# Liberalizing Health Services under the SAARC Agreement on Trade in Services (SATIS): Implications for Nepal

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## Introduction

Extending the liberalization momentum beyond trade in merchandise goods under the Agreement on South Asian Free Trade Area (SAFTA), Member States of the South Asian Association for Regional Cooperation (SAARC) are moving on to liberalize trade in services within the region. Accordingly, they signed the SAARC Agreement on Trade in Services (SATIS) in the 16th SAARC Summit held in April 2010 in Thimpu, Bhutan. All SAARC countries which are members of the World Trade Organization (WTO) have made commitments under the General Agreement on Trade in Services (GATS) of the WTO. They have agreed that their commitments under SATIS will be additional to their commitments under GATS.

SAARC countries now need to prepare themselves to negotiate their schedules of specific commitments on the different sectors covered by the Agreement, including health services. In that context, this study highlights the existing status of Nepal's trade in health services and attempts to identify potential sub-sectors to be considered for liberalization. It also raises some of the issues and risks that need to be considered while liberalizing trade in health services.

The study is based on the review of existing literature, secondary data and information, and primary data and information obtained through in-depth interviews with select stakeholders (Annex 1).

## Overview of Nepal's health sector

With a per capita gross domestic product (GDP) of US$427 (current US$) in 2009[3], Nepal is the poorest country in South Asia. According to the World Bank, in purchasing power parity terms, 55.1 percent of the total population in Nepal lives below the income poverty line of US$1.25 a day and 77.6 percent lives below the income poverty line of US$2 a day. In 2007, the Human Development Index (HDI) value that the country scored was 0.553, ranking it 144 of all countries in the world. In comparison to other South Asian countries, this rank was only above that of Afghanistan and Bangladesh. However, as indicated by the life expectancy at birth component of the HDI, Nepal seems to have made considerable progress in the health sector. Nepal's life expectancy at birth in 2007 was 66.3 years, which was below only that of the Maldives and Sri Lanka (UNDP 2009a).

As shown in Table 1, over the past two decades, although public expenditure on health in Nepal has not seen substantial changes, both in terms of percentage of total budget and GDP, the outcomes in terms of infant and under-five mortality rates have been quite impressive. Nepal Millennium Development Goals Progress Report 2010 also corroborates these findings. According to the report, infant mortality rate and under-five mortality rate have reduced from 108 and 162 per 1,000 live births respectively in the base year 1990 to 41 and 50 respectively in 2010. Similarly, maternal mortality ratio has decreased from 850 deaths per 100,000 live births in 1990 to 229 in 2010, and the percentage of births attended by skilled birth attendants has increased from 7 percent to 28.8 percent. Hence, according to the report, of the three goals[4] directly related to health, except Goal 5B, the other goals are either likely or potentially likely to be achieved by 2015.

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[3] World Development Indicators 2010, accessed from www.data.worldbank.org

[4] Goal 4: Reduce under-five mortality by two-thirds; Goal 5: Improve maternal health (of which, Goal 5A: Reduce the maternal mortality ratio by three-quarters, and Goal 5B: Achieve universal access to reproductive health); and Goal 6: Combat HIV/AIDS, malaria and other diseases (of which, Goal 6A: Halt and reverse the spread of HIV/AIDS, Goal 6B: Achieve universal access to treatment for HIV/AIDS for all those who need it, and Goal 6C: Halt and reverse the incidence of malaria and other major diseases).

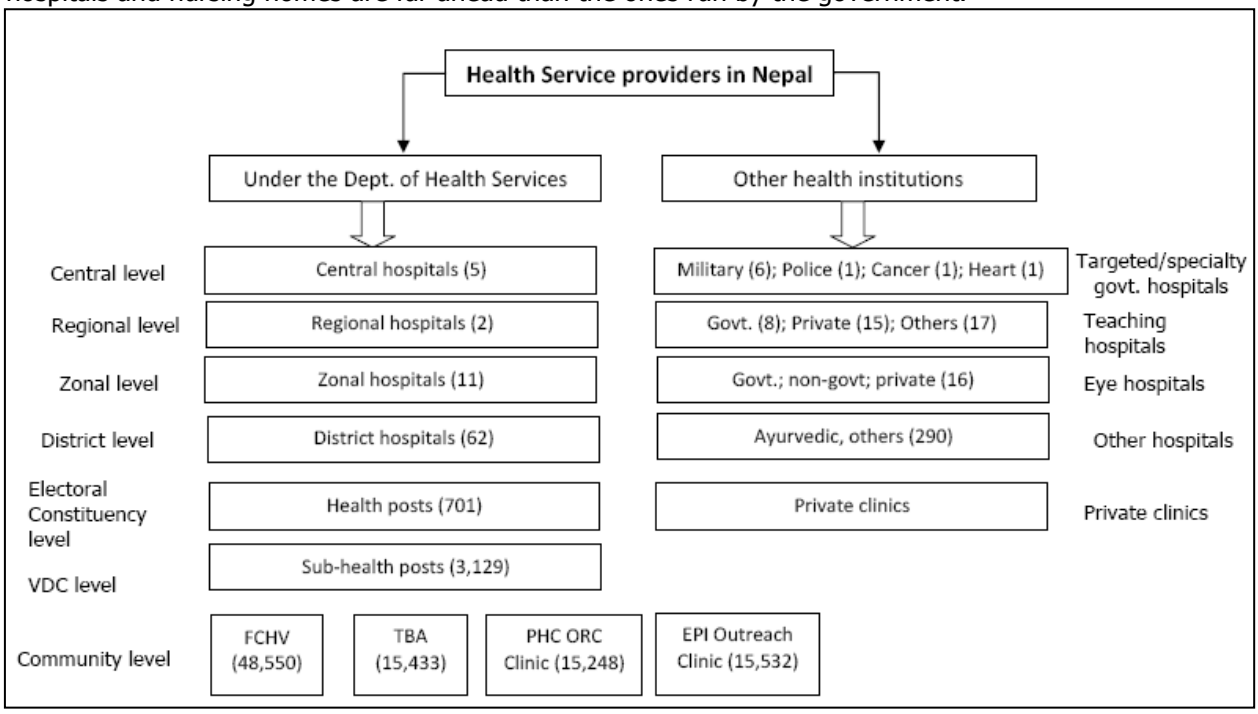
But along with such progress, inequality exists between urban and rural areas, development regions and ecological regions (Table 2). Inequality in health outcomes is also evident from Table 3 which shows early childhood mortality rates by socio-economic characteristics. Therefore, challenges remain in the fair distribution of adequate health services to all people irrespective of their socio-economic status and ecological and development regions.

***Health services delivery***

Health services in Nepal are provided by the public and private sectors as well as non-profit non-governmental organizations (NGOs) such as missions, Lions clubs and different associations. As shown in the chart below, public sector health service providers have a hierarchical structure under the Department of Health Services. Although, from an institutional perspective, the first contact point for basic health services is the sub-health posts, in reality, they also serve as referral centres for female community health volunteers (FCHVs), traditional birth attendants (TBAs) and primary health centres (PHCs). Each level above the other up to the central level runs as the referral centre in the same manner.

Besides the different types of hospitals that fall directly under the Department of Health Services, there are also targeted/specialty hospitals, teaching hospitals, eye hospitals and other hospitals, some run by the public sector, some by the private sector, and some by both. As the chart below also indicates, the roles of private and non-governmental health service providers in providing health services are limited mainly to providing secondary- and tertiary-level services; it is the public sector, which provides primary health services along with specialized health services to the masses.

Hence, the health care system is mostly run by the government. However, in terms of efficiency, private hospitals and nursing homes are far ahead than the ones run by the government.




Source: SAWTEE (2008), WHO SEARO (2010) and RTI International (2010)

Apart from the modern system of health delivery in the country, the traditional system is also prevalent, although not on a very large scale. Ayurveda is the most commonly practiced traditional health system in Nepal. The Department of Ayurveda runs one central-level hospital with specialized services with a capacity of 100 beds. Similarly, it runs a 30-bed regional hospital, 14 zonal Ayurvedic dispensaries, 59

district Ayurveda health centres and 214 rural dispensaries. Regarding human resources, currently, there are around 1,300 formally trained Ayurveda practitioners in the country. This includes 239 Ayurveda Doctors (graduates/post-graduates), 754 Ayurveda Health Assistants (with certificate-level or equivalent education), and 308 Ayurveda Health Workers (with training of at least 15 months)[5]. Homeopathic and Unani medicines are also practiced in the country, but on a scale even smaller than that of Ayurveda medicine.

### *Private sector participation in health services*

Until about two decades earlier, the government was the main player in the health sector in Nepal. Participation of the private sector in health services started with the economic liberalization policy that the government adopted in the early 1990s. In 1991, the government introduced the National Health Policy which opened the door to the private sector for providing health services in Nepal. Subsequently, the Foreign Investment and Technology Transfer Act that was promulgated in 1992 opened the health sector, along with many other sectors, to foreign investment. Since then, the country has witnessed a proliferation of private domestic health care providers and also some inward foreign direct investment in the sector, mainly from India.

As of 2008, the number of beds at private hospitals, including private medical colleges, is nearly double that of public hospitals (Table 4). This illustrates the dominant role played by the private sector in the delivery of curative health services in Nepal.

Participation of the private sector in providing health services in Nepal has resulted in easy access to health services mainly in urban areas. Also, since the provision of health services by the private sector is costlier than that provided by the public sector, it has been beneficial to the urban population having the means to access such services. A beneficial effect of private sector participation in the health sector has been that different diagnostic and curative services, for which patients had to travel abroad, are now available in Nepal, and at relatively lower costs. Another beneficial effect is also that the private sector has helped share the burden of the government in providing health services, thus relieving the latter, to a certain extent, of budgetary constraints.

### *Health expenditure*

Nepal's per capita health expenditure in 2007 was just around US$20, whereas in case of other South Asian countries it ranged from about US$15 for Bangladesh to US$342 for the Maldives. [6] There is discrepancy in data on public health expenditure in Nepal. For example, Table 1 above shows that public health expenditure for the period 2003-2007 was in the tune of 1 percent of GDP, whereas the World Development Indicators of the World Bank shows that it was above 1 percent throughout the period 2003-2007. Nevertheless, as Figure 1 below illustrates, what is certain is that private health expenditure in Nepal has been well above public health expenditure.

### *Human resource*

According to *Economic Survey 2009/10*, until fiscal year (FY) 2009/10, Nepal Medical Council (NMC)[7] had 9,610 registered temporary and permanent doctors, 4,357 registered non-Nepali doctors, and 9,979 registered doctors on probation. The number of medical specialists, at 1,634, is even less (Table 5).

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[5] http://www.ayurnepal.com/en/present-situation-of-ayurveda.html

[6] World Development Indicators 2010, accessed from www.data.worldbank.org

[7] NMC registers doctors completing medical degree or diploma courses from within and outside Nepal. It issues approval for opening and operation of medical and dental colleges. It also approves admissions and running of institutions established for medical education.

Consequently, Nepal has only 2.1 physicians and 4.6 nurses and midwives respectively for every 10,000 people. Regional averages of these figures for Southeast Asia are 5.1 and 11.5 respectively.[8]

Similarly, in FY 2008/09, eligibility certificates to study in foreign countries were awarded to 1,136 medical students. However, the low rate of return of Nepali medical professionals going abroad for studies has been an issue of serious concern.

### Potential in trade of healthcare services

Nepal has comparative advantage in the export of certain healthcare services (Box 1). Healthcare services are generally cheaper in Nepal because of low labour costs. However, lack of information and communication technology-related infrastructure, incoherence between private and public health institutions, limited choice of services, and political instability are restraining Nepal from realizing its relative competitiveness in health services.

**Box 1: Case of Tilganga Eye Centre**

The Tilganga Eye Centre (TEC) is not only a well-established and esteemed institution within Nepal. It has gained recognition and popularity even in the international arena with its quality services. The services of the Centre are recognized well even in the competitive international market. It has gained public popularity since it extended its eye care facility in 1994, and consequently there has been an increasing flow of patients in recent years.

Exports of eye lenses produced by the TEC to Australia, Europe, Latin America and other countries provide much of Tilganga's income. In addition to the six divisions (clinical facility, education and training department, outreach unit, eye bank, manufacturing facility and research unit) incorporated in the TEC, it is also the implementing body of the Nepal Eye Programme. The organization says its focus is always on affordability and uncompromised quality. Himalayan Cataract Project (HCP), USA and The Fred Hollows Foundation (FHF) International are the international partners of this non-profit community organization, which provides subsidized and even free services to consumers. Unlike some eye hospitals in the Tarai belt, the TEC has no price discrimination policy for Nepali and non-Nepali patients.

Recorded data show a declining trend of non-Nepali service consumers but the reality is not so, according to a record keeper at the organization. The reason is that increasing numbers of non-Nepali patients who visit the institution mention an address in Nepal where their relatives or acquaintances live or where they have been living temporarily. The TEC administration accepts that at present the supply of the services at the institution is limited relative to the demand within the country and hence no specific additional initiatives have been taken for the export of the services.

The TEC is also playing a leading role in extending services through outreach programmes. It conducts 51 percent of the total cataract surgeries in Outreach Microsurgical Eye Clinics (OMECs) in Nepal. Further, the Centre assists and supports other institutions inside and outside Nepal to conduct their own outreach programmes through the supply of intraocular lenses and provides professional expertise (Table 6). As per the need, the TEC also provides training to surgeons and assistants from other countries and is directly involved in performing operations in an effort to extend services in neighbouring countries.

A large percentage of surgeries are done in bordering areas of China and India, namely Tibet and Sikkim/Kalimpong. The number of surgeries is also significantly high in North Korea, though it is not economically integrated with Nepal. Similarly, Bangladesh and Bhutan are also benefiting from the TEC initiatives to extend services to other countries through OMECs. Financial support for operating these outreach clinics, however, are provided by different donors ranging from individuals to international institutions.

*Adapted from SAWTEE (2008)*

Nepal has export potential in traditional health services like Ayurveda (Maskey et al. 2010). There is potential to export traditional health services through Mode 2 because of the climatic diversity and pleasant climate of places like Kathmandu. The study conducted by Maskey et al. (2010) also identifies

[8] Nepal: Health Profile, accessed from www.searo.who.int

the potential of health tourism in Nepal. The huge natural endowment and various tropical belts suitable for production of medicinal plants are also source of comparative advantage in traditional health services.

The Department of Ayurveda helps in the promotion of Ayurvedic health services in Nepal. It was established in order to promote traditional medical practices like Ayurveda, Homeopathy, Yunani, and natural healing. In FY 2008/09, 900,217 people, including 166,540 children, were provided these services. (MoF, GoN 2010).

**Status of trade in health services**

Nepal's experience in health services trade has been very limited. Most of Nepal's trade in health services is limited to India. Due to its geographic and cultural proximity, Nepali people have been going to India for medical treatments that are either not delivered in Nepal or are delayed due to low supply amid high demand for healthcare-related services. Many Indian citizens along the border areas also come to Nepal for different medical treatments. Furthermore, for medical education, India and Bangladesh have been two of the most popular destinations in SAARC for Nepali students. Due to high informal transaction and free flow of people along the border region, it is difficult to quantify the exact volume of Nepal's trade in health services with India. With regard to health services trade beyond SAARC region, few Nepali patients avail themselves of high-end medical treatment in foreign countries, mainly in Southeast Asian countries like Singapore and Thailand.

According to the definition of the GATS of the WTO, services trade occur through four modes. Hence, the section below discusses trade in health services in Nepal in these different modes separately.

***Mode 1: Cross-border supply***

Cross border supply of health services include shipment of laboratory samples, diagnosis, and clinical consultation via traditional mail channels, as well as electronic delivery of health services, such as diagnosis, second opinions, and consultations. Indian hospitals are providing telepathological services through this mode to hospitals in Nepal (Chanda 2001). In-depth interviews with stakeholders also revealed that medical laboratories in Nepal are not fully equipped to conduct specialized tests. Therefore, samples to conduct such tests are sent to India. In border areas, the trend of sending specimens to India even for normal tests is widely prevalent.

Lately, Nepal has also started practising telemedicine. Although a bulk of such services takes place between rural and urban areas of the country, some hospitals in Kathmandu have also been practising it between them and universities and hospitals in other countries, including India. Such practices are being conducted on both commercial and non-commercial basis. Some private hospitals are engaged in for-fee telemedicine consultations, whereas some NGO hospitals are engaged in non-commercial telemedicine services.

In terms of exports from Nepal, a few hospitals and some specialized doctors are involved in supplying services through Mode 1. However, the mechanism of supply is not systematic and not institutionalized. The volume of services is primarily determined by individual connections with hospitals and doctors. Also, due to lack of adequate communications infrastructure and absence of proper coordination and integration with foreign health service providers, problems remain in the areas of quality assurance, reliability, and competitive cost structure (SAWTEE 2008). Due to the inadequacy of advanced technology and limited experience in telemedicine services, health service exports through Mode 1 are less relevant than through other modes in Nepal.

### *Mode 2: Consumption abroad*

Figures on health services trade occurring through formal channels show that Nepal has continuously experienced a huge trade deficit in this sector. As per the data available from the Nepal Rastra Bank (NRB)—the Central Bank of Nepal—Nepal's foreign exchange earnings from medical treatment were about US$830,000 and US$1.6 million in 2007 and 2008 respectively, while the corresponding figures for expenses on medical treatment were US$18.14 million and US$18.93 million. These figures, however, are grossly underestimated since much of the trade in health services in the bordering areas of Nepal and India are not accounted for. Nepali and Indian citizens do not require visas to enter into one another's country. Moreover, although illegal, Indian currencies are accepted quite easily in Nepal. Also, illegal foreign exchange trade is rampant in most of the bordering areas. As a result, much of the trade, including trade in health services, occurs through informal channels. Moreover, many Indian patients coming to Nepal for medical treatment and having relatives in Nepal cite their relatives' address in Nepal, rather than their own address in India. The same could be true of Nepali patients going to India. This also causes underestimation of trade of health services.

As per recorded data, in 2009, 8,774 Nepalis went to foreign countries by air for medical treatment (MoTCA, GoN 2010). According to tourism statistics of India, of the 87,487 Nepalis who visited India in 2009, about 1,662 had gone there for medical treatment (MoT, GoI 2010). This is again a gross underestimation. The report mentions that 98.9 percent of the 87,487 Nepalis who visited India in 2009 travelled by air and the remaining 1.1 percent by land. While the figure for the number of Nepalis travelling by air could be true, it is not so in case of those crossing the border via land routes. As mentioned earlier, due to open border between the two countries, there is no mechanism in place to keep data of people crossing the border via land routes. Consequently, thousands of Nepalis who go to India every day by land are not accounted for.

Many Indian patients visit Nepal exclusively for eye treatment due to the quality of service they receive at low costs. According to Dr Chet Raj Pant, Member of National Planning Commission of the Government of Nepal, almost 60 percent of eye patients who receive treatment in hospitals in the terai region of the country (southern Nepal bordering India) are of Indian origin. As a result, even public sector eye hospitals of that region are almost self-sufficient and do not require funding from the government. Field survey carried out by SAWTEE in 2008 also identified eye care services as one area in which Nepal has comparative advantage.

SAWTEE (2008) states that health services in Nepal are cheaper compared to those in the bordering Indian market at least for two reasons: i) the exchange rate of Nepali currency vis-à-vis Indian currency (NRs. 1.6=INR 1), and ii) lower travel, waiting and treatment time for receiving health services. However, information channels for foreign consumers are extremely limited. They receive information on health services available in Nepal mainly from their family members and past visitors. Lack of appropriate information channels for attracting foreign consumers is also a barrier to services exports from Nepal via Mode 2.

### *Mode 3: Commercial presence*

There are a few hospitals, nursing homes, diagnostic centres, medical colleges cum hospitals, etc. established with foreign investment that are registered with the Department of Industry under the Ministry of Industry, Government of Nepal. Until the end of the last fiscal year (16 July 2010), the total authorized capital of these ventures was about NRs. 7.9 billion (equivalent to US$106 million), of which the share of foreign investment was about NRs. 4.5 billion (equivalent to US$60.7 million).[9] There have also been some inflows of FDI in areas such as dental care, nursing education, etc. which are not covered

[9] Author's calculation based on raw data available from the Department of Industry, Ministry of Industry, Government of Nepal. The exchange rate in July 2010 was US$1 = NRs. 74.43

by these figures. Also, not all of these FDI projects are in operation. While some are in operation, others have been either issued licences or approved or are under construction. Interestingly, inflow of FDI in the health care sector in Nepal has not only been in the area of modern medicine, but also in the area of traditional medicine like Ayurveda and Acupuncture, in which Nepal has comparative advantage.

### *Mode 4: Movement of natural persons*

Nepal has the potential to produce skilled health professionals and export to other countries. Specific data on the movement of skilled health professionals from Nepal to other countries is not available. However, given that there is huge demand and liberal regime for the entry of such professionals in developed countries, Nepali health professionals have been on the move. A significant rise in the number of private institutions providing medical education in Nepal has also helped in the export of health professionals to developed countries.

A few Nepali doctors have also been providing their services in hospitals in foreign lands on a temporary basis. For example, doctors of Tilganga Eye Centre frequently visit other countries, mainly in East Asia and South Asia, to provide their services. However, the concern and debate regarding exports of health services via Mode 4 relates to the permanent migration of skilled health professionals, mainly doctors and nurses, to developed countries. Since these professionals are in short supply in the exporting country itself, their permanent migration to developed countries has been a matter of serious concern.

## Policies, plans and strategies related to health

Since the economy was opened up in the 1990s, the Government of Nepal has adopted different plans, policies and strategies in the area of health. All of these plans, policies and strategies have emphasized, among others, the importance of public-private partnerships in providing health services in Nepal, and have encouraged the involvement of the private sector. Some of the major plans, policies and strategies are discussed below.

### *National Health Policy 1991*

The National Health Policy adopted in 1991 was the first health policy following the liberalization of the Nepali economy. The main objective of the policy is to extend primary healthcare to the rural population "so that they benefit from medical facilities and trained health care providers." Soon after the adoption of the policy, various plans were formulated for the promotion of preventive, promotive, curative, basic primary, Ayurvedic and traditional health services. Traditional health systems such as Unani, Homeopathy and Naturopathy were encouraged.

The policy has made commitments to encourage research on healthcare services, ensure drug supply by increasing domestic production and upgrading the quality of essential drugs, enhance human resources, and decentralize healthcare provisions. In terms of the participation of the private sector in providing healthcare services, the policy states that the Ministry of Health will coordinate the activities with the private sector, NGOs and non-health sectors of the government, and that the private sector and NGOs will be encouraged to provide health services.

### *Second Long Term Health Plan 1997-2017*

With an aim to improve health of the Nepali people, especially of the deprived ones, the Government of Nepal rolled out a 20-year long Second Long Term Health Plan (SLTHP) in 1997. Among others, this plan aims to provide cost-effective public health and curative services in all the districts, and develop appropriate roles for NGOs, and public and private sectors in providing and financing health services. It has 17 targets aimed at improving delivery and results of healthcare in Nepal. While the health policy of 1991 had no specific targets mentioned, the SLTHP mentioned specific targets for infant mortality, under-

five mortality, total fertility rate, life expectancy, crude birth rate, crude death rate, maternal mortality, contraceptive prevalence, and essential healthcare services, among others. One of the objectives of the SLTHP is to develop appropriate roles for NGOs, and the public and private sectors in providing and financing health services.

### *3-year Plan 2007-2010*

The 3-year Plan 2007-2010 is the newest plan introduced after the promulgation of the interim constitution in Nepal in 2007. Identifying a number of challenges in the health sector, this plan mentions that the increasing involvement of the private sector is one of the opportunities in meeting the health-related targets set by the government earlier. The government plans to upgrade existing health posts and human resources, and encourage private as well as the NGO sectors to actively engage in the health sector. Furthermore, it aims to give priority to disadvantaged groups. It specifies the promotion of Ayurvedic and alternative medicinal practices, and the expansion of telemedicine services in districts with internet facilities.

### *Trade Policy 2009*

The Government of Nepal introduced a new trade policy in 2009 replacing the earlier one. One of the working policies of the new trade policy states that "Service sectors such as tourism, education *and health* and information technology will be developed and promoted as the special thrust area" (emphasis added). Accordingly, in the Board of Trade that the policy has envisioned to constitute at the central level with participation of the private sector to provide necessary assistance in the policy formulation for trade promotion, trade facilitation, policy monitoring and inter-agency coordination, the Secretary at the Ministry of Health and Population would also be a member.

### *Nepal Trade Integration Strategy 2010*

The recently launched Nepal Trade Integration Strategy (NTIS) 2010 has identified health services as one of the 19 sectors having export potential. However, it also notes that the overall export potential and socio-economic impact of the health sector as of now is low. But given the fact that health services are a fast-growing business worldwide, Nepal has potential to export health services in the longer term.

A SWOT analysis of Nepal's health services trade and suggested actions to be taken, as mentioned in NTIS 2010, is presented in box 2 below.

**Box 2: SWOT analysis of health services**

| **Strengths** | **Weaknesses** |
|---|---|
| • Enjoyable and suitable climatic condition<br>• Low costs in some areas<br>• Availability of unique traditional Ayurvedic medicines<br>• Well-equipped operating rooms and laboratories in some hospitals, some of which are ISO 9001 certified<br>• Significant FDI from Indian healthcare providers | • Overall health system is underdeveloped<br>• Lack of a clear strategy supported by a clear policy<br>• Shortage of doctors and nurses in the country, also due to out-migration<br>• Unreliable energy supply and other infrastructural constraints<br>• Lack of air ambulance<br>• No international recognition of healthcare facilities as assurance of quality healthcare |
| **Opportunities** | **Threats** |
| • Establishment of more medical colleges, including for foreign students<br>• Linking tourism to health tourism<br>• Potential to attract patients towards Ayurvedic medicines | • Political instability<br>• Brain drain of skilled human resources |
| **Actions to be taken** | |

- Improve statistical data through surveys of foreigners that received, or are receiving medical services in the country
- Undertake detailed study of export potential and attractive markets
- Revise existing health-related laws and introduce new ones required to promote health services in Nepal, including the export of this service
- Strengthen training of medical personnel in Nepal, including easing entry of foreign medical practitioners to support improved medical education
- Encourage procurement of new technology, equipment and medicines for Ayurvedic medical services

Source: MoCS, GoN (2010)

### Level and extent of commitments and offers in health services under GATS

Nepal became the 147th member of the WTO on 23 April 2004. It is the first least-developed country (LDC) to have become a member of the WTO by accession. As is the case with countries seeking membership through accession, Nepal was asked to make more liberal commitments than the incumbent members at the time of WTO accession. Consequently, Nepal's overall commitments in services trade, including health services trade, are more liberal than those of other South Asian countries. The horizontal commitments made by Nepal in the services sector, and the specific commitments it has made in the health services sector are discussed below.

#### *Horizontal commitments*

Under the GATS, Nepal has made horizontal commitments to keep the first three modes of service supply generally unrestricted except for some conditions. In terms of market access, Nepal has committed to remove all restrictions in Mode 2 except providing only US$2,000 to Nepali citizens while going abroad on personal travel. In Mode 3, Nepal has committed that the supply of services by an existing foreign supplier will not be made more restrictive than they existed at the time of Nepal's accession to the WTO. However, Nepal's commitment in Mode 4 is restrictive except in the categories of services sales persons, persons responsible for setting up a commercial presence, and intra-corporate transferees. Services suppliers in the last category should not exceed 15 percent of local employees and not provide services for more than 10 years. Entry for services sales persons is limited to a 90-day period, which may be renewed, while entry for persons responsible for setting up a commercial presence is limited to a one-year period, which may be renewed. However, Nepal committed to further liberalize the limitation that intra-corporate transferees not exceed 15 percent of local employees after five years from its date of accession.

With respect to national treatment, there are no restrictions in Mode 3 except that foreign investments and reinvestments are required to obtain the approval of the Department of Industry, and that only wholly owned Nepali enterprises will be entitled to incentives and subsidies, if any, in the sector. The maximum foreign equity is also limited in most services, and firms wanting to sell their services have to be incorporated in Nepal.

Besides these commitments, Nepal also restricts selling and buying of real estate by foreigners.

#### *Specific commitments*

As per the WTO's services classification list (MTN.GNS/W/120) followed by most WTO members, including Nepal, for scheduling their commitments, health services consist of two sub-sectors: hospital services (Provisional Central Product Classification (CPC) 9311)[10], and other human health services (Provisional

[10] Hospital services: Services delivered under the direction of medical doctors chiefly to in-patients, aimed at curing, reactivating and/or maintaining the health status of a patient. Hospital services comprise medical and paramedical services, nursing services, laboratory and technical services including radiological and anaesthesiological services, etc.

CPC 9319 other than 93191)[11]. Sector-specific commitments have been made only for hospital services. There are no major specific limitations in this sub-sector except in market access in Mode 3 where foreign services providers must be incorporated in Nepal with a maximum foreign equity capital of 51 percent. In addition, medical experts can work with the permission of Nepal Medical Council for a maximum period of one year.

| **Nepal's sector-specific commitments in health services under the GATS** | | |
|---|---|---|
| **Sub-sector** | **Limitations on market access** | **Limitations on national treatment** |
| Hospital services (CPC 9311) and direct ownership and management by contract of such facilities on a 'for fee' basis. | 1) None<br>2) None<br>3) None, except only through incorporation in Nepal and with a maximum foreign equity capital of 51 percent.<br>4) Unbound, except as indicated in the horizontal section.<br><br>Medical experts can work with the permission of Nepal Medical Council for a maximum of one year. | 1) None<br>2) None<br>3) None<br>4) Unbound, except as indicated in the horizontal section. |

Source: Nepal's schedule of commitments, accessed from www.wto.org

### Sub-sectors/segments of health services which can be considered for trade and collaboration within the region

Nepal's health sector is still not adequately developed. Although the sector has gone through major changes in the past few decades, specialized health care services are still lacking in the country. That is the major reason why Nepali patients having the means and resources to do so go abroad when they need specialized services. In such a context when the Nepali healthcare sector has not been able to supply adequate health services even to Nepali patients, catering to foreign patients on a significant scale is not possible at the moment. However, there are a few sub-sectors/segments of health services in which Nepal has export potential. Drawing largely on SAWTEE (2008) and Maskey et al. (2010), and based on in-depth interviews conducted with select stakeholders in the course of this study, the following section discusses, with justifications, those sub-sectors/segments in which potential for trade and collaboration exists.

#### *Opthalmology*

As briefly discussed already, Nepal has export potential in ophthalmology (eye care) services, mainly from hospitals in the terai region. The proportion of Indian patients receiving this service in hospitals in Nepal in the terai region provides a justification in this regard (Table 7).

While the mode of exports of eye care services by hospitals in the terai region is Mode 2, Tilganga Eye Centre exports its services via Mode 2 very insignificantly. For example, of all the consumers who received services at the Centre, the percentage of non-Nepali consumers in 2005, 2006 and 2007 was 0.64, 0.50 and 0.43 respectively. However, the Centre exports its services via Mode 4 since its doctors provide their services by visiting OMECs in different countries in South Asia and beyond (Table 6 above). Of the total exports carried out through the OMECs, a few South Asian countries account for a major part (Figures 2.a and 2.b).

[11] Other human health services: ambulance services; residential health facilities services other than hospital services; and other human health services n.e.c., meaning services in the field of: morphological or chemical pathology, bacteriology, virology, immunology, etc., and services not elsewhere classified, such as blood collection services.

### *Ayurveda*

Ayurveda is the oldest and the most popular traditional health care system in Nepal. It has been practised for thousands of years. It is estimated that about 70 percent of the Nepali population is still dependent on Ayurveda to meet their health care needs. After the introduction of modern medicine in the country, Ayurveda received less importance compared to modern medicine. One of the reasons for such change in people's preference, according to some doctors, is that Ayurveda cannot take care of emergency health care needs. However, its ability to provide proper health care solutions, although taking a longer time, but with almost no side-effects, has made it sought after. The increasing numbers of Ayurveda clinics being set up in Kathmandu, and to lesser extent in places other than Kathmandu, suggests the revival of the popularity of Ayurveda. More importantly, an increasing number of foreign patients are also attracted to this system of health care, and are availing themselves of this facility in various Ayurvedic healthcare centres in Nepal. A case study conducted by Maskey et al. (2010) of the Ayurveda Health Home (AHH)—a leading private sector Ayurveda health service provider under Nepal-German joint management—provides some justification regarding Nepal's potential in the export of Ayurveda health services.

In between 2003/04 to 2007/08, AHH provided healthcare services to 6,981 consumers, of which 26.38 percent were Nepalis living in Nepal and 73.62 percent were foreigners (64.57 percent tourists, and 9.04 percent expatriates living in Nepal for more than six months). The number of consumers from South Asian countries, however, has been extremely limited. While the number of consumers from other South Asian countries is insignificant, and hence, not available, only about 2 percent of total foreign consumers who availed Ayurveda health services from AHH in 2007/08, were from India (Maskey et al. 2010).

According to Dr Rishi Ram Koirala, Medical Director of AHH, although until a few years ago most of the foreigners who visited AHH were tourists visiting Nepal for various purposes, the trend has now changed with many foreign consumers visiting Nepal with the primary purpose of health treatment. More importantly, in a survey conducted among foreign consumers, 100 percent said that their expectations were met and also that the quality of service was good (Maskey et al. 2010).

Under Mode 2, there is potential to provide Ayurveda education to foreigners in Nepal. For example, Dr Koirala provides training in Nepal to foreign doctors in both general and specialized areas, as well as to researchers. Similarly, there is also potential for supplying Ayurveda-related human resource to other countries under Mode 4. Provided that the Ayurveda course in Nepal is fully recognized, specialization is ensured and practical experience is provided to students, Nepal can export some 50-60 Ayurveda practitioners straightaway (Maskey et al. 2010).

Nepal also has potential in attracting FDI in the traditional health services sector, including Ayurveda. Traditional health services such as services via old-age homes to elderly population might be an attractive market because of good climate in Kathmandu and other places in Nepal. According to Maskey et al. (2010) and responses of a few stakeholders who were interviewed during the course of this study, some American and Japanese investors have shown interests in establishing such homes in Nepal.

### *Others*

As the study SAWTEE (2008) found out through field surveys, Nepali hospitals in the terai region close to India also attract a substantial number of Indian patients seeking gynaecological, paediatric and ear, nose and throat (ENT) health treatment. While the quality of health care provided by hospitals in Nepal is one reason for patients availing themselves of such treatment in Nepal, according to consumers of such services, the cost of receiving such treatment in Nepal is also substantially less. Moreover, for Indian patients living in many border areas, the distance of travelling to the nearest hospital in India would be far greater than travelling to Nepal.

### *Export prospects for other countries*

The above discussion regarding the potential for trade and collaboration is regarding Nepal's export potential. Given that Nepal imports health services substantially, there are regional prospects for collaboration in those areas in which Nepal has been importing health services.

Under the existing rules of Nepal Rastra Bank, Nepali citizens are provided a maximum of US$2,000 per person per year if they go abroad for personal travel. This ceiling does not apply if a Nepali citizen has to go abroad for medical treatment. However, as informed by Mr Bhaskar Mani Gyawali, Executive Director of the Foreign Exchange Management Department at Nepal Rastra Bank, the rules are different depending on whether a patient goes to India or a country other than India for medical treatment. If a patient wants to go to a country other than India, approval from the Medical Board is required and if a patient wants to go to India, such approval is not required. Also, debit/credit cards issued by most Nepali banks are accepted in hospitals, drug stores and ATMs in India. However, whether a patient goes to India or another country, the estimated cost of medical treatment, and all relevant documents and bills to substantiate that the requested amount of foreign exchange was spent, needs to be submitted.

Due to less cumbersome procedure in receiving Indian currency compared to other foreign currencies, easier modes of payments via debit/credit cards, and that India has been continuously upgrading its health sector with the establishment of world class health institutes by means of attracting significant amount of FDI, there are prospects that the number of Nepali patients who would visit India rather than other countries for medical treatment could increase in the future.

Similarly, Nepal does not have adequate capacity and facility to conduct many types of specialized laboratory tests. As a result, Nepali doctors and hospitals send specimens for specialized tests to India. A number of Indian laboratories have established collection centres for that purpose in Nepal. In the bordering areas, such practices are even more prevalent, in many cases, even for normal tests.

This does not, however, necessarily imply that India will continue to have prospects in exporting health services in this way through Mode 1. As the case of the establishment of a branch of Super Religare Laboratories in Nepal (Box 3) suggests, there are possibilities that Nepal could attract more FDI in this sector, consequently limiting the export of specimens to India.

**Box 3: Establishment of SRL Nepal**

Super Religare Laboratories (SRL), the largest diagnostic services network of South Asia, has established SRL Nepal as a joint venture with Life Care Services with an investment of NRs. 50 million. According to Dr Sanjeev K Chaudhry, CEO of SRL India and managing director of SRL Nepal, SRL India had been receiving hundreds of specimens from Nepal. That is one of the main reasons why SRL decided to establish a laboratory in Nepal.

SRL Nepal currently offers 150 types of tests and is planning to introduce about 300 tests in the near future. It has eight collection centres across the country. According to Dr Rojan Ghimire, Laboratory Head of SRL Nepal, unlike other laboratories, SRL Nepal provides a number of services, some of them specialized ones, such as molecular tests like DNA test, under one roof. The laboratory also provides different segments of clinical pathology, including biochemistry, microbiology and hematology. It has global accreditations and is equipped with the latest technology.

According to Dr Ghimire, when specimens are to be sent to India for different specialized tests, there are several problems associated with it, such as the improper way of shipment due to which accurate results do not become possible. There also will be delays in receiving the results of the test by patients. With the establishment of such laboratories in the country, quality as well as timely delivery of results can be ensured.

In cases when SRL Nepal has to consult with its mother lab in India for some standard tests, the company makes use of software that has been developed to share the problems and discuss solutions through video clips. When some specialized tests are not possible to be performed in Nepal and need to be sent to India, it is ensured that the shipment procedure complies with all necessary requirements such as regarding temperature, use of equipments, and so on. Even in such cases, due to the use of latest technology and hence advanced computer networking with laboratories in India, as soon as the

results of the tests are out in India, the same could be accessed from the laboratory in Nepal and instantly provided to the patient.

According to Dr Chaudhry, SRL is also planning to establish an international standard hospital in Nepal in the next two years.

Source: *Republica, 21.11.2010;* and based on interview with Dr Rojan Ghimire, Laboratory Head, SRL Nepal

**Challenges and constraints**

There are certain challenges and constraints that affect the prospect of collaboration in health services trade in South Asia. Those challenges and constraints, from Nepal's perspectives, are discussed below:

*Lack of adequate and reliable data on trade in health services*

There is lack of adequate and reliable data on trade in health services not only in Nepal, but in other countries of South Asia as well. While much of the trade remains unaccounted for, accurate data is not available regarding the flow of patients, movement of health professionals, contribution of FDI, and so on. A proper analysis regarding the true prospects of health services trade in the region is thus difficult.

*Lack of adequate support to traditional medicine*

Due to its instant healing nature and the ultimate necessity during emergencies, modern medicine is preferred well over traditional medicine by a large number of people, including in South Asia. As a result of apathy towards traditional medicine, it is being practiced by very few numbers of professionals today. Although there has been a start of the revival of recognizing the importance of traditional medicine, it still has to go a long way to be at par with modern medicine.

In the case of Ayurveda, based on a survey conducted among participants of the National Conference of Aurveda Doctors' Association of Nepal, in which 70 doctors responded to open-ended questionnaires, there is lack of, among others[12]:

- resources and budget in government-owned health institutions
- medicines and equipment
- programme as per the need
- malpractices at the local level
- training/workshops/seminars for doctors
- Pathology and Radiology Services at District Ayurveda Health Centres
- awareness among people of available Ayurveda services
- team spirit among health workers and doctors
- adequate qualified human resource
- teaching hospital(s) and research activities
- linkage with modern medicine/technology

*Lack of infrastructure and problems in movement of people*

Lack of infrastructure is another challenge affecting the prospect of collaboration in health services trade in South Asia. Existing information and communication technology in Nepal does not support telepathological and telemedicine services to a desired extent. To whatever extent such services are continuing, energy crisis has made it difficult to carry them on a desired scale. Also, regarding the shipment of laboratory samples, there are problems of improper handling, untimely delivery to laboratories, delays in providing reports to patients, and so on.

[12] http://www.ayurnepal.com/en/articles/333-present-status-of-ayurveda-system-in-nepal.html

In the case of movement of patients, there are problems with transportation infrastructure. While road conditions are not good, which makes patients hesitant to travel long distances, there are no direct air links with a number of bigger cities in India except New Delhi and Mumbai. Consequently, Nepal might not be able to get as many Indian consumers wanting to travel to Nepal for health or medical tourism purposes as possible.

The situation is even worse in the case of consumers from other South Asian countries. As travellers from different South Asian countries have informed, travelling to Nepal via India is either not possible or very troublesome due to a number of reasons. Hence, they choose to travel via other countries in the middle-east or Southeast Asia, which makes their travel both expensive as well as tiring. Therefore, even if other problems associated with health services liberalization are addressed, difficulty in travel within South Asia could hinder the prospects of collaboration in health services trade via Mode 2 in South Asia.

*Lack of health insurance*

The practice of having health insurance is very low in Nepal, and also in other South Asian countries. Even if people are aware of the benefits of having health insurance and would want to buy a policy, it is not readily available. Insurance companies are hesitant to sell health insurance policies to individuals and hence they sell them only through groups, for example through an organization that provides health insurance benefits to its employees. The reason for doing so, according to Mr Binod Nepal, Chief Executive Officer of Neco Insurance, is the existence of high moral hazard. As he informed, even hospitals collude with patients in preparing fake documents by means of which policy bearers make insurance claims. Experience of health insurers in other South Asian countries is not very different. If there would be a mechanism by which such practices could be checked, insurance companies would be willing to sell health insurance policies to individuals also.

Another important issue is that most insurance companies in Nepal sell health insurance policies that cover medical expenses incurred in India also. Because the amount to be claimed could not be over the maximum limit as per the policy, and that related travel expenditure will not be covered by the policy, according to Mr Nepal, there is no problem in making health insurance portable, at least to India. But when individual health insurance policies are not available, such policies make very little sense. The challenge, therefore, is getting rid of the problem of moral hazard related to health insurance and making individual health insurance policies available.

Most health insurance policies do not recognize traditional medicine. Therefore, a challenge is also in getting traditional medicine covered by health insurance policies.

*Lack of conducive environment to attract FDI*

The government of Nepal has a liberal policy towards attracting FDI in Nepal. It has been putting in every possible effort to attract substantial amount of FDI, including in the health sector. The latest industrial policy has also stipulated various measures to attract FDI in the country. However, there are a number of problems that have hindered the inflow of substantial FDI in the country. Some of the often mentioned problems include political instability, energy crisis, labour problems, inadequate infrastructure, lack of efficient human resource, etc.

*Malpractices*

Another challenge in health services trade at the regional level, specifically between Nepal and India, is malpractices in bordering areas. There are numerous cases and news reports of Nepali patients being cheated in India. Nepali doctors also substantiate such reports. According to Dr Saroj Dhital, Chief of the Department of Surgery at Kathmandu Model Hospital, he has looked into several cases of unethical

practices in health services. Especially poor people living in the bordering areas become victims of such frauds.

Some pathological laboratories are also involved in malpractices. There is absence of monitoring of their functioning and the way they carry out even normal tests. While such practices put human health at risks in the first place, due to the unhealthy competition that they are involved in, they act as hindrances to genuine service providers, including potential FDI in the sector.

**Policy recommendations from Nepal's perspectives**

Nepal's health services trade in South Asia is concentrated mostly with India in the first three modes of services delivery, and to some extent in Mode 4 as well. It appears that health services trade will continue to be concentrated with India, at least in the near future. Health services trade with India is mostly of informal nature, due mainly to open border and the special cultural, social, political and economic relationship between the two countries. Existing evidence shows that there is potential for collaboration in trade in health services, but there are constraints and challenges as well. Now that the SAARC countries have signed SATIS, there are a number of steps that need to be taken at the regional level as well as the national level, from Nepal's perspectives, to enhance trade in health services in South Asia:

*At the regional level*

- The special provisions on health services trade that exists between Nepal and India such as providing foreign currency to the citizens of one country to avail health services in another country without specific conditions, having liberal policies on health services trade through Mode 1 and for foreign direct investment, not hindering the movement of health professionals, etc., should be incorporated in the regional agreement too.

- Reliable and accurate data on health services trade should be kept in place and made available to the public. The *Manual on Statistics of International Trade in Services 2002*[13] published jointly by the United Nations, European Commission, International Monetary Fund, Organisation for Economic Cooperation and Development, United Nations Conference on Trade and Development and the WTO could be a useful guide and reference in collecting and making available such data.

- In the context that there are problems in the movement of people within South Asia, SAARC country governments should work together to overcome these problems. This is essential not only for enhanced health services trade in South Asia, but for enhanced regional cooperation in all areas.

- Problems associated with moral hazard in the insurance sector should be addressed. Keeping in place legal mechanisms through which insurance companies could have recourse to fight against such malpractices could help address this problem. Insurance policies should be made portable, at least within South Asia. Mechanisms should also be developed to make health insurance policies cover traditional medicine.

- Keeping in mind that extremely high standards of ethical norms are required in providing health services, especially in border areas, South Asian governments should discuss and agree to put in place strong legal mechanisms to control unethical practices in health services taking place in their respective countries so as to safeguard the health and rights of their own people as well as health consumers from other countries.

[13] The Manual has been revised in 2010 and is available in draft form.

- Article 22 of SATIS mentions that LDCs will be provided special and differential treatment (S&DT) by providing them appropriate flexibility to open up fewer sectors, providing them special concessions while undertaking commitments on a request-offer basis, providing technical assistance to enhance their supply capabilities and develop infrastructure, among others. Such S&DT to the LDCs should be provided unconditionally in the true spirit of the term.

*At the national level*

- Government of Nepal should take various promotional measures to inform potential consumers in other countries about the benefits of traditional medicine. Learning from the experiences of countries such as Thailand, where Thai Airways sells health care packages to its customers, there should be joint efforts of the government and the private sector in promoting traditional health services, specifically Ayurveda, available in Nepal. Nepal's favourable climatic conditions and the relatively low cost of health care could help the country attract more consumers of health services.

- The government should extend its support for the development of traditional health services by addressing the associated problems.

- Only having a liberal policy to attract FDI will not result in the inflow of substantial FDI in the country. The host country government should take measures to address the real underlying problems as discussed above to attract FDI in the health sector. Also, the Government of Nepal has stated in its latest Industrial Policy that it would develop industrial clusters based on different land use plans. Accordingly, it should start the process of developing clusters for the establishment of health centres. Due to suitable climatic conditions, the country's middle hill range would be appropriate to develop such clusters. Similarly, since hospitals in the terai region have already demonstrated their potential in providing quality eye care services at low costs, and that they have potential in some other areas also of which Indian citizens living in the border areas are the main consumers, different clusters could be established along the terai region.

- Finally, liberalization of trade in health services will result in easy access to health services for those with the resources to access such services. This could further widen the existing inequality in access to health services by the rich and the poor. The impact of health services liberalization on the poor, who depend mainly on public provision of health services, depends on government policies towards providing public health services. Therefore, besides efficiently regulating the health sector, the government should set aside more resources to provide public health services to the poor.

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www.worldbank.org

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## Annex 1: List of interviewees

| S.N. | Name | Designation and contact |
|---|---|---|
| 1 | Dr. Chet Raj Pant | Member<br>National Planning Commission<br>Government of Nepal<br>Singhadurbar<br>Tel: 4225879, 4257193 |
| 2 | Dr. Rojan Ghimire | Laboratory Head<br>SRL Nepal<br>Life Care Centre, 3rd Floor<br>Maharajgunj, Kathmandu<br>Tel: 4721417/4721286 |
| 3 | Dr. Saroj Dhital | Chief, Department of Surgery<br>Kathmandu Model Hospital<br>Exhibition Road, Kathmandu<br>Tel: 4222450, 4240805 |
| 4 | Mr. Bhaskar Mani Gyawali | Executive Director<br>Foreign Exchange Management Department<br>Nepal Rastra Bank<br>Baluwatar, Kathmandu<br>Tel: 4412204 |
| 5 | Mr. Binod Nepal | Chief Executive Officer<br>Neco Insurance<br>Putalisadak, Kathmandu<br>Tel: 4427354 |
| 6 | Mr. Dhundiraj Pokhrel | Joint Secretary<br>Ministry of Industry<br>Singhadurbar, Kathmandu<br>Tel: 4211579 |
| 7 | Mr. Surya Acharya | Joint Secretary<br>Ministry of Health and Population<br>Government of Nepal<br>Ramshah Path, Kathmandu<br>Tel: 4262802, 4262543 |

## Annex 2: Tables and figures

| Table 1: Public Expenditure on Health and outcomes | | | | |
|---|---|---|---|---|
| **Fiscal Year** | **Public expenditure** | | **Outcomes** | |
| | **as % of total budget** | **as % of GDP** | **Infant mortality rate (per 1,000 live births)** | **Under-five mortality rate (per 1,000 live births)** |
| 1989/90 | 4.60 | 0.93 | 128.00 | 197.00 |
| 1990/91 | 3.84 | 0.88 | 107.00 | 197.00 |
| 1991/92 | 3.62 | 0.84 | 107.00 | 197.00 |
| 1992/93 | 3.40 | 0.64 | 102.00 | 165.00 |
| 1993/94 | 4.85 | 1.08 | 102.00 | 165.00 |
| 1994/95 | 4.91 | 1.21 | 102.00 | 165.00 |
| 1995/96 | 5.99 | 1.44 | 102.00 | 165.00 |
| 1996/97 | 6.19 | 1.42 | 79.00 | 118.00 |
| 1997/98 | 5.70 | 1.37 | 74.70 | 118.00 |
| 1998/99 | 5.69 | 1.34 | 69.42 | 111.72 |
| 1999/00 | 6.09 | 0.80 | 66.78 | 108.78 |
| 2000/01 | 5.19 | 0.87 | 64.14 | 105.44 |
| 2001/02 | 4.91 | 0.79 | 64.00 | 91.00 |
| 2002/03 | 5.05 | 0.81 | 60.00 | 83.50 |
| 2003/04 | 5.26 | 0.87 | 56.00 | 76.00 |
| 2004/05 | 6.00 | 0.98 | 52.00 | 68.50 |
| 2005/06 | 6.34 | 1.13 | 48.00 | 61.00 |
| 2006/07 | 6.81 | 1.36 | 48.00 | 61.00 |
| 2007/08 | 6.63 | 0.52 | 48.00 | 61.00 |

Source: MoHP, GoN (2010)

| Table 2: Inequality in HDI and its few components, Nepal, 2006 | | | | | |
|---|---|---|---|---|---|
| **Region** | **Human development index 2006** | **Life expectancy at birth 2006** | **GDP per capita (PPP US$) 2006** | **Life expectancy index 2006** | **Ratio to national HDI** |
| Nepal | 0.509 | 63.69 | 1,597 | 0.645 | 100.0 |
| Urban | 0.630 | 68.06 | 3,149 | 0.718 | 123.7 |
| Rural | 0.482 | 63.09 | 1,286 | 0.635 | 94.7 |
| Eastern region | 0.526 | 66.16 | 1,570 | 0.686 | 103.2 |
| Central region | 0.531 | 65.69 | 1,989 | 0.678 | 104.3 |
| Western region | 0.516 | 64.12 | 1,477 | 0.652 | 101.3 |
| Mid-Western region | 0.452 | 57.21 | 1,192 | 0.537 | 88.8 |
| Far-Western region | 0.461 | 61.33 | 1,023 | 0.605 | 90.5 |
| Mountain | 0.436 | 57.91 | 1,158 | 0.548 | 85.7 |
| Hill | 0.543 | 66.48 | 1,683 | 0.691 | 106.6 |
| Tarai | 0.494 | 62.76 | 1,584 | 0.629 | 97.0 |

Source: UNDP (2009b)

| Table 3: Early childhood mortality rates by socioeconomic characteristics for the period 1995-2005 | | | |
|---|---|---|---|
| **Background characteristic** | **Infant* mortality** | **Child* mortality** | **Under-five* mortality** |
| *Residence* | | | |
| Urban | 37 | 10 | 47 |
| Rural | 64 | 21 | 84 |
| Ecological Zone | | | |
| Mountain | 99 | 32 | 128 |
| Hill | 47 | 16 | 62 |
| Terai | 65 | 21 | 85 |
| *Development region* | | | |
| Eastern | 45 | 15 | 60 |
| Central | 52 | 17 | 68 |
| Western | 56 | 18 | 73 |
| Far-western | 74 | 28 | 100 |
| *Mother's education* | | | |
| No education | 69 | 25 | 93 |
| Primary | 58 | 10 | 67 |
| Some secondary | 35 | 5 | 40 |
| SLC and above | 13 | 0 | 13 |
| *Wealth quintile* | | | |
| Lowest | 71 | 29 | 98 |
| Second | 62 | 22 | 91 |
| Middle | 70 | 22 | 91 |
| Fourth | 51 | 13 | 63 |
| Highest | 40 | 7 | 47 |

Source: MoHP, GoN; New ERA; and Macro International Inc (2007)
*Note: Infant is age 0-1 year; Child is age 1-4 year; and Under-five is age 0-5 year

| Table 4: No. of hospitals and beds in Nepal, 2008 | | | | | |
|---|---|---|---|---|---|
| | **Public** | **Private** | | | |
| | **Hospitals** | **Hospitals** | **Medical college hospitals** | **Subtotal, private** | **Total** |
| No. of hospitals | 96 | 147 | 15 | 162 | 258 |
| No. of beds | 6,944 | 4,810 | 7,500 | 12,310 | 19,254 |
| Hospitals (% share) | 42.11 | 51.32 | 6.58 | 57.89 | 100 |
| Beds (% share) | 38.04 | 26.35 | 38.95 | 63.93 | 100 |

Source: RTI International (2010)

| Table 5: Medical specialists registered with NMC, till December 2009 | | | |
|---|---|---|---|
| **Subject** | **Male** | **Female** | **Total** |
| General practice | 65 | 18 | 83 |
| E.N.T | 43 | 10 | 53 |
| Psychiatry | 32 | 4 | 36 |
| Anaesthesiology | 73 | 24 | 97 |
| Radiology and Imaging | 73 | 9 | 82 |
| Paediatrics | 117 | 39 | 156 |
| Nephrology | 3 | 3 | 6 |
| Master in Dental Surgery (MDS) | 35 | 19 | 54 |
| T.B and Respiratory | 7 | 1 | 8 |

| | | | |
|---|---|---|---|
| Community Medicine Public Health | 24 | 9 | 33 |
| Pharmacology | 9 | 0 | 9 |
| Obs+Gynae | 62 | 140 | 202 |
| M.S (General surgery) | 189 | 10 | 199 |
| Orthopaedics | 131 | 1 | 132 |
| Cardiology | 60 | 4 | 6 |
| Ophthalmology | 54 | 35 | 89 |
| Internal medicine | 144 | 13 | 157 |
| Clinical pathology | 31 | 27 | 58 |
| Dermatology + Venerelogy | 34 | 19 | 53 |
| Neurology | 11 | 2 | 13 |
| Gastroenterology | 11 | 1 | 12 |
| Urology | 13 | 0 | 13 |
| Surgical oncology | 14 | 0 | 14 |
| Forensic medicine | 4 | 0 | 4 |
| Microbiology | 2 | 2 | 4 |
| Nuclear medicine | 3 | 0 | 3 |
| **Total** | **1,244** | **390** | **1,634** |

Source: MoF, GoN (2010)

**Table 6: Outreach microsurgical eye clinics (1994-2006)**

| Countries | Number of OMECs | No. of screened patients | No. of major surgeries performed | No. of minor surgeries performed | Total no. of surgeries performed |
|---|---|---|---|---|---|
| Mainland China | 10 | 7,964 | 2,871 | 31 | 2,902 |
| Tibet | 18 | 6,483 | 2,979 | 23 | 3,002 |
| Sikkim/Kalimpong, India | 10 | 13,673 | 2,987 | 43 | 3,030 |
| North Korea | 5 | 3,693 | 1,754 | 1 | 1,755 |
| Bangladesh | 3 | 3,965 | 1,398 | 1 | 1,399 |
| Bhutan | 4 | 3,667 | 350 | 2 | 352 |
| Nepal | 159 | 277,544 | 43,978 | 656 | 44,634 |
| **Total** | **181** | **316,989** | **56,317** | **757** | **57,074** |

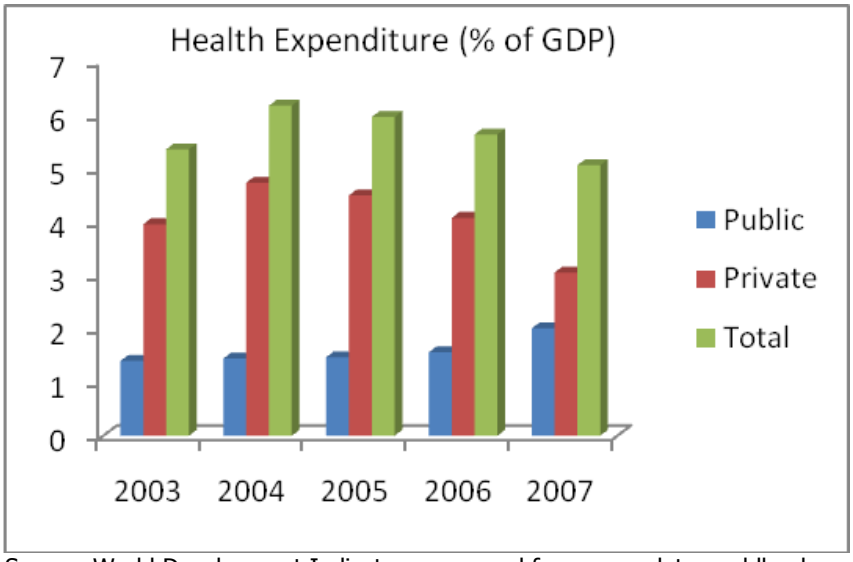
Source: SAWTEE (2008)

**Table 7: Indian patients receiving ophthalmology services in different hospitals in Nepal (as percentage of total consumers receiving ophthalmology services in that particular hospital)**

| Name of the hospital | 2005 | 2006 | 2007 |
|---|---|---|---|
| BP Koirala Institute of Health Sciences, Dharan | 52.5 | 52.9 | 44.5 |
| Ramlal Golchha Eye Hospital, Biratnagar | 61.4 | 63.78 | 73.47 |
| Biratnagar Eye Hospital, Biratnagar | NA | NA | 75 |

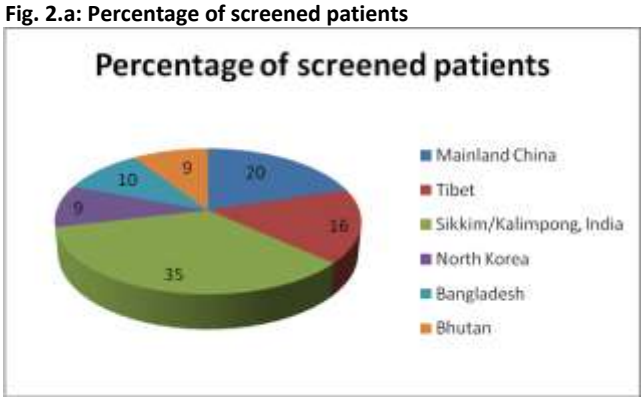
Source: SAWTEE (2008)

**Fig. 1: Health expenditure**



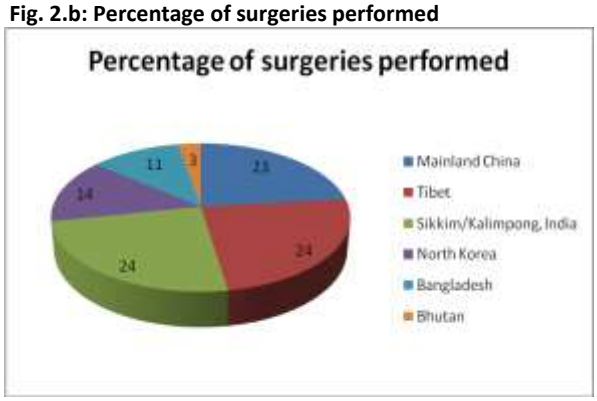

Source: World Development Indicators, accessed from www.data.worldbank.org

**Fig. 2.a: Percentage of screened patients**




Source: Table 6 above

**Fig. 2.b: Percentage of surgeries performed**




Source: Table 6 above