INDIA:
Trade in Healthcare Services

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T.P. Bhat [*]

[***Abstract***: *During the last two decades international trade in healthcare services has expanded under the GATS. Increasingly it has acquired new dimensions with application of advanced information and communication technology, flow of foreign investment, cross-border mobility, rising income levels and demographics dynamics. India is one of the main participants in this process. Currently, India's healthcare sector is growing at 20 per cent per annum. The government's expenditure on healthcare is highly inadequate. It is also a low priority area. India is a participant in the GATS agreement. It has made binding commitments to minimize trade barriers. Trade liberalization is facilitated through four modes. Mode 1 represents cross border supply, mode 2 (consumption abroad), mode 3 (commercial presence) and mode 4 (presence of natural persons). In mode 3, the commitments to attract capital and skill are liberal. But it is more restrictive in mode 4. Modes 1 and 2 are subject to limitations. The developing countries have made more market access commitments in medical and dental services. Economic Needs Test (ENT) is also applied under mode 3 and mode 4. The GATS do not stipulate any constraints on terms and conditions, for example, on treatments of foreign patients. The parties are free to make any policy decisions. The Indian market segment is dominated by hospital business. Other activities include pharmaceuticals, medical equipment, insurance and diagnosis. India has emerged as a hub for clinical research and attracts patients from the US, the Middle East and South Asia. The low cost medical services have boosted medical tourism. However, all modes are not totally free. In modes 1 and 2 there are no national treatment and market access restrictions. In mode 3 foreign equity ceiling of 74 per cent remains. In mode 4 restrictions are on foreign personnel on entry visa basis. India has established superiority in IT-enabled and back-end services. India has built up reputation in offering specialist medical and surgical interventions at competitive prices under mode 2. The foreign investment under mode 3 is modest due to a variety of factors. Though India has an advantage in mode 4 but heavy restrictions prevent migration of health personnel. It also causes internal brain drain which results in denial of quality services to the poor domestic patients. Some efforts are made to rectify this problem but it is not successful. The earning of foreign exchange has taken priority. On the whole, India enjoys distinct advantages in modes 2 and 4.The global healthcare*

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market is highly competitive. There is a need for export strategy. Such a strategy should be based on "niches and market prospects." The bilateral and regional trade agreements should be made use of to derive market access in health services abroad.]

Keywords: Trade, Healthcare, GATS, Modes of services, India

1. Introduction

Health services have become increasingly globalized. This globalization is regarded as a new phase of world economic integration. In this dynamics, the nations are influenced by transnational processes occurring at every level of economic activity. The globalization of health service has been facilitated by advancement in information and communication technology, liberalization of foreign investment, greater international mobility of patients and demographic dynamics. As a result, health services are in the realm of multilateral trade negotiations under the World Trade Organization (WTO). India is one of the prominent participants. The multilateral negotiations are conducted under the General agreement on Trade in Services (GATS). The aims are to regulate measures affecting international trade in services such as health insurance, hospital services, telemedicine, and acquisition of medical treatment abroad. However, this agreement has been subject to controversy because it may affect the freedom with which countries can change the shape of their domestic healthcare systems.

The health sector is growing rapidly ever since the setting up of the WTO in 1995 with inclusion of the services sector. It has been estimated that this sector generated $13.31 trillion business in 2012 with developing countries accounting for over $2.67 trillion (20.06 *per cent*). It expected to grow by 17 *per cent* per annum till 2015. Indian health industry, valued at $65 billion in 2012, is highly fragmented and dominated by private players. The healthcare sector of India is estimated to $100 billion in size by 2015, growing 20 *per cent* per year. The industry is expected to touch $280 billion by 2020[1].There will be increasing demand for specialized and quality healthcare services. According to Investment Commission of India, the healthcare industry has experienced remarkable evolution of an added 12 *per cent* per year during the last four years, driven by a number of factors such as increase in life expectancy, rise in income levels and awareness of health insurance among the people.

The rising demand from the middle income group in India's large cities is enhancing growth in private sector healthcare. Union and State government programmes will spur growth in the primary and secondary sector of healthcare. As the demand for healthcare services increases, it would pose enormous challenges and opportunities for the medical service community and other related service providers. Foreign Direct Investment (FDI)

[1] Overseas Indian Facilitation Centre in India (OIFC) (2013), Healthcare in India: A Report, May, New Delhi.

inflow in hospitals and diagnostic centres was $1597.33 million during April 2000 to March 2013.FDI inflow in medical and surgical appliances stood at $604.47 million during the same period. At the same time, the drugs and pharmaceutical sector attracted FDI worth $10,318.17 million[2]. The hospital services market is expected to be worth $81.2 billion by 2015.The healthcare providers in India plan to spend $1.01 billion on IT products and services in 2013.

The Indian pharmaceutical industry's growth is expected to reach double digits in the near future owing to a rise in pharmaceutical outsourcing and rising investments by multinational companies. Emerging sectors such as bio-generic and pharma packaging are also expected to drive growth in pharmaceutical industry. The booming hospital services market needs to cover the cumulative deficit of around 2.8 million hospital beds by 2014 to match up to the global average of 3 beds for 1000 population as per the report by Gartner. At present, the market is dominated by unorganized sector units and this will continue in the near future as well. Private sector investment will significantly contribute to the development of hospital industry, comprising around 80 *per cent* of total market. The private sector accounts for around 80 *per cent* of healthcare delivery in India. An estimated 60 *per cent* hospitals, 75 *per cent* of dispensaries and 80 *per cent* of all qualified doctors are in the private sector. The percentage of Indian population that has been covered under health insurance is insignificant. Though there is an increase in the number of healthcare insurance policies over the last few years, majority of the population is still without any coverage. The rising middle class income levels and the consequent lifestyle-related diseases have led to the growth of the health insurance market.

India attracts patients mostly from Africa, CIS countries, Gulf and South Asian countries who come mainly for organ transplant and treatment of orthopedic, cardiac and oncology problems. Medical tourism market is expected to expand at an annual rate of 27 *per cent* to reach $3.9 billion in 2014 from $1.9 billion in 2011[3]. The cost of medical treatment in India is much cheaper as compared to Western Europe and North America and also South East Asian countries. This segment is likely to grow more than 20 *per cent* in the current period. Many speciality hospitals have upgraded facilities; the treatment skills are comparable with western world.

The objectives of the paper are to take: 1) a critical look at the Indian healthcare system in providing access to the local population; 2) assess the merits and demerits of the GATS agreement for the developing countries and India in particular; 3) highlighting the limitations of trade in healthcare services at the global level and outlook for healthcare

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[2] India Brand Equity Foundation (2012), they obtained information from the Department of Industrial Policy and Promotion, Government of India.

[3] India Brand Equity Foundation (2013), Press report based on market survey of 2013, Gurgaon, India.

trade; 4) assessment of trade dimension of healthcare services for India and participation in world trade; 5) assessing merits and risks associated with health service exports; and, 6) suggest measures required to promote trade in health services. The paper has been divided into ten sections. Broad overview of India's trade in healthcare sector has been illustrated in the section one along with the objectives. Section two provides a bird's eye view of the status of healthcare in India. The global trade in health care services under GATS is assessed in section three. The limitations of healthcare trade are dealt with in section four. Section five looks at the prospect of healthcare trade in the near future. Section six takes stock of the various facets of India's healthcare trade. Section seven makes an assessment of the participation of India in world healthcare market. Expected benefits and risks from the export of healthcare are noted in section eight. Measures to enhance trade in healthcare services are looked into in section nine while section ten concludes the paper.

2. Status of Healthcare in India

Poor health infrastructure in the colonial period continued to shape the health policy in India even after independence. The Indian states allowed little space for the health and wellbeing. The political economy of the healthcare reform in India has been characterised by widespread privatization and the dominant role of the private and informal sector in providing healthcare, even to the very poor. The private sector accounts for 80 *per cent* of healthcare delivery in India. An estimated 60 *per cent* of hospitals, 75 *per cent* of dispensaries and 80 cent of all qualified doctors are in the private sector (Chanda 2008).The health sector was never on the priority list of the states or the central government since independence. Only in the last few years the public expenditure on health has risen above the level of 0.9 *per cent* of GDP, which is India's historical average, lower than most of the other countries in the world (Sen and Dreze, 2002, p. 202). The share of public expenditure to total health expenditure in India is around 15 *per cent*: the average for sub-Saharan Africa is 40 *per cent*, and for high income European countries over 75 *per cent* (Sen and Dreze, 2002, p. 204).

The spending on healthcare is very low in India as compared to many countries. India's health spending is less than half of global spending and is far below the spending of other developing market economies. The low per capita income dictates the spending on health. *Table 1* gives an insight into the Indian scenario.

Public health spending is low and private health spending is high in case of India compared to many countries as is evident from *table 1*. Per capita expenditure on healthcare is extremely low in India as compared to many countries. For example, India's per capita expenditure on health was $40 as compared to $108 in China, $606 in Brazil and $7285 in the US. It is also far below the average per capita global expenditure of

$802[4]. The difference between rural and urban indicators of health status in India is very much visible. The urban and rural differentials are substantial and the gap is widening. The disparities tend to get even worse for rural children. There is considerable discrimination against women in healthcare. The gap between the better-performing and other states is wide. Large differences also exist between districts within the better-performing states. The urban areas appear to have better health outcomes than rural areas. Slum population is increasing and is estimated to be in the range of 190 million in 2011.The healthcare for this segment of population is highly inadequate, particularly in rural slums. Further, the hospital bed density in India has stagnated at 0.9 per 1000 population since 2005 and fell significantly short of WHO laid guidelines of 3.511 per 1000 patients' population. In 2012, there were 12,760 hospitals having 576,793 beds in India, out of these 6795 hospitals were in rural areas with 149,690 beds and 3748 hospitals were in urban areas with 399,195 beds. Average population served per government hospital is 90,972 and average population served per government hospital bed is 2,012.8[5]. Low healthcare insurance coverage led to high levels of out-of-pocket spending, with close to 80 *per cent* of spend in India being out-of pocket, primarily due to limited insurance coverage, both personal and government funded.

Table 1: Health Spending: A Comparision of Selected Countries

Country	*Percentage to GDP*		*Compositional distribution of Health Spending*			
			Public Spending		*Private Spending*	
	2000	*2011*	*2000*	*2011*	*2000*	*2011*
India	4.3	3.9	26.0	30.5	74.0	69.5
Brazil	7.2	8.9	40.3	45.7	59.7	54.3
UK	7.0	9.4	79.1	82.8	20.9	17.2
China	4.6	5.1	38.3	55.9	61.7	44.1
USA	13.6	17.7	43.0	47.8	57.0	52.2
Global	5.6	6.5	55.2	61.6	45.1	38.4
South East Asia Region	3.6	3.7	32.0	36.7	68.8	63.3

Source: WHO, World Health Statistics, 2014.

Besides, there are inadequate numbers of healthcare centres. For instance, there were 145,894 sub-centres, 23,391 primary healthcare centres and 4510 community health centres in India as on March 2009. There are only a few blood banks; it numbered 2445 in January 2011. There is a need of establishing more medical colleges and Para-medical training centres. There were 314 medical colleges and 289 colleges for BDS courses[6]. This is highly inadequate. Nurses and mid-wives are not properly trained due to inadequate

[4] World Health Organization (2010), World Health Statistics.

[5] Kumar, Avneesh and Saurav Gupta (2012), 'Health Infrastructure in India: Critical Analysis of Policy Gaps in the Indian Healthcare Delivery,' Vivekanand International Foundation, New Delhi, July.

[6] India Brand Equity Foundation (2013), Healthcare Sector, Market Report, August.

infrastructure. In spite of these inadequacies, India is one of the main players in international trade in health services.

3. Global Trade in Healthcare Services

Trade in health services are conducted under the World Trade Organization (WTO) General Agreement on Trade in Services (GATS). The GATS was negotiated by some 120 governments. The GATS came into force in 1995 with the establishment of WTO. Its aim was to create a favourable climate for trade in services and thereby promote efficiency and economic growth. It does so by allowing countries to make binding commitments to reduce trade barriers[7]. Unlike trade in goods, the exchange of service between provider and consumer is thought of as taking place across a short distance. However, as technology has advanced, education, finance and health services have entered the global market. International trade in health services has gained considerable importance in recent years. Already, through telemedicine, doctors in one country can read x-rays and make diagnoses for patients living elsewhere. Telesurgery allows doctors to perform surgery on a patient from an entirely different location. In a world where technology and medical expertise are increasingly widely distributed, opportunities to acquire cheap and better treatment from physicians abroad are abound. As medical costs in developed countries rise with physicians' fee constituting the bulk of these costs, there is a reason to think that insurance companies may take advantage of this opportunity.

The GATS will regulate all existing and future trade in health services. The agreement covers health services that fall within one of the four different modes of supply it defines. *Table 2* provides definitions, explanations and examples for each mode of supply.

Services are almost always supplied or traded through more than one mode. Technology renders feasible the supply of almost all services through cross border supply (mode 1) with very few exceptions. The distinction between mode 3 and mode 4 (i.e. demander-located services) is that while the supply of services through commercial presence is more focused on local establishment of foreign legal entities, supply of services through the presence of natural persons is concerned with the country of origin of the person supplying the service[8].

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[7] Less than 40 *per cent* of WTO Members are committed to opening the health sector and most to ratifying existing commitments compared with more than 90 *per cent* for tourism, financial and telecommunication sectors.

[8] Herman, Lior (2009), 'Assessing International Trade in Healthcare Services,' European Centre for International Political Economy, Working Paper No. 03/2009, Brussels.

Table 2: Four Modes of Services Supply

Mode	*Definition*	*Explanation*	*Example*
1	Cross border supply	The service crosses the border, while the supplier and consumer remain in different territories.	Sale of translation services from country A to country B via the internet or fax.
2	Consumption abroad	The consumer crosses the border to the territory of the supplier and consumes services there.	The purchase of hotel accommodation (tourism services) by a tourist from country A when travelling in country B.
3	Commercial presence	The supplier crosses the border to the territory of consumption and establishes a commercial presence.	The local establishment of a branch of a bank from country A in country B.
4	Presence of natural persons	Temporary movement of labour to the consumer's territory. This movement can be either as an intra-corporate transferee. Self-employment or salaried labour.	The employment of a person from country A as an engineer in country B.

Source: Herman, Lior (2009), 'Assessing International Trade in Healthcare Services,' ECIPE, Working Paper, 03/2009, Brussels.

The GATS contains two kinds of rules, namely conditional and unconditional. The conditional rules apply to a given service sector only if a country has formally and explicitly committed to maintaining a certain degree of openness to trade in that sector. The unconditional rules apply to a country's entire service sector, simply by virtue of its having signed the GATS. Of the various unconditional rules that apply to all trade in services, two are important. First, members must not discriminate between suppliers from different countries. Under the Most Favoured Nation (MFN) treatment clause, a country must instead apply the same conditions and privileges to service suppliers from all countries. For example, a country cannot allow only the US insurance companies to enter the insurance market while disallowing the German competitors. Second, the countries must maintain transparency with regard to their trading practices. Specifically they should inform other members and the Council for Trade in Services about new laws or changes to existing laws and regulations that might substantially affect trade in services covered by their specific commitments under the GATS[9].

The GATS allows individual countries to decide which sectors, and which sub-sectors within them, they want to commit to the conditional rules, which are more specific and demanding than the unconditional rules. This allows countries to decide what degree of openness to trade they wish to maintain in a particular service area. Countries vary both

[9] Adlung Rudolf and Antonia Carzaniga (2001), 'Health Services under the General Agreement on Trade in Services,' *Bulletin of World Health Organization*, Vol. 79, No. 4.

in number and choice of sectors or sub-sectors they have committed and in the degree of openness to trade they agreed to maintain in committed sectors. The variation can be observed in the commitments countries have made within the four health sub-sectors: medical and dental services, services provided by medical personnel, hospital services and other health and human services[10] (see *table 3* for selected countries).

Table 3: Specific Commitments of WTO Members on Individual Health Services
(only selected countries)

Selected members	*Medical and dental services*	*Nurses, mid-wives, etc.*	*Hospital services*	*Other human health services*
Australia	X			X
Austria	X	X	X	X
EU (12)	X	X	X	
Finland		X		
India			X	
Japan			X	
Jordan	X	X	X	X
Kyrgyz Republic	X	X	X	X
Malaysia	X		X	X
Mexico	X	X	X	
Norway	X	X		
Pakistan	X		X	
South Africa	X	X		
Sweden	X	X		
Switzerland	X			
USA			X	
Zambia	X	X	X	X

Note: 1) Out of 53 countries only 17 are taken in the table. By and large, the developing countries have made more commitments; 2) A large number of countries including Argentina, Brazil, Canada, Chile, Cuba, Indonesia, New Zealand, Republic of Korea, Sri Lanka and Thailand have not made any commitments.

Source: WTO (1998), Background Note on Health and Social Services, Geneva (Unpublished document WTO S/C/W/50, 18 September 1998, www.wto.org.

The number of sectors committed by individual WTO members tends to be positively related to their level of economic development. The country patterns of commitments are highly diffused. For example, Canada has not undertaken commitments in any of the four sub-sectors, while Japan, USA and India have scheduled only one. Least developed countries have taken more commitments (see *table 3*, for example, Zambia and Kyrgyz Republic). Of the four sub-sectors, medical and dental services are most heavily committed (54 members), followed by hospital services (44 members), and services

[10] Belsky, Leah, Reidar, Lie, Aditya, Mattoo, Ezekiel, J. Emanuel and Gopal Sreenivasan (2004), 'The General Agreement on Trade in Services: Implications for Health Policy makers,' *Health Affairs*, May 2004, Vol. 23, Pp. 137–145.

provided by nurses, mid-wives, etc. (29 members). This pattern suggests that it is politically easier or more economically attractive for administrations to liberalize capital-intensive and skill-intensive sectors than labour-intensive activities.

What factors help explain the generally shallow level of commitments on health services? The obvious reason is the existence of government monopolies which offers free services or at low cost. There seems to be no point in assuming external policy bindings, at least under mode 3 (commercial presence), if private activities are either prohibited or rendered commercially unattractive. However, total monopoly situations are likely to be rare. Many countries that have a public health sector also have private suppliers. The mere fact that commercial providers are able to survive economically suggests that the public and private segments do compete directly, which means that they do not provide the same services. For example, there may be differences in waiting period and in the quality of equipment or types of treatment offered. Nevertheless, given the prevailing policy patterns in many countries, the potential for mode 3 trades, and consequently for meaningful commitments, may have been lower in health services than in many other areas[11].

Request for liberalization or liberal policy bindings in the Uruguay Round negotiations may have been weak in this sector. In the absence of vocal export interest, many governments might have hesitated to request access commitments abroad and reciprocate by way of their own bindings on health services. There were apparently no pace setters in these negotiations comparable with the role played by developed countries, particularly the US in telecommunication and the financial sectors. Many administrations might have been concerned, rightly or wrongly, about the potential impact of access liberalization on basis of social and quality objectives. The commitments ultimately made for mode 3, possibly the most significant mode for many health services, have possibly been inspired by the intension to overcome shortages of physical and human capital, and to promote efficiency through foreign direct investment and supplies of skills and expertise.

A comparison across all schedules and sectors reveals that trading conditions are considerably more restrictive for mode 4 than for other modes. Reflecting the political constraints involved, many members have limited the entry of natural persons to intra-corporate transfers or to experts with special skills that are not domestically available. This contrasts with the conditions for mode 2 (consumption abroad), which tends to be most liberal. In many cases, governments may have felt that it would be pointless to try influencing the demand patterns once the consumers had left the concerned countries. Nevertheless, such possibilities may exist. Cases in point include the exclusion of health treatment abroad from domestic consumer subsidies or public reimbursement schemes. Mode 2 trades may prove economically significant in sectors such as education and

[11] Woodward, D., N. Drager, R. Beaglehole and D. Lipson (2001), 'Globalization and Health: A framework for analysis and action,' *Bulletin of World Health Organization*, Vol. 79, Pp. 875–881.

health, where consumer movement can be viewed as partial substitute for the movement of personnel under mode 4 and inward direct investment under mode 3.

Economically advanced developing countries in the vicinity of major export market appear to be well placed for developing such trade, i.e. for attracting foreign patients for long-term health treatment. Many developing countries such as India, Thailand, Singapore, Malaysia, Cuba and South Africa have developed better quality facilities to attract foreign clients.

Commitments on individual health services largely follow this general pattern. The highest share of full market access commitments is recorded for mode 2 (consumption abroad); it reaches 85 *per cent* in the hospital sector. From the standpoint of developing countries, which may be competitive suppliers in this area, it is interesting that virtually all relevant commitments scheduled by developed country members are without limitation (see *table 4* and mode 2 for health services), thus amounting to a legally enforceable guarantee not to deter their residents form consuming abroad. In other sub-sectors, however, the developed countries have tended to use limitations on mode 2 and 3 more frequently than developing countries (see *Table 5*).

In mode 4, no WTO member has undertaken full commitments in any of the four health sub-sectors. All other services, commitments for this mode are subject to limitations and these are generally highly restrictive.

In comparison, the developing countries have made more market access commitments in medical and dental services and in other segments their commitments are less. More than that, they have retained more flexibility in the implementation of the modes. It can be observed from *table 5*.

High percentage of non-bindings for mode 1 in some health sectors, namely 50 *per cent* for medical and dental services, 60 *per cent* and more for nursing and similar services and 65*per cent* for hospital services, may reflect the perception that cross-border provision of these services is not technically possible. Some schedules contain footnotes explaining that a non-commitment under mode 1, in particular for hospital services, is attributable to the unfeasibility of such supplies (see *Box 1*). The question arises, however, as to whether the administrations involved have considered all conceivable possibilities of combing traditional health services with modern communication technologies. Telehealth is a case in point. If applied to inpatients, the electronic provision of medical advice across borders could actually be classified as a hospital service, an interpretation not necessarily anticipated by all Members at the time of scheduling. From the legal standpoint this should not be a matter of concern: new technologies would not turn a non-commitment, even if attributed to technical constraints, into binding access obligation[12].

[12] Herman (2009), *op.cit*.

Table 4: Number of WTO Developed Members with Specific Commitments on Healthcare Services, July 2000

		Medical and dental services	*Nurses, mid-wives, etc.*	*Hospital services*	*Other human health services*
Total (out of 44 schedules) Market access 18 17 15 2					
Mode 1	Full	4(-1)	2(-1)	0	0
	Partial	1	1	0	0
	Unbound	13	14	15	2
Mode 2	Full	5(-1)	2(-1)	14	0
	Partial	13	15	1	2
	Unbound	0	0	0	0
Mode 3	Full	2(-1)	2(-2)	0	0
	Partial	14	15	15	2
	Unbound	2	0	0	0
Mode 4	Full	0	0	0	0
	Partial	16	17	14	2
	Unbound	2	0	1	0
National treatment					
Mode 1	Full	4	2	0	0
	Partial	1	1	0	0
	Unbound	13	14	15	2
Mode 2	Full	5	2	14	0
	Partial	13	15	1	2
	Unbound	0	0	0	0
Mode 3	Full	1	2	13(-13)	0
	Partial	16	15	2	2
	Unbound	1	0	0	0
Mode 4	Full	0	0	0	0
	Partial	17	17	14	2
	Unbound	1	0	1	0

Note: 1. EU Member States are counted individually. 2. Figures in parenthesis are the reduced number of full commitments if horizontal limitations are taken into account.

Source: See Table 3.

Commitments do not have the same importance across all sectors and modes. Their economic value may be high in certain cases, e.g., midwifery services (mode 4), but not in others. Like-wise, the restrictiveness of similar limitations, e.g., discriminatory subsidies, nationality requirements and land ownership restrictions can vary widely among the sectors. Uncertainties may remain with regard to the measures scheduled in individual cases. For example, licensing requirement for doctors or hospitals, contained in the number of schedules, may be operated for either quality purposes or for the administration of restrictions on access. In former case, scheduling is not necessary, as quality related measures do not fall under either the market access provisions of Article XVI or national treatment obligations of Article XVII (*Box 1*). In contrast, if quantitative restrictions were involved it would be better to schedule size, time frame and other relevant features rather than the existence of an implementation mechanism.

Table 5: Member of WTO Developing Members with Specific Commitments on Healthcare Services July 2000

		Medical and dental services	*Nurses, mid-wives, etc.*	*Hospital services*	*Other human health services*
Total (out of 44 schedules) Market Access 36 12 29 15					
Mode 1	Full	12 (-1)	6	15	8
	Partial	10	3	0	2
	Unbound	14	3	14	5
Mode 2	Full	23 (-2)	8	24	10
	Partial	11	4	3	4
	Unbound	2	0	2	1
Mode 3	Full	13 (-5)	4	16(-7)	10(-4)
	Partial	19	7	11	5
	Unbound	4	1	2	0
Mode 4	Full	0	0	0	0
	Partial	33	11	25	15
	Unbound	3	1	4	0
National Treatment					
Mode 1	Full	15	6(-1)	18(-2)	10 (-2)
	Partial	8	3	0	1
	Unbound	13	3	11	4
Mode 2	Full	23 (-2)	8(-1)	24 (-3)	11 (-3)
	Partial	9	4	3	3
	Unbound	4	0	2	1
Mode 3	Full	17(-1)	7(-1)	18 (-12)	9(-6)
	Partial	15	4	8	5
	Unbound	4	1	3	1
Mode 4	Full	1	0	2 (-1)	0
	Partial	32	11	25	15
	Unbound	3	1	2	0

Note: 1) Includes Central and East European transition economies. 2) Figures in parenthesis are reduced number of full commitments if horizontal limitations are taken into account.

Source: See Table 3.

4. Limitations on Trade in Healthcare Services

In order to assess the limitations made by individual Members, it is necessary to examine both horizontal and sector specific parts of the schedules. Horizontal limitations, when applied across all committed sectors (*Box 1*), typically reflect economy-wide policy concerns and objectives. These may include foreign exchange restrictions, restrictions on physical presence of foreign suppliers, foreign equity ceilings, and restrictions on the legal form of establishment (e.g., joint ventures), exclusion of foreign-owned entities from certain subsidies, and, incentives or limitations on acquisition of land or real estate. The relationship between horizontal and sector specific commitments is not straightforward in all cases, however, and there may be conflicting entries in two sections.

The relatively few limitations that apply to health services under modes 1 and 2 (cross border trade and consumption abroad in health services) are predominately sector-specific. Basically, they concern the non-portability of insurance entitlements. Horizontal limitations, i.e. those applying to all scheduled sectors that may prove relevant for health services—includes non-eligibility of foreign suppliers for subsidies, and restrictions on foreign exchange availability. The restrictive effects associated with such limitations may be matched by other barriers that are not recorded in schedules. They include non-recognition of foreign licenses, qualifications or standards. For instance, public health insurer may refuse to reimburse the cost of treatment abroad on the grounds that the services involved have been of lower quality than those offered domestically. It could prove difficult to challenge such practices under GATS. However, the Members may enter into an agreement to grant recognition to them. But they are not under any obligation to develop liberal approach.

Mode 3 (commercial presence) and, in particular, mode 4 (presence of natural persons) have drawn the highest share of partial or limited commitments. Most of the limitations scheduled for mode 4 are horizontal, while relatively many of those for mode 3 are sector-specific. In limiting their mode 3 commitments to natural persons, some countries, most of them developed, have reserved the right to restrict the commercial incorporation of foreign healthcare providers. Frequent market access limitations scheduled under mode 4 concern quantitative restrictions, mainly setting a ceiling on number of foreign employees or denying access to all persons not considered to be specialist doctors, etc. Typical national treatment limitations under mode 4 relate to training and language requirements[13].

Economic needs test (ENT) has also been frequently referred to under mode 3 and mode 4, not only for hospital services, but also for medical and dental services. There are few cases where Members have indicated the relevant criteria underlying such tests, for example, population density, age structure, death rates and the number of existing facilities. GATS indicated the main criteria on which ENT is to be based. For example, if the authority to establish a facility is based on a population criterion, the criterion should be described concisely. However, more often unspecified criterion has been used by the advanced countries. Given their potential for discretionary application, such entries may come close to a situation in which no commitment exists.

Relatively large numbers of mode 4 commitments are limited to trainee or incorporate transferees. Their significance depends essentially on the ability of a foreign supplier to establish a commercial presence under mode3. This tends to be more difficult for exporters of medical personnel in developing countries than for those in developed countries, given the current investment patterns, and could prove elusive in those large

[13] World Health Organization, and World Trade Organization (2002), WTO Agreement and Public Health, WTO and WHO, Geneva.

segments of health sector where private entrepreneurial activity is either not admitted or commercially unattractive[14].

Restrictions on foreign equity participation and on permissible types of legal incorporation have been scheduled as market access limitations (Article XVI) for mode 3 in few cases. Such restrictions may be intended to encourage transfer of technology, skill and expertise and they are mostly contained in the horizontal sections of the schedules concerned. Some Members have also made horizontal national treatment limitations reserving the right to require foreign-owned facilities to train nationals. General references to national legislation are relatively frequent entries in both the horizontal and sectoral sections. It is difficult in such cases to identify restrictive discriminatory elements. The mere existence of national legislation with adverse effect on market participation, such as licensing requirements or training obligations, does not call for scheduling per se. Surprisingly, there are no advanced commitments in the health sector providing for liberalization from specified later dates as in the case of telecommunication sector[15].

5. Global Outlook

The potential for trade in health services has expanded rapidly in recent years. New telecommunication technologies have reduced the impact of geographical barriers to trade (for example, telediagnosis and teleanalysis). The rising incomes and enhanced information have tended to increase the mobility of potential patients. There are limits to which government can influence the level and structure of trade in health services through various instruments. For example, non-portability of insurance cover may deter many residents from seeking treatment abroad. Administrative restrictions may prevent publically controlled facilities from offering telemedical services; in that event private service providers may fill any ensuing market niches[16].

Health is among the relatively few service areas in which, subject to various qualifications, developing countries may prove to be competitive exporters, under several modes, including mode 2. Possibly on the basis of inward direct investment, which may in turn benefit from mode 3 commitments, they may be able to attract patients from other countries including developed countries, provided that they have sufficient infrastructural resources. The developing countries interest tends to hinge on other modes of supply: mode 3 (attracting investment inflows) and mode 4 (sending

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[14] Blouin, Chiantal, Nick Drager and Richard Smith (Eds.) (2006), *International Trade in Health Services and the GATS: Current Issues and Debates*, World Bank, Washington D.C.

[15] Arunanondchai, Jutamas and Carsten Fink (2007), 'Trade in Health Services in the Asian Region,' Policy Research Working Paper 4147, World Bank, Washington, D.C.

[16] Rudolf, Adlung and Antonia Carzaniga (2001), 'Health Services under the General Agreement on Trade in Services,' *Bulletin of World Health Organization*, Vol. 79, No. 4.

medical personnel abroad and benefiting from remittances). While the economic value of mode 3 commitments is self-determined, it depends on a country's own schedule. The export opportunities under mode 4 depends on other Members policies.

It is true that reliance on foreign investment is a more viable development strategy because it is associated with resource inflows, while the labour movements abroad are tantamount to a loss of human capital. Is receiving remittances a sufficient compensation? Many empirical studies confirm it is positive. However, such migration causes loss of skilled human capital to the developing country. However, concerns have been voiced that health sector liberalization may turn out to be a two-edged sword for developing countries. Increased trade in the sector may benefit hospital operators, health professionals and the rich, but how would it affect the economically disadvantaged is the question. These concerns need to be addressed in proper perspectives.

Firstly, GATS does not impose any constraints on terms and conditions under which potential host country treats foreign patients. For example, nothing in the agreement would prevent Members from subjecting the services provided to foreigners who have come for treatment to special taxes or charges. The earnings may be used to enhance the quantity and quality of basic domestic supplies. Secondly, there are no legal impediments in GATS that would affect the ability of governments to discourage qualified staff from seeking employment in the private sector, whether at home or abroad. Deterrent measures may include deposit requirements or guarantees, which would make it financially unattractive for professionals. The positive measures that may limit the risk of brain drain such as liberalization under mode 3 combined with foreign countries commitments under mode 2, may help create domestic employment opportunities and in turn, dissuade professionals from moving abroad. Thirdly, there are no crowding-out effects, to the disadvantage of the resident patients, that cannot be addressed through domestic regulations under GATS provisions. For example, a country might require all private hospitals to reserve a minimum percentage of beds for free treatment for the needy or to train staff beyond the number required for the purpose of these institutions. Such measures would withstand examination under both Article XVI on market access and Article XVII on national treatment[17]. There is a need to develop a comprehensive framework to further liberalize trade in health sector. The technological and economic forces working towards global market integration will not allow the health sector to remain unaffected. Timely action by the governments would be highly desirable.

6. Trade Dimension of Healthcare in India

India's healthcare sector, one of the fastest growing industries, is expected to advance by 15 *per cent* in compound rate during 2011–17 periods and is expected to reach from $68.4

[17] Herman (2009), *op.cit*.

billion in 2011 to $158.2 billion in 2017[18]. The market segment is dominated by hospital business and its share is 71 per cent and that of pharmaceuticals 13 *per cent*, medical equipment and supplies 9 *per cent*, medical insurance 4 *per cent* and diagnosis 3 *per cent*. Rising incomes levels, ageing population, growing health awareness, and changing attitude towards preventive healthcare is expected to boost demand for healthcare services. The low cost of medical services has increased the country's medical tourism. More importantly, India has emerged as a hub for R&D activities for international companies due to its relatively low cost of clinical research. Conducive policies for encouraging FDI, tax benefits and promising growth prospects have helped the sector to attract private equity and venture capitals from foreign players.

Share in healthcare spending in India is likely to go up in the near future. Private sector has emerged as a dominant component of India's healthcare industry. The private sector share in health delivery is expected to increase from 66 *per cent* in 2005 to 81 *per cent* in 2015. Private sector share in hospitals and hospital beds is estimated at 74 *per cent* and 40 *per cent*, respectively. The per capita health expenditure increased at CAGR 10.3 *per cent* during 2008–11 to $57.9, this figure is set to touch $88.7 by 2015. This is due to rising incomes, easy access to high-quality healthcare facilities and greater awareness of personal healthcare, besides rising penetration of health insurance.

In India, there has been a shift from communicable to lifestyle diseases due to increasing urbanization and problems related to modern day living conditions; currently about 50 *per cent* of spending is on inpatient beds for lifestyle diseases. This has increased the demand for specialized healthcare, particularly in tier II and tier III cities. As a result of these developments, health insurance is gaining momentum. The gross healthcare insurance premium was expanding at a CAGR of 39 *per cent* over 2006–10. This trend is likely to continue. Strong mobile technology infrastructure and launch of 4G is expected to drive mobile health initiatives in the country. Mobile industry in India is expected to reach $600 million by 2017. Healthcare sector's spending on IT products and services are expected to rise to $67 billion by 2015.

Indian health insurance industry expanded at a CAGR of 33 *per cent* during the 2006–12 period; this fast pace of growth is expected to continue in the coming years. The share of population having medical insurance is likely to rise to 20 *per cent* by 2015 from 2 *per cent* in 2006. An increasing number of companies would offer health insurance to their employees; other private sector companies are also likely to join.

The presence of world-class hospitals and skilled medical professionals has strengthened India's position as a preferred destination for medical tourism. The growth in this sector is underscored by the cost advantage that India provides to patients from developed countries. Notably, India attracts medical tourists from developing countries due to lack of medical facilities in these countries. The medical tourist market is expected to expand

[18] India Brand Equity Foundation (2013), Market Report, September.

at a CAGR of 27 *per cent* to reach $3.9 billion in 2014 from $1.9 billion in 2011. Inflow of medical tourists is expected to cross 320 million by 2015 compared to 85 million in 2012. Yoga, meditation, ayurveda, allopathy and other traditional methods of treatment are major services offered that attracts medical tourists from Europe and the Middle-East to India. The traditional healthcare market (Ayurveda, etc.) in India was valued about $1.4 billion in 2010 and is expected to grow by 20 *per cent* during the 2011–15 period. This sector has broadened its offerings and now includes services on diet and nutrition, yoga, herbal medicine and spa. Many big hospitals are also setting up wellness centres with traditional healthcare remedies. There is a growing interest from many private equity firms in the traditional healthcare sector.

The share of private sector in total health expenditure accounted for 74 *per cent* in 2009. The market size of private hospitals in India was estimated at $54.7 billion in2012, with the private sector accounting for 82 *per cent*. The market size of hospitals was estimated to have increased at a CAGR of 26.9 *per cent*. Increase in number of hospitals in tier-II and tier-III have fuelled the growth of private sector. Now, over 75 *per cent* of human resources and advanced medical technology and 37 *per cent* of hospital beds are owned by the private sector. In India reportedly at least 20 international players are competing for a share in the hospital and medical devices segment; about 90 *per cent* of the demand in the hi-tech medical devices segment accounting for $770 million is met by imports from the US, Japan and Germany (Chanda, 2008).

The 12th Plan budget for the health sector has been enhanced by $55 billion, which accounts for 2.5 *per cent* of GDP. To encourage private sector, the benefit of section 10 (23G) of IT Act has been extended to financial institutions that provide long-term capital to hospitals with 100 beds or more. The government is encouraging the PPP model to improve availability of healthcare services. To encourage investments for healthcare in rural areas, the benefit of section 80-IB has been extended to new hospitals with 100 beds or more that are set up in rural areas. These hospitals are also entitled to 100 *per cent* deduction on profits for five years. Customs duty on life-saving equipment has been reduced to 5 *per cent* from 25 *per cent* in 2013. Import duty on medical equipment has been reduced to 7.5 *per cent*. Incentives and tax holidays are being offered to hospitals and dispensaries providing health travel facilities. The government has accorded infrastructure status to the hospitals.

During 2010–13 periods, pharmaceutical segment accounted for more than 70 *per cent* of M&A deals. In 2012, M&A value in healthcare stood at $2.7 billion, an increase of more than 30 *per cent* compared to those in 2011. Pharma, healthcare and biotech emerged as top sectors, accounting for 14 *per cent* and 41 *per cent* of the M&A deal value. The healthcare sector in India is attracting a number of PE (private equity) investors; of the total PE deals, healthcare accounted for 70 *per cent* of the deals and 65 *per cent* of the deal value. About 38 PE deals ($856 million) were concluded in health sector in 2012. Diagnostic centres, multi-speciality hospitals, and chain of single-speciality hospitals attracted the majority of PE investments in 2012.

Huge healthcare infrastructure is required to meet the growing urban and rural demand. Additional 1.8 million beds are needed to achieve the target of 2 beds per 1000 people by 2025. Additional 1.54 million doctors and investments worth$86 billion are needed to achieve this target. Contract research is a fast growing segment in Indian healthcare industry. Cost of developing a new drug is as low as 60 *per cent* of the testing cost in the US. About 60 *per cent* of global clinical trials are outsourced to developing countries and in which India is expected to get the major share. Indian medical tourism industry is poised to grow at 30 *per cent* per annum to $2 billion business by 2015. Cost of surgery in India is nearly one-tenth of the cost in developed countries and is less than South East Asian countries.

7. India in World Healthcare Market

There are no explicit barriers on commercial presence of foreign firms, but there are restrictions on foreign services providers under mode 4. Besides, responsibilities are divided between the centre and states. However, there is an absence of a standard accreditation system. In the case of medical and dental services, services provided by midwives, nurses, physiotherapists, and paramedical personnel and hospital services, India has no market access and national treatment restrictions under mode 2. Under mode 1, there are no national treatment restrictions or market access restrictions for the provision of services on provider to provider basis such that the transaction is between established medical institutions covering areas of second opinion to help diagnose cases or in the field of research. In the case of mode 3, market access is only through incorporation with a foreign equity ceiling of 74 *per cent* subject to the conditions that (i) the latest technology for treatment will be brought in, and,(ii) in the case of foreign investors having a prior collaboration in that specific service sector in India, FIPB approval would be required. In the case of national treatment under mode 3, publically funded services may be available only to Indian citizens or may be supplied at differential prices to persons other than Indian citizens. Mode 4 is unbound except for horizontal commitments related to entry visas.

As per request made by trading partners at the WTO, India has been asked to take full market access and national treatment commitments under all four modes. This includes allowing joint ventures and permitting foreign doctors with national licenses in the country of the origin to practice for three years or more for medical and dental services; take full market access and national treatment commitments in all modes for services provided by midwives, nurses, physiotherapists and medical personnel; and, take full market access and national treatment commitments in modes 2 and 3 and remove equity limit. Now, India has raised the equity limit to 74 *per cent* from 51 *per cent*. Indeed, there is a need to examine the other requests related to relaxation of domestic regulations keeping in mind the social implications.

Technology-oriented services in healthcare, particularly IT-aided healthcare (application of IT for the use of healthcare resources) and health related IT services (IT services arising from healthcare) have added new dimensions to the Indian healthcare segment[19]. Government policies and promotional schemes encourage private sector involvement. The private corporate sector has developed and constructed healthcare facilities of the highest quality at par with international standards. The service providers are prone to using advanced technology with skilled manpower. These improvements with market commitments under the WTO created cross-border trade opportunities for India. India has established comparative advantage in IT-enabled health services. The information and communication technology (ICT) makes the delivery of health services easy. There is a considerable potential to grow further through various modes under the GATS.

In recent years, in mode 1, India has become an attractive destination for medical process outsourcing and medical tourism. Cross-border trade in health services includes e-health services transactions or telehealth services to provide diagnostic services (teleradiology), medical opinion and consultations (telemedicine), laboratory testing, transmission and processing of specialized data and records (medical transcription), medical coding and medical billing). India is a leader in exporting medical transcription, telepathology and telediagnostic service.[20] IT application to healthcare resources enables direct health related services between two countries. This includes diagnostic and testing facilities, health related advice, health information, and healthcare data mining. IT-related services arising from healthcare refer to the backend services such as medical transcription, medical coding and billing and other related services.

India registered high growth in mode 1 services during 2000–2005. The number of employees in IT-related health services rose from 30,551 in 2000 to 242,500 in 2005. The revenue earned from these services increased from $264 million to $4,072 million during the same period. The Apollo group has begun exporting telemedicine services (consultation, diagnostic, telepathology and teleradiology) from its Apollo Gleneagles hospitals in Kolkata to patients in Bangladesh, Nepal, Bhutan and Myanmar. The rise was more than 15 times[21] (see *table 6*). India is involved in a $5,429 million Pan-African e-Network Project, which connects India with 53 member states of the African Union through satellite and fibre optic network, to provide teleducation and telemedicine services. Five prominent Indian universities and 12 super-specialty hospitals are engaged in providing teleducation and telemedicine services under the Pan-African e-Network project. Apollo group of hospitals serve patients across multiple countries such as Bangladesh, Nepal, Bhutan, Myanmar, Kazakhstan using telemedicine and teleradiology

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[19] Mathur, A. (2004), 'Design of Healthcare Trade: Role of Information Technology,' *Economic and Political Weekly*, Vol. 39, No. 20, Pp. 2036–2047.

[20] Smith, R.D, R. Chanda and V. Tangcharoensathien (2009), 'Trade in Health-related Services,' *The Lancet*, Vol. 373, No. 9663, Pp. 593–601.

[21] Herman (2009), *op. cit*.

services and partners with Health Services of America for medical coding and billing, documentation of medical records and insurance claims processing. India is one of the important service providers in mode 1 with its infrastructure and skilled manpower base.

Table 6: Revenue Earned by India in Mode 1 Trade in Healthcare Services (revenue in $ million)

Service segments	*2000*	*2005 (increase in times)*
Customer interaction centres	60	2,250 (37.50)
Medical transcription	30	800 (26.67)
Financial and accounting services	50	375 (7.50)
Medical billing and collection	3	75 (25.00)
Insurance claims processing	13	30 (2.51)
Pre-press and digital pre-media	45	200 (4.45)
Geographical information system	-	50 (new)
Distance learning	60	150(2.50)
Human resource services	-	115 (new)
Litigation support services	3	27 (9.00)
Total	264	4,072 (15.42)

Source: Revenue of the BPO (business process outsourcing) industry estimates (by service type) by ESC: Electronic & Computer Export Promotion Council (cited in Smith *et al*., 2009).

Outsourcing of healthcare services has gained momentum in recent years with the advent of internet era. Over 60 *per cent* of healthcare companies outsourced more than 50 *per cent* of their IT operations by 2007 in the US. The medical outsourcing market was worth over $19 billion in 2010. More than 180 companies were engaged in medical transcription services in India with the average annual revenue of $250 million in 2010. This is likely to increase sharply in the near future, given factors such as increasing health costs in the US and Europe with its ageing population and rising regulatory emphasis on digitisation of medical records and documentation. These activities have come to India to leverage the cost advantage through offshore outsourcing. According to the American Association for Medical Transcription (AAMT), the global market for medical transcription is estimated to be between $12 billion and $20 billon, with the US being the largest market. Around 60 *per cent* of the US medical transcription market gets outsourced from hospitals and clinics, in which about 10 *per cent* is off shored to countries such as India and the Philippines. According to the Indian Medical Transcription Industry Association, India's share is about $200 millions, which accounts for roughly 2 *per cent* of the US market.

Medical billing outsourcing services include doctors billing, insurance claims billing, patient collections, accounting and generating reports for physician practices, diagnostic service groups and hospitals. For medical billing, India is becoming the primary destination for quality services. The present estimate of medical billing outsourcing market is about $1 billion. India is considered to be the top destination by choice for American companies. It has now become the "back-office to the world."

The medical tourism industry was valued at $10.5 billion globally in 2012 and estimated to reach $32.5 billion in 2019. This sector is growing around 25 to 30 *per cent* in India and is expected to become a $2 billion industry by 2015. In 2011 the medical tourist flow to India was 850,000 and is projected to increase to 3,200,000 by 2015 (ASSOCHAM Report August 2011)[22]. According to the Ministry of Tourism, Government of India, as against an ordinary vacationer per capita spend of $3000 per visitor, the average medical tourist in India puts out more than $7000 per visit. Advances in technology have enabled India to promote healthcare tourism in mode 2.The ever expanding role of technology in drugs, medical equipment and devices, and medical procedures such as organ transplants is continuously changing and its rapid advancement is encompassing a range of medical capabilities for enhancing life and improving health status beyond traditional thinking. Medical tourism has not only become an important component of health services in India, but also an attractive destination. It has adopted advances and ideas beyond traditional ideas of health. Offering specialist medical and surgical treatments at competitive international prices in areas of cardiology, neurosurgery, orthopedics, eye surgery, knee replacement and others have earned India international repute (see *table 7*). The capacity in super-speciality segment of Indian hospitals is expanding fast, and unlike the US or the UK, there is no waiting period for overseas or local patients.

Table 7: Relative Cost of Selective Surgeries (India in $ and others higher in times)

Surgery	*Cost in Comparison to India*			
	India (in US $)	*US*	*Thailand*	*Singapore*
Heart bypass	10,000	13.00	1.10	1.85
Heart valve replacement	9,000	17.78	1.11	1.39
Angioplasty	11,000	5.18	1.18	1.18
Hip replacement	9,000	4.78	1.33	1.33
Hysterectomy	3,000	6.67	1.50	2.00
Knee replacement	8,500	4.71	1.18	1.53
Spinal fusion	5,500	11.27	1.27	1.64
Bone-marrow transplant	30,000	10.00	-	-
Liver transplant	40,000	7.50	-	-
Neurosurgery	8,000	3.63	-	-
Cosmetic surgery	3,500	10.00	-	-

Source: Smith, R.D *et al.* (2009).

Indian government is promoting medical tourism by organising campaigns overseas through the Ministry of Tourism. From 2005, it started granting both "M" and "MX" categories of visa to foreign patients and attendants to facilitate their arrival in India. The rendering of health services on payment in foreign exchange has been treated as "deemed exports" and these will be eligible for fiscal incentives extended to export earnings. India is currently among the five top medical destinations (Deloitte 2009). Some hospitals such as Apollo, Fortis, Medanta, and Wockhardtare collaborating with tour

[22] This appears to be an over estimate. At best it may be in the range of 2,125,000.

operators to offer all inclusive health tourism packages, including required medical procedure, hotel stay and air travel along with visits to popular tourist destinations. Also, they negotiate with insurance companies for medical expense coverage. Infrastructure spending for healthcare has surged in recent years. The private sector, equipped with state-of-the-art technology has especially flourished. Top Indian corporate hospitals like Apollo, Medanta, Fortis, Wockhardt, Max and the Manipal Group have stepped into provide quality healthcare and technology. A large number of new private speciality hospitals and integrated health cities coming up in top metropolitan areas are adding further heft to India's medical tourism offerings.

Medical tourism creates a win-win situation for the corporate medical sector and for a section of medical professionals in the country (See *Box 3* for government role in promoting medical tourism). The extra revenue earned by medical tourism could benefit healthcare system if it is taxed to support public health. This has not been done; instead, private hospital treating foreign patients receive such benefits as lower import duties and enhanced rate of depreciation (ranging from 25 to 40 %) for life-saving medical equipment. This industry gets a pool of medical professionals who obtain training in public hospitals and then move to work in private hospitals; this, in effect, results in internal brain drain. It has been estimated the indirect subsidy given to private sector works out to be over Rs 500 crore per year[23].

Commercial presence (mode 3) involves the establishment of hospitals, clinics, diagnostic and treatment centres and nursing homes. India has become increasingly open to foreign direct investment by allowing equity up 100 *per cent*. India has given approval to a German company for 90 *per cent* foreign equity ownership for setting up a 200-bed hospital in Delhi. Several speciality corporate hospitals are being built in collaboration between Indian and foreign companies, including a $40 million cardiac centre, set up under a consortium comprising India, Australia and Canada[24]. Indian Apollo group has established hospitals outside the country and invested over $4 billion to build 15 new hospitals in Nepal, Sri Lanka and Malaysia. Total FDI inflows into India in hospitals and diagnostic sector for the period 2000–11 are estimated to be $1.00 billion according to the Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India. India Brand Equity foundation estimates that hospitals and diagnostic centres alone received FDI inflows worth $1,597.33 million, medical and surgical appliances $604.47 million, and, drugs and pharmaceuticals $1,0318.17 million during 2000–13 period (total FDI inflows from April 2000 to March 2013 was $12,519.97 million)[25].

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[23] Sengupta, A and S. Nandy (2005), 'The Private Health Sector in India' (Editorial), BMJ 2005; 331: Pp. 1157–58.

[24] Chanda, Rupa (2002) 'Trade in Health Services,' *Bulletin of the World Health Organization*, Vol. 80, No. 2, Pp. 158–63.

[25] Some of these estimates appear to be wild guesswork.

Foreign investors play a critical role in the development of hospital sector. There is a growing interest among foreign players to enter India's healthcare sector through capital investments, technology tie-ups and collaborative ventures across various segments including diagnostics, medical equipment, hospitals, education and training. The private equity fund investment has been over $2 billion in healthcare and life sciences sector during the last five years. Further, India received $32,837 million as aggregate FDI in 2011, specifically hospitals and diagnostic centres which received FDI worth $1,030.05 million from 2000 to 2011, constituting 0.78 *per cent* of the total FDI into India. FDI equity inflows received by hospitals and diagnostic centres have been increasing and by the end of 2012 it was to the extent of $1,395.82 million[26].

Indian foreign investment policy is liberal for hospitals, and foreign investors do not face major regulatory hurdles to entering the market. Overall, it appears that foreign investment in Indian hospitals remains limited, notwithstanding the liberal regulatory framework. According to one estimate, foreign investors have tapped only 10 *per cent* of the Indian health market[27]. It is perceived that there will be an increased inflow of foreign funds into India's hospital segment in the near future, with major expansion plans by existing and prospective corporate players. These include huge cities with large super speciality or multi-speciality hospitals and integrated health services as well as scaling up of existing operations and setting up of new hospitals around the country. The main sources of FDI in this segment are anticipated to come from the US, the UK, Australia and Singapore. It is also recognized that large investments can only happen through investment in corporate hospitals and it would take some time. Reputation and brand value are keys to accessing funds through private equity, foreign institutional investment and external borrowing.

The reasons for limited presence of foreign investment in Indian hospitals reveal a number of external and domestic constraints. These include facts that the number of foreign players is limited, there are many competing investment destinations, and there are difficulties for foreign players who seek to enter independently and in maintaining joint ventures. Additionally, the gestation period in hospital projects is long and investors may not be willing to make such a long term commitment. More importantly, various domestic factors adversely affect the returns to investment in hospitals in India: high initial establishment costs, low health insurance penetration, restrictions on medical trainers and providers, high cost of importing medical devices and lack of policy clarity, among others. The Indian experience shows that a liberal foreign investment policy is not enough to secure a strong foreign participation in the hospital segment.

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[26] Sunitha L F. and R. Ajil Babu (2013), 'Role of FDI in India's Healthcare Sector: Major Issues and Challenges,' *International Journal of Humanities and Social Science Invention*, Vol.2, Pp. 37–40.

[27] Cattaneo, Olivier (2009), 'Trade in Health Services: What's in it for Developing countries?' Policy Research Working Paper 5115, The World Bank, Poverty Reduction and Economic Management Network, International Trade Department. Washington, p. 8.

The impact of imports under mode 3 will considerably vary according to the nature and objective of the investment. It is often feared that foreign establishments will only target a foreign travelling clientele or rich domestic clientele: this would raise concerns regarding equality of access to healthcare. Moreover, foreign establishments (supposedly paying higher salaries than the public or domestic private sectors) could divert scarce human resources to treat a rich clientele, to the detriment of the poor and the objective of universal access to healthcare. For the government, this internal brain drain is a loss on public investment. The government needs to take certain measures to mitigate these risks. Leakages are higher if the markets are segmented.

According to UNCTAD, the number of mergers and acquisitions in the health sector has boomed in recent years. It was $14 billion in 2006 and it touched a figure of$22 billion in 2013 at the global level. The acquisitions are more in case of pharmaceutical companies rather than in hospitals. The acquisition amount from the foreign companies amounted to $10,458 million during the period 2006 to 2010 in India. *Table 8* shows the main trend.

Table 8: Acquisition of Indian Companies by Foreign MNC's

Year	*Indian companies takenover*	*Foreign companies which tookover*	*Country of origin*	*Takeover Amount $ million*
August 2006	Matrix Lab.	Mylan	USA	736
App. 2008	Dabur Pharma	Fresenius Kabi	Singapore	219
June 2008	Ranbaxy Lab.	Daiichi Sanyo	Japan	4600
July 2008	Shanta Biotech	Sanofi Aventis	France	783
December 2009	Orchid Chemicals	Hospira	USA	400
May 2010	Piramal Healthcare	Abbott	USA	3720

Source: Overseas Indian Facilitation Centre (OIFC), Monthly News Letter, March 2013.

Indian health service companies are also involved in merger activities. For instance, Fortis International is involved in primary and tertiary healthcare and diagnostics, including two dental clinics. It has a presence in nine countries across the Asia-pacific. Fortis International acquisitions include a hospital in Singapore, followed by acquisition of hospitals in Australia, Hong Kong and Sri Lanka, besides diagnostic service firm in Dubai. Fortis India has grown organically and through acquisitions, having scaled up operations from a single hospital in 2001 to 62 hospitals and 190 diagnostic labs across India. Fortis International owns Quality Healthcare Ltd., the largest primary care network in Hong Kong. In 2011, Fortis acquired a 65 *per cent* stake in Hoan My Medical Corp., one of Vietnam's largest private healthcare provider groups with over 1,100 beds across six hospitals[28]. Apollo Hospital has expanded its global reach with the opening of Apollo Bramwell Hospital in Mauritius. It proposes to set up a 200-bed hospital in Shanghai, besides 150-bed hospital in Nigeria.

[28] Srivastava, Moulishree and C.H. Unnikrishnan (2014), 'Fortis India to consolidate with merger,' Livemint and The Wall Street Journal, June 03.

FDI activity helps build infrastructure, such as super-speciality centres, that is necessary to improve the standard and quality of healthcare. However, several external and domestic factors are challenging foreign investment, particularly FDI in India's hospital segment. In many developed countries the number of private players who can establish hospitals overseas is limited. Hospital business requires localized and in-depth knowledge of the host country's market, thus overseas investors do not venture to enter the segment. Joint ventures are best vehicles but there are problems in maintaining partnerships, for instance, there may be no clarity on government policies. The Indian government does not have a clear road map for the health sector and is perceived to be non-transparent in terms of its regulatory environment; this deters foreign investors. From the domestic angle, FDI in India's hospitals includes high operational costs which affect the returns to investment. High cost involved in setting up hospitals, the long gestation period for such venture and low returns also act as deterrents to foreign investment.

Mode 4 covers the movement of health personnel including movement of physicians, specialists, nurses, paramedics, midwives, technicians, consultants, trainers, health management personnel, and other professionals. This also includes both temporary and permanent flows, each having different legal, social and economic implications for both source and host countries. Short-term flows are driven by strategies to promote health services exports, in order to earn foreign exchange and foster cooperation between governments. For instance, China and Cuba send health personnel abroad on short-term remunerated contracts to countries in Africa, under government supervision. Permanent migration of health professionals occurs mainly from developing to developed countries. It is driven by wage differentials between countries and a search for better working conditions and living standards; a search for better training facilities and demand-supply imbalances in the health sector between host and source countries. UNCTAD/WHO study of 1998 estimated that 56 *per cent* of all migrating physicians flow from developing to developed countries, while only 11 *per cent* migrate in the opposite direction. This imbalance is even greater for nurses. The most prominent source countries for health personnel are India, the Philippines and South Africa, whose physicians, nurses and technicians migrate to the US, the UK, Australia, and Gulf countries.

Different countries adopt different policies towards the migration of healthcare professionals. To deter permanent outflow of personnel, countries such as India and South Africa have made it mandatory for health personnel to serve in their respective countries for a certain number of years. Some destination markets actively encourage inflow of specific categories of foreign healthcare professionals. For example, many of these countries have introduced special visa schemes and changes in immigration policy to encourage inflows of nurses from India and the Philippines. Similar kinds of policies with some variations are put in place by Canada and the EU and other European countries.

The implications of trade via movement of health service providers are also not clear cut. From the source country's perspective, the increased mobility of healthcare providers can generate remittances and transfers; can help promote exchange of clinical knowledge among professionals; and, help upgrade skills and standards in the country. For the host country, the movement of health personnel provides an important means to meet the shortage of healthcare providers, improve the quality of and accessibility to healthcare services and contain cost pressures. If these outflows are permanent, there are likely to be adverse implications for equity, quality and availability of health services in the source countries, and bulk of the cross-border flows of healthcare professionals do take the form of permanent migration. Permanent outflows of health service providers impose significant costs on the source country. It leads to shortage of highly trained personnel, and public resources invested in their training are lost in the outflow of human capital. It is difficult to calculate such costs on the source economy. There is also income distribution and reallocation consequences, since remittances and transfers are private and do not flow directly to the public sector, unlike the direct benefit from retaining domestic health professionals.

In 2010, an American Medical Association report estimated that there were 57,447 Indian medical graduates registered in the US, topping the list of international medical graduates in the country. The report further states that since 1975, about 25 *per cent* of all international medical graduates to the US have come from India. The report published by the Canadian Institute for Health Information suggests that in 2007, international medical graduates constituted 22.4 *per cent* of physician workforce, the largest number coming from India and South Africa. The UK General Medical report says the India-trained physicians constitute about 37.4 *per cent* of the international medical graduates and 25.5 of the total physician workforce. The number has declined in recent years due the immigration policy. There has been an increase not only in the international flow of nurses, but also a growing dependence on developing countries to supply nurses to the developed world. In the UK and the US, international nurses account for as much as 60 *per cent* of the stock of registered nurses. Unofficial estimates indicate that over 60,000registered Indian nurses work in the gulf countries. In 2000, the number of Indian nurses working in the OECD countries was estimated to be 22,786. The nurses also work in non-English speaking countries such as Switzerland and Austria.

In order to ease migration problems, India has concluded bilateral agreements with the UK and six Middle-EAST countries for providing private and government doctors on short-term assignments. Indian government has also signed a labour mobility partnership with Denmark, Poland, Czech Republic, Norway, Switzerland, Hungary, Sweden and France which includes the health sector. At present, India does not have any mutual recognition agreement (MRA) for professional degrees in healthcare. However,

India recognizes medical degrees of Myanmar, Italy, Germany, Ireland, The Netherlands, Japan and Hong Kong[29].

Despite the lack of reliable data on a number of health personnel employed abroad and also remittances and compensation to employees received in India, one could assume that mode 4 and mode 2 are the main channels of exports in the health sector. Some countries such as the Philippines specialize in training nurses "for export." Addressing the issue of health personnel shortage in high income countries will guarantee that this segment continues to grow at a fast pace. In some developed countries like the US and the UK, foreign personnel constitute 14 to 18 *per cent* of the total healthcare sector. The healthcare personnel movement is primarily driven by financial incentives and absence of job opportunities at home.

8. Expected Benefits and Risks from Healthcare Services Exports

For all four modes of delivery, exports generate income that benefit the domestic economy and contribute to improving the balance of payments. The dynamic effects of this income will then depend on the mode of service delivery. Exports under mode 1 increase the revenues of domestic health services providers, allow further investment and potentially improve their profitability and competitiveness (through economies of scale). They also create opportunities for healthcare providers at home and help prevent international brain drain. Exports under mode 2 have similar effects. The spill-over effects will depend on the legal/ regulatory framework and business model adopted by the exporting country: these effects will be maximised if the local population can benefit from the infrastructure and treatments developed for foreign patients, or if part of the benefits made by the local health services providers are re-injected in the domestic health system. Doctors, nurses and other healthcare personnel are offered greater opportunities at home, and mode 2 exports create a disincentive to go abroad. To sum up, a properly designed strategy to export health services under mode 2 has the potential of improving access to better quality healthcare services for the local population[30].

Exports under mode 3 are returns on investment that are similar to those in any other sector. Exports under mode 4 could be an important source of income. This income would directly benefit the local population and hence public health. Benefits for the exporting country's health system are indirect only: temporary movement abroad provides local healthcare providers with a number of opportunities, including access to training, new technologies, acquisition of additional skills and specialization. Upon return to their origin country, these healthcare providers will make the local population benefit from the skills acquired abroad. Given the fast evolution of medicine, these movements across border are particularly important to the sector.

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[29] Public Health Foundation of India (2011), 'India: Mobility of Health Professionals,' April.

[30] Cattaneo (2009), *op. cit*.

For modes 1 and 2, the main risk is the diversion of scarce human and financial resources to healthcare services entirely dedicated to the treatment of foreign patients. This may lead to internal brain drain. Exports of health services, therefore, represent a challenge for the objectives of universal access and equity of access to quality health services. The internal brain drain represents a loss of public investment in medical education and training. The richest local clientele also divert towards these high-end health services providers to the detriment of the profitability/sustainability of the public health sector. A number of accompanying policies could help minimize these diversion risks, including through the cross-fertilization of public and private health initiatives[31].

The risk associated with exports under mode 4basically depends on the intentions of the migrant. While brain-circulation should be encouraged and mode 4, as regulated scheme of temporary movement of personnel, is a factor of brain-circulation, brain drain could have dramatic effects on the local public health. Opportunities for individuals can work out into losses for societies. This is particularly true for the health sector, where the medical density varies across countries and regions[32]. A well regulated trade under mode 4 should contribute to preventing internal brain drain (agreement on mode 4 can include a return scheme), since nothing can prevent people from leaving a country. For instance in South Africa, some private health services providers have concluded agreements with foreign healthcare networks to provide short-term opportunities for their staff abroad, while controlling returns (see *Box 2*).

9. Measures to Enhance Trade in Healthcare Services

Increasing trade in healthcare services is beneficial to both exporting and importing countries. A number of conditions are attached to success; however, the market is competitive. There is a need to assess the resources and design trade promotion strategies that have both domestic and international dimensions. India is relatively competitive in offering health services, particularly in modes 2 and 4. However, appropriate strategies are not yet designed to promote healthcare services. There is a need for assessing and fixing the fundamentals, including the regulation of the health sector. A country cannot compete in health services market if its domestic health system is dysfunctional. With a view to determine whether a country could enter and contest in the world health services market is the assessment of its strengths and weaknesses and eventually the design of policies to exploit the strengths and remedy the weaknesses. This can be done by SWOT analysis ((strength, weaknesses, opportunities and threats). This tool is commonly used by the private sector.

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[31] Herman (2009), *op. cit*.

[32] Arunanondehai, Jutamas and Carsten Fink (2007), 'Trade in Health Services in the ASEAN Region,' World Bank Policy Research Working Paper No. 4147, Washington D.C.

The SWOT analysis for India reveals that it has a competitive edge in terms of skilled doctors and trained nurses. In terms of international prices, the service costs are cheaper. Availability of quality treatment is on a par with international standards. The reputation of doctors is good due to education and training acquired in foreign countries. The nursing standards are well appreciated by foreign patients. The geographical and cultural (including language) aspects are highly favourable. Many hospitals and clinics have adopted international management and hygiene standards (ISO certified clinics). The size of the hospitals is relatively big with 200–350 beds. The private sector hospitals are better in terms of quality and practices (for details of SWOT analysis see *Box 4*). Advantages in mode 4 indicate that Indian doctors are skilled in diagnosis and treatment jobs, particularly in surgery. There is demand for Indian doctors in the US and West Asian countries.

It is a fact that not all strengths and weaknesses have same weight when it comes to triggering trade. The quality remains the main driver of trade in the health sector: entry cost on the health services market is very high in terms of education, training and equipment. And, what works in favour of India is the presence of traditionally well-trained medical personnel, especially doctors. However, the number of paramedical personnel is low. Required investments in infrastructure and technology are also important. Improving domestic regulation and removing unnecessary obstacles to trade are critical. A strict regulation of health sector is needed to avoid malpractices and encourage choice of most efficient providers.

In a highly competitive global market, it is not enough to fix the fundamentals, including the regulatory framework to become an exporter of health services. Trade promotion strategy is essential to gain market share abroad. In this strategy, even though the private sector's role is critical, the government has a major role to play. The export strategy should be based on "niches and market prospects" (See *Box 5* for case of India). A country should select a proper mode for trade in health services. Health service under mode 2 suggests that all markets are not contestable. For example, targeting the French market for medical treatment has no use because it is fully covered by health insurance; on the contrary, targeting the UK market for medical procedures may be rewarding because of the delay in treatment. The knowledge of foreign markets, including healthcare needs (age structure of the population), medical supply (medical personnel density and shortages), health insurance coverage gaps, is essential to design efficient export promotion strategies. On cost of service ground, the US will remain a major market for India. A good knowledge of global supply, particularly competition from other countries is required. Innovation is important for success, it could take the form of developing new technologies, medical procedures and packaging health services differently (e.g., offer of health tourism packages, airport pick-up services, translation services and facilitated billing).

Reforming the institutional framework is equally important. In a country like Cuba, the government plays a pivotal role in the success of promoting exports of health services,

especially in collecting the data on different facets of health services. It enables to design policies and address the problems (see *Box 2 & 3*). Another related common problem is the absence of cooperation among ministries (health, trade and tourism) and the dialogue among actors. The actors involved are: tour operators, private practitioners, clinics, hospitals, research institutes, ministries, professional associations and investors and these participants need to engage in a dialogue. Experiences show that the best performing countries on the international trade in health service scene, such as Thailand have created horizontal administrative structure to coordinate domestic positions and strategies on health tourism. Marketing and promotion are essential to boost trade in health services, in particular due to absence of transparent worldwide data on quality of healthcare and important role of reputation in consumers' destination choice. The barriers to international trade is very much evident at the global level (see *Box 6*)

There are many obstacles to trade in health services in domestic regulations which can be addressed through domestic reforms. The unilateral reforms can be traded for market access from trading partners. For example, health insurance portability may be traded for obtaining reorganization of the degree in health services. The removal of such obstacles could be achieved through bilateral or multilateral negotiations. It is the responsibility of the government to take up these issues. The private sector also has a major role to play in this process, indirectly by informing the government's negotiating positions, or directly by encouraging exchange of personnel or mutual reorganization of qualifications. Bilateral and regional agreements are common instruments of trade promotion in the healthcare sector. They can be effectively used to remove obstacles to trade or harmonize domestic rules across the region. They may have different shape, content and legal value (binding and non-binding). This flexibility is the reason of their success in the health sector where governments have to deal with a number of sensitive issues related to their public health objectives. In addition to this, a number of arrangements could be concluded between public and private or between private institutions that can also facilitate trade. Such arrangements may include provisions on the exchange of health personnel for training or education purposes. Finally, the involvement of private insurance network in health insurance conventions could help remove obstacles to trade in health services: the absence of health insurance portability. It is true indeed that regional cooperation is a potential solution to some healthcare shortages or a solution to mitigate some of the risks associated with increased trade.

The multilateral agreement is yet another instrument to enhance trade in healthcare services. In this context, GATS is an important forum. It allows enough flexibility for the participating countries to maintain regulations that are essential to the pursuit of important policy objectives, such as the protection of public health[33]. The main advantage of GATS commitment is to anchor domestic reforms into the international system. However, under GATS it is harder to reach substantial agreement among the

[33] GATS article VI is dedicated to domestic regulations.

participating countries. For example, Doha Round was initiated 13 years ago and little progress has been made in health services sector. The level of commitments in this sector remains low, with only 41 *per cent* of members with commitments. The health is dragging in the GATS negotiations with only five developing countries offering further liberalization of the sector. On the whole, the progress of liberalization of health trade is none too happy. It may be worthwhile to pursue bilateral and regional agreements to enhance trade in health sector.

10. Conclusions

Over the last two decades, healthcare services sector has grown rapidly under GATS. It is also increasingly acquiring new dimension with advancement in information and communication technology, liberalization in foreign investment, increased international mobility, and demographic dynamics. India is one of the prominent participants in this process. India's healthcare sector is estimated to have generated around $16 billion business in 2013 and it is growing by 20 *per cent* per annum. The growth will be generated by increasing demand for specialized and quality services backed up by rising life expectancy and income levels. Also, there is a growing awareness of the benefits of health insurance. Rising middle income group may lead to emergence of a strong health insurance market. The government expenditure on public health sector is highly inadequate; it is less than one *per cent* of the GDP. The share of public expenditure to total health expenditure is around 15 *per cent*, which illustrates the glaring inadequacy. For central and state governments the health sector remains a "non-priority." The healthcare facilities in rural areas are extremely poor. In urban areas, while the facilities are relatively better but their accessibility is beyond reach. The 12th Five Year Plan has set up a goal to improve conditions both in urban and rural areas by enhancing the plan outlay for the health sector.

At the global level, GATS aims to create conducive climate for trade in services by promoting efficiency and economic growth. It allows participating countries to make binding commitments to minimize trade barriers. As a result, healthcare trade has increased despite limited liberalization. The cost of medical treatment has considerably risen with hike in physician fees, new high cost technologies and sophisticated hospital facilities in developed world. This created opportunities for developing countries to set up facilities to enhance trade in all four modes. The GATS allows participating countries to decide in which sub-sector they wish to commit to the conditional rules. It further allows them to decide what degree of openness to trade they would like to maintain in committed sectors. It may be observed that the number of sectors committed by the members tend to be positively related to their level of economic development. Of the four sub-sectors, medical and dental services are heavily committed and followed by hospital services and services provided by nurses and mid-wives. Overall pattern indicates that many countries have opted for economically attractive to liberalize capital-intensive and skill-intensive sectors than labour-intensive activities. The commitments are more liberal

in mode 3 to overcome shortages to physical and human capital to enhance efficiency through FDI and supplies of skill. The fact is that trading conditions are more restrictive in mode 4, where the flow of medical personnel is involved. In mode 4 no participating member has undertaken full commitments (market access and national treatment). The commitments in other modes are subject to limitations and, in general, highly restrictive. The developing countries have made more market access commitments in medical and dental services and in other segments their commitments are less. The commitments do not have the same importance across all sectors and modes because of various domestic market rules and regulations.

There are certain limitations for cross-border trade in health services. These limitations emerge from both horizontal and sector specific measures. Horizontal limitations apply across all committed sectors which encompass the economy-wide policy concerns and objectives. These may be foreign exchange restrictions, restrictions on physical presence of foreign suppliers, foreign equity ceilings, restrictions on legal form of establishment (joint ventures) and restrictions on land acquisitions to name but a few. Relatively few limitations that apply under modes 1 and 2 (cross-border trade and consumption abroad) are sector-specific and they relate to non-portability of insurance entitlements. Horizontal limitations may include restrictions on foreign exchange availability, qualifications or standards. Mode 3(commercial presence) and mode 4 (presence of natural persons) have highest share of limited commitments. Under this mode there may be ceilings on a number of foreign employees. Specific national treatment limitations under mode 4 may relate to training and language requirements. Economic needs test (ENT) is also applied under modes 3 and 4 which is based on population density and number of existing facilities. These criteria are used by the developed countries. Under mode 3, restrictions are imposed to obtain technology and skill. The limitations do restrict flow of trade.

The future outlook appears bright for healthcare trade at the international level. The new telecommunication technologies have reduced the impact of geographical barriers. The government can influence the level and structure of trade with more liberal policies. This would enhance the mobility of the patients as well as medical personnel. The developing countries have some advantages, particularly in modes 2 and 4. The flip side is that skilled human capital migration may cause internal brain drain. At the same time, the skilled personnel mobility would bring remittances into the country. In this context the liberalization is a two-edged sword. The poor may not get access to medical facilities; this is a cause of concern. The GATS does not impose any constraints on terms and conditions under which the host country treats foreign patients. There is no legal provision in the GATS that would restrain government to take any policy decisions whether encouraging or restricting health trade. However, there is a need to develop a comprehensive framework to further liberalize trade under GATS.

Healthcare services are growing rapidly in India and are expected to grow by 15 *per cent* per annum during 2011–17. The market segment is dominated by hospital business. Other activities include pharmaceuticals, medical equipment, insurance and diagnosis.

The low cost of medical services has increased medical tourism. Besides, India has also emerged as a hub for clinical research. The private sector is a key player. There is a shift from communicable to lifestyle diseases due to high degree of urbanization. The demand for specialized medical services is on the rise. Healthcare activities spending on IT services have risen. The presence of best hospitals and skilled medical personnel has improved the position of India as a preferred destination for medical tourism. Inflow of medical tourists is expected to grow. Diversified medical services are offered which attracts medical tourist from the US, South Asia and Middle East. The private equity firms are showing keen interest to participate in medical services. The government offers tax concessions and reduced custom duties on drugs and equipment. The cost of surgical treatment is almost one-tenth of developed countries.

All modes are not totally free. There are no barriers on commercial presence of foreign firms. There is an absence of standard accreditation system. In modes 1 and 2, there are no national treatment and market access restrictions. In mode 3, foreign equity ceiling of 74 *per cent* is subject to FIPB approval. In mode 4, restrictions are put on foreign personnel on entry visa basis. India's trading partners have made the request to give full market access and national treatment commitments in modes 2 and 3. India has not yet agreed to the proposal. India has established comparative advantage in IT-enabled health services which makes the delivery of health services easy and has done well in exporting medical transcription, telephology and telediagnostic services, besides back-end services. India is a preferred destination for this outsourced work.

Advancement in technology has enabled India to promote healthcare tourism under mode 2. Medical tourism has become an important component of health services in India. It has built-up reputation in offering specialist medical and surgical interventions at competitive prices. The government has also given support to medical tourism through promotional measures. The commercial presence (mode 3) involves establishment of hospitals and other facilities. The FDI policy allows 100 *per cent* investment. Some of the developed countries have entered the healthcare market but the flow of investment is still low. What is needed is technology tie-ups and collaborative joint ventures, investment in medical equipment and training. So far, foreign investors have tapped 10 *per cent* of India's health market. Reputation and brand value are keys to accessing funds through private equity, foreign institutional investment and external borrowings. The impact of mode 3 raises concern regarding equity of access to healthcare. Foreign establishments could divert scarce human resources to treat rich foreign and domestic patients, which may also lead to internal brain drain and loss of public investment. The government ought to step in to mitigate this problem.

In mode 4, the movement of health personnel is more restricted and countries have adopted different policies towards migration. It leads to brain drain in developing countries. To deter the permanent outflow, some countries have adopted measures such as compulsory services to doctors in rural areas. India did adopt this policy but was not successful. Attraction to earn foreign exchange has taken precedence in many countries

including India. This has a positive effect on upgrading the skill. The migration of Indian and South African physicians is relatively high to the US and the UK. This is primarily due to higher financial gains and lack of job opportunities at home.

Exports under all four modes generate income for the national economy. Exports under mode 1 create investment opportunities and prevent domestic brain drain. Mode 2 has similar effects but it depends upon efforts of local enterprises. A properly designed strategy to export under mode 2 has the potential of improving access to better quality healthcare services to local population. Exports under mode 3 are similar to those in any other sector. Mode 4 is an important source of income. This may also help improve the healthcare system in the domestic economy. For modes 1 and 2 the main risk is the diversion of scarce human and financial resources dedicated to the treatment of foreign and affluent class of patients. This poses challenges to the government but such adverse effects could be minimized through cross-fertilization of public and private healthcare initiatives. A well regulated trade under this mode should contribute to preventing brain drain.

The healthcare market is highly competitive at the international level. India should assess its human and financial resources to design appropriate trade promotion strategies. India has a clear advantage in modes 2 and 4. However, supportive policy back-up is essential. We cannot compete effectively if our domestic health system is dysfunctional. An elaborate SWOT analysis should be undertaken. Since, reputation and quality are the main drivers of trade in healthcare, therefore, it is important to put in place a regulatory mechanism to avoid malpractices.

Trade promotion strategy is essential to gain market share abroad. The export strategy should be based on “niches and market prospects.” It is indeed necessary to choose the right market and nurture it. We need to learn from the experiences of countries such as Thailand, South Africa and Cuba. Unilateral reforms undertaken can be traded for market access from trading partners. Bilateral and regional agreements should be effectively used to gain market access. Multilateral agreements under GATS are the best instruments to enhance trade in health sector. So far the progress achieved is limited. India should make use of bilateral and regional agreements to promote trade in healthcare.

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Box 1: Scope and Structure of Commitment Under GATS

Specific Commitments on Market Access and National Treatment

A WTO Member must specify, for each sector in its service schedule, two types of legal obligations concerning, respectively, market access and national treatment. The granting of market access implies that the Member must refrain from operating any of six types of restrictions enumerated in Article XVI of GATS. These are mostly quota-related barriers that may limit, for example, the number of service providers (hospitals, doctors, etc.) or operations (number of beds, practices, etc.). Also preclude under this Article is the use of economic needs tests, e.g. conditioning of access approval on pre-established indicators such as the number of hospitals beds or practices per head of population. It is irrelevant in this context whether such measures are non-discriminatory (i.e. include national suppliers) or not. Article XVII defines national treatment as the absence of any measures that modify conditions of competition to the detriment of foreign services or service suppliers. Although the Article provides no further guidance, it is understood that a full commitment would prevent, for example, foreign-owned hospitals from being excluded from subsidies and other benefits under domestic policy schemes. Denial of market access and national treatment are not prohibited per se, but they must be listed in the schedule as limitations. Limitations applying to all scheduled sectors may be inscribed in a horizontal section to avoid repetition.

Commitments may vary across regions (states, provinces, etc.) within a scheduling country, and their entry into force may be postponed to a later date- i.e. pre-commitments are made.

Concept of services trade: four modes of supply

GATS significantly extends the traditional concept of cross-border trade by distinguishing four modes supply. For any sector included in the schedule, Members are held to specify the market access and national treatment obligations with regard to each of these modes. The definition is based on the territorial presence of supplier and consumer at the time a service is provided: both parties may reside in different territories (mode 1), the consumer may have moved abroad into supplies' country (mode 2), the supplier may have established a branch or subsidiary in the consumers territory (mode 3), or in case of natural persons the supplier may be physically present (mode 4). A typical example of mode trade, from the scheduling (importing) country's perspective, is that of foreign medical specialists sending advice, for instance, via the internet, to domestic doctors or hospitals. In contrast, under mode 2, residents travel abroad to obtain treatment in a foreign clinic of practice. Modes 3 and 4 would apply, respectively, to foreign investments in a country's hospital sector and the presence of foreign medical staff in these hospitals.

The borderline between modes is not always clear. For example, the definition of mode 2 under the Agreement does not explicitly require the consumer to move abroad physically, and the question has therefore arisen as to whether certain transactions carried out electronically would also fall under this mode.

Not all modes of supply are equally relevant in all sectors. For instance, while it is relatively easy to conceive of medical advice being provided via all four modes, the supply of nursing services does not seems to be possible under mode 1. Some Members have nevertheless inscribed a full commitment in such cases. Others have scheduled "unbound", adding in many instances that such suppliers are not considered to be technically feasible. It could thus be misleading to associate the absence of commitments with restrictive policy intensions.

Rules governing domestic regulation, other provisions and exemptions

Members are free to pursue domestic policies in the areas such as internal standards, licensing and qualifications to ensure the quality of a service. For example, private hospitals may be required to train more staff than needed for their own purposes, reserve a specified number of beds for needy patients, or operate emergency services in remote areas. To the extent that such requirements do not focus on, or otherwise discriminate against, foreign suppliers, they do fall under Article XVI and XVII and must not be scheduled.

Members are allowed to downgrade specific commitments through the modification of schedules. However, such modifications must be negotiated, possibly against compensation, with affected trading partners. In addition, gats make provision for the temporary suspension of commitments in the events of balance of payments problems. A general exception clause exempts Members from any obligations where this is required by overriding reasons of policy (protection of life and health etc.). These provisions have not been invoked to date.

GATS applies only to measures that (1) are taken by governments, at whatever level, or government mandated bodies, and (2) impinge on the supply of services through any of the four modes. It might thus prove impossible to prevent private operators from discriminating against the foreign suppliers (e.g. health insurers *vis-a-vis* foreign hospitals) or successfully challenge export related measures (e.g. incentives to attract foreign patients) if these have no discriminatory effects in sectors and modes subject to specific commitments.

Box 2: Seizing Opportunities in the UK: The Case of South Africa

The South African hospital companies have been successful in winning healthcare contracts abroad, and particularly with UK National Health Service (NHS). Netcare was established in the UK in 2001. The groups early project was to take part in helping to reduce waiting lists in selected areas: surgical centres in Greater Manchester and Stracathro cumulated 8,000 procedures in the past year; cataract centres delivered 20,000 procedures; walk in centres so far treated 30,000 patients. In 2006, Netcare led a consortium that acquired GHG, owner of the largest independent hospital operator BMI healthcare. This initiative grew the business by 89 *per cent*, transformed Netcare in one of the world's largest healthcare groups (119 hospitals and almost 11,000 beds), and gave netcare an outstanding platform for enhancing its relationships with NHS. As part of this contract, Netcare sends teams of medical personnel from South Africa for fixed term periods to the UK. These personnel are prohibited from employment with the NHS for a period of two years. Netcare has also piloted a project which allows nursing employees to work 4-6 weeks at a time in foreign countries. The objective is to expose South African doctors and nurses to opportunities in UK hospitals, and enable them to supplement their income with fixed term contracts abroad. Staff turnover was significantly reduced as a result, and group could retain skilled staff in South Africa.

South African healthcare groups are also targeting patients in Africa. Netcare has set up a network of 'referral agents' in a number of African countries to attract patients to the groups hospitals and doctors in South Africa. They also arrange transport, accommodation and recuperative care for these patients. Other competitors have established foreign patients' assistance centres in Johannesburg to assist with transport, visas, accommodation and medical treatment for patients and their families. They employ English, Portuguese and French speaking interpreters.

Source: www. Netcareuk.com

Box 3: A successful Government-led Strategy to Develop Medical Tourism: The Case of Cuba

The Cuban government views health promotion as an important part of its overall economic development strategy. Cuba has long been and remains a popular destination for medical tourism, attracting patients mostly from South America, North America, Europe and the Caribbean.

A number of specialized clinics in the country provide high quality care at competitive prices, and also function as medical school training centres for national and foreign students. Early in the process, Cuba's strategy focused on health spas and mineral springs, travellers' medical back-ups or emergency care, and supply of specialized medical care not available to people from the Caribbean and Latin America. It also aimed at service differentiation, focusing on treatment of certain kinds of skin diseases which are incurable in other countries, and the development of new procedures and drugs. The trade promotion strategy had underlying objectives: the employment of qualified health service providers, the use of excess capacity to make medical and pharmaceutical products, and the use of trade resources to invest in healthcare infrastructure and public health system.

Cuba's success in health services trade can be attributed to foresight and long-term planning of Ministry of health in collaboration with other institutions in the areas of tourism, migration, commerce and industry. An important factor in this success has been the establishment of a state-run trading company SERVIMED, hosted by the Ministry of Health, which supported the marketing and promotion of Cuban health services to overseas. SERVIMED together with tour operators and travel agents in target markets, prepares health packages that include air travel (Cuba's national airline) for patients and accompanying, companion personnel from arrival at airport. It also includes treatment, repatriation and post-surgery controls. SERVIMED relies on a network of 35 clinics and 42 resorts in Cuba, private clinics overseas and commercial representation in target markets like Argentina, Brazil, Chile, Mexico and Venezuela.

Cuba offers free or subsidised care to patients from some countries, essentially in Africa and Latin America. Cuba also concluded bilateral agreements with social security institutions in several Latin American and Caribbean countries to facilitate trade. In addition, the government has provided for easy payment facilities with credit cards any convertible currency. Two smaller agencies have also been established in health tourism to provide rehabilitative and convalescent health services through resorts and spas following the SERVIMED model.

Source: Blouin, Chantal, Nick Drager and Richard Smith (eds.), Trade and Health Workbook, University of Ottawa, 2007.

Box 4: SWOT Analysis of Health Services Trade: India

Strengths	*Weaknesses*
1. Lower cost of health services compare to competitors in the US, Europe, Thailand and Singapore. Potentially huge market with growing urban middle class Population. Growing private hospital sector aiming to attract health tourists.	1. No reliable statistics and no sectoral strategy at the governmental level. Excessive dependency on imported drugs. Support system from R & D is weak.

2. Cultural heritage, diversity of landscape and tourist attractions.	2. Only individual initiatives and difficulty to finance large scale projects. Not able to meet foreign patients food taste. Cleanliness is the problem in reputed hospitals.
3. Geographical proximity to neighbouring countries such as Bangladesh, Nepal, Pakistan and gulf countries. Well-developed tourism facilities.	3. Insufficient number of specialist doctors in certain areas and key health personnel's (as compared to Thailand and Singapore.
4. Availability of large size hospitals and specialist doctors to obtain best medical advice and treatment. High levels of patient's satisfaction. Easily available post treatment services.	4. Late in the race in modes 1, 2 and 3. Absence of a clear legal framework for medical tourism that could result in malpractices. Relatively slow in introducing new technology and treatment practices.
5. Qualification and reputation of doctors or hospitals gained through training or exchange with foreign universities and medical institutions and participation to Networks with hospitals and research centres abroad.	5. Strict nationality requirements that exclude foreigners to practice. Delivering healthcare is costly. Limited access to life saving medicines. A normal middle-class family cannot afford the speciality healthcare.
Opportunities	*Threats*
1. Booming market of seniors and retirees (Ageing population) and paramedical services.	1. Protectionist reactions of the US and European countries.
2. Growing market for cosmetic surgery, Thalassotherapy and other forms of health Tourism at large.	2. Fast increasing health service facilities in oil-rich economies. Competition from emerging countries In Asia and Africa.
3. Growing market of dental surgery and Prosthesis. Major pharmaceutical companies choosing India as the preferred hub for their global R&D and Manufacturing operations. The growth of middle class Has resulted in fast changing life styles in urban and some extent in rural areas. This opens a huge market for life style-oriented drugs.	3. Cost of discovering new drugs is very high. Primary health infrastructure is the responsibility of the Government, if it ignores the problems would be plenty.
4. Specialization in some advanced surgical Procedures to treat patients particularly in Cardiology, cancer, epidemiology and knee Replacement.	4. Loss of human resources through permanent establishment abroad of key health personnel.
5. Off shoring of certain medical services- Use of the existing infrastructure.	--
6. Increasing need for medical training in the Region: Bangladesh and Nepal.	--

Box 5: Case Study: Remedying Health Shortages through Trade under Mode 3, India

The Indian healthcare delivery market is one of the largest service sectors in the economy (an estimated output of $18.7 billion and 4 million jobs). It has grown at about 13 *per cent* annually in recent years. Nonetheless, the performance of Indian health sector still falls well below international benchmarks, including in comparable developing countries, and needs to scale-up considerably in terms of the availability and quality of physical infrastructure and human resources. Given the growing demand, the significant and growing role of the private sector in healthcare delivery and expenditure (75 *per cent* of total healthcare expenditure , with public health expenditure accounting for less than 1 *per cent* of gross domestic product , compared with an average 3 *per cent* in developing countries and 5 *per cent* developed countries), and the huge investment needs, there has been increasing interest among foreign providers and non-resident Indians in the advantage of entering the Indian healthcare market.

Indian foreign investment policy is liberal for hospitals and foreign investors do not face major regulatory hurdles on entering the Indian market. Some 90 FDI projects in hospitals and diagnostic centres were approved in 2000-2006, for total of $53 million and covering developed countries (Australia, Canada, the UK, and the US) and developing countries Malaysia, Saudi Arabia, Singapore and the UAE). This list, however, does not include the well-known corporate hospitals in the country (the identified projects involved small or mid-sized hospitals, within $1-2 million investment range), and FDI is sometimes received only for routing purposes (for example, a promoter company based in Mauritius invests in India for tax benefits only). Overall it appears that foreign investment in Indian hospitals remains limited, notwithstanding the liberal regulatory framework. According to one estimate, foreign investors have tapped only 10 *per cent* of the Indian healthcare market.

It is perceived that there will be an increased inflow of foreign funds into India's hospital sector in the near future and major expansion plans by existing and prospective corporate providers. These plans include huge medical "cities" with large super specialized or multispecialty hospitals and integrated healthcare services, as well as the scaling- up of existing operations and the establishment of new hospitals around the country. While there are several prospective providers in the Indian hospital market (for example, Dubai, UAE, Singapore, and the World Bank), the main source countries for FDI are anticipated to remain Australia, Singapore, the UK, and the US. It also recognized that large investments ($100 million or more) can be implemented only through investments in corporate hospitals (chains) and that it would be some time before India can replicate the developed country model of large corporate chain hospitals given that average size of hospitals in the developed countries is several times that of some of the largest hospitals in India (10000 versus 2000 beds, for example). Reputation and brand value are key to accessing funds through private equity, foreign institutional investors or external commercial borrowing. Hence, new hospital projects would have to rely primarily on domestic debt and would not use much foreign capital inflows except through individual non-resident investors or through group of small investors.

Additional analysis of the reasons for the limited presence of foreign investment in Indian hospitals reveals a number of external and domestic constraints. They include limits to the number of foreign providers, the many competing investment destinations, and the fact that there are difficulties for foreign providers in entering independently and in maintaining joint ventures. In addition gestation period in hospital project is long, and investors may not be willing to make such a long-term commitment. More important, various domestic factors adversely affects the returns to investment in hospitals in India: high initial establishment costs (for example, prohibitive cost of

procuring land), low insurance penetration in the country (that is, smaller consumer base for corporate hospitals), restrictions on medical training and providers (that is, supply bottleneck and adverse effects on quality of the personnel), the high cost of importing medical devices (and a limited domestic manufacturing capacity in this area), other regulatory deficiencies (for example, lack of standardization, proper governance and quality assurance), and the lack of policy clarity and priority with regard to the healthcare sector. Thus, the Indian experience shows that a liberal foreign investment policy is not sufficient to secure strong foreign participation in the hospital sector.

An examination of the impact of foreign investment in hospitals in India reveals the following:

- They are likely to employ a higher ratio of technology to personnel in healthcare delivery and thus involve a substitution of human resources with technology and equipment.
- They are likely to invest much more in medical equipment and devices and also in specialized and experienced medical personnel, thus involving focus on high-end human resources and high-end technology.
- They tend to have better systems and processes and to use information technology, which creates a more efficient and professional work environment.
- They pay staff more at all levels and particularly to senor medical personnel.
- They are more likely to attract foreign doctors and specialists than other hospitals.
- They are more likely to be accredited domestically and internationally.
- Their costs are likely to be comparable with or slightly higher than those of large hospitals that do not receive foreign funds.
- They tend to be higher than the costs of small and medium nursing homes and hospitals mainly because of their greater capital intensity and their focus on quality systems and processes on hygiene.
- There could be positive externalities in other areas, some of which could also drive foreign investments in hospitals.
- The hospitals could draw away medical personnel at all levels from other hospitals and could adversely impact the quality of medical personnel available to competing institutions.
- There is likely to be closing of substandard institutions, some consolidation of the hospital sector, and appearance of new arrangements between larger and smaller players as the healthcare sector evolves.
- There could be greater segmentation between the private and public sectors, with more resource flows towards the latter and greater wage disparity, unless the innovative arrangements emerge between the two sectors and reforms are undertaken in public sector hospitals.

While there are clearly concerns about the implications for equity, affordability and market segmentation associated with the growing presence of foreign investors in the India's hospital sector, it is evident that the root cause lies in structural problems that already exist in the healthcare sector, such as lack of affordable health insurance schemes or inappropriate regulations governing medical education providers. The benefits of foreign investment in hospitals are therefore likely to outweigh these adverse effects, and the solution lies not in restricting foreign investment, but in strengthening the public healthcare system, in amending certain regulations that affect all providers, and introducing schemes that provide affordable access to healthcare for all.

Source: Chanda, Rupa (2007)

Box 6: Barriers and challenges (both perceived and actual) Barriers in source country (India) Barriers in destination country

Push	*Pull*
- Complications in emigration procedures (particularly obtaining longer-term visas) - Financial requirements - Fraudulent agencies particularly for nurses migrating to Gulf Countries - Slow processing of application form - Poor access to credible information (like examination process)	*Perceived* - Security concerns particularly for nurses - Adjusting to a new culture - Lack of awareness of the work pattern (different norms of patient interaction and different systems of working) - Uninformed about the protocols and the guidelines - Linguistic problem in non-English speaking countries (also adjusting to the accent in English speaking countries) - Difficulty in obtaining Visa - Cost of living *Actual* - Subtle discrimination against expatriates, especially in the allocation of higher-level posts - Integrating completely with the receiving country's culture - Concerns regarding bringing up children in a different culture

Source: Public Health Foundation of India, New Delhi, April 2011

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