likely to participate in trades in and across multiple Modes 1-4. Under the GATS framework, CBT of health services takes place in Mode 1: cross border service supply (includes electronic or print-based administrative services (transcription (most common), coding and billing services) or services in telemedicine and telehealth); Mode 2: service consumption abroad (includes medical, surgical and dental care or health (wellness and spas) as "tourism"; Mode 3: foreign commercial presence (includes international health care business integration) and Mode 4: cross-border health care provider exchanges (includes foreign providers crossing borders to deliver care). While reviewed authors based their discussions in terms of trading within GATS Modes 1-4, most CBT of health services occurred outside GATS or non-GATS health services trades.

Another point highlighted by reviewed authors on this topic was the non-static nature of GATS agreements and their ability to evolve when countries convened to negotiate their arrangements. For example, the latest round of negotiations on Trade in Services Agreement (TiSA) was initiated in 2013 among 23 different members to GATS. [17] Some of the negotiating countries participating in TiSA, included Australia, Taiwan, Japan, South Korea and New Zealand. These Asia-Pacific countries also participated in CBT of health services. During this round of negotiations, negotiators considered all services including those related to health care. Not only do multiple Asia-Pacific countries use GATS and non-GATS agreements to engage in CBT of health services, but also, they trade and compete with countries in the region, such as Thailand, Singapore and Malaysia who support and maintain plans expressly stating their intent to become "medical hubs" within SEA. [22] That is Thailand, Singapore and Malaysia want to utilize the existing human resources and capacities in their health care sectors to the highest potential possible as a way to boost their national incomes.

To accomplish their goals, Thailand, Singapore and ASEAN partners liberalized their laws and trade policies to enhance exchanges of health services professionals through the ASEAN Economic Community (AEC)-based Mutual Recognition Arrangements (MRAs). These arrangements enabled ASEAN members to share health care capacities by allowing ASEAN-based health professionals to move across borders to deliver their services so long as they meet the requirements of their MRAs. [15] So, Thailand and its ASEAN partners may use their MRAs to shift

their manpower from high capacity to low capacity countries. Moreover, ASEAN may deliver health care services to willing foreign patient-consumers at a lower cost and higher quality than they can attain in their home countries. [19, 23] So, ASEAN partners can put their excess capacity to economically beneficial uses. And although several authors viewed these GATS and non-GATS CBT of health services and MRAs as mutually beneficial to participants, especially Thailand, others viewed CBT of health services as enabling some countries to shift their disease burdens and costs for health care to Thailand and other CBT of health services suppliers. [24] In fact, there were a variety of system-based challenges to CBT of health services that at least one author identified. [15, 25, 26]

3.3. *GATS and Non-GATS challenges to CBT*

According to an article by Richard D. Smith, countries should make GATS commitments in the health services sector only if they want to: (1) allow market access in other trade areas, (2) bolster investor confidence in its existing markets or (3) boost foreign investment in its markets. [25, 26] Moreover, countries should only enter into GATS-based commitments after they conduct a risk assessment for GATS compatibility, because a given country may prove ill-suited for a given commitment or commitments. Without it, a country may enter into commitments it cannot fulfill, and thus, it will be unable to meet its binding commitments. If a country cannot meet its binding commitments, then it may face sanctions, or worse, retaliations. To avoid incompatibility problems, a country should opt for the flexibility of non-GATS treaties that avoid binding GATS commitments, especially in health services.

Countries may also apply their existing agreements, laws, regulations, or economic policies as nontariff-based trade measures or NTMs to block or restrict CB trades. [24] They utilize NTMs to help them avoid the imposition of impermissible tariffs, which may violate existing GATS and non-GATS agreements. NTMs they may employ include: (1) localization barriers to trade (LBTs) that anchor foreign competitors locally, (2) indigenous innovation policies that favor domestic enterprises over foreign ones, (3) general mercantilist policies that manipulate currencies or boost local production and (4) enterprise support policies to increase local levels of production and innovation in or outside a sector. [22] Or, a competing country may rely on its health care laws and regulations to: 1) block market entry through health care provider (HCP) licensing and credentialing, (2) create risk through uncertainty over liability or insurance, (3) affect intellectual property rights to increase risks for foreign investments or (4) establish reimbursement schemes that limit or bar returns for foreign health services. So, domestic legal, regulatory and international as well as domestic trade

mechanisms may be system-based barriers that serve as NTMs to hinder or block CBT of health services.

3.4. *System-based Challenges to CBT*

Moreover, some reviewed authors saw unintended legal and regulatory consequences may be waiting for unwary foreign patient-customers who encounter problems and must redress their grievances within the legal systems in developing and emerging countries. [27, 28] For them, a country-based domestic legal system will likely be the place responsible for adjudicating any foreign or domestic health care dispute or claim arising out of health services, especially those arising out of CBT of health services. [29, 30] Countries may also lack unifying sets of treaties, laws or regulations for governance of quality or liabilities, especially in cases where foreigners encounter medical errors, adverse events, improper credentialing and accreditation, or reimbursement issues. [31] Some believe the lack of uniformity among countries and their legal systems and mechanisms put foreigners at risk, especially if foreigners lack sufficient information or language skills to make informed decisions related to legal or regulatory matters. [29] While foreigners participate in CBT of health services to access high quality, low cost health care, several foreign medical and legal commentators reviewed cited follow-up care of foreign patients as problematic, especially when medical or surgical complications arise in a domestic patient who returns home after care abroad. [27, 32] Articles also saw deficiencies in standardization of record keeping and error tracking, especially in developing and emerging countries. [33] Gaps in record keeping and tracking were particularly problematic in both medical and legal matters. Thus, participants face trade and system-based challenges when they engage in CBT of health services in each of the GATS Modes.

3.5. *System-based challenges in Mode 1*

CBT of health services in Mode 1 occupies a small sector of the total health services trading market. Even so, they may possess the greatest potential for global market growth. Many of them rely on modern information and communication technologies (ICTs) to virtually deliver services from health care providers (HCPs) to their patients over long distances, either synchronously or asynchronously. [34] ICTs support electronically delivered “teleservices” in teleadministration (e.g. transcription and coding services), telemedicine (e.g. teleradiology, telepathology and telepsychiatry) and telehealth (e.g. remote patient monitoring and telemetry). [35] Currently, most Mode I services are administrative-based teleadministration services that include medical transcription, coding and billing services. Global leaders in the CBT of these services include India, China and Philippines. [33] They are global leaders, because they possess the manpower, capacity and language skills to provide quality-based, low cost services. That is they possess excess

capacities enabling them to supply quality services at a competitive price to foreign firms.

One major challenge for countries supplying and receiving these services was navigating the laws and regulations governing personal and protected health information under their legal systems. [36, 37] Reality is countries can and do approach privacy, confidentiality and security protections for personal information and data flows differently, regardless of media, and they may not mesh. [38] If they do not mesh, then governing laws and regulations may stop or inhibit their cross-border exchanges of health data and information. For example, the EU and other countries may take an “omnibus” approach to laws and regulations governing personal privacy. It is also one based on human rights. Members of the EU and countries that follow this approach may provide heightened protections to individuals to safeguard their personal and health information. Unlike the omnibus approach of the EU, the US opts for a segmented approach to privacy, where it enacts laws covering different privacy areas. For example, its Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulates the privacy, security and exchanges of personal health information and data. This strategy is deemed insufficiently stringent by the EU. Insufficiently stringent status in the EU means they may not allow cross-borders exchanges of health data and information without obtaining authorization or meeting predetermined, specified sets of conditions. Not only can failures to mesh restrict or block cross-border data and information exchanges, but also, they lead to gaps in protections and ownership, especially if HCPs or patients transmit their information or data to offshore countries.

Articles identified potential privacy risks for health care addressing personally sensitive matters, such as plastic surgery, gender reassignment procedures and drug rehabilitation. Patients seeking care in these areas want privacy, because they may be experiencing life-altering changes, and they desire privacy, which can become a problem when CBT of health services in these areas combine Modes 1 and 2. Foreign patients may go abroad believing their domestic privacy protections follow them only to learn they may lose them on arrival or after they return home. [32] Not only may they lose their domestic privacy protections, but also, they may lose ownership of their data or information to foreign health service providers. In fact, one author reported that foreign transcriptionists held US medical transcriptions for ransom, when their intermediary failed to pay them. [39] Another incident of “records-for-ransom” led to a major US hospital incurring HIPAA violations, when and foreign transcriptionist posted transcriptions online. So, participants must be aware of their legal and regulatory responsibilities and how they may impact their compliance and liabilities.

Telemedicine and telehealth services are also con-

sidered Mode 1 exchanges, and participants may encounter a variety of system-based challenges to CBT of health services within this mode. One challenge may arise when a country uses its existing laws and regulations governing HCP negligence and liability, licensure and credentialing, practice acts or reimbursement to control CB HCPs delivering Mode 1 to protect their citizens, but it varies depending on a given country or countries [40] For example, most EU Member States lack specific or uniform laws regulating telemedicine as a way to facilitate it. Yet, some EU members maintain their national regulations or professional and clinical guidelines to control it.

Unlike the EU, the US relies on its individual states to regulate the delivery of telemedicine services inside their borders, and thus, states regulate the CBT of telemedicine-based health services. [41] The US Constitution and its Bill of Rights affords states the right to control the practice of telemedicine and telehealth within their borders, and thus, the cross-border regulation of Mode 1 services varies from state to state. Most US states regulate these services through their conventional professional licensing schemes, while a minority of them adopt one of the following schemes: (1) special purpose license, (2) telemedicine license certificate (3) interstate practice license, or (4) exceptions (e.g. written permission or contiguous border limited exceptions). [25, 38-42] Many states may also use their medical practice acts, as NTMs, to restrict the cross-border access to telemedicine services by requiring a telemedicine HCP to maintain a patient visitation site with onsite patient presenters and face-to-face contact. A face-to-face contact requirement also establishes a physical presence requirement for a cross-border HCP that equates to personal jurisdiction, which gives a court in the state with a patient-site connection the power to serve process (providing legal notice to compel compliance) on the telemedicine HCP and hear cases if a legal dispute arises. In fact, reviewed authors saw the current state of telemedicine laws and regulations as creating transaction costs for participants, which posed challenges to greater levels of cross-border exchanges in Mode 1, especially among US states.

3.6. System-based challenges in Mode 2

Mode 2 CBT of health services, unlike Mode 1 exchanges, involve physical interactions between a domestic HCP in his or her country and a foreign patient, who is a medical tourist. A medical tourist differs from a foreign traveler or expatriate, who may seek health care abroad, because the latter did not travel abroad for health care. [27] Likewise, modern models for medical tourism differ from earlier ones, and the literature reviewed cited the opportunity for medical tourists to receive high quality, low cost care in world class facilities with resort-like accommodations, which followed with a vacation for recuperation afterwards. [28] Thai-

land, for example, is a popular destination for medical tourists that reportedly supplied medical services to nearly 1.4 million foreign patients in 2007. This number may be a tad high given its inclusion of medical tourists, general tourists and foreign workers receiving health care. In 2015, Thailand reported BT100bn (\$3 billion US) in medical tourism revenues, so the market returns continue up, not down. [] Many countries are realizing similar gains from Mode 2 CB health services delivery, but like Mode 1, there may be challenges that create barriers to it.

Reviewed authors also identified a set of challenges in Mode 2 that mirrored those discussed in Mode 1, where medical tourists may encounter health privacy, confidentiality and security challenges abroad. Both Modes also involve risk for patient injury and death from medical errors or adverse events. Reality is Mode 2 may be riskier than Mode 1, depending on the country and service, because their true incidence remains unknown. [27, 29, 30, 32, 44] No one knows the true extent of them, but one study estimates nearly 43 million patients suffer medical care related injuries per year worldwide. [31] More importantly, many of them occur in developing and transitional countries, and many of them also cater to medical tourists.

While most medical injuries do not constitute sub-standard care or lead to litigation, concerns for their occurrence among domestic patients within ASEAN countries are rising in Thailand, [29] Singapore, Philippines, Malaysia, [30] Indonesia [45] and Vietnam. Case filings are also up in regional medical tourism destinations, such as China, [46] Japan [47] and South Korea. [48] If an injury or death leads to medical negligence claim and legal filing against a domestic HCP by domestic patient as litigants, then jurisdiction lies with their domestic legal system. If, however, the alleged act medical negligence involves a foreign patient, then the jurisdiction for litigation of claims will also reside with the domestic court governing the place of the allegedly negligent medical or surgical injury or death. [29, 32, 49] Moreover, foreign medical tourists may also bear a heavy burden in seeing their claims to a conclusion, because they may be unable to travel to the jurisdiction of their case.

In the case of foreign medical negligence litigants, they may face a range of legal challenges to successfully prosecuting their legal claims in a foreign legal system. The first challenge may begin with any differences in language that may exist among the parties. [29] Inability to understand the language supporting a given legal system can lead to legal misunderstandings. Failure to reconcile language differences may also create confusion with a legal result that ends with a less than satisfactory legal outcome. [50] The second major challenge for a foreign litigant may be reconciling any real or perceived differences in how a foreign system handles its medical negligence cases. [29] A third challenge for a visiting medical tourist may be

understanding differences in legal standards and requirements for informed consent, medical care and medical practice. [51] While civil cases usually trigger a cause of action following a negligence paradigm of a duty owed, duty breached by failing to meet a standard of care, injury or death and damages in most countries, they can trigger consumer or criminal law-based actions in countries such as Thailand. [52] A final challenge cited by one author reviewed arose from a global lack of medical negligence regulation. [53] This author was particularly concerned with a lack of medical negligence regulation in transitional and developing countries. Absence of adequate mechanisms to redress harms may chill foreign medical tourism, and thus, it may be a potential barrier to further expansion in Mode 2. If global trends in CBT of health services continue to rise, as projected, then medical negligence litigation may be a cross-border challenge for countries seeking to attract foreign tourists. [54]

Reality is medical negligence cases are often complicated, expensive affairs favoring the physician-defendant, not the plaintiff, either domestic or foreign. Even if a foreign plaintiff prevails, domestic awards vary and may be quite low by western standards. So, expenses to litigate abroad may exceed any damage award, especially by western standards. Worse still, a foreign plaintiff is very unlikely to find his or her home jurisdiction willing to haul a foreign defendant to trial abroad for damages for a variety of sound judicial reasons, so there may be no recourse.

An extreme example of the legal misunderstandings that may arise from cross-border medical negligence claims and foreign medical tourists happened in 2015 between China and South Korea. [55] Medical negligence claims alleged by Chinese medical tourists escalated into a diplomatic dispute over their handling by the Korea Medical Dispute and Arbitration Agency. Apparently, this Korean agency, which is responsible for resolving medical negligence claims, did not address claims levied by Chinese medical tourists against South Korean surgeons, who they claimed botched their plastic surgeries. Fortunately, the parties eventually resolved their diplomatic differences, but this diplomatic incident also demonstrates how legal misunderstandings can escalate into major disputes.

3.7. System-based challenges in Modes 3

Of the 4 GATS Modes with CBT of health services, Mode 3 may occupy the smallest share of the market. It, however, plays a critical role in CBT of health services delivery, because it can establish a commercial presence for an investor, which represents foreign direct investment (FDI) in a country. [56] Liberal trade policies within and outside GATS favor these exchanges and FDI financing of them, especially in the health services sector. The capital in FDI may be in the form of equity, earnings, or loans designed to gain control over the enterprise receiving the investment.

Mode 3 exchanges frequently focuses on the private sector, and they may also lead to activity in Mode I and Mode 2. Like Modes 1 and 2, the amount of revenues generated by this sector remains an open question, although some claim it be a multibillion-dollar sector, which exceeds revenues in the other Modes. Because Mode 3 involves business transactions, it raises a host of business, tax and regulatory challenges for foreign and domestic participants, alike.

One challenge in Mode 3 is corruption, and if a Mode 3 relationship involves US and foreign government investors, then it may trigger extraterritorial applications of US law through its Foreign Corrupt Practices Act of 1977 (FCPA). [57] The FCPA prohibits US interests from paying or offering to pay (e.g. bribe) to a foreign official or offering officials anything of value in order to influence an official act to obtain or retain business in a foreign state. The FCPA applies to publically traded companies and their officers, directors, employees, stockholders and agents who may also qualify as third parties. Enforcement actions are within the jurisdiction of the US Securities and Exchange Commission (SEC) and the Department of Justice (DOJ). Under FCPA, a "foreign official" receives a broad interpretation, where the designation may apply to anyone, ranging from a government official to an owner or operator of a health facility or business. Moreover, and more importantly, a foreign HCP who practices or work in a foreign government-owned health care facility may fit its foreign official definition. That is a government-based hospital administrator or any HCP who may contact a US interest within Modes 1 to 4 could be subject to the FCPA. FCPA is noteworthy because its violations can and do result in large civil and criminal fines. [] So, foreign and US interests entering Mode 3 or any Mode should be aware of the FCPA to avoid violations. The more complex arrangements in the CBT of health service become, the more likely parties must ready to address challenges raised by compliance with FCPA at least when they involve US interests.

3.8. System-based challenges in Mode 4

Countries and entities entering Mode 4 engage in CBT of health services by trading HCP manpower. They control their cross-border trades through (1) domestic licensing and immigration laws (e.g. US), [59] cross-border Directives (e.g. EU), [60] or international agreements (e.g. ASEAN: AEC-Mutual Recognition Arrangements (MRAs) or Australia: Torres Strait Treaty). [61, 62] Currently, substantial movement of health professionals occurs between developed and developing countries, especially those sharing similar systems. [21] Challenges to CBT of health services in Mode 4 cited by reviewed authors included: (1) dissimilarities in language, (2) differences in licensing or practice laws and (3) disparities in health care and health care systems, such as lack of access to technol-

ogy, presence of poor working conditions and pay and lack of professional development. Any one of these challenges could may also influence the migration of professionals.

Challenge-related movements can lead to a "brain drain," where highly trained manpower in one country may be drawn to another country or domestic sector to resolve real or perceived inequities. [15, 63] Several reviewed authors also expressed concerns, because they saw losses of highly skilled HCPs as impactful on local or domestic citizens who needed help the most. That is citizens residing in a poor, underpaying country or seeking health care in a public sector often experience the losses of HCP manpower as a loss of access. Brian drain may also ripple through a government who must shift budgetary resources to keep its services available by (1) paying more to retain HCPs or (2) devoting more money to retain their workforce or train replacements. If a country does the latter, then it may create a positive feedback loop, where HCP exodus leads to more investment and training producing more HCPs who can leave. In 2010, the cross-border movement of HCPs came to the attention of the 63rd World Health Assembly, where Assembly adopted the WHO Global Code on the International Recruitment of Health Personnel in attempt to provide guidance and regulation of developed nations recruiting HCPs from developing and emerging countries. [64] While it was a step in the right direction, reviewed authors saw gaps and weaknesses within the Code. Cross-border HCP movement remains a problem today, although current financial and health system pressures are likely to encourage more, not fewer, Mode 4 exchanges. Future successes or failures in Mode 4 CBT of health services may depend on the willingness of participating countries and their governments to liberalize existing legal, regulatory and policy mechanisms that control and regulate their exchanges. Licensing laws are and will continue to pose a major challenge to Mode 4 exchanges in foreign and domestic markets.

4. Conclusions

Based on this modified scoping review of the selected electronic databases using a set of keywords, there was a robust body of literature covering CBT of health services based on the 4 Mode GATS framework. CBT of health services took place through traditional GATS mechanisms, although countries executed more non-GATS agreements. Both developing and developed countries gained a variety of benefits through their CBT of health services, but they also encountered a range of challenges in each Mode. Currently, reviewed authors saw Modes 2 (health service consumption abroad) and Mode 4 (health care provider exchanges) as trades occupying the largest shares of the CBT of health services market. But

reviewed authors also viewed Mode 3 (foreign commercial presence) as an ascending market, because its investments were integrated with the other Modes. Notwithstanding the benefits of these trades, reviewed authors were quick to point out there were costs and challenges to CBT of health services that can and do impose barriers. They also viewed countries as willing to adopt laws, regulations and trade laws and policies to support their health systems in ways that encouraged CBT of health services within all Modes. There are, however, legal system-based challenges facing who foreign patient-customers who participate in CBT of health services. They ranged from challenges in maintaining personal health privacy to avoiding substandard care and injuries and death leading to cross-border litigation. For further expansion of CBT of health services to occur, reviewed authors recommended that participants in CBT of health services to address their challenges, especially those related to their legal systems, sooner rather than later.

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