

**FINAL REPORT**

**NO. 10 – 16**

**SOUTH ASIAN EXPORT POTENTIAL IN  
TRADITIONAL HEALTH SERVICES: A CASE  
STUDY OF BHUTAN AND NEPAL**

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June, 2010

## **Executive Summary**

1. There is a pressing need to develop traditional health services to ensure affordable and accessible quality health care for all. In this regard, boosting the exports of traditional health services can help facilitate effective integration of traditional health systems into the mainstream national health systems, inject competition into the sector and thereby realize the goal of making quality health care affordable and accessible to all. Other possible benefits are employment generation, and utilization and preservation of local resources.

2. The study uses the definition of traditional medicine by WHO (2002): "diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness." The study focuses on the services component of traditional medicine. The study limits the scope of traditional health medicine to the Ayurveda health practice in Nepal and the Sowa Rigpa health practice in Bhutan

3. The study develops a basic framework for assessing potential of traditional health services export in Bhutan and Nepal; identifies and assesses their individual and collective export potential in traditional health services via a case study methodology; and analyzes the implications for export of traditional health services which also benefits/strengthens the domestic formal health system. The methodology of the study is

exploratory in nature based on secondary sources of information which is complemented with primary data (through case study). A comprehensive literature review is carried out to assess the role of traditional health system in Bhutan and Nepal, glean important factors and identify challenges. In parallel, one institution each from Bhutan and Nepal, which is involved in the delivery of traditional health services as defined above, is identified for a case study. Primary information is collected via: (1) Survey questionnaires; (2) In-depth interviews with key informants; (3) Focus group discussions. An analytical assessment is made of individual export potential of traditional health services which is then expanded to include collective export potential.

4. Role of Traditional Health Services: Traditional health services play an important role in the local health system and it has thus far been successful in treatment. In Bhutan *Sowa-Rigpa* largely meets the demand for primary health care, especially of the older segment of society. In Nepal, more than 75 percent of the population is estimated to use traditional medicine.

5. Characteristics: Governments recognize the importance of traditional medicine. In Bhutan, the Royal Government of Bhutan officially recognizes the scientific and cultural importance of *Sowa-Rigpa* and is incorporated into the public health system. In Nepal, the Government of Nepal officially recognizes Ayurveda and is incorporated into the public health system. But implementation remains weak.

6. Conceptual Framework: Due to a lack of an index, such as revealed comparative advantage (RCA) index for trade in goods, conceptual determinants are used: natural endowment; level of market integration including cultural and linguistic affairs; policy and regulatory provision; comparative cost structure; and level of skill and human capital.

#### 7. Methodology of Data Collection

- Consumer Survey: Questionnaire was administered to consumers in a selected service provider in each country. The identified service providers were: Institute of Traditional Medicine (Bhutan), and Ayurveda Health Home (Nepal).
- In-depth Interview: In-depth interviews were conducted with key informants: academicians, government officials, Ayurveda practitioners, experts, and the above-identified service providers.
- Focus Group Discussion: Focus group discussion was conducted among academicians, government officials, Ayurveda practitioners, experts, and the above-identified service providers.

#### 8. Survey Results

##### Consumer Survey

Fifty consumers were surveyed in the identified health institution in Bhutan, and 43 in Nepal in early 2009.

- Characteristics of consumers: Surveyed consumers were generally domestic nationals (49 of 50 in Bhutan; 32 of 43 in Nepal). But a significant portion was domestic non-residents, implying the motivation to come to the respective service provider. No definitive observation can be made on gender and age group, as conclusions varied. It appears that the consumers in Nepal have, in general, a college education and are working in the service sector. This suggests that the majority of consumers are not simply uneducated and lay persons.
- Information Channels: Channels of information on traditional medicine and service provider were mostly limited to traditional forms, such as word of mouth or friends with personal contact. Further, information from word of mouth positively affected their decision.
- Transport: Local transport was mainly used. The international consumers used air transport.
- Aspects of Services Consumed: The majority of domestic national consumers visited the particular service provider mainly due to the trust factor, with their expectation having been met after the treatment. In Bhutan, the meeting of expectations is disease dependent. In regard to willingness to pay, Nepali nationals were less willing to pay for more for the service, but the majority of foreign nationals who responded said that there was a willingness to pay more. This implies

that from a price perspective, for foreign consumers, the service is competitive.

❑ In-depth Interview

- Export Potential: (1) Increasing attraction of people of developed countries towards what they call alternative and complementary medicine. (2) Motivational factors for surveyed foreign consumers: Faith in the service provider, beneficial and quality services, and recommendation of previous visitors. (3) *Sowa-Rigpa* at ITMS had 52 foreigners in 2007 and 63 in 2008. Nearly 74 percent (909) of consumers at AHH in 2007/08 were foreigners. (4) There is potential to export traditional health services through Mode 2 by cashing in on climatic diversity and pleasant climate of places like Kathmandu and Thimpu. (5) Currently, there are no officially documented targeted programs for western patients but discussions have been initiated on attracting new consumers in the form of traditional/indigenous tourism programs such as introduction of advocacy activities, health tourism, establishment of a museum and augmentation of infrastructures and human resources.
- Barriers to Realizing Export Potential: (1) Lack of knowledge/awareness among foreign health service consumers. Lack of publicity is a major reason of the lack of awareness. (2) Absence of

recognition by health insurance companies in developed countries of traditional medicine practised in Nepal. (3) Language: Pharmacy products in Bhutan bear traditional/vernacular names, mostly prescribed in Dzongkha (national language); AHH has also identified language as a barrier given the diversity of international health consumers. (4) Lack of proper therapy units, low technical capacity and lack of related infrastructure are the general problems. (5) Lack of adequate advocacy, insufficient infrastructure and human resource, rudimentary research and development has been acting as barriers towards effective delivery of services. (6) Difficulty in maintaining international standards in the quality of human resources and service quality. (7) Traditional medicine has developed as a supplementary medicine only. It remains to be systematized, institutionalized and made transparent. The attitude of modern medicine towards traditional medicine in Nepal is to a large extent that of mistrust.

- Suggestions: (1) Improve and maintain quality of human resources and services via increasing budget and enhancing R&D. (2) Launch an effective publicity campaign highlighting the effectiveness and special features of traditional medicine and health services targeted at foreigners (health tourism). (3) Traditional medicine (e.g., natural healing therapies) should be incorporated in tourist packages and such packages publicized. (4) Climatic conditions should be capitalized on for promoting health tourism with focus on traditional medicine. (5)



Private sector should be encouraged to provide quality traditional health services targeting tourists. (6) For Nepal, implement the plan to integrate traditional and modern health systems so as to expedite the effective mainstreaming and formalization of traditional medicine in the country.

❑ Focus Group Discussion

- Export Potential: (1) There is potential for international export since the demand for traditional medicine has been growing strongly over the last 15 years, especially in developed countries. Though various traditional medicine services are available in developed countries, consuming those services at the countries of origin has a special appeal. (2) One advantage for both Bhutan and Nepal is the altitudinal and climatic diversity that provides a natural habitat for medicinal plants, which point to the potential for health tourism. (3) In the Nepal FGD, the potential was also pointed out for having old-age homes, where Nepal has a comparative advantage due to pleasant climate and low of cost of living compared to developed countries. In fact, Americans and Japanese have shown interest to open such homes in Nepal. (4) Another potential area is provision of Ayurveda-related training courses for foreigners.

- Constraints/Solutions: (1) Lack of documentation and preservation of traditional health practices and resources/knowledge. (2) The Nepal FGD suggested having comprehensive identification, mapping and documentation of medicinal plants and traditional medicinal knowledge at the district level (3) Maintaining service quality is a challenge. (4) Lack of research and promotion/publicity

- Constraints specific to Nepal: (1) Human resource is a constraint, both quantitatively and qualitatively. (2) There is lack of inter-ministry coordination. (3) Ayurveda medicines not available in all districts in adequate quantities; pharmaceutical production is limited; 85 percent of Ayurveda pharmaceuticals are imported. (4) There is uncertainty about eligibility for reimbursement of expenses on Ayurveda medication by foreigners. Eligibility varies across insurance companies and services. (5) Allopathic medicine lobby dominates Ayurveda lobby in policy, plan and programme formulation and implementation. (6) Ayurveda was recognized as a national medical science as opposed to alternative medicine in 1995, but implementation is weak.

9. Summary: (1) Bhutan and Nepal have export potential in traditional health services. The sources of the export potential include: natural features; historical advantage; clarity

in policy, treatment effectiveness; price advantage; and existence of some skilled human resources; (2) Tapping the potential will also help strengthen domestic health system; (3) There are barriers/constraints to realizing the potential. They include: trade facilitation issues; lack of information on traditional health services among prospective foreign consumers; credibility of traditional health services yet to be on a par with modern medicine; lack of effective incorporation of traditional health services into the formal health system, contributed by mistrust on the part of allopathic medicine lobby; insufficient human resources; non-recognition of academic degrees; and absence of education institutions providing advanced courses.

10. Recommendations: (1) Facilitate information sharing on the benefit of traditional health services. It is suggested that this be initiated through information dissemination campaigns utilizing official means, such as the foreign missions and economic diplomacy. These activities should also be done in coordination with the private sector, for sustainability of the process. These will contribute to greater awareness and heightened demand, which shall lead to greater levels of health tourism. (2) Enhance credibility of traditional health services. This can be achieved by increasing R&D on traditional health services. A result of this is to develop the human and skill pool in the country. (3) Effectively integrate the traditional health system with the formal health system. Integration will provide valuable monitoring and supervision to the traditional health services, and support quality control. This will also lead to greater credibility of the traditional health service.

11. Concluding Remark: Caution has to be exercised while focusing on exports of health services. The danger of unbalanced growth in the health system has to be guarded against, as it could lead to increased inequality, social tension and conflict.

12. Future Agenda: Explore the specific modalities and transitional pathways of export in traditional health services, to achieve equitable and balanced growth and ensure sustainability.

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# I. Introduction

## 1.1 Background

Access to health services contributes to human well being. Accelerating trade in health services with globalization contributes in this regard, for example, through "consumption abroad" of health services. Global competition is intensifying in the health care industry. This has resulted in an increase in both the quality of health service and their revenue contribution. The gross medical tourism revenues have been estimated at more than US\$40 billion worldwide in 2004 and are projected to grow to US\$100 billion by 2012 (Herrick 2007). Whereas in the past wealthy patients from developing countries traveled to developed countries to avail themselves of high quality medical care, now an increasing number of patients from developed countries are traveling to developing countries in search of high quality medical services at affordable prices (ibid.).

Unfortunately, globalization of health services has so far bypassed the South Asian region where nations generally have an uncompetitive health care system, which is dominated by the traditional health care system. An outcome of this is reflected in the poor regional health indicators.<sup>1</sup> However, growing initiatives for regional and global integration, coinciding with various demand- and supply-side forces, have resulted in growing scope for trade in health services, especially export of traditional health services.

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<sup>1</sup> For example, infant mortality rate (IMR) is 57 per 1,000 live births in India, 48 in Nepal and 40 in Bhutan. Sri Lanka is an exception with the lowest IMR (11) in the entire South Asian region (<http://www.who.int/healthinfo/statistics/regionsearo/en/index.html>).

In the past decade, there has been renewed attention and interest in traditional medicine globally. In developing countries, traditional medicine continues to hold sway over the vast majority of the population. For instance, in China, traditional medicine accounts for around 40 percent of all health care delivered; and 71 percent of the population in Chile and 40 percent in Colombia have used such medicine (WHO 2003). The continued popularity of traditional medicine in developing countries is attributable to accessibility and affordability, as modern medical care is often out of reach of the bulk of the population.

In developed countries, traditional medicine—or, as it is known there, complementary and alternative medicine—is fast gaining popularity. Concern about the adverse effects of chemical drugs, questioning of the approaches and assumptions of allopathic medicine, and greater public access to health information, coupled with increased risks of developing chronic, debilitating diseases such as heart disease, cancer, diabetes and mental disorders due to longer life expectancy, are behind the growing popularity of complementary and alternative medicine. In Europe, North America and other industrialized regions, over 50 percent of the population have used complementary or alternative medicine at least once<sup>2</sup>. In particular, the percentage of population having used complementary or alternative medicine at least once is 48 percent in Australia, 70 percent in Canada, 42 percent in the United States (US), 38 percent in Belgium and 75 percent in France (WHO 2002). In the US, 158 million of the adult population use complementary medicines and, according to the USA Commission for Alternative and

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<sup>2</sup> <http://www.who.int/mediacentre/factsheets/fs134/en/> (accessed 4 July 2008)



Complementary medicines, US\$17 billion was spent on traditional remedies in 2000.<sup>3</sup> In Australia, Canada and the United Kingdom (UK), annual expenditure on complementary and alternative medicine is estimated at US\$80 million, US\$2400 million and US\$2300 million, respectively (WHO 2002). The global market for herbal medicines currently stands at over US\$60 billion annually and is growing steadily.<sup>4</sup> The potential market for traditional medicine is also amply indicated by such facts as an estimated 45 million Americans being without any form of medical health insurance, rising healthcare and pharmaceutical costs worldwide as well as the growing demand for "back to nature" therapies.<sup>5</sup>

As noted above, the majority of the population in South Asia, home too many rich, traditional systems of medicine, depends on traditional systems of medicine. In India, 65 percent of the population in rural areas uses Ayurveda and medicinal plants to help meet their primary health care needs (WHO 2003). In Nepal, only 15 percent of the population has access to modern medicine (Koirala and Khaniya). A significant percentage of the Bhutanese population depends on traditional health care utilizing various medicinal herbs found in the forests (Giri 2004). Traditional systems of medicine—including Ayurvedic methods dating back to 5,000 B.C., Unani, Siddha and Tibetan systems—remain an important source of everyday health and livelihood for tens of millions of rural people, particularly women, tribal peoples and the poor. The poor and the marginalized, who cannot afford or access formal health care systems, are especially dependent on these culturally familiar, technically simple, financially affordable and generally effective

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<sup>3</sup> *ibid.*

<sup>4</sup> *ibid.*

<sup>5</sup> See Kennedy (2004)

traditional medicines. Medicinal and aromatic plants are a central resource for traditional medicine in the region. It is estimated that in India, around 3,000 plant species are used of which 540 find major uses as herbal drugs. Similarly, in Nepal about 100 species are currently exploited for commercial uses and the numbers for other countries are: about 300 in Bhutan; around 250 in Bangladesh; and 400 in Pakistan (Holley and Cherla, n.d.). India is the centre of South Asia's export trade in medicinal plants, and in this country alone, it is estimated that the collection and processing of medicinal plants contributes to at least 35 million workdays of employment a year.

The scope for trade in health services in general, in the South Asian context, has increased also due to the initiation of the process of inclusion of services trade within the framework of the Agreement of South Asian Free Trade Area (SAFTA). A recent study shows that such an inclusion holds potential not just for ensuring greater intra-regional trade but also for raising the level of competitiveness in the South Asian region as a whole (ADB and UNCTAD 2008).

It is thus evident that traditional health practices are an important source of health care and livelihood in South Asian countries. In addition, these countries also seem to have comparative advantage in the export of traditional health services which is yet to be fully tapped. There is a pressing need to develop traditional health services to ensure affordable and accessible quality health care for all. In this regard, boosting the exports of traditional health services can help facilitate effective integration of traditional health systems into the mainstream national health systems, inject competition into the sector

and thereby realize the goal of making quality health care affordable and accessible to all. Other possible benefits are employment generation, and utilization and preservation of local resources. The research question of the study is thus to identify, estimate and delineate ways to tap the collective export potential of traditional health services in two South Asia countries, namely, Bhutan and Nepal.

## **1.2 Operational Definition of Traditional Health Services**

The study follows the broad definition of traditional medicine used by the World Health Organization (WHO 2002) wherein traditional medicine includes "diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness." The study limits the scope of traditional health medicine to the Ayurveda health practice in India and Nepal and the Sowa Rigpa health practice in Bhutan.<sup>6</sup> The focus of the study, however, will be on the services component of traditional health medicine. As per the General Agreement on Trade in Services (GATS) under the World Trade Organization, international trade in services can take place through four modes of supply namely Mode 1: cross-border supply<sup>7</sup>; Mode 2: consumption abroad<sup>8</sup>; Mode 3: commercial presence<sup>9</sup>; and Mode 4: movement of natural persons<sup>10</sup>. The study concentrates on Mode 2

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<sup>6</sup> The justification for selecting these particular health practices is that Nepal is home to Ayurveda and its use there is widespread while Sowa Rigpa has a widespread practice in Bhutan and has roots in Ayurveda (besides Chinese traditional medicine). Furthermore, 30 percent of the herbal materials used in traditional Bhutanese medicine are estimated to be sourced from India and Nepal (<http://www.itmonline.org/arts/bhutan.htm>).

<sup>7</sup> Cross-border supply covers the services flows from the territory of one member into the territory of another member

### 1.3 Objectives of study

Against this backdrop, the study, in light of the enunciated research question the objectives are to:

- Examine the role of traditional health system<sup>11</sup> in the South Asian nations of Bhutan and Nepal. The study was initially visualized to include three countries including India; unfortunately due to unfortunate circumstances (namely non-submission of Indian country report) this report could only be done on two countries. While acknowledging that the Indian report is necessary, due to the disappointing situation, the report is forced to be limited to two countries only.<sup>12</sup>
- Develop a basic framework for assessing potential of traditional health services export.
- Identify and assess their individual and collective export potential in traditional health services via a case study methodology.<sup>13</sup>
- Analyze implications for export of traditional health services which also benefits/strengthens the domestic formal health system

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<sup>8</sup> Consumption abroad refers to the situation where a service consumer moves into another member's territory to obtain a service

<sup>9</sup> Commercial presence implies that a service supplier of one member establishes a business presence, including through ownership or lease of premises, in another member's territory to provide a service. FDI is the most common channel under this mode.

<sup>10</sup> Movement of natural persons implies that the person of one member enters the territory of another member to supply a service.

<sup>11</sup> The study will follow the definition of traditional medicine used by the World Health Organization (WHO 2002) wherein traditional medicine includes "diverse health practices, approaches, knowledge and beliefs incorporating plant, animal, and/or mineral based medicines, spiritual therapies, manual techniques and exercises applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness."

<sup>12</sup> Though confined to two countries, the study will be a step towards assessing the traditional health service export potential of the entire South Asia region.

<sup>13</sup> The missing India study has constrained the assessment of collective export potential.

## **1.4 Methodology**

The methodology of the study is exploratory in nature based on secondary sources of information which is complemented with primary data to achieve the three above-mentioned specific objectives. The study first involves a comprehensive literature review with the researchers in Bhutan and Nepal. The review assesses the role of traditional health system in these countries. The review attempts to glean important factors which affect both the demand (e.g., quality, affordability and accessibility) and supply of traditional health services. The information allows further development of an export potential framework of traditional health services and identification of challenges to realizing the potential, if any.

In parallel to the above exercise and based upon the information from the review, the team members have purposively identified one institution each from Bhutan and Nepal (thus two institutions in total) which is involved in the delivery of traditional health services as defined above. The two identified-institutions are used as case studies for the administering of survey questionnaires to service consumers and in-depth interviews of service suppliers. Primary information is collected at the individual country level via three methods: (1) Questionnaires are conducted among traditional health service consumers in the above-identified institutions; these control for individual variability and incorporate the essential demand factors for health service trade. The sampling procedure adopted is multistage and random/convenience. (2) In-depth interviews are held in each

country with key informants, including the above-identified service providers, academicians, officials and experts on the role of supply factors, issues of traditional health services, their export potential and the challenges. (3) Focus group discussions are held in each country involving the concerned stakeholders.

Following data collection and presentation, an analytical assessment is made of individual and collective export potential of traditional health services. This will also point to potential challenges within the domestic health care system.

### **1.5 Structure of Study**

The study is organized in line with the above methodology. The next section reviews the health system and the role of traditional health system in Bhutan and Nepal. The third and fourth sections develop the conceptual framework, the collection of primary information based on this framework and the description of the results. The last section concludes with some recommendations.

### **1.6 Limitations**

The major limitation of the study is that it is primarily exploratory. The surveys are based on small samples and are done at a point in time and thus do not capture seasonal factors. The report also does not capture safeguards (e.g., protection of traditional knowledge and

prevention of biopiracy) for exports. These limitations have to be kept in mind when generalizing the results for policy actions.

## **II. Traditional Health Services in Bhutan and Nepal - Characteristics and role**

This section examines traditional health services in Bhutan and Nepal from three perspectives - stylized facts of the health system in general and the traditional health system in particular; then characteristics of the traditional health system; finally their role and assessment of contribution to the health system. The second section closes with some observations and issues.

### **2.1 Bhutan**

**2.1.1 Stylized Facts:** The economic importance of the health services sector in Bhutan contributes to a large share in social production and employment benefit. Three main legislations exist concerning health services in Bhutan: *National Health Policy, Bhutan Medical and Health Council Act, 2002*, which mainly regulates the health professionals and their conduct both in public and private sector, and the *National Drug Policy and Legislation*. The country also visualizes a greater role for traditional medicine in the overall health care system, as stated in the Bhutan Vision 2020 document. The document acknowledges that the maintenance of traditional medicine not only adds dimensions to the nation's system of health care, but provides an alternative for those who seek one.



In this regard, *Sowa-Rigpa* or traditional health service, continues to be a source of primary health care for a majority of the elderly folks in Bhutan and also a critical source of income for many rural households dwelling in the highland mountain areas (Box 1).

**Box 1: Sowa-Rigpa**

*Sowa-Rigpa* or 'wisdom health' is deeply integrated with Buddhist practices and theory which emphasizes the indivisible interdependence of mind, body and vitality. Some have stated it to be a science because its principles are enumerated in a systematic and logical framework based on an understanding of the body and its relationship to the environment. While others as an art because it uses diagnostic techniques based on creativity, insight, subtlety and compassion of the medical practitioner and others as a philosophy because it embraces the key Buddhist principles of altruism, karma and ethics.

*Sowa-Rigpa* employs three basic tools while diagnosing the patient; (i) visual diagnosis of the tongue and urine sample, (ii) pulse examining, (iii) questioning case history of family background and present conditions. Based on these diagnostic techniques, a series of services and medicines are offered. As it considers the health of the entire physical system of a person, traditional medicine is particularly effective and often more so than allopathic remedies in curing chronic diseases such as sinusitis, arthritis, asthma, rheumatism, liver problems, and diseases related to the digestive and nervous systems, among others. As a result, a significant number of patients seek the assistance of the traditional medical care system. The older generation is especially drawn towards traditional medical services.

### 2.1.2 Characteristics

*Sowa-Rigpa* officially started as an off-shoot of the Department of Health services in 1967 when the Royal Government recognized the scientific and cultural importance of *Sowa-Rigpa*.<sup>14</sup> It was initiated with a small indigenous dispensary in Dechencholing in 1968 with Late *Dungtsho*<sup>15</sup> Pem Dorji and *Dungtsho* Sherub Jorden, as principal healers; both of whom were trained in Tibet. In 1988, the Royal Government of Bhutan established a coordination centre at an indigenous dispensary in Thimphu. The facility included a laboratory, outpatient department, hostel and a library for training and made possible for the introduction of modern scientific methods into practices of traditional medicine. Plants and other materials used in medicinal formula are tested for their chemical and pharmaceutical contents. Over the next four years, National Institute of Traditional Medicine (NITM) got established, now named as the Institute of Traditional Medicine and Services (ITMS). There are three functional units under the ITMS;

- ***National Traditional Medicine Hospital*** is responsible for the development and provision of quality traditional medical care including different therapies. It is headed by a superintendent and eight *Dungtshos*. Services offered are daily OPD

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<sup>14</sup> With the arrival of Shabdrung Ngawang Namgyal in Bhutan in 1616, his Minister of Religion, Tenzing Drugda, started the spread and teaching of *Sowa-Rigpa*. Since then, the Bhutanese tradition of *Sowa-Rigpa* has developed independently of its Tibetan origins and although the basic texts used are the same, some differences in practice make it a tradition particular to the country. The specific knowledge and experience gained by the Bhutanese over the centuries are still very much alive in this medical tradition. The natural environment, with its exceptionally rich flora, also enabled the development of a pharmacopoeia which is very unique in the world (ITMS, 2005).

<sup>15</sup> Practitioner of traditional medicine registered under the Medical and Health Council Act of Bhutan. Literally, it also means physician-pharmacist.

consultations and medication, herbal spas and bath, steam bath-sauna and applications, nasal irrigation or aroma therapy, massage with medicinal oils, acupressure with golden and silver needle and moxabustion. However, at the district level, only acupressure with gold and silver needles is currently available. The types of medicines offered are different herbal mixtures that are manufactured as pills, tablets, capsules, syrups, ointment, medicated oil, or powder.

- ***National Institute of Traditional Medicine*** is headed by a Principal as the administrative head and is responsible for development of human resources required for the traditional medicine services. Five *Dungtshos* are working in the institute as lecturers and trainers offering trainings and courses on *Sowa-Rigpa* and related science elements.
- ***Pharmaceutical and Research Unit*** (PRU) is responsible for the manufacturing and production of medicines, conducting quality control for both raw materials and finished products, carrying out research activities and marketing of products. The PRU has three main sections namely the Production, Research and Quality Control and Marketing. A key input into traditional health services in Bhutan is the manufacture of traditional herbal medicines. The PRU of ITMS began mechanized production of medicines in 1982, without the use of chemical processes. Traditional medicine products in Bhutan are domestically researched and produced. Based on the *Sowa-Rigpa* texts, more than 2,990 different raw materials are required in the manufacture of traditional medicine. However,

within regular practice in Bhutan, only 265 different raw materials are used to produce 108 compounds (Journey with the Kings, 2008).

Likewise, Institute of Traditional Medicine and Services (ITMS) has three functions namely, the training of *Dungthso* and *Menpa* (traditional compounders), treatment of patients, and research into and production of indigenous medicine. The institute now has a pharmaceutical production unit and is assessing the possibilities of marketing its herbal products to the outside world.

International trade in health services is limited with the country in process for accession in the World Trade Organization.

### **2.1.3 Role and assessment**

*Sowa-Rigpa* largely meets the demand for primary health care in Bhutan, especially of the older segment of society. It is particularly effective and often more so than allopathic remedies in curing chronic diseases such as sinusitis, arthritis, asthma, rheumatism, liver problems, and diseases related to the digestive and nervous systems, among others. As a result, a significant number of patients seek the assistance of the traditional medical care system. In 2004, a total of 34,448 patients came for treatment to the NITM and Services hospital; the majority sought either acupressure with gold needles or steam bath as remedies. The demand for *Sowa-Rigpa* suggests that it is fulfilling the need in Bhutan for healthcare.

## 2.2 Nepal

### 2.2.1 Stylized Facts

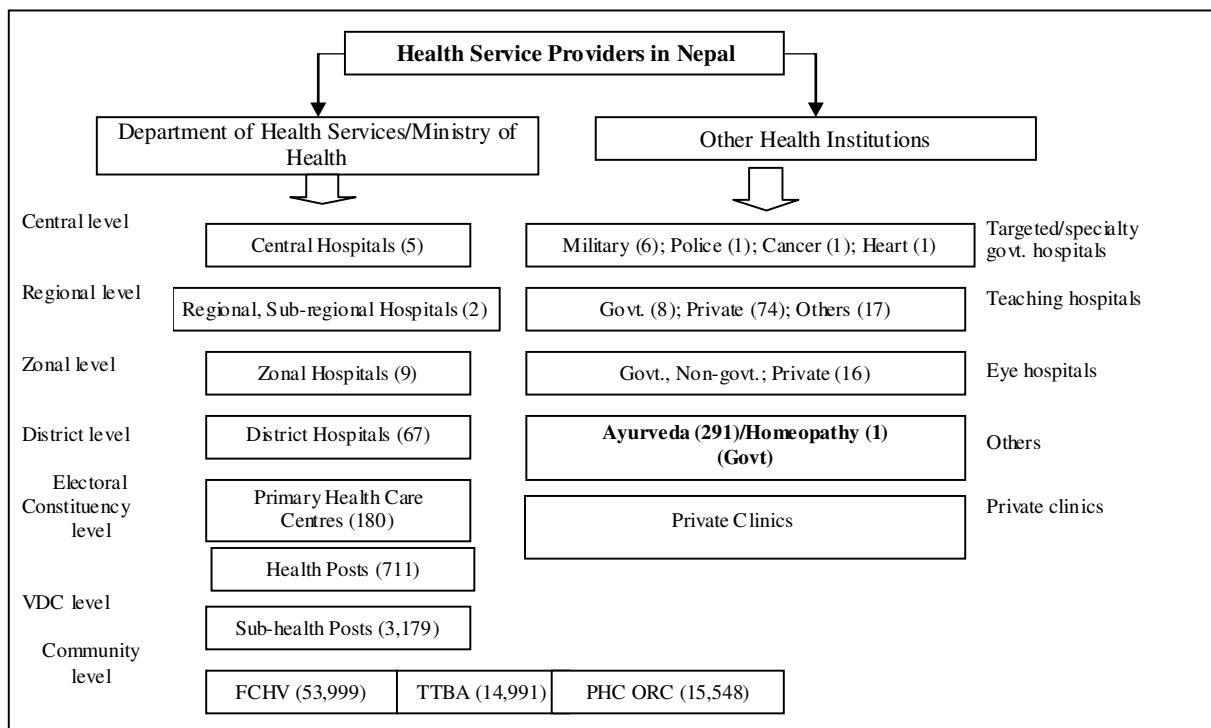
Nepal's health policy is primarily guided by the National Health Policy, 1991. The policy was adopted to bring about improvement in the health conditions of the people of Nepal with emphasis on preventive health services; promotive health services; curative health services; basic primary health services; ayurvedic and other traditional health services. There are many other policy documents governing health services in Nepal, a salient example in this regard is the current Three Year Interim Plan (TYIP; 2007-2010) whose main objective is to ensure citizens' fundamental right to improved health services through access to quality health services without any discrimination. The recognition of primary healthcare as a human right by the health policy has been further bolstered by the right to health being enshrined as a fundamental right in the Interim Constitution of Nepal 2007.

The conducive policy environment has flourished an extensive formal health system in the country. Primary and secondary health services in Nepal are largely provided by the public sector. Specialized services are open to both the public and private sectors. The public sector health service delivery mechanism is organized in a hierarchal structure—from the sub-health post (SHP) level to the central level.<sup>16</sup> The structure is presented in Chart 1 for both the public and private sectors.

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<sup>16</sup> The SHP is a first contact point with referral as necessary to higher levels of health services. The referral chain, as a policy objective, is to ensure that the majority of population are able to receive public health and minor treatment in places accessible to them and at a price they can afford.

**Chart 1: Network of health institutions and community health workers in Nepal**



Source: <http://www.moh.gov.np/Home/FACT.ASP>; SAWTEE (2008).

Public sector health institutions provide 59 percent of total beds. The private sector, comprising “for profit” institutions, non-governmental and mission organizations provide the remaining 41 percent (MoH 2003). However, the private sector institutions are concentrated in urban areas. This situation suggests that inequality in delivery of health services exist by type of formal health service provider. To increase the provision of health care, the TYIP recognizes the potential for trade in health services and incorporates strategies such as promoting the establishment and expansion of

telemedicine, and developing and expanding Ayurvedic and other alternative health service systems.

International trade in health services makes up a small proportion of total trade in services; it was only 0.8 percent in 2004. However, Nepal is a member of WTO and therefore has the potential for enhancing trade in health services. There are calls at the global level for making the classification of services under the WTO's GATS more comprehensive and efforts in that direction may result in traditional health services being included in the classification.

In regard to Ayurvedic health system, the National Health Policy, 1991 identifies its development along with other alternative medical systems as one of the strategies for achieving its objectives. It also emphasizes research in the area of traditional systems of medicine to enhance their quality and support their development. The Ayurveda Health Policy (AHP), 1995 was promulgated which has the principal objectives of improving the health conditions of the people at large and making them self-reliant in health services by utilizing local medicinal herbs and medical entities. It also seeks to develop Ayurveda treatment as a special treatment method in the country in a phase-wise manner. For the development of the Ayurvedic science and procurement of efficient manpower, the policy has emphasized the need for the establishment of specific institutions. To facilitate operationalization, the Tenth Five-Year Plan (2002-2007), which preceded the TYIP, had envisioned a policy of integrating modern and traditional health services into a single system so that both kinds of services are available at a single health facility. The ongoing

TYIP envisions that at the end of the plan period, “Ayurvedic and alternate health services made available in effective measure” (NPC 2007).

However, despite the provisions and the fact that an overwhelming majority of the population has faith in and utilizes the traditional health system<sup>17</sup>, traditional medicine has not received its due share in government budgetary allocation. The network of public Ayurveda facilities is not as widespread and dense as allopathic service facilities.

See Box 2 for the history of Ayurveda.

**Box 2: Ayurveda**

Ayurveda by definition means the science of life. It is the oldest known continuously practiced medical system in the world. Ayurvedic theory has influenced the development of many other medical systems, including Chinese, Arabic, Greek, Tibetan and modern medicine. The origin of Ayurveda can be traced back to the Vedic times, around 5,000-10,000 years ago. The medical knowledge in Atharvaveda, one of the four Vedas, is said to have gradually developed into Ayurveda. The knowledge of Ayurveda was passed down orally for generations before being recorded as part of the Vedas, the oldest books known on earth. Ayurveda is based on the ‘tridosha theory of disease’. The three doshas or humors are vata (wind), pitta (gall) and kapha (mucus). According to Ayurveda, a

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<sup>17</sup> Nepalis are attracted to traditional medicine including Ayurveda as there are no side-effects of such treatment and they have faith in the system that is part of their own culture and heritage. Moreover, the popularization of pranayam/yoga by Ram Dev, the Indian pranayam guru, is also attracting city dwellers towards various forms of traditional medicine.



disturbance in the equilibrium of these humors causes disease.

Nepal has a special place in the history of Ayurveda as it is widely believed that the original knowledge of Ayurveda was obtained in the Himalayan foothills of Nepal. Not only is the country home to nearly 40,000 hand-written classical Ayurvedic manuscripts, its rich biodiversity associated with its topographical diversity makes Nepal home to some 1,700 medical plants used in Ayurvedic treatment.

### **2.2.2 Characteristics**

The provision of Ayurveda health services, as mentioned above, is deeply rooted in Nepali society. The description of its characteristics can be broken down into both the formal and the informal sector:

- At the formal level, the state is the major provider of Ayurveda services. There is one Ayurvedic Hospital with 118 beds (including 18 cabins) in Kathmandu (established with four beds around 1918), another Ayurvedic Hospital in Dang district in west Nepal with 30 beds, 61 District Ayurveda Health Centers, 14 Zonal Ayurveda Dispensaries, and 214 local Ayurveda Dispensaries across the country.<sup>18</sup> All these Ayurveda facilities are providing services free of cost or at nominal charge. The departments in the Ayurveda Hospital in Kathmandu include Internal Medicine (Kayachikitsa), Surgery (Shalya), ENT (Shalakyā), Pediatrics (Baal Roga), Gynecology (Stri Roga) and Obstetrics, Acupuncture, Moxibustion,

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<sup>18</sup> Nepal is administratively divided into five development regions, 14 zones and 75 districts.

and Panchakarma. The hospital has its own pharmacy to manufacture medicine. It is very popular for the treatment of Jaundice. Its pathology lab has facilities for testing urine, stool and blood with x-ray, USG and ECG. It also provides facilities of Swaden (therapeutic sweating) and Snehana (massaging the skin with different oils). The hospital is also functioning as a teaching hospital for Bachelor's in Ayurveda Medicine and Surgery (BAMS) students. There is no reliable data on the number of private sector providers of traditional health services, including Ayurvedic. There are at least 18 traditional healers in Kathmandu valley alone. Piyushabarshi Aushadhalaya is one of the oldest Ayurvedic clinics in Kathmandu, run by a family for the last 700 years. It attracts people with chronic diseases such as hepatitis, breast cancer, prostate cancer, tumor and cysts, and metastatic conditions. Discussion with experts, practitioners and the head of the Department of Ayurveda (where Ayurveda clinics are required to register) indicates that Ayurveda clinics are mushrooming in the country, especially in Kathmandu, but most are not duly registered with the government. Most of the clinics offer only short consultation services, including prescription of Ayurvedic medicines. Usually, a private Ayurveda pharmacy doubles as an Ayurveda clinic. There are about half a dozen (exact number is not known) Ayurveda service centres offering Ayurveda in Kathmandu. Experts say that such service centres are not available outside Kathmandu valley. Besides, there are more than five dozen non-governmental organizations (NGOs) and international non-governmental organizations (INGOs) working in the areas of conservation of medicinal and aromatic plants (Koirala and Khaniya 2008). Yoga/pranayam classes are also run

across the country, mainly informally. By virtue of traditional role of Ayurveda in providing health services, much of it is still in the informal sector.

- Ayurveda practitioners in Nepal can be divided into two categories (Koirala, n.d.). First, Ayurveda based-traditional healers, who have been practicing it as a family profession for generations. Second, academic Ayurveda practitioners trained from educational institutions, training centers, colleges and universities. The former are mostly concentrated in the informal sector whereas the latter operate in the formal sector. The estimated number of traditional healers in Nepal is 400,000. A large proportion of the population still depends upon these practitioners. According to data available from Nepal Medical Council, formally trained Ayurveda practitioners number around 1,300, including 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). For the formal training of these Ayurvedic practitioners in Nepal, there are nine Ayurveda campuses/colleges/institutes running Bachelor's and Certificate Level classes in the country. The state-run Ayurveda Campus, under the Institute of Medicine of Tribhuvan University, is located in Kathmandu and runs Bachelor's in Ayurveda Medicine and Surgery (BAMS). A recently established private institute in Janakpur district (southeast Nepal) affiliated to Nepal Sanskrit University also offers BAMS. In addition, a National Ayurveda Research and Training Centre is being established with the assistance of the Chinese government.

- There is one government-owned Ayurveda medicine-producing unit, the over 350-year-old Singha Durbar Baidhyakhana Vikas Samiti. It is operating below capacity and faces quality constraints (Koirala, n.d.). There are 31 private, domestic-owned Ayurveda pharmaceutical companies and 28 foreign-owned Ayurveda pharmaceutical companies.

### **2.2.3 Role and Assessment**

Although the use of modern medicine has been increasing over the years in Nepal, more than 75 percent of the population in the country is estimated to use traditional medicine.<sup>19</sup> This maybe because traditional medicine in Nepal has a strong cultural and religious background; indigenous and local communities have been using traditional and indigenous knowledge for centuries under local laws, customs and traditions (Koirala and Khaniya 2008). Ayurveda, Amchi, Homeopathy (including Yunani) and Naturopathy are the important traditional health systems in practice in Nepal. Among them, Ayurveda is the oldest and most popular traditional health care system in Nepal (Koirala, n.d.). Domestic demand for Ayurveda services can be looked at two levels. In rural areas, people often have no choice but to rely on traditional healers either because they do not have access to allopathic health services or because they cannot afford them. Another driving factor is considered to be their faith in traditional medicine, rooted as it is in local culture, tradition and religion. In urban areas, people avail of the services of Ayurveda doctors, whether at government-run facilities or at private clinics, mainly because of their

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<sup>19</sup> [http://www.ayurnepal.com/articles/rajendra\\_status\\_ayurveda\\_nepal.htm](http://www.ayurnepal.com/articles/rajendra_status_ayurveda_nepal.htm)

faith in Ayurveda and their belief that such treatments have little or no side effects, unlike allopathic medicine. Experts point out that people with chronic diseases who have lost faith in modern medicine to cure them, seek recourse in Ayurveda medication. The government not only recognizes Ayurveda and Homeopathy (including Yunani) health service systems but also provides such services, with Ayurveda service providers having the greatest network and reach. It can be concluded that Ayurveda plays an important role in the Nepali health system and it has thus far been successful in treatment.

### **2.3 Summary**

It is observed that the two countries of Bhutan and Nepal have acknowledged, in policy documents, the importance of access to health services for the overall well being of their respective population. In this regard, the formal health system has tried to harness the power of traditional health services and integrate this into their health system. This in part is due to their historical importance and wide-spread accessibility to the general citizenry. The provision of traditional health services in Bhutan and Nepal is characterized by supply of health service centers, practitioners and drugs both in the formal and the informal sector. There is continuing faith in the prescription of traditional health service, and this seems to play a significant role in bridging the demand of the population. This is particularly true for those in remote areas, where allopathic health services have not been able to make inroads. Unfortunately, traditional health medicine is seen as an alternative (competing) health service and, in the case of Nepal, there has not been full integration into the formal health system.



### **III. Conceptual Framework, Methodology of Data Collection and Survey Results**

This section develops a conceptual framework for capturing the export potential of traditional health services and applies it to Bhutan and Nepal. The section proceeds in three parts: development of a conceptual framework; discussion of methodology of data collection; and presentation of the survey results.

#### **3.1 Conceptual Framework**

There is no generally agreed index for export potential in services trade in contrast to determining the export potential in merchandise trade. This difficulty is largely due to the intangible nature of services trade. However, there are attempts to measure relative competitiveness of services, for example by estimating the Revealed Comparative Advantage (RCA) index. RCA index is obtained by using the formula:  $RCA = (X_{iw}^k / X_{iw}^{\Sigma k}) / (X_w^k / X_w^{\Sigma k})$ , where  $X_{iw}^k$  is country i's world export of services k,  $X_{iw}^{\Sigma k}$  is country i's export of services,  $X_w^k$  is world export of services k, and  $X_w^{\Sigma k}$  is world export of goods and services.

From this index, a particular sector is considered globally competitive if the estimated RCA index is found to be greater than one (Balassa 1965). This method is highly data-intensive and, unfortunately for the three identified countries there is a dearth of available

data leading to poor quality result which is thus less reliable for policy recommendation purposes (De 2006). Another shortcoming of RCA is that it relies on past trade data and hence does not reflect the trade potential in a new sector.

Another attempt is by Mattoo, Rathindran and Subramanian (2001), who have tried to choose variables for the index which are more policy type rather than outcomes of policies. Unfortunately, this also fall prey to the above criticism of lack of quality data.

Due to these limitations, the analysis for this study of export potential is based on the conceptual components which influence the export potential of services, as observed in the above literature review. These conceptual components, while distinct, carry parts of both natural comparative advantage, e.g. relative endowments of factors of production together with their productivity as well as natural conditions, as well as competitive advantage, e.g. a host of factors affecting competitiveness, including infrastructural status, investment/business climate and government policies. The following five main components are used for suggesting the potential for export of services, as used in SAWTEE (2008):

- ***Natural endowments:*** This factor enhances a country's comparative advantage. If a county has some special or abundant natural resources conducive to enhancing or facilitating a particular service, then that country can deliver that service both more effectively and efficiently. This factor is fundamental in the traditional analysis of comparative economics.



- ***Level of market integration including cultural and linguistic affinities:*** This factor enhances a country's comparative advantage. A country with greater market integration and cultural and linguistic affinities with potential consumers has higher potential to export services since transaction costs are reduced. This has basis in relation to economics related to spatial geography.
- ***Policy and regulatory provisions:*** This factor enhances a country's competitive advantage. A stable legislative atmosphere offers a predictable and transparent environment which has an important bearing on the competitiveness of a host country. This is especially important in areas like labour laws, property and market access rules, and environmental protection. All these affect the ease of doing business.
- ***Comparative cost structure:*** This factor contributes to a country's competitive advantage and suggests that services can be delivered at relatively cheaper cost. A country with a relatively low cost structure has the potential to attract foreigners for the consumption of services provided by the domestic country via various modes.
- ***Level of skill and human capital:*** This factor contributes to a country's competitive advantage since more qualified and efficient human resources reduce the cost of doing business and, at the same time, attract greater public trust.

### **3.2 Methodology**

The prior discussion suggests the difficulty in capturing the export potential of services. This study addresses this issue by utilizing a balanced and appropriate measure(s) in

order to collect necessary information for assessing the influencing of the above mentioned categories for insight into the export potential of traditional health services. These will be gotten from three perspectives – e.g. consumers, suppliers and experts via primary surveys.

To collect this information Deardorff (2001) has proposed an interesting methodology to theoretically measure the benefit of relaxing barriers to trade in services. The nature of trade services are such that their demand arises from trade itself or presumably from trade in other industries. Examples for trade in services may be transportation, communication and financial services. Deardorff decomposed the drivers of trade in services into (i) comparative advantage (ii) reduced distance and (iii) elimination of fixed costs. Indirectly, it might be capturing (a) economies of scale and (b) economies of time. However, the whole exercise needs reasonable assumptions and measurements about costs of the services as well as some other control variables like distance, quantity of services etc. This study uses the above methodology and modulates the focus based on SAWTEE (2008), to include both information channels and perceptions of problems faced.

The study looks into a modified cost benefit analysis. The above-information is categorized into five groups - e.g. characteristics of respondents; information channels; transportation matters; aspects of service consumers; and problems and suggestions. They are collected from three perspectives:

- A questionnaire based on the above export potential framework and also controlling for individual variability and incorporating the essential demand factors for health service trade. The sampling procedure adopted will be purposive and random/convenience. The utilized questionnaire is attached.
- In-depth interviews with key informants, including the above-identified service providers, academicians, officials and experts on the role of supply factors on issues of traditional health services, their export potential and the challenges.
- A focus group discussion is held in each country involving the concerned stakeholders.

**3.3 Survey Results:** This sub-section provides discussion of survey results, which are categorized into three groups: consumer surveys; in-depth interviews; FGD. Each group encapsulates primary information from the three country reports of Bhutan, India and Nepal. The country reports are attached in the appendix and provide more detailed information.

### **3.3.1 Consumer Survey**

In each country, the developed questionnaire was used to survey consumers in a traditional health service provider. In this regard, the team members purposively identified one each institution from Bhutan and Nepal (thus two institutions in total) which are involved in the delivery (preferably also export) of traditional health services. As covering all of the variety of traditional health practices would not be feasible, the

proposed study focused on the Ayurveda health practice in Nepal and the Sowa Rigpa health practice in Bhutan.<sup>20</sup> These are:

Bhutan: Institute of Traditional Medicine and Services (ITMS) was established in the early 1990s as the National Institute of Traditional Medicine (NITM) got established. It has three functions namely, the training of Dungthso and Menpa (traditional compounders), treatment of patients, and research into and production of indigenous medicine. The institute now has a pharmaceutical production unit and is assessing the possibilities of marketing its herbal products to the outside world.

Nepal: Ayurveda Health Home (AHH)—a leading private sector Ayurveda health service provider (under Nepal-German joint management) staffed with ace practitioners that also exports its services—was selected as an institution for the Nepal country case study. AHH was established in 1995 as a Nepal-German joint venture. Located in Dhapashi on the outskirts of Kathmandu city, it has been providing a wide range of services to Nepali nationals as well as foreign nationals since its inception; for description of the services as well as their corresponding prices refer to the attached country report. Its staff size is 36, including two doctors, one chief therapist and 22 therapists. The chief therapist and therapists are trained by AHH. A one-year theoretical training is followed by two years of paid on-the-job training. The trainees have to sit for three levels of exams and their promotion is based on their performance in the exams. AHH has six residential beds and

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<sup>20</sup> The justification for selecting these particular health practices is that Nepal is home to Ayurveda and its use there is widespread while Sowa Rigpa has a widespread practice in Bhutan and has roots in Ayurveda (besides Chinese traditional medicine). Furthermore, 30 percent of the herbal materials used in traditional Bhutanese medicine are estimated to be sourced from India and Nepal (<http://www.itmonline.org/arts/bhutan.htm>).

eight treatment beds. However, AHH is not a hospital. It does not admit patients with communicable infectious diseases or who need emergency or continual medical attention or who cannot manage themselves. AHH has an outreach centre at Putalisadak, Kathmandu that provides short consultation services, mainly catering for domestic consumers. AHH also provides Ayurveda training.

The above two identified institutions were used as case studies for the administering of survey questionnaires to service consumers and in-depth interviews of service suppliers. In Bhutan, 50 consumers were surveyed. In Nepal, 43 consumers were surveyed. The results are:

*Characteristics:* This sub-section includes classification by citizenship and residency, gender, age, education and occupation.

Bhutan: Of the 50 persons surveyed, 49 were domestic nationals and 1 was a foreign national. Of the Bhutanese nations surveyed the residence of 62 percent were residing in Thimphu and 38 percent were coming from other districts. In terms of gender, 32 percent were males and 66 percent females. Likewise 82 percent were under the age group ranging between 15-59 years and 18 percent above 59 years.

Nepal: Of the 43 persons surveyed, 32 of them were Nepali nationals while 11 of them were foreign nationals.

- Of the 32 Nepali nationals, 25 were permanent residents of Kathmandu, while 4 were temporary residents of Kathmandu. Interestingly, the remaining three (1 being a permanent resident of Syangja district in west Nepal who had come to Kathmandu exclusively for treatment, and two being Nepali working overseas) were non-resident but all had come to AHH for the primary purpose of health treatment. Likewise, 78 percent were men, 64 percent were in their mid-20s to early 40s, and nearly two thirds had a Bachelor's degree. As regards profession, some 62.5 percent of the respondents were engaged in the service sector, about 22 percent in business, 9.4 percent were students, one respondent was engaged in industry, and another respondent was a farm labourer.
- The composition of the 11 foreign nationals was quite fragmented: 2 each were from Austria, the US, the UK and Switzerland, and 1 each from Turkey, France and Kazakhstan. The majority of the respondents (64 percent) were female. The median age level is 49.5 years. Likewise, the median year of education was 15 years. As regards profession, some 45.5 percent of the respondents (5) were engaged in the service sector, two respondents were therapists/health workers, and one each was engaged in business, a student, a housewife, and retired (doing voluntary work). The majority of foreign visitors to AHH come to Nepal with health treatment as the main purpose.<sup>21</sup>

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<sup>21</sup> The primary purpose of visit to Nepal for 9 respondents (81.8 percent) was health treatment. For one respondent religion was the primary purpose while for another, it was visiting friends and sightseeing. Among those respondents who also had a secondary purpose of visiting Nepal, 37.5 percent cited visiting friends and/or sightseeing, 25 percent each cited health and religion, and 12.5 percent cited business. One respondent had been visiting Nepal for “many years”.

*The characteristics of surveyed consumers were generally domestic nationals. But of those, a significant portion were non-resident, implying that there was motivation to come to the respective service provider. No definitive observation can be made on gender and age group, as conclusions varied. It appears that the consumers in Nepal have, in general, a college education and are working in the service sector – this suggests that majority of consumers are not simply uneducated and lay persons.*

**Information Channels:** This sub-section includes medium of information dissemination and how this affected the individual consumer decision making.

Bhutan: Of the persons surveyed, sixty percent (60 percent) of the service consumers heard the benefits and treatment of *Sowa-Rigpa* and the ITMS through family members. However, only 47.4 percent of the service consumers were affected positively on their decision to choose the traditional health service provider vis-à-vis going to the formal health system, while for 52.6 percent the service consumers were indifferent to the information. A little over 17 percent of the consumers heard about the service provider through previous visitors and convinced 83.3 percent of them to visit the institute to avail of the services. Word-of-mouth information channel was reported by 11.4 percent and all (100 percent) were influenced positively and attended the clinic services.

Nepal:

- Of the Nepali respondents, friends were the main source of information about the traditional health service provider for 37.5 percent of the respondents; previous

visitors for about 20 percent of the respondents; other service (allopathic) providers for 12.5 percent of the respondents; and media for another 15.6 percent. For 78 percent of the respondents, the information thus received had a positive influence on them to decide to opt for traditional health service provider vis-à-vis other health systems. For the remaining 22 percent, the information had a neutral effect on their decision.

- Of the foreign respondents in Nepal, 36.4 percent said that the media was the major source of information about AHH service. For 27.3 percent, previous visitors were the major source of information. Reputation of AHH was the major source of information for 18.2 percent, and family members and friends for 9 percent each. Respondents were also asked to cite multiple channels if applicable. Taking into account all the responses, previous visitors were a source of information for 54 percent of the respondents, and reputation for 36 percent. This indicates that word of mouth is an important source of information for foreign consumers. Also, all the respondents said the information they got had positively influenced their decision to opt for traditional health service vis-à-vis other health systems.

*The survey suggests that information channels are limited to traditional forms, such as word of mouth or friends with personal contact. Further, information from word of mouth positively affected their decision.*

### ***Transportation Matters***



Bhutan: The survey revealed that over 62 percent of the service consumers (although from different places) were residing in Thimphu and 38 percent service consumers coming from other districts. Transportation means were mainly local transport or walking.

Nepal: The Nepali nationals presumably used local transport. On the other hand, all foreign nations came to Nepal by means of air transportation. Only six respondents replied to the query about problem while traveling to Nepal. Four said they faced no problem, one cited cost of travel and one cited theft at the international airport in Kathmandu.

*The survey suggests that local transport was mainly used. The international consumers used air transport.*

*Aspects of service consumed:* This portion includes cost, expectations and willingness to pay.

Bhutan: About 90 percent of the visitors reported receiving excellent services from the service provider with about 62 percent of the service consumers having full faith in *Sowa-Rigpa* health care and visited the service provider, while 20 percent visited because of the beneficial health service they received in the past. The degree of visitors' satisfaction or the expectation met depended largely on the type of health problems and

the related services or treatment. For instance, 100 percent of the service consumers with problems related to respiratory diseases, loss of appetite and falling within the other disease category reported the *Sowa-Rigpa* services as 'excellent'. Similarly, 70 percent of the patients with joint aches rated the services consumed 'excellent' and the remaining 30 percent as 'moderate'. Likewise, only 61.5 percent of the service consumers with high blood pressure reported 'excellent'. The services were fully subsidized by the state.

Nepal:

- Of the Nepali nationals, over two thirds cited trust in the service provider was the main reason for visiting the clinic. Of the 32 respondents, 30 said their expectations were met by the service provider while 2 said their expectations were not met by the service provider. The maximum proportion of respondents (37.5 percent) were not willing to pay any more than what they were already paying for the service,
- Of the foreign nationals, 73 percent of the respondents said quality of the service was the main reason that drew them to AHH. Trust in the service provider and recommendations by previous visitors were cited as the main reason by 9 percent each. One respondent's reply was "they say they can treat", implying that treatment at AHH was his/her last hope of getting cured. Only five of the 11 respondents responded to the question of willingness to pay. Three (60 percent) were willing to pay 10 percent more, one (20 percent) was willing to pay 5 percent more and another one was not sure.

*The survey suggests that, the majority of domestic national consumers were based on trust with the particular service provider, with their expectation having been met after the treatment. It is interesting to note that in Bhutan, the meeting of expectations is disease dependent. In regard to willingness to pay, Nepali nationals were less willing to pay for more for the service, but the majority of foreign nationals who responded say that there was a willingness to pay more. This implies that from a price perspective to foreign consumers, the service is competitive.*

### ***Problems and suggestions***

Bhutan: None provided

Nepal:

- The bulk of the Nepali national respondents (84.4 percent) said they did not face any problems while receiving services at the clinic. For the 15.6 percent who faced problems while receiving services, the problems identified were the crowd of consumers at the clinic and lengthy queues leading to long waiting time, and the lengthy recovery process. The majority of the respondents suggested improving accessibility for patients through branch expansion. A sizeable proportion of respondents (46.2 percent) identified the need for publicizing the service and the benefits of Ayurveda so that more patients can avail themselves of

the traditional health service. About 19 percent said the clinic should be turned into a hospital (as so far there is not a single private Ayurveda hospital in Nepal). Other suggestions were provision of government support to Ayurveda health system, reduction of cost of Ayurveda medicines, opening up more Ayurveda research centers, production of qualified Ayurveda doctors, integration of Ayurveda with modern medicine, assuring consumers that there are not side effects and further enhancing service quality.

- All the foreign national respondents said they did not face any problem at the service provider. As regards problem outside the service provider, six of the eight respondents said they did not face any problem while two cited heavy traffic in Kathmandu, pollution and power cuts as problems.

*The survey suggests that consumers in Nepal did not have significant problems. This may be because of the choice of service providers – in Nepal AHH is a joint venture with greater focus on quality service. Thus, AHH would naturally address any concerns.*

**3.3.2 In-Depth Interview:** These were held in each country with key informants, including the above-identified service providers, academicians, officials and experts on the role of supply factors on issues of traditional health services, their export potential and the challenges. In Bhutan this was done jointly with the FGD involving at least ten people comprising of four traditional clinical assistants, three managers / administrators and three *Drungtsho*, working at the ITMS in Thimphu. In Nepal, the in-depth interviews

were taken with the service provider<sup>22</sup> (AHH), one policy maker<sup>23</sup> and one health economist<sup>24</sup>. The following is a synthesis of the summary interview findings, from the country reports.

### ***Export potential***

- People of developed countries are increasingly attracted towards what they call alternative and complementary medicine, there is potential to export traditional health services through Mode 2. Similarly faith in the service provider appears to be the most attractive factor for the western consumers in the traditional medical services followed by beneficial and quality services, suggested by previous visitors and no cost to the services availed. In the last two years *Sowa-Rigpa* at ITMS had 52 foreigners in 2007 and 63 in 2008. Likewise for AHH in 2007/08 1232 persons consumed health services of which 73.7 percent (909 persons) were foreign consumers.
- There is potential to export traditional health services through Mode 2 by cashing in on climatic diversity and pleasant climate of places like Kathmandu and Thimpu. Natural beauty is a potential source of comparative advantage for exporting traditional health services through Mode 2. Natural healing could be an attraction for tourists visiting Nepal and hence could be made a component of vacation packages. Traditional health services (Ayurveda and/or *Sowa-Rigpa*) could be offered at resorts/healing centres.

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<sup>22</sup> Dr. Rishi Ram Koirala, Medical Director, Ayurveda Health Home.

<sup>23</sup> Gyanendra Kumar Shrestha, Coordinator, National Planning Commission, Government of Nepal.

<sup>24</sup> Bishnu Prasad Sharma, General Secretary, Nepal Health Economics Research Council, Kathmandu.

- Currently, there are no officially documented targeted programs for western patients but discussions have been initiated on attracting new consumers in the form of traditional/indigenous tourism programs such as introduction of advocacy activities, health tourism, establishment of a museum and augmentation of infrastructures and human resources.

### ***Barriers***

- There is lack of knowledge of traditional practice. This is the case for *Sowa-Rigpa* is encountering certain problems with western consumers owing to different customary and traditional practices and is awaiting scientific validation and documentary evidence on the prescription of medicines and treatments. Lack of awareness among foreigners about the effectiveness and special features of traditional medicine practiced in Nepal (e.g., absence of side effects) is another barrier to exporting such services substantially. Lack of publicity is the major cause behind such lack of awareness. Similarly for Nepal, absence of recognition by health insurance companies in developed countries of traditional medicine practised in Nepal is a major deterrent to inducing foreigners to seek medication in traditional health service facilities in the country for any illness.
- Similarly, pharmacy products bear traditional/vernacular names, mostly prescribed in Dzongkha (national language) which do not state any scientific understanding from the western consumers' perspective. AHH has also identified language as a barrier given the diversity of international health consumers. Likewise, lack of proper therapy units, low technical capacity and lack of related

infrastructure continue to be the general problem. Similarly, the lack of adequate advocacy, insufficient infrastructure and human resource, rudimentary research and development have been acting as barriers towards effective delivery of services. Maintaining international standards in the quality of human resources and service quality is of vital importance.

- Traditional medicine has developed as a supplementary medicine only. It remains to be systematized, institutionalized and made transparent. The attitude of modern medicine towards traditional medicine in Nepal is to a large extent that of mistrust.

### *Suggestions*

- Improve and maintain quality of human resources and services via increasing budget and enhancing R&D.
- Launch an effective publicity campaign highlighting the effectiveness and special features of traditional medicine and health services targeted at foreigners (health tourism).
- Traditional medicine (e.g., natural healing therapies) should be incorporated in tourist packages and such packages should be publicized far and wide. Lessons can be drawn from India's success in publicizing its traditional medicine globally.
- Climatic conditions should be capitalized on for promoting health tourism with focus on traditional medicine.
- Private sector should be encouraged to provide quality traditional health services targeting tourists.

- For Nepal, implement the plan to integrate traditional and modern health systems so as to expedite the effective mainstreaming and formalization of traditional medicine in the country. A preliminary step in this regard would be disease-wise cross-referral, if not full-fledged integration altogether, which may be feasible in the short to medium run.

### **3.3.3 Focus Group Discussion (FGD)**

FGDs were conducted for a small group of participants to get their view. The Bhutan FGD was in conjunction with the in-depth interview as mentioned above. The Nepal FGD was held in Kathmandu. In the Nepal FGD, there were eight participants, including Ayurveda practitioners, academicians, public and private service providers, government officials, policy makers and experts. The FGDs centered on two issues: country specific export potential in Ayurveda services and the constraints to realizing that potential.

#### ***Export potential***

- There is potential for international export since the demand for traditional medicine (called complementary and alternative medicine in the West) has been growing strongly over the last 15 years, especially in developed countries. Though various traditional medicine services are available in developed countries, consuming those services at the countries of origin has a special appeal. Encouragingly, there is resurgence of faith in traditional medicine; this is the case



among Nepalis living in urban areas after decades of domination of traditional health systems by modern medicine.

- One advantage for both Bhutan and Nepal is the altitudinal and climatic diversity that provides a natural habitat for medicinal plants, which point to the potential for health tourism. Discussion highlighted the Sri Lanka experience where resorts offering traditional health services were included in the tourist circuits, and thus could be an effective vehicle for health tourism. In the Nepal FGD, the potential was also pointed out for having old-age homes, where Nepal has a comparative advantage due to pleasant climate and low cost of living compared to developed countries. In fact, Americans and Japanese have shown interest to open such homes in Nepal.
- Another potential area is provision of Ayurveda-related training courses for foreigners.

#### ***Constraints/solutions***

- There is lack of knowledge of traditional health practices and resources. This had come up in the Bhutan FGD. This had also come up in the Nepal FGD where it was highlighted that natural resources and knowledge have neither been effectively preserved nor utilized. In both FGDs, it was felt that there should be a method to keep track of the traditional medicines. In this regard, the Nepal FGD suggested having comprehensive identification, mapping and documentation of medicinal plants and traditional medicinal knowledge at the district level.

- A challenge is maintaining the quality of services. This was highlighted in both the Bhutan FGD as well as Nepal FGD. The Nepal FGD highlighted that there is lack of research on Ayurveda. In-depth research and documentation are needed to inform foreigners about the special services Nepal has to offer in Ayurveda. It is important to identify diseases and ailments for which Ayurveda is more effective than modern medicine. Those Ayurveda services will have to be promoted. In this regard, the example of the government-run Ayurveda Hospital at Nardevi, Kathmandu was highlighted where there was negligible number of foreign patients despite having the potential to attract foreign consumers. Quality standard remains a barrier.

In the Nepal FGD some other constraints were highlighted, namely:

- Human resource is a constraint, both quantitatively and qualitatively. Nepal's BAMS course is not recognized abroad; this is holding BAMS graduates from pursuing higher Ayurveda education in India. Efforts should be made at the national level, making use of diplomatic channels, to have Nepali BAMS course recognized by Indian universities.
- There is lack of inter-ministry coordination. There is little coordination between the Department of Ayurveda (DoA) under the Health Ministry and the Department of Plant Resources under the Ministry of Forests and Soil Conservation.
- Ayurveda medicines not available in all districts in adequate quantities; pharmaceutical production is limited; 85 percent of Ayurveda pharmaceuticals are

imported. There is a lot of room to broaden and deepen the use of Ayurveda medicine at the domestic level. Doing so will foster domestic consumption of Ayurveda services, creating a base for exports through Mode 2.

- There is uncertainty about eligibility for reimbursement of expenses on Ayurveda medication by foreigners. Eligibility varies across insurance companies and services. However, 33 percent of the patients at AHH get reimbursed.
- Allopathic medicine lobby dominates Ayurveda lobby in policy, plan and programme formulation and implementation. The Interim Plan has provisions for the development of the Ayurveda sector but when it comes to formulation of annual programmes, where the plan provisions are to be implemented, Ayurveda is completely overshadowed. There is a need for vigilance on the part of Ayurveda stakeholders to ensure that the plan provisions get implemented.
- Ayurveda was recognized as a national medical science as opposed to alternative medicine in 1995, but implementation is weak. Ayurveda receives step-motherly treatment from the state. Budgetary allocation for Ayurveda is a pittance. Many of the provisions of the Ayurveda Health Policy 1995 remain unimplemented.

## **IV. Analysis of Survey Results**

This section provides analysis of the survey results and discusses both the export of traditional health services and the barriers which impede their attainment. The section is structured into three parts: first, discussion on export potential; second, discussion on barriers; lastly, the implication for the domestic health system of traditional health service exports.

### **4.1 Export Potential of Traditional Health Services**

The survey results from both in-depth interview and FGD in both Bhutan and Nepal, show that there is potential for export of traditional health medicine. The consumer surveys also support this conclusion, but in a more restrained manner due to the nature of the service provider (in Bhutan, the service provider is public while in Nepal, the service provider is private and export oriented). This conclusion is attributed to a number of reasons:

- **Natural Features:** Bhutan and Nepal are situated in the region of the Himalayan mountain range and therefore benefit from a pleasant climate. This contributes to both the production of quality health products, provision of effective health services, and rest and recovery;
- **Historical Advantage:** Both countries have a long history in their respective traditional health service. This has generated faith in those health services by

- domestic nationals. This is also the case in the foreign nationals at the service providers, but a note of caution is warranted as this may reflect selection bias.
- **Clarity in Policy:** There already exists a legal structure and clear rules and regulations which will facilitate incorporation into the health system. This will also lead to credibility in the service provided.
  - **Treatment Effectiveness and Price Advantage:** There is suggestive evidence that some of the treatments are both more effective and healthy (in terms of side effects) vis-à-vis allopathic health services. While the treatment is subsidized by the respective governments, its widespread utilization suggests that it may be relatively less expensive vis-à-vis allopathic health services. This should be particularly attractive to foreign consumers.
  - **Existence of Skilled Manpower.** There is a rich supply of persons with traditional practice. From a formal perspective, institutions exist, e.g. ITMS in Bhutan, while in Nepal there are nine Ayurveda campuses/colleges/institutes running Bachelor's and Certificate Level classes.

This suggests that traditional health service has export potential.

But, the above analysis implicitly takes trade as that of international trade. The consumer survey had shown that existing trade is mainly at the domestic level: in Bhutan 49 of 50 were domestic nationals while in Nepal the case was 32 of 43. For the Nepal case the result is conditional on the export-oriented nature of the selected traditional health institution, where 74 percent of consumers in 2007/08 were foreigners. Nonetheless, the

survey suggests that there already exists domestic trade in traditional health services, which indicates at the under-achieved potential for international services trade.

#### **4.2 Barriers and Constraints to Export of Traditional Health Services**

The study has highlighted a number of barriers. They are categorized into five groups.

- **Trade Facilitation Issues:** Transport cost directly affects consumption abroad of both domestic and international trade. There is also a problem with language and customs.
- **Information of Traditional Health Services:** There is lack of information dissemination on the benefits of traditional health services – both by the public and private sources. This makes the informed choice of health service providers, especially by non-residents, very difficult. At present and in general, decisions have to be made based on word of mouth or through third hand experience.
- **Credibility of Traditional Health Services:** Faith is a driving factor for consumption of traditional health services. Consumer surveys showed some patients taking recourse to traditional medicine as a last alternative due to failure of allopathic medicine. But, such faith alone is not enough especially when facing international health consumers. There is thus a need of scientific and empirical studies which point to the effectiveness of traditional health medicine.
- **Lack of Effective Incorporation into the Formal Health System, contributed by mistrust:** Although government rules and regulations provide a veneer of

formality to traditional medicine and health services, the latter are yet to be effectively incorporated in to the formal health system. Part of the reason is mistrust on the part of providers of allopathic medicine.

- **Human Resources and Recognition:** the lack of recognition of academic course in traditional health services, such as Nepal's BAMS, is restraining further enhancement of human resources. Also, recognition has implication for the credibility of health service provision.

#### **4.3 Implications for the Domestic Formal Health System of Traditional Health Services Export**

Export of traditional health service and incorporating it into the domestic health system will lead to welfare benefit for the general populace.

The overall effectiveness of health services in the long-term will likely improve. This is because some of the treatments of traditional health services are shown to be more effective than existing allopathic treatments, with less-side effects. Also, the survey also suggests that traditional health service is less costly which, is a contributing factor to its prevalence and use by the populace. Thus, traditional health service can be viewed as an effective complement to allopathic health services.

Incorporation of traditional health services into the formal health system also would put the service under purview of the respective government's regulatory and supervisory

mechanism. This would enhance quality of service. This would also ensure better planning by the governments since they have a better grasp of the situation regarding health service provision. It would also likely enhance the tax revenue of the government.



## **V. Summary, Recommendations and Closing Remarks**

### **5.1 Summary**

The study examined the export potential of traditional health services of Bhutan and Nepal. The survey information suggests that there is export potential, which will contribute to strengthening the domestic health system. The study has also pointed to barriers and constraints. Before going to recommendations, it is important that those be viewed with a "grain of salt", due to small sample size and unfortunate situation which had led to the failure of submission of the India country report.

### **5.2 Recommendations**

In this regard and based on the above analysis, three basic and inter-linked recommendations are provided.

- Firstly, facilitate information sharing on the benefit of traditional health services. It is suggested that this be initiated through information dissemination campaigns utilizing official means, such as the foreign missions and economic diplomacy or by emulating successful examples in the private sector, such as in regard to yoga etc. These activities should also be done in coordination with the private sector,

for sustainability of the process. These will contribute to greater awareness and heightened demand, which shall lead to greater levels of health tourism.

- Second, enhance credibility of traditional health services. This can be achieved by increasing R&D on traditional health services. A result of this is to develop the human and skill pool in the country. To ensure quality of this human capital, it is essential that there be adequate number of accredited academic institutions. The output will also support the inherent faith in traditional health services with a basis rooted in scientific and empirical studies. This will also provide information on the most effective use of services for integrating with allopathic health services, which will provide necessary information for reimbursement with insurance companies.
- Third, effectively integrate the traditional health system with the formal health system. While there does exist a framework for incorporation, it has not been successfully implemented. Integration will provide valuable monitoring and supervision to the traditional health services, and support quality control. This will also lead to greater credibility of the traditional health service.

These will harness the potential for traditional health service export in the country and in the region and lead to economic growth and development.

### **5.3 Closing remarks**

The report highlights that Bhutan and Nepal have the potential for the export of traditional health services and provides some recommendations to address the barriers and constraints in that regard. The study provides a basis for generalization for the region as a whole. While the results are based on constraints such as small sample size, South Asian governments may verify the conclusion by having a more comprehensive study in this regard.

However, in spurting export of traditional health services, the danger of unbalanced growth in the health system has to be guarded against (Maskay, 2004) – for example, there may be concentration in market areas due to ease of facilities, which leads to overall inequitable access to health services. This contributes to social tension and possibly leads to domestic conflict. In our view, this calls for a proactive role of national governments to play the role of facilitator and reduce the likely unbalanced growth. As a future agenda, it may be appropriate to explore the specific modalities and transitional pathways of export in traditional health services, to achieve equitable and balanced growth and ensure sustainability.

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## **Annexes**

1. Questionnaire
2. Country Report - Bhutan by Sonam Tobgay
3. Country Report - Nepal by Paras Kharel
4. Comments from SANEI RAP member

## Annex 1: Questionnaire for health service consumers

[This is the questionnaire administered for the Nepal study; it is used in Bhutan and India studies as well, with country-specific adjustments.]

### 1. General information

- 1.1 Name:.....
- 1.2 Nationality:
- 1.3 Residential address: Country..... State: Village/  
City.....
- 1.4 Age:        years
- 1.5 Sex: a) Male                      b) Female
- 1.6 Education (years of schooling) .....
- 1.7 How many persons accompanied you?..... persons
- 1.8 Main occupation of individual or household (please circle any one):
  - (a) Service (in government or private, NGO, INGO etc)
  - (b) Industry
  - (c) Business
  - (d) Study
  - (e) Housewife
  - (f) Others (specify) .....
  - (g) Doing nothing (if child, <15 yrs and elderly > 59 yrs)
- 1.9 Level of income (annual income):  
US\$/Rs.....
- 1.10 What is the duration of your stay in Nepal (or Kathmandu)? .....

### 2. Purpose of visit

#### 2.1 What is the primary purpose of your visit to Kathmandu?

- a) Business
- b) Religious
- c) Shopping
- d) Study
- e) Health Treatment
- f) Adventure
- g) Other (specify).....

#### 2.2 What is secondary purpose of your visit to Kathmandu?

- a) Business
- b) Religious
- c) Shopping
- d) Study
- e) Health Treatment
- f) Other (specify).....

### 3. From what channels did you receive information about this traditional health service? (Multiple answers possible)

- a) Reputation

- b) Family members
- c) Previous visitors
- d) Referral from local (Indian) service providers
- e) Internet/ newspapers/ magazine
- f) Random visit
- g) Other (specify).....

**3.1. If multiple reasons, please rank them (I, II, III, IV,.....)**

- a) Reputation
- b) Family members
- c) Previous visitors
- d) Referral from local (Indian) service providers
- e) Internet/ newspapers/ magazine
- f) Random visit
- g) Other (specify).....

**4. How did this information affect your decision to choose traditional health service provider vis-à-vis going to the modern health system?**

- a) positively
- b) neutral
- c) negatively

**5. What are the reasons for visiting this service provider? (Multiple answers possible)**

- (a) Quality of services (perceived quality of services)
- (b) Faith in the provider
- (c) Suggested by previous visitors
- (d) Cheaper than other providers (other traditional health service providers/modern medical service providers)
- (e) Lower total cost of receiving services (including price of services, transportation and cost of living)
- (f) Other (specify).....

**5.1 If multiple reasons, please rank them (I, II, III, IV,.....)**

- (a) Quality of services (perceived quality of services) (.....)
- (b) Faith in the provider (.....)
- (c) Suggested by previous visitors (.....)
- (d) Cheaper than other providers (.....)
- (e) Lower total cost of receiving services (including price of services, transportation and cost of living) (.....)
- (f) Other (specify)..... (.....)

**6. By what primary mode of transport did you enter Nepal (or Kathmandu)?**

- (a) Air
- (b) Bus
- (c) Other

**6.1 What problems did you have in terms of traveling to this service provider?**

- (a) visa

- (b) cost of travel
- (c) Other

**7. Costs of services:**

Categories	Cost of health services	Cost of transportation to the country	Cost of transportation within country	Food expense within the country	Other costs (including expenses for secondary purpose)	Total cost
US\$ or Nepali rupees						

**8. Was your expectation met by the service provider?**

- a) Yes
- b) no

**9. How do you rate the total quality of services received?**

- a) High
- b) moderate
- c) low

**10. How much more are you willing to pay for the service you have received/are receiving/will receive from the institution?**

- a) 5 percent more
- b) 10 percent more
- c) 20 percent more
- d) 30 percent more
- e) other (specify).....

**11. Did you face any problems while receiving the services at the service provider?**

- a) Yes
- b) no

**11.1. If yes, what were the problems?**

- a) Language problem
- b) Discrimination between locals and foreigners
- c) Price discrimination between locals and foreigners
- d) Other (specify).....

**12. Did you face any problems outside the service provider?**

- a) Yes
- b) no

**12.1. If yes, what were the problems?**

- a) Security problems
- b) Discrimination between local and foreign in transportation facilities
- c) Other (specify).....

**14. Do you want to come again to receive this service?**

- a) Yes
- b) No

**15. Do you suggest other people to visit this traditional health service provider to receive this service?**

- a) Yes
- b) No

**16. Do you have any suggestions to improve the services for non-Nepali consumers?**

.....  
.....

## Annex 2: Country Report: Bhutan

### 1. Introduction

Bhutan known as '*menjung*' or the land of medicinal herbs, is one of world's richest medicinal and aromatic plant heritages with more than 600 medicinal plant species and about 3,000 or more subspecies commonly being used for traditional practices of *Sowa-Rigpa*. The wealth is not only in terms of the number of unique species documented thus far for their medicinal use but also in terms of the tremendous depth of traditional knowledge about such uses for human health.

As part of a joint research study on traditional medicine and its export potential, the study looks at the traditional health system in Bhutan with special reference to *Sowa-Rigpa* and the Institute of Traditional Medicine and Services (ITMS). The study will attempt to examine the role of traditional health system in Bhutan to identify and estimate the export potential in traditional health services. Primary information will be collected by (i) review of past literature including legal frameworks; (ii) questionnaires will be developed controlling for individual variability and incorporating the essential demand factors for health service trade conducted among traditional health service consumers at ITMS. The sampling procedure adopted will be multistage and random/convenience; (iii) in-depth interviews will be held with key informants, including the above-identified service providers, academicians, officials and experts on the role of supply factors on issues of traditional health services, their export potential and the challenges; (iv) focus group discussions will be held involving the concerned stakeholders. Following data collection, an analytical assessment will be made of individual export potential of traditional health services of the country.

### 2. Background on *Sowa-Rigpa*

*Sowa-Rigpa* continues to be a source of primary health care for a majority of the elderly folks in Bhutan and also a critical source of income for many rural households dwelling in the highland mountain areas with the collection of medicinal and aromatic plants from the wild. *Sowa-Rigpa* today is seen not only as a source of an alternative healthcare in the country, but also as an integral component of a variety of medicinal and non-medicinal products and applications as well. Apart from their use, there is a growing trend towards using *Sowa-Rigpa* medicines as part of a movement that advocates the use of natural products. *Sowa-Rigpa* employs three basic tools while diagnosing the patient; (i) visual diagnosis of the tongue and urine sample, (ii) pulse examining, (iii) questioning case history of family background and present conditions. Based on these diagnostic techniques, a series of services and medicines are offered. As it considers the health of the entire physical system of a person, traditional medicine is particularly effective and often more so than allopathic remedies in curing chronic diseases such as sinusitis,

arthritis, asthma, rheumatism, liver problems, and diseases related to the digestive and nervous systems, among others. As a result, a significant number of patients seek the assistance of the traditional medical care system. In 2004, a total of 34,448 patients came for treatment to the National Traditional Medicine Hospital; the majority sought either acupuncture with gold needles or steam bath as remedies. The older generation is especially drawn towards traditional medical services.

Health services are considered to be the most dynamic sector amongst the other service sector touching double digit growth in the last year. In Bhutan, most of the health services do not have any form of established definition nor are there clearly defined both at the regional and national level. This is so owing to the rapid developments in the market of services that has taken place to a large extent in a legal vacuum and which are only under the general policy guidelines. Legal instruments corresponding to the new economic environment as such have so far been developed for a few sectors, while drafting of other laws and legislative acts is an important on-going process.

*Sowa-Rigpa* or 'wisdom health' is deeply integrated with Buddhist practices and theory which emphasizes the indivisible interdependence of mind, body and vitality. Some have stated it to be a science because its principles are enumerated in a systematic and logical framework based on an understanding of the body and its relationship to the environment. While others as an art because it uses diagnostic techniques based on creativity, insight, subtlety and compassion of the medical practitioner and others as a philosophy because it embraces the key Buddhist principles of altruism, karma and ethics.

## **2.1 Role and Unique Characteristics**

In the traditional *Sowa-Rigpa* medical system, diseases are based on three elements of the body viz: Air, Bile and Phlegm commonly known as *rLung*, *thrip* and *badkhean*. *rLung* (air) is responsible for respiration, movement of hollow organs such as intestine, lungs, heart, blood vessels etc. *Thrip* (bile) stimulates appetite, helps in digestion and maintains body temperature. It also claims to confer bravery, wisdom, and desire or ambition. *Badkhean* (phlegm) sustains the body and produces sleep. It is responsible for movement of joints, muscles and confers patience. Its aqueous element is associated with bodily fluids. According to *Sowa-Rigpa*, disturbance or imbalance in any of these three elements leads to diseases and ill health. The diagnosis of the diseases is made through history taking, pulse reading and urine examination. The patients are treated with medicines and different therapies such as golden and silver needle insertion, blood letting, herbal steam application and bath, cupping, moxabustion, massage etc.

*Sowa-Rigpa* theory states that everything in the universe is made up of the five proto elements:

1. *sa* - Earth
2. *chu* - Water
3. *me* - Fire
4. *rLung* - Wind
5. *Nam* - Space

Although all five proto-elements are responsible for the formation of each tissue cell, each element has a specific influence;

1. *sa* exerts a greater influence over the formation of muscle cells, bones, the nose and the sense of smell
2. *chu* is responsible for the formation of blood, body fluids, tongue and the sense of taste
3. *me* is responsible for body temperature, complexion, the eyes and the sense of sight
4. *rLung* is responsible for breathing, skin and the sense of touch and
5. *nam* is responsible for body cavities, the ears and the sense of hearing

### *The Three Principle Energy*

1. *rLung* (wind) is one of the three principle energies of the body which manifests the nature of air element. It is responsible for the physical and mental activities that gives clarity to sense organs, sustains life by means of acting as a medium between mind and body.

2. *Trip* (bile) basically has the nature of fire. It is characterized by oily, sharp, hot, light, fetid, purgative and fluidity. *Trip* is responsible for hunger, thirst, digestion and assimilation, promotes bodily heat, gives luster to body complexion and provides courage and determination.

3. *Bad-khean* (phlegm) is cold in nature and is characterized by oily, cool, heavy, blunt, firm and sticky. *Bad-khean* is responsible for firmness of the body, stability of mind, induces sleep, connects bodily joints, generates tolerance and lubricates the body.

*Sowa-Rigpa* (the art and science of healing or traditional Tibetan medicine, astronomy and astrology) involves the proper alignment of these divisions i.e. the 3 humors, 7 bodily constituents and 3 excretions, into a state of equilibrium. If this is accomplished, then the body is said to be in a state of health or free from psycho-physiological disorders; whereas disequilibrium in any of these energies constitutes a state of disorder or ill-health.

### **3. *Sowa-Rigpa* in Bhutan**

With the arrival of Shabdrung Ngawang Namgyal in Bhutan in 1616, his Minister of Religion, Tenzing Drugda, started the spread and teaching of *Sowa-Rigpa*. Since then, the Bhutanese tradition of *Sowa-Rigpa* has developed independently of its Tibetan origins and although the basic texts used are the same, some differences in practice make it a tradition particular to the country. The specific knowledge and experience gained by the Bhutanese over the centuries are still very much alive in this medical tradition. The natural environment, with its exceptionally rich flora, also enabled the development of a pharmacopoeia which is very unique in the world (ITMS, 2005).



Sowa-Rigpa or traditional medicine service officially started as an off-shoot of the Department of Health services in 1967 when the Royal Government recognized the scientific and cultural importance of Sowa-Rigpa. Sowa-Rigpa is based on Indian and Chinese traditions and incorporates ancient and medical practices connected with magic and religion (Journey with the Kings, 2008). It initially started with a small indigenous dispensary in Dechencholing in 1968 with Late Dungshto<sup>25</sup> Pem Dorji and Dungshto Sherub Jorden, as principal healers; both of whom were trained in Tibet.

In 1988, the Royal Government of Bhutan established a coordination centre at an indigenous dispensary in Thimphu. The facility included a laboratory, outpatient department, hostel and a library for training and made possible for the introduction of modern scientific methods into practices of traditional medicine. Plants and other materials used in medicinal formula are tested for their chemical and pharmaceutical contents. Over the next four years, National Institute of Traditional Medicine (NITM) got established, now named as the Institute of Traditional Medicine and Services.

ITMS has three functions namely, the training of Dungshto and Menpa (traditional compounders), treatment of patients, and research into and production of indigenous medicine. The institute now has a pharmaceutical production unit and is assessing the possibilities of marketing its herbal products to the outside world.

### 3.1 Supply-side of Traditional Medical Services

Supply-side of traditional medical services constitute the following functional units under the ITMS;

- ***National Traditional Medicine Hospital*** is responsible for the development and provision of quality traditional medical care including different therapies. It is headed by a superintendent and eight Dungshtos. Services offered are daily OPD consultations and medication, herbal spas and bath, steam bath-sauna and applications, nasal irrigation or aroma therapy, massage with medicinal oils, acupressure with golden and silver needle and moxabustion. However, at the district level, only acupressure with gold and silver needles is currently available. The types of medicines offered are different herbal mixtures that are manufactured as pills, tablets, capsules, syrups, ointment, medicated oil, or powder. Traditional medicine is considered more effective for chronic diseases such as sinusitis, arthritis, asthma, rheumatism, liver problems, diseases related to digestive and nervous system etc. The reason why traditional medicine is particularly good for such chronic diseases is because of its holistic and profound spiritual approach in treatment.
- ***National Institute of Traditional Medicine*** is headed by a Principal as the administrative head and is responsible for development of human resources required for the traditional medicine services. Five Dungshtos are working in the

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<sup>25</sup> Practitioner of traditional medicine registered under the Medical and Health Council Act of Bhutan. Literally, it also means physician-pharmacist.

institute as lecturers and trainers offering trainings and courses on Sowa-Rigpa and related science elements.

- **Pharmaceutical and Research Unit (PRU)** is responsible for the manufacturing and production of medicines, conducting quality control for both raw materials and finished products, carrying out research activities and marketing of products. The PRU has three main sections namely the Production, Research and Quality Control and Marketing. A key input into traditional health services in Bhutan is the manufacture of traditional herbal medicines. The Pharmaceutical and Research Unit of ITMS began mechanized production of medicines in 1982, without the use of chemical processes. Traditional medicine products in Bhutan are domestically researched and produced. Based on the Sowa-Rigpa texts, more than 2,990 different raw materials are required in the manufacture of traditional medicine. However, within regular practice in Bhutan, only 265 different raw materials are used to produce 108 compounds (Journey with the Kings, 2008).

**Table 1. List of raw materials purchased in 2004.**

Category	Type	Quantity (Kg)	Amount (Nu.)
High altitude plants	85	3,690.23	539,950.23
Low altitude plants	29	6,239.23	474,466.11
Minerals	5	2,513.00	113,647.00
Animal parts	11	316.77	503,030.60
Total	130	12759.23	1,631,093.94

Source: Dorji Wangchuk, 2005

**Table 2. Production of medicine in 2004**

Dosage form	No. of medicines	Quantity (Kg)
Tablet	11	1,190.020
Capsule	16	1,231.880
Pill	14	1,448.415
Powder	1	42.650
Syrup	1	93.660
<i>Dutshi Ngalum</i>	1	100.200
Total	45	4,191.325

Source: Dorji Wangchuk, 2005

### 3.2 Traditional Medicine and Future Plans

As stated in the Bhutan Vision 2020 document, the government regards greater place for traditional medicine in the overall health care system. Traditional medicine embodies knowledge that has been accumulated over centuries and which draws ... *the development of new programs that respond to the needs of special groups... ...actively promoting traditional medicine that draws upon the Kingdom's rich biodiversity... interactions with policies and programs in other areas..... securing a reduction in the costs of health care..... the training of Bhutanese health ... upon the nation's rich biodiversity and of*

plants with proven medicinal qualities. As these qualities become substantiated by scientific research, there is a growing need to integrate more effectively traditional medicine with the modern system of health care. The maintenance of traditional medicine not only adds dimensions to the nation's system of health care, providing an alternative for those who seek one.

### **3.3 Contribution to the overall health system**

Traditional medicine or *Sowa-Rigpa* is particularly effective and often more so than allopathic remedies in curing chronic diseases such as sinusitis, arthritis, asthma, rheumatism, liver problems, and diseases related to the digestive and nervous systems, among others. As a result, a significant number of patients seek the assistance of the traditional medical care system. In 2004, a total of 34,448 patients came for treatment to the National Institute of Traditional Medicine and Services hospital; the majority sought either acupressure with gold needles or steam bath as remedies.

A key input into traditional health services in Bhutan is the manufacture of traditional herbal medicines. The Pharmaceutical and Research Unit of ITMS began mechanized production of medicines in 1982, without the use of chemical processes. Traditional medicine products in Bhutan are domestically researched and produced. Based on the *Sowa-Rigpa* texts, more than 2,990 different raw materials are required in the manufacture of traditional medicine. However, within regular practice in Bhutan, only 265 different raw materials are used to produce 108 compounds (*Journey with the Kings, 2008*). The medicinal plants are collected from high altitude mountains with approximately 85 percent of the total are collected in Bhutan. The collection of medicinal plants is done through community based sustainable management organizations. Cultivation is also emphasized, encouraging highland farmers to consider medicinal plants as cash crops.

## **4. Bhutan Health Services and World Trade**

Traditional medical services is considered to be the most dynamic sector amongst the other service sector touching a double digit growth of over 300 billion dollars annually. Though the world market is dominated by the developed firms, countries such as Thailand, India and South Korea are developing niches in the area of specialized health services, research and development services, bio-technology and professional engineering (Rinchen P. undated).

#### **4.1 National Drug Policy and Legislation**

The country has a strong Essential Drug Program (EDP) supported by the World Health Organization (WHO) since 1983. A national drug policy was formulated in 1987 mainly for public sector health delivery. An essential drug list is prepared by a national committee and updated every two years. Currently the essential drug list contains 328 drugs and vaccines.

In line with the WHO essential drug concept, the national drug policy enshrines that the most effective drugs be made available at the right time and in right dosage forms at affordable prices. The affordability factor is due to the government procuring system for the general public at the generic prices (99%). Only a small fraction of the named patient drugs are either patented or branded drugs.

The Medicines Act of the Kingdom of Bhutan was passed in 2003 and covers all the relevant aspects of medicinal products including traditional medicine. Under the Act, a Bhutan Medicines Board supported by Drugs Technical Advisory Committee will be set up to regulate the production, trade and use of medicinal products in the country. It will function as an umbrella organization with the powers of setting up relevant technical bodies under it for specific purposes such as making regulations, setting standards in the facilities and human resources, approving manufacturing and selling of medicinal products and regulating the prices.

Drug Regulatory Authority (DRA) and a Drug Testing Laboratory (DTL) will be set up as apex technical bodies under the board. The DRA will be responsible for making regulation, setting standards, registration and licensing of the products, premises and technical personnel and inspection. The DTL is understood to function as the laboratory for testing all the samples of drugs required for initial registration as well as for routine inspection and monitoring. In addition, the board may also identify and use an appellate laboratory in case of disputes.

However, to implement the provisions of the Act, appropriate rules and regulations need to be framed and implemented. The Medicines Board with all other supporting structures needs to be set up and made operational. It is obvious that time will be required to make the regulations and set up the structures.

#### **4.2 National Health Policy**

The economic importance of the health services sector in Bhutan cannot be emphasized enough as it contributes to a large share in social production and employment benefit. However, as of now there is no overall long term strategy available for health services especially on the public and private sector participation and its specialization. The overarching national policy of free health services practiced ever since the beginning of the country's development process and which is expected to go on as long as it can sustain, is a clear cut indication that no private practice is envisaged at least in the near future. The Health Trust Fund<sup>26</sup>, launched in the year 1998 is aimed at generating alternative funds to buy essential medicines, vaccines and syringes in order to keep the primary health care accessible and free to all. The government today funds 98.5 percent of the health

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<sup>26</sup> <http://www.bhtf.gov.bt>

expenditure and the private sector finances the balance. In line with this, no private practices and very little private participation in health care delivery exists in the country. Currently, there are only about forty five (45) or so private pharmacies and about six (6) basic diagnostic laboratories operating in the country<sup>27</sup>. Only recently the Health Ministry has started charging minimal user fees in certain services such as dental services, private cabins, and laparoscopy surgery in the Jigme Dorji National Referral Hospital. Patients with complicated problems are referred outside the country mainly to specialized hospitals India and Bangkok for further medical care and treatment. The government expenditure on this has been rising over the years. The internal information of health ministry indicates that over Nu. 58 million has been spent on the referrals in the financial year 2002-2003.

#### 4.3 Bhutan Medical and Health Council Act, 2002

The BMHC Act 2002 is mainly to regulate the health professionals and their conduct both in public and private sector. This could imply that some form of private practice is foreseen in the future especially considering the post retirement career prospects of the medical professionals who are currently working for the government. This also means establishing the proper disciplines in the GATS obligations of Transparency, Domestic regulations (particularly in the field of examining qualification, licensing requirements) and others. The Ministry of Health is still in the process of drafting the regulations following the BMHC Act. It is expected that it will be ready for implementation towards the early of next year.

#### 4.4 Status of the sector within the four modes of supply

Professional services	Cross border supply	Consumption abroad	Commercial presence	Presence natural persons
Medical and Dental	Yes	Yes	No	No
Services by midwives, nurses, physiotherapist, and medical person	No	Yes	No	No
Hospital services	No	Yes	No	No
Other human health services	No	Yes	No	No
Social services	No	Yes	No	No
Other	No	Yes	No	No

*Note: Yes means that some form of trade exists for a corresponding service and No means that no form of trade exists in that corresponding service for that mode of supply.*

#### 4.5 Possible options

Should the government feel that certain private participation is required in the future, it may be worthwhile to assess and consider opening certain elements of health sector and include it under the schedule of commitments for negotiation. For instance, considering

<sup>27</sup> WTO and Health Workshop

the lack of specialist and super specialist care in the country and the increasing demand for quality tertiary care, some domestic as well as foreign companies may be interested in investing in specific tertiary health care. Besides, health tourism could also be considered as an option considering that Bhutan is located in the pristine and unpolluted Himalayan ecosystem blessed with a wide variety of herbal, aromatic and medicinal plants. All this provides a very good environment for health and healing. These strengths can be tapped to establish a niche market for health tourism and specialist care for high-end health care seekers. Many investors would want to open up health facilities for consumption abroad of specialist and alternative health care in Bhutan. Therefore, strategically, it would be better if specialist health services/health tourism are opened up in selected modes such as through mode 3 (commercial presence) and inevitably through mode 4 on the movement of natural persons. All this would benefit Bhutanese patients who today go to the neighboring countries for treatment thus receiving the same level of quality, creating efficient business infrastructure and contributing to knowledge generation.

#### 4.6 Possible WTO offers based on the above observation

<b>Health and Social related services</b>	<b>Policy/negotiation objective</b>
Health Tourism	Encourage FDI with full commitment in Mode 1, 2 and with horizontal limitations in mode 3 and mode 4
Specific tertiary health care/ Specialist services	Encourage FDI with full commitment in Mode 1, 2 and with horizontal limitations in mode 3 and mode 4
Other human health services/basic diagnostic lab	Existing & encourage with limitations and as above
Social services/day care centre	Existing & encourage with limitations and as above
Other - marriage guidance services	Encourage FDI with full commitment in Mode 1, 2 and with horizontal limitations in mode 3 and mode 4

*Source: Pema Rinchen, undated.*

While drafting horizontal commitments for Bhutan's schedule of specific commitments in the services sector, in terms of provisions relating to the health and social services sector for market access and national treatment, these will be broadly covered by the FDI 2002 and foreign exchange regulations by stipulating provisions on:

- Foreign equity participation not to exceed 70 percent or be less than 30 percent under the FDI policy.
- Accessibility of hard currency to FDI enterprises for operations and payment settlements (based on the balancing principle)
- Number of foreign persons allowed to enter Bhutan to provide services on a joint venture and
- Licensing, qualifications, accreditations based on the BMHC act and MTI rules.
- All foreign investment must register with the registrar of the Companies Act of the KOB 2000.

- Movement of natural persons dependent as per Royal Civil Service Commission and Ministry of Labor and Human Resource rules.

## 5. Survey Results and Discussion

As suggested in the overall study framework, a total of fifty (50) service consumers from different districts in Bhutan and one service consumer from United Kingdom visiting the institute of traditional medicine were randomly enumerated, of which 32 percent were males and 66 percent females. Among them, 82 percent are under the age group ranging between 15-59 years and 18 percent above 59 years. Joint ache was found to be the most common complaint, with 49.2 percent of the sample survey respondents reporting as shown in figure 1. Other diseases that included kidney related illnesses, leg swelling, vision blurring and headache ranked second highest, with 25.4 percent. Respiratory related problems followed the third common complaint as reported by 20.6 percent of the respondents. The proportion of visitors with problems with loss of appetite and high blood pressure appeared to only 1.6 percent.

**Figure: 1 Proportion of visitors to Indigenous Hospital by purpose of visits.**

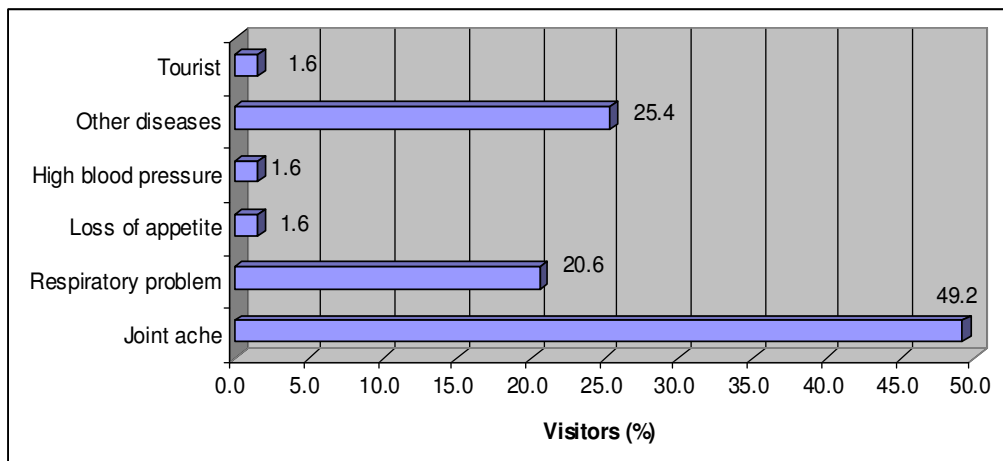


Table 3 provides disaggregated data by sex and age groups in terms of consumer profile availing the *Sowa-Rigpa* science benefits provided by the institute of traditional medicine and services. As shown from the Table 3, among the 49.2 percent joint ache complaints, 71 percent were female and 29 percent male and almost 81 percent of them were within 15-59 age group. Respiratory problem showed almost 54 percent represented by female consumers and 46 percent by male consumers. Age group range reported with 69 percent falling within 15-59 years old and the remaining 31 percent above 59 years.

**Table: 3 Proportion of visitors with various health problems by gender and age.**

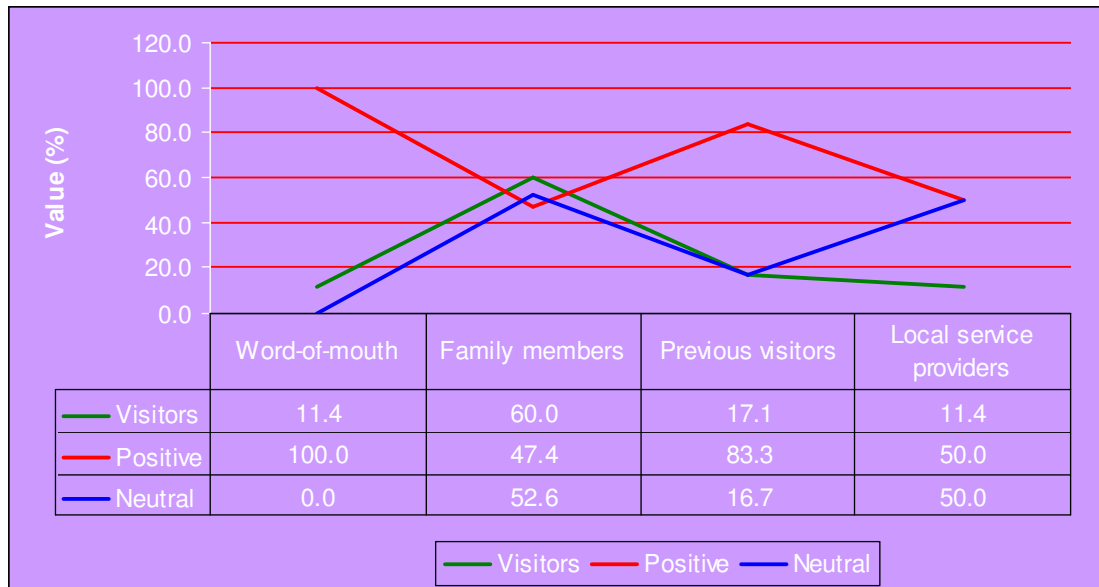
Health problem	Sex		Age	
	Female	Male	Age 15-59	Age above 59
Joint ache	71.0	29.0	80.6	19.4

Respiratory problem	53.8	46.2	69.2	30.8
Loss of appetite	0.0	100.0	100.0	0.0
High blood pressure	100.0	0.0	100.0	0.0
Other diseases	68.8	31.3	81.3	18.8

Sixty percent (60%) of the service consumers heard the benefits and treatment of *Sowa-Rigpa* and the institute of traditional medicine through respective family members. However, only 47.4 percent of the service consumers were affected positively on their decision to choose the traditional health service provider vis-à-vis going to the formal health system, while for 52.6 percent the service consumers were indifferent of the information. A little over 17 percent of the consumers heard about the service provider through previous visitors and convinced 83.3 percent of them to visit the institute to avail the services. Word-of-mouth information channel was reported 11.4 percent and all (100%) were influenced positively and attended the clinic services.

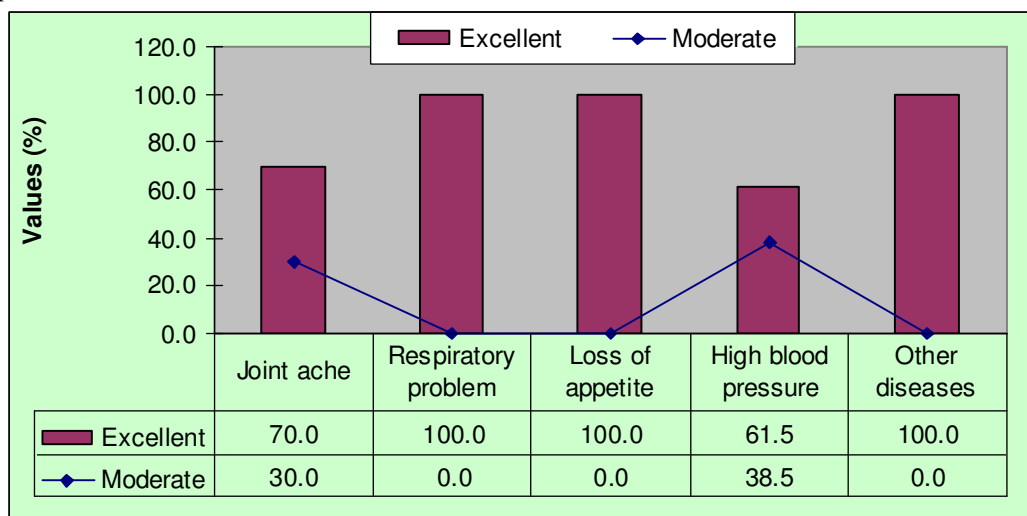


**Figure: 2 Proportion of visitors by sources of information and effectiveness of the information.**



About 90 percent of the visitors reported receiving excellent services from the service provider, while about 69 percent felt moderately satisfied. About 62 percent of the service consumers had full faith in *Sowa-Rigpa* health care and visited the service provider, while 20 percent visited because of the beneficial health service they received in the past. However, 42 percent of the service consumers complained long waiting hours at the hospital prior to availing clinical consultation. A majority of the service consumers (100%) felt that they should refer the benefits of the service provider to other prospective consumer with similar or related illnesses.

**Figure: 3 Proportion of visitors by various health problems and degree of expectation met.**



It is understood from the Figure 3 that the degree of visitors' satisfaction or the expectation met depended largely on the type of health problems and the related services or treatment. For instance, 100 percent of the service consumers with problems related to respiratory diseases, loss of appetite and falling within the other disease category reported the *Sowa-Rigpa* services as 'excellent'. Similarly, 70 percent of the patients falling within the joint aches rated the services consumed 'excellent' and the remaining 30 percent as 'moderate'. Likewise, only 61.5 percent of the service consumers with high blood pressure reported 'excellent'.

The study revealed that over 62 percent of the service consumers (although from different places) were residing in Thimphu and 38 percent service consumers coming from other districts as shown from Table 4.

**Table: 4 Proportion of service consumers by places of origin, present residences and visited directly from places of origin**

Places of origin	Visitors by place of origin (%)	Visitors by present residence (%)	Visitors came directly from place of origin (%)
Bumthang	10.0	0.0	100.0
Chhukha	2.0	100.0	0.0
Lhuentse	4.0	100.0	0.0
Mongar	6.0	100.0	0.0
Paro	8.0	50.0	50.0
Pemagatshel	6.0	33.3	66.7
Punakha	4.0	50.0	50.0
Thimphu	30.0	100.0	0.0
Trashigang	6.0	100.0	0.0
Trashiyangtse	10.0	0.0	100.0
UK	2.0	100.0	0.0
Wangdue	2.0	0.0	100.0
Zhemgang	10.0	40.0	60.0
<b>All places</b>	<b>100.0</b>	<b>62.0</b>	<b>38.0</b>

About 36 percent of the service consumers visited the *Sowa-Rigpa* institute by bus, 32 percent came by taxis, 16 percent came by personal cars and the remaining 16 percent came walking. Service consumers residing in Thimphu used all types of mobility with majority 41.9 percent using taxis, followed by 19.4 percent using private cars, 12 percent using bus and 25.8 percent walked to the service provider. The services of buses were appeared to be availed by the service consumers coming directly from the districts or the places of origin other than Thimphu. Service consumers coming from districts nearby Thimphu, like Paro and Wangdue were also found to have used both buses and taxis to visit the institute.

**Table: 5 Proportion of visitors by residences and type of mobility used**

Residence	Percent visitors			
	Bus	Private car	Taxi	Walk
Bumthang	100.0	0.0	0.0	0.0
Paro	50.0	0.0	50.0	0.0
Pemagatshel	50.0	50.0	0.0	0.0
Punakha	0.0	100.0	0.0	0.0
Thimphu	12.9	19.4	41.9	25.8
Trashiyangtse	80.0	0.0	20.0	0.0
Wangdue	80.0	0.0	20.0	0.0
Zhemgang	100.0	0.0	0.0	0.0

During the in-depth interview and the focus group discussions, at least ten people comprising of four traditional clinical assistants, three managers / administrators and three *Drungtsho*, working at the ITMS in Thimphu was enumerated.

The following were some of the findings;

Faith in the service provider appears to be the most attractive factor for the western consumers in the traditional medical services followed by beneficial and quality services, suggested by previous visitors and no cost to the services availed. In the last two years *Sowa-Rigpa* at ITMS had 52 foreigners in 2007 and 63 in 2008. Currently, there are no officially documented targeted programs for western patients but discussions have been initiated on attracting new consumers in the form of traditional/indigenous tourism programs such as introduction of advocacy activities, health tourism, establishment of a museum and augmentation of infrastructures and human resources.

*Sowa-Rigpa* is encountering certain problems with western consumers owing to different customary and traditional practices and is awaiting scientific validation and documentary evidence on the prescription of medicines and treatments. Similarly, pharmacy products bear traditional/vernacular names, mostly prescribed in Dzongkha (national language) which do not state any scientific understanding from the western consumers' perspective. Lack of proper therapy units and related infrastructure continues to be the general problem. Likewise, the lack of adequate advocacy, insufficient infrastructure and human resource, rudimentary research and development has been acting as barriers towards effective delivery of services.

The following are the suggestions captured in the survey questionnaires.

- The potential derived from health tourism
- Advocacy through Information Communication Technology (ICT)

- Development of varied language and communication skills of service providers and clinical products and services.
- Development of mutually beneficial relationship with tour operators
- Scientific naming of medicines
- Upgrade facilities and technologies

There is high potential for export of products and services of *Sowa-Rigpa* products from ITMS. However, the study strongly points out the need for improvement in the quality of products and services as well as infrastructural facilities and human capacity. Development of communication skills and advocacy programs has also appeared to be very essential.

Currently, ITMS has not started exporting its products. The products that have export potential as reported are the herbal tea (*Tsheringma*), incense sticks, incense powder and CordyPLUS capsules. The approximate cost of the *Tsheringma* herbal tea is US\$ 2 for a packet that contains ten sachets, CordyPLUS capsules for US\$ 21 and a bundle of incense sticks for US\$ 3.

The major services offered are therapy treatments such as herbal and steam bath, golden needle – similar to acupuncture, nasal irrigation and blood letting. They also provide out-reach clinic consultation and medications for monks and old aged people who live in the rural areas or mountain tops with limited road access. Some of the plans of the institute include, expanding services to the community level, diversifying products and services, and improvement of infrastructure and quality of services.

Some of the challenges and opportunities with regard to export of traditional health services are listed as follows:

- Low technical capacity
- Lack of resources
- Poor coordination in the ITMS
- Stringent national laws on use of resources and research

## **6. Export Potentials**

No estimates or figures on the export(s) of traditional medicine (*Sowa-Rigpa*) products and services have been registered in any trade statistics database or other records. However, the institute of traditional medicine and services plans to give a renewed thrust to the export of *Sowa-Rigpa* products and services and is also promoting high-end export of medicinal and aromatic plants. Specialized growing zones for medicinal and aromatic plants have also been identified with specialized training of farmers have been initiated in the past.

Currently, there are about eight (8) products introduced for commercial sale with *Tsheringma* tea being exported to Singapore. The institute sells about 18,000 packets of *Tsheringma* tea every year. Each packets of herbal tea, containing 25 sachets, is sold for Nu. 50. On a wholesale, the packet costs Nu. 45. Exploration of markets in the SAARC region is also underway.

Some of the important products that have been launched in the market are as follows;

**Table 6. Products being sold in the market, 2004**

Product type	Quantity (Kg)	Amount (Nu.)	Remarks
Medicine	7020.57	5,026,322.49	Health
Tsheringma Herbal Tea	13960.00	645,560.00	Sachet packets
sMengsang Gyatsa	1703.25	397,205.00	
sMenna Chema	176.32	36,707.50	
Zangdru Chema	76.25	51,976.75	
Smendrup	735.00	401,484.00	
Bres sum Chema	151.25	27,424.98	
Raw materials	561.48	148,223.47	Varieties
Bum zes	25 14.50	8,306.50	
Rinchen sna	5 0.08	5,900.81	
bDud-rtsi-nga-lums	45.00	3,868.00	
Lumen rilbu	4360.00	21,800.00	
<b>Total</b>	<b>6,774,779.50</b>		

*Source: Dorji Wangchuk, 2005*

Cordyplus is priced at Nu. 2,000 for 60 capsule bottle and Nu. 1,000 for the 30 capsule-bottle. Menjong Sorig Pharmaceuticals also have plans to produce this year itself an extended range of Cordyplus based products such as CordyPlus Sport, CordyPlus for Men, Cordyplus for Women and CordyPlus Anti-aging. Menjong Sorig functions as one of three Units under the ITMS and has the main responsibility of producing traditional medicines of assured quality and conducting research for scientific validation. The unit currently produces approximately 7 - 8 metric tons of 98 different essential traditional medicines annually. In addition, it also produces various commercial herbal products for the local market.

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# Country Report: Nepal<sup>28</sup>

## 1. Introduction

Health is important for economic growth and development. Accordingly, the Government of Nepal (GON) has been increasing its expenditure on health services: during the period 1990–2004, health spending increased by 14.3 percent compared to the 10.6 percent and 11.8 percent rise in total government expenditure and nominal gross domestic product (GDP), respectively. In the past, there was much intervention by GON in trade in health services. However, this trend is changing with the recognition that international trade in health services can potentially increase the contribution of the health sector to the national economy (Maskay 2004).

## 2. National health care system

### 2.1 Structure

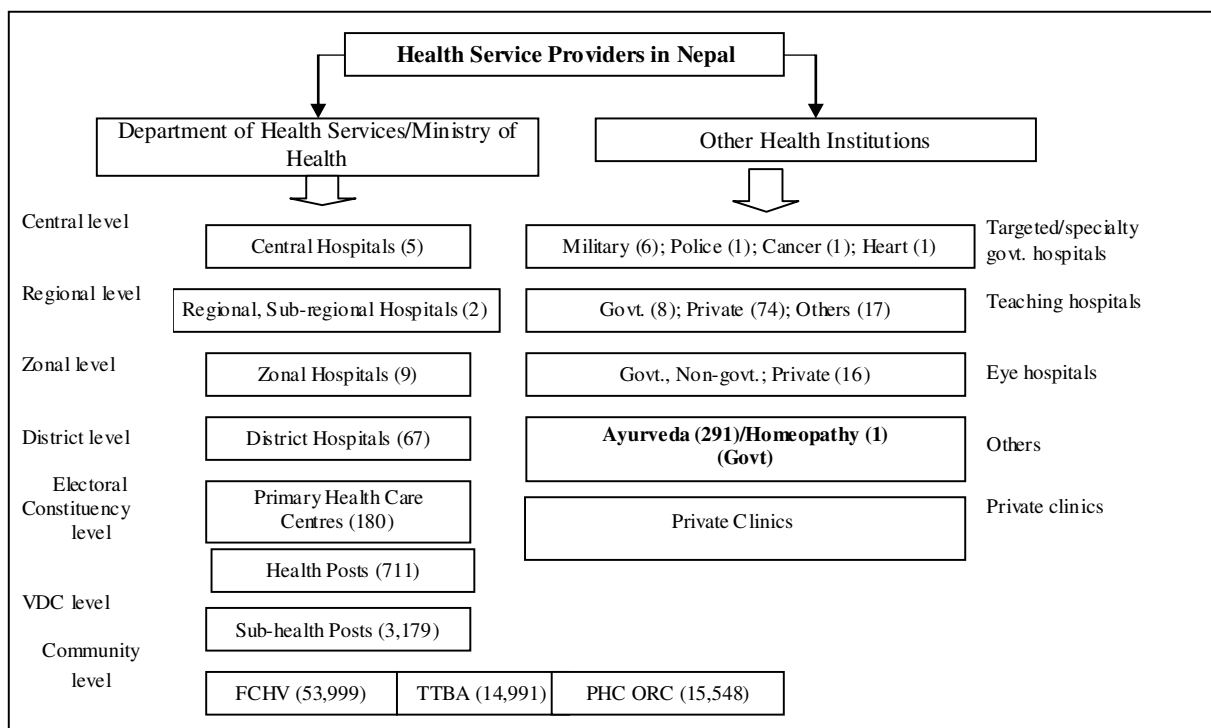
Primary and secondary health services in Nepal are largely provided by the public sector. Specialized services are open to both the public and private sectors. The public sector health service delivery mechanism is organized in a hierarchal structure—from the sub-health post (SHP) level to the central level.<sup>29</sup> The structure is presented in Chart 1 for both the public and private sectors.

### Chart 1: Network of health institutions and community health workers in Nepal

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<sup>28</sup> The country author would like to acknowledge the support of Mr. Kapil Gautam and Mr. Asish Subedi in the primary survey.

<sup>29</sup> The SHP is a first contact point with referral as necessary to higher levels of health services. The referral chain, as a policy objective, is to ensure that the majority of population are able to receive public health and minor treatment in places accessible to them and at a price they can afford.



Source: <http://www.moh.gov.np/Home/FACT.ASP>; SAWTEE (2008).

Public sector health institutions provide 59 percent of total beds. The private sector, comprising “for profit” institutions, non-governmental and mission organizations provide the remaining 41 percent (MoH 2003). However, the private sector institutions are concentrated in urban areas.

## 2.2 Overall health policy

Nepal’s health policy is primarily guided by the National Health Policy, 1991. The policy was adopted to bring about improvement in the health conditions of the people of Nepal with emphasis on preventive health services; promotive health services; curative health services; basic primary health services with one health post each in all 205 electoral constituencies to be converted into primary health care centre; ayurvedic and other traditional health services; community participation; human resources for health development; resource mobilization; decentralization; regionalization; drug supply; and health research (MOH 1993).

The salient features of the policy are:

- It considers primary healthcare as is a human right.
- It aims to provide an equitable and acceptable quality of health services for all citizens.
- It provides for free healthcare to all citizens through health posts and sub-health posts.



- It envisions free healthcare through hospitals with up to 25-bed capacity to the poor, the elderly, most vulnerable groups, and underprivileged and marginalized groups, among others.
- It accords priority to primary healthcare, but does not give much importance to trade in health services. It implicitly recognizes tertiary health services as trade in health services.
- It calls for public-private partnership for providing health services.

The recognition of primary healthcare as a human right by the health policy has been further bolstered by the right to health being enshrined as a fundamental right in the Interim Constitution of Nepal 2007.

Other policy documents governing health services in Nepal are the Second Long-Term Health Plan (SLTHP, 1997–2017), the Eighth (1992-1997), Ninth (1997-2002) and Tenth (2002-2007) Five-Year Development Plans, the ongoing Three-Year Interim Plan (TYIP) (2007-2010), the Health Sector Strategy: An Agenda for Reform, 2003 and the Nepal Health Sector Program–Implementation Plan (NHSP-IP), 2004. All policies and programmes focus on primary healthcare for citizens.

The main objective of the TYIP is to ensure citizens' fundamental right to improved health services through access to quality health services without any discrimination. The constituent elements of the objective are a) to provide quality health service; b) to ensure easy access to health services to all citizens; and c) to ensure an enabling environment for utilizing available health services (NPC 2007). The TYIP recognizes the potential for trade in health services and incorporates strategies like promoting the establishment and expansion of telemedicine, and developing and expanding Ayurvedic and other alternative health service systems. Providing computers and internet access for facilitating telemedicine, collecting information regarding herbs and intellectual property, and enhancing research activities are the important programmes envisioned in the plan which are relevant in terms of export of health services. The TYIP has identified the importance of health services trade and aims to produce benefits from international trade in services. However, no concrete strategies have been delineated for mode-specific supply of the services.

### **3. Traditional health care systems**

Although the use of modern medicine has been increasing over the years in Nepal, more than 75 percent of the population in the country are estimated to use traditional medicine.<sup>30</sup> Ayurveda, Amchi, Homeopathy (including Yunani) and Naturopathy are the important traditional health systems in practice in Nepal. Among them, Ayurveda is the oldest and most popular traditional health care system in Nepal (Koirala n.d.). The government not only recognizes Ayurveda and Homeopathy (including Yunani) health service systems but also provides such services, with Ayurveda service providers having the greatest network and reach.

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<sup>30</sup> [http://www.ayurnepal.com/articles/rajendra\\_status\\_ayurveda\\_nepal.htm](http://www.ayurnepal.com/articles/rajendra_status_ayurveda_nepal.htm)

Traditional medicine in Nepal has a strong cultural and religious background; indigenous and local communities have been using traditional and indigenous knowledge for centuries under local laws, customs and traditions (Koirala and Khaniya 2008). Literature shows there more than 400,000 such knowledge holders (ibid.).

Though the study focuses on Ayurveda, a brief description of the status of Homeopathy, Naturopathy and Amchi is presented before discussing Ayurveda in detail in the next section.

### **Homeopathy**

The government has recognized this health system as part of the national health system. A 56-year-old state-run Pashupati Homeopathic Hospital, the only such hospital in the country, is located in Kathmandu with three Indian-educated Ayurveda graduates and eight junior-level technicians from allopathic background with a refresher training in Homeopathy (Koirala, n.d.). It provides free-of-cost in-patient and OPD services to the people in general. There is no separate regulatory body to regulate and monitor this system of medicine and to register its practitioners, unlike the cases of modern medicine and Ayurveda (details are in the section on Ayurveda). The Yunani system of medicine is also incorporated in this hospital. Nearly 150 Homeopathy technicians are practising in Kathmandu, registered with the Health Professional Council. There is one private institution providing formal Homeopathy education.

### **Naturopathy**

This is not an official system of medicine, but is widely practised at the community level. Training in Naturopathy is provided by the private sector. There are private hospitals, training centers, clinics, and dispensaries in the country.

### **Amchi**

Amchi (or Sowa Rigpa) is a Tibetan medicine practised in the Himalayan region of the country. This is not an official system of medicine. There are two types of practitioners in this system: the institutionally trained and traditional healers. There is no official record of this system of medicine. However, media reports suggest that this system has a remarkable role in the northern parts of the country, especially the far-western region, in the treatment of various kinds of ailments using locally available medicinal plants. Amchi practitioners have long been demanding official recognition and the formation of a separate regulatory body. There is a body, the Himalayan Amchi Association, working for the preservation and development of Amchi, and networking with and mutually supporting Amchi throughout the greater Himalayan and Central Asian region.

## **4. Ayurveda**

Ayurveda by definition means the science of life. It is the oldest known continuously practised medical system in the world. Ayurvedic theory has influenced the development of many other medical systems, including Chinese, Arabic, Greek, Tibetan and modern medicine. The origin of Ayurveda can be traced back to the Vedic times, around 5,000-

10,000 years ago. The medical knowledge in Atharvaveda, one of the four Vedas, is said to have gradually developed into Ayurveda. The knowledge of Ayurveda was passed down orally for generations before being recorded as part of the Vedas, the oldest books known on earth. Ayurveda is based on the 'tridosha theory of disease'. The three doshas or humors are vata (wind), pitta (gall) and kapha (mucus). According to Ayurveda, a disturbance in the equilibrium of these humors causes disease.

Nepal has a special place in the history of Ayurveda as it is widely believed that the original knowledge of Ayurveda was obtained in the Himalayan foothills of Nepal. Not only is the country home to nearly 40,000 hand-written classical Ayurvedic manuscripts, its rich biodiversity associated with its topographical diversity makes Nepal home to some 1,700 medical plants used in Ayurvedic treatment.

#### ***4.1 Supply situation***

Ayurveda practitioners in Nepal can be divided into two categories (Koirala, n.d.). First, Ayurveda based-traditional healers, who have been practising it as a family profession for generations. Second, academic Ayurveda practitioners trained from educational institutions, training centers, colleges and universities. The former are mostly concentrated in the informal sector whereas the latter operate in the formal sector.

The estimated number of traditional healers in Nepal is 400,000 (Koirala, n.d.). A large proportion of the population still depends upon these practitioners. Only about two dozen traditional healers are registered practitioners. Although they are not counted in the official system of health care as health practitioners, traditional healers' role in providing health services to the people is highly important. Some traditional healers are the 23rd generation of practitioners in their family. Ayurvedic knowledge and techniques are handed down from generation to generation in a family and also through the master-disciple tradition. A study (Koirala and Khaniya 2008) found some 150 traditional healers in Kathmandu valley, Biratnagar (east Nepal), Pokhara (west Nepal), Banke and Bardiya (mid-west Nepal treating a wide range of diseases such as jaundice, stomachache, gastric, gano-gola, bone fracture, sprain, mal union of bones, abdominal pain, and arthritis, cut wound, cholelithiasis, sexual weakness, epilepsy, gynaecological problems, common cold, and even cancer. The study recorded 18 traditional healers in Kathmandu valley alone and also found that traditional healers in the valley continuing their practice from generation to generation as a family profession are able to treat a majority of common diseases, and prepare a variety of Ayurvedic drugs themselves, while other traditional healers can treat only certain particular diseases like jaundice, stomachache, gastric and gano-gola, and eight do not have adequate knowledge of or do not take interest in other health disorders.

As per data available from Nepal Medical Council, formally trained Ayurveda practitioners number around 1,300, including 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).

At the formal level, the state is the major provider of Ayurveda services. There is one Ayurvedic Hospital with 118 beds (including 18 cabins) in Kathmandu (established with four beds around 1918), another Ayurvedic Hospital in Dang district in west Nepal with 30 beds, 61 District Ayurveda Health Centers, 14 Zonal Ayurveda Dispensaries, and 214 local Ayurveda Dispensaries across the country.<sup>31</sup> All these Ayurveda facilities are providing services free of cost or at nominal charge. The departments in the Ayurveda Hospital in Kathmandu include Internal Medicine (Kayachikitsa), Surgery (Shalya), ENT (Shalakyas), Pediatrics (Baal Roga), Gynecology (Stri Roga) and Obstetrics, Acupuncture, Moxibustion, and Panchakarma. The hospital has its own pharmacy to manufacture medicine. It is very popular for the treatment of Jaundice. Its pathology lab has facilities for testing urine, stool and blood with x-ray, USG and ECG. It also provides facilities of Swaden (therapeutic sweating) and Snehana (massaging the skin with different oils). The hospital is also functioning as a teaching hospital for Bachelor's in Ayurveda Medicine and Surgery (BAMS) students.

**Table 1: State-owned Ayurveda health service institutions**

	Central Ayurveda Hospital (Kathmandu)	Mid-Western Regional Ayurveda Hospital (Dang)	Zonal Ayurveda Dispensaries	District Ayurveda Health Centres	Local Ayurveda Dispensaries
No.	1	1	14	61	214

Source: Department of Ayurveda, Ministry of Health

Most of the patients at the state-run Ayurveda Hospital in Kathmandu are Nepali nationals. The inflow of foreign patients is negligible, though the exact numbers are not available.<sup>32</sup> The few foreigner visitors are patients with jaundice and chronic diseases.

There is no reliable data on the number of private sector providers of traditional health services, including Ayurvedic. As mentioned above, there are at least 18 traditional healers in Kathmandu valley alone. Piyushabarshi Aushadhalaya is one of the oldest Ayurvedic clinics in Kathmandu, run by a family for the last 700 years. It attracts people with chronic diseases such as hepatitis, breast cancer, prostate cancer, tumor and cysts, and metastatic conditions. Discussion with experts, practitioners and the head of the Department of Ayurveda (where Ayurveda clinics are required to register) indicates that Ayurveda clinics are mushrooming in the country, especially in Kathmandu, but most are not duly registered with the government. Most of the clinics offer only short consultation services, including prescription of Ayurvedic medicines. Usually, a private Ayurveda pharmacy doubles as an Ayurveda clinic. There are about half a dozen (exact number is

<sup>31</sup> Nepal is administratively divided into five development regions, 14 zones and 75 districts.

<sup>32</sup> Based on discussion with the Director of the hospital.

not known) Ayurveda service centres offering Ayurveda in Kathmandu. Experts say that such service centres are not available outside Kathmandu valley. One such service centre is Ayurveda Health Home, a private organization in Kathmandu run under Nepal-German management, providing a variety of Ayurveda services and also exporting the same to foreign consumers through Mode 2.

Besides, there are more than five dozen non-governmental organizations (NGOs) and international non-governmental organizations (INGOs) working in the areas of conservation of medicinal and aromatic plants (Koirala and Khaniya 2008). Yoga/pranayam classes are also run across the country, mainly informally.

There are nine Ayurveda campuses/colleges/institutes running Bachelor's and Certificate Level classes in Nepal. The state-run Ayurveda Campus, under the Institute of Medicine of Tribhuvan University, is located in Kathmandu and runs Bachelor's in Ayurveda Medicine and Surgery (BAMS). It dates back to 1928 and hence predates formal teaching of modern medicine in the country. It admits 15 students every year for its 5.5-year course with three "professionals" of 18 months each, together with a one-year internship. A recently established private institute in Janakpur district (southeast Nepal) affiliated to Nepal Sanskrit University also offers BAMS. Seven private institutes/campuses/colleges, affiliated to Council for Technical Education and Vocational Training (CTEVT) and Nepal Sanskrit University, offer certificate-level courses, which produce para-medics, that is, Ayurveda Health Workers and Ayurveda Health Assistants. Many people obtain BAMS, Master's and Doctorate degrees in Ayurveda from India, though an estimate of their numbers is not available. Data on private sector Ayurveda training institutes is also not available. One known formal sector provider of Ayurveda training is Ayurveda Health Home. In addition, a National Ayurveda Research and Training Centre is being established with the assistance of the Chinese government.

There is one government-owned Ayurveda medicine-producing unit, the over 350-year-old Singha Durbar Baidhyakhana Vikas Samiti. It is operating below capacity and faces quality constraints (Koirala n.d.). There are 31 private, domestic-owned Ayurveda pharmaceutical companies and 28 foreign-owned Ayurveda pharmaceutical companies.

#### ***4.2 Institutional structure***

The Ministry of Health (MoH) has a focal unit called Ayurveda and Alternative medicine Branch which is responsible for developing plans, policies, rules and regulations regarding all kinds of traditional medicine in the country and coordinate with other organizations/institutions/bodies related to traditional medicine under the ministry. The following organizations/institutions/bodies are working currently under the ministry.

- Department of Ayurveda: It oversees the following Ayurveda hospitals, dispensaries and health centres.
  - Ayurveda Hospitals: 2
  - Zonal Ayurveda Dispensaries: 14
  - District Ayurveda Health Centers: 61

- Local Ayurveda Dispensaries: 214
- Council of Ayurvedic Medicine: It is responsible for the registration and regulation of Ayurveda professionals, traditional healers and academic institutions. The following three categories of professional are registered.
  - Ayurveda Physicians (Graduates) are registered as full-fledged members of the council.
  - Ayurveda Para-medics are registered under a sub-committee of the council.
  - Traditional Ayurveda practitioners are enrolled and licensed for their practice. Those with at least three generations' experience in Ayurveda practice and who are at least 50 years old are eligible for enrolling.

### **4.3 Budget**

The national budgetary allocation for traditional medicine is low. The government allocates budget for Ayurveda and homeopathy, with Ayurveda accounting for close to 98 percent of the allocation for traditional medicine. For Fiscal Year (FY) 2008/09, NRs. 355.6 million was allocated for Ayurveda, which came to 2.4 percent of the total health spending through the Ministry of Health (NRs. 14.94 billion). While the total allocation for health for FY 2008/09 represented an increase of 54 percent over the revised estimate for the previous year, the allocation for Ayurveda increased by just 37 percent.

### **4.4 Constraints**

In a survey conducted among 70 Ayurveda doctors<sup>33</sup>, the main factors impeding the provision of quality Ayurveda services were identified as: lack of resources and budget in government-owned health institutions; lack of medicines and equipment; lack of programme as per the need of the communities; malpractices at the local level; lack of training/ workshops / seminars for doctors; lack of Pathology and Radiology Services at District Ayurveda Health Centres; lack of awareness among people of available Ayurveda services; and lack of team spirit among health workers and doctors.

Likewise, Koirala and Khaniya (2008) identify the absence of documentation of traditional Ayurvedic manuscripts and knowledge and the piracy of such materials and knowledge as a serious problem facing Nepali Ayurveda.

## **5. Policy on traditional medicine**

The National Health Policy, 1991 identifies the development of Ayurveda system along with other traditional medicine systems as one the strategies of achieving its objectives. It also emphasizes research in the area of traditional systems of medicine to enhance their quality and support their development.

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<sup>33</sup> [http://www.ayurnepal.com/articles/rajendra\\_status\\_ayurveda\\_nepal.htm](http://www.ayurnepal.com/articles/rajendra_status_ayurveda_nepal.htm)

The ongoing Three-Year Interim Plan (2007-2010) envisions that at the end of the plan period, “Ayurvedic and alternate health services made available in effective measure” (NPC 2007). The relevant strategy is to develop and extend Ayurvedic and other alternate health service systems. The plan envisions the policy of providing health services, including Ayurvedic and other alternate health services, to the people as per their own choice in health institutions at the district level and below. Human resources are to be mobilized in a coordinated way for national programmes under the plan. The plan places priority on Ayurvedic research, among others, at the initiative of the Health Research Council.

The plan has a separate section “Ayurveda and Alternate Medical System” under its Regular Programme. It aims to, among other things, make Ayurvedic and alternate medical services units more effective; construct 30-bed regional Ayurvedic hospitals in the western and far-western regions in the three years and take initiatives to establish 30 Ayurvedic dispensaries every year; take effective measures to enable the Singh Durbar Vaidyakhana (Ayurvedic medicine centre) Development Committee to manufacture quality, safe and effective Ayurvedic drugs in adequate quantity; develop Ayurvedic health human resources; devise and implement a programme for technical efficiency promotion, training, structural strengthening and development of Ayurveda campuses, and establishment of an Ayurvedic Study Institution, and human resource production for the National Ayurveda Research and Training Centre; bring Homeopathy, Yunani and natural medicine systems under the Health Ministry's jurisdiction for their planned operation; and conduct special programmes for collecting data about medicinal herbs and intellectual property rights, concerning knowledge, skill and technology of traditional health and treatment professionals.

The Ayurveda Health Policy (AHP), 1995 has the principal objectives of improving the health conditions of the people at large and making them self-reliant in health services by utilizing local medicinal herbs and medical entities. It seeks to develop Ayurveda treatment as a special treatment method in the country in a phase-wise manner. It recognizes Ayurveda as “national method of therapy/treatment”. For the development of the Ayurvedic science and procurement of efficient manpower, the policy has emphasized the need for the establishment of specific institutions. Some of the key features of the AHP are as follows.<sup>34</sup>

- ***Expansion of public provision of services:*** Upgrading the capacity of the two state-run Ayurveda Hospitals. Regional Ayurveda Hospitals to be built in each development region. Establish an Ayurveda Dispensary for every five Village Development Committees.
- ***Provision for inter-institutional and people's participation:*** Health workers, wizards, women volunteers, birth attendants, workers of social organizations, who are providing medical services by way of herbs in a traditional manner in rural

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<sup>34</sup> Based on the English version of the policy translated by Dr. Shyam Mani Adhikari, Ministry of Health, available at: [www.ayurvepal.com](http://www.ayurvepal.com).

- areas will be provided with trainings of growth, promotion, collection, protection and use of herbs, and people's participation will be mobilized in the Ayurvedic treatment service.
- ***Encourage herb farming, production and enterprise:*** Quality herb business will be encouraged by developing model herbs farms in the Himalayan region, Hill and Tarai (southern plains) regions and providing the people with knowledge of the use of the herbs in domestic treatment and their preparation, protection and promotion. Co-ordination will be made with governmental and non-governmental associations related with herbs, so as to maintain a standard of quality in domestic trade and exports by identifying genuine herbals. Governmental and non-governmental Ayurvedic medicine manufacturing companies that are already established or are to be established in the country will be encouraged to manufacture qualitative medicines on the basis of 'Good Manufacturing Practice' and imports will be reduced and export promoted.
  - ***Ensure Ayurvedic education and manpower development:*** Taking into consideration of paramount role of qualified, efficient and duty-bond manpower in a technical field like health treatment, a National Ayurvedic Institute, equipped with necessary equipment as well as a research centre, will be established under Tribhuvan University, for enhancing and carrying on further development in the effective production of Ayurvedic human resources capable of carrying out functions related to the field of Ayurveda, including ensuring the standard of quality of its various dimensions (education, health, and preparation of medicines). Similarly, the programme of producing Bachelor's-level manpower in Ayurveda will be conducted so that physical infrastructure will be developed in harmony with the objective to provide Master's-level and PhD-level Ayurvedic education in the future.
  - ***Management of Ayurvedic manpower:*** Various organizational structures under the Ayurveda Group will be made responsive and service-oriented for the consolidation of the management aspect of Ayurvedic manpower. Ayurvedic doctors and Ayurvedic health workers will be provided with the same allowances and special facilities as doctors or health workers of other systems.
  - ***Ayurvedic research:*** An Ayurvedic Research Institute will be established furnished with the required equipment, for research of international standard in matters related with the use of Ayurvedic medicines and entities and the Ayurvedic treatment.
  - ***Provision of resource mobilization:*** Assistance of native and foreign donor agencies will be made available so as to provide financial support to various programmes of Ayurveda, including in the export of herbs and prepared medicines. Such assistance will also be sought in the implementation of the programmes.
  - ***Nepal Ayurvedic Medicine Council:*** Establishment of Nepal Ayurveda Medical Council at the national level for setting the necessary standards of Ayurvedic education and services, registration of Ayurvedic doctors, and making arrangements for monitoring and evaluation.

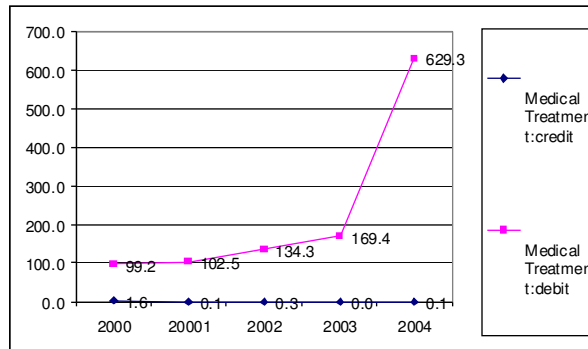


## 6. Nepal's international trade in health services

### 6.1 Status and trend

Although the health sector in Nepal has been significantly liberalized, trade in health services is yet to become a matter of policy focus. Trade in health services makes up a small proportion of total trade in services<sup>35</sup>; it was only 0.8 percent in 2004. Data recorded by the Nepal Rastra Bank (NRB), the central bank, show minimal credit flows, which were more than offset by massive debit flows, resulting in a net deficit in trade in health services (Figure 1). This indicates that Nepal is a net importer of health services under Modes 1 and 2.

**Figure 1: Trend of health trade through Modes 1 and 2 (NRs. million)**



Source: NRB (2005).

However, health services have been expanding in terms of foreign direct investment (FDI) flows, attracting 28.2 percent of the total FDI flowing into the services sector in 2004 (NRB 2005). Requests for approval for FDI (Mode 3) in this sector are also on the rise. No data is available for trade in health services under Mode 4.

More pertinent to this study, no macro-level data is available for export trade in traditional health services in general and Ayurveda in particular, although discussion with experts and Ayurveda doctors reveals that some private facilities inside the country are providing Ayurveda services to foreigners.

### 6.2 Nepal's WTO commitments in health sector

**Horizontal commitments:** Under the General Agreement on Trade in Services (GATS) under the World Trade Organization (WTO)<sup>36</sup>, 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

<sup>35</sup> Tourism is the dominant sector contributing one third of the total trade in services and half of the total foreign direct investment flow into the services sector in Nepal.

<sup>36</sup> Nepal became a WTO member on 23 April 2004.

Mode 2 except providing only US\$2,000 to Nepali citizens while going abroad. 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, that too for a limited time and not exceeding 15 percent of local employees.

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**<sup>37</sup>: Health services consist of two major sub-sectors: hospital services (Central Product Classification (CPC) 9311)<sup>38</sup>, and other human health services (CPC 9319 other than 93191)<sup>39</sup>. 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 of one year.

**Table 2: Nepal's sector-specific commitments in health services under the GATS**

<b>Sub-sector</b>	<b>Limitation in market access</b>	<b>Limitations on national treatment</b>
A. Hospital services (CPC 9311) and direct ownership and management by contract of such facilities on a 'for fee' basis.	1) None 2) None 3) None, except only through incorporation in Nepal and with a maximum foreign equity capital of 51 percent. 4) Unbound, except as indicated	1) None 2) None 3) None 4) Unbound, except as indicated in the horizontal section.

37 Under GATS, health services can also potentially include business service commitments in medical and dental services (9312) and veterinary services (932).

38 Hospital services: Surgical, medical, gynaecological and obstetrical, rehabilitation, psychiatric and other hospital services delivered under the direction of medical doctors chiefly to outpatients, aimed at curing, restoring, and/or maintaining the health of such patients.

39 Other human health services: ambulance services; residential health facilities services other than hospital services. Services in the field of: morphological or chemical pathology, bacteriology, virology, immunology etc., and services not elsewhere classified, such as blood collection services.

	<p>in the horizontal section.          Medical experts can work with the permission of Nepal Medical Council for a maximum of one year.</p>	
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Source: WTO (2004)

**GATS and traditional health services:** There are calls for making the classification of services more comprehensive under the GATS and efforts in that direction may result in traditional health services being included in the classification, offering new opportunities as well as challenges.

## 7. Empirical study

### 7.1 Case study

Following the overall methodology of the study, the Ayurveda Health Home (AHH)—a leading private sector Ayurveda health service provider (under Nepal-German joint management) staffed with ace practitioners that also exports its services—was selected as an institution for the Nepal country case study. By surveying the consumers as well as interviewing the service provider<sup>40</sup> at AHH, one can gauge the potential for Ayurveda services exports and barriers to the same as well as assess the possibility of the replication of this success story.

#### 7.1.1 General information

Ayurveda Health Home (AHH) was established in 1995 as a Nepal-German joint venture. Located in Dhapashi on the outskirts of Kathmandu city, it has been providing services to Nepali nationals as well as foreign nationals since its inception. Its staff size is 36, including two doctors, one chief therapist and 22 therapists. The chief therapist and therapists are trained by AHH. A one-year theoretical training is followed by two years of paid on-the-job training. The trainees have to sit for three levels of exams and their promotion is based on their performance in the exams. AHH has institute a system of pay being linked to performance. A productivity record is maintained. Staff are paid for overtime work. The organization is operating at 85 percent capacity utilization. AHH has six residential beds and eight treatment beds. However, AHH is not a hospital. It does not admit patients with communicable infectious diseases or who need emergency or continual medical attention or who cannot manage themselves. AHH has an outreach

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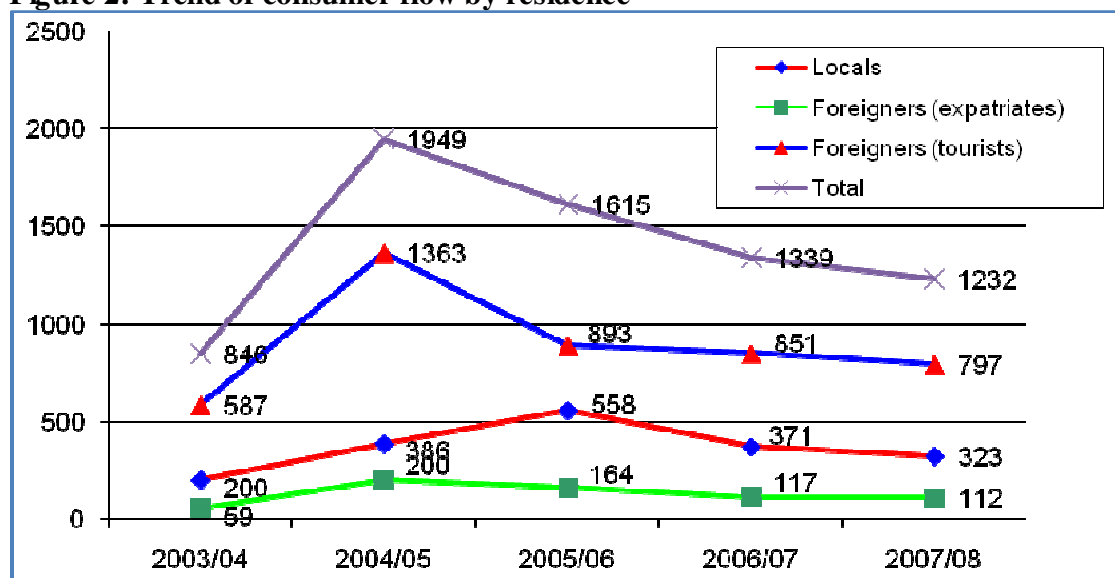
<sup>40</sup> Dr. Rishi Ram Koirala, Medical Director, AHH, Ayurveda practitioner and expert, was interviewed.

centre at Putalisadak, Kathmandu that provides short consultation services, mainly catering for domestic consumers. AHH also provides Ayurveda training.

### 7.1.2 Consumer flow

AHH has treated 6,981 patients in the last five years. Though inflow of consumers has been on a declining trend over the last three years, it is still higher than what it was in 2003/04 (Figure 2). The share of locals (Nepalis living in Nepal) among AHH averaged 26.38 percent in the five-year period from 2003/04 to 2007/08. The rest (73.62 percent) were foreigners—64.57 percent were tourists and 9.04 percent expatriates who had been in Nepal for more than six months (Table 3). The expatriate category registered the highest growth rate in the period, an annual compound growth rate of 17.4 percent, followed by the local category (12.7 percent) and the tourist category (8 percent).

**Figure 2: Trend of consumer flow by residence**



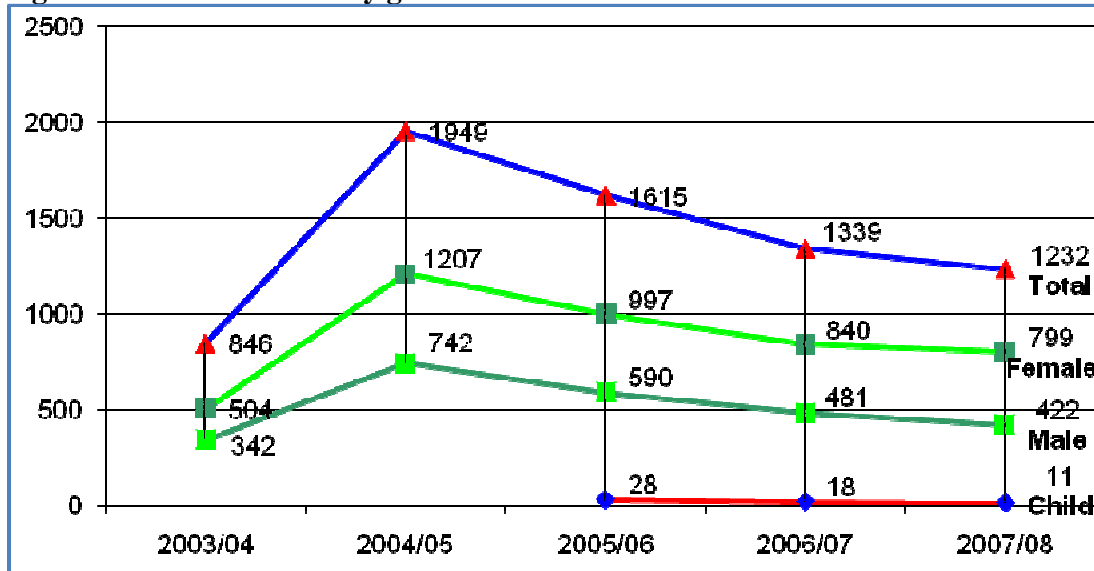
**Table 3: Share of consumers by category**

Fiscal Year	Locals	Foreigners (expatriates)	Foreigners (tourists)
2003/04	23.64	6.97	69.39
2004/05	19.81	10.26	69.93
2005/06	34.55	10.15	55.29
2006/07	27.71	8.74	63.55
2007/08	26.22	9.09	64.69
<b>Average</b>	<b>26.38</b>	<b>9.04</b>	<b>64.57</b>

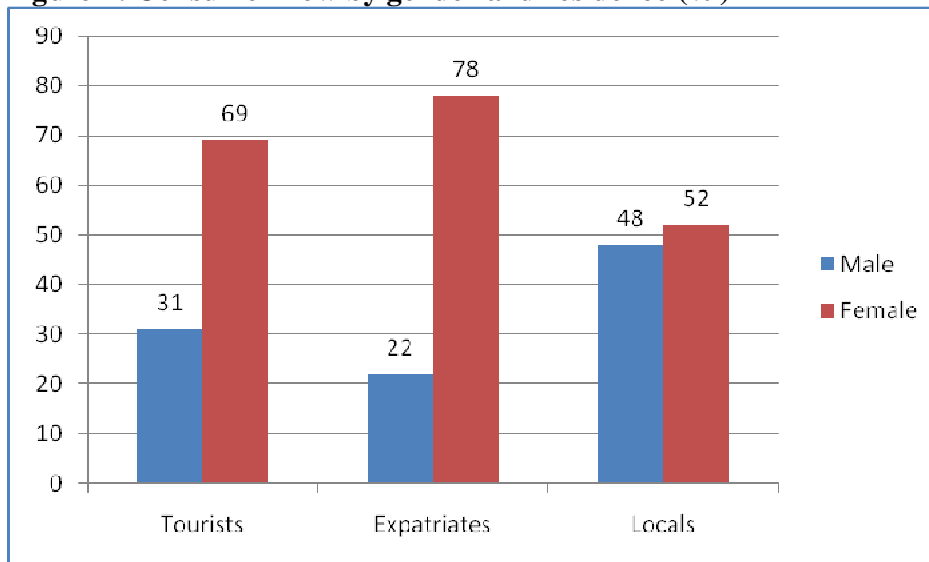
Female consumers consistently outnumber male consumers (Figure 3). In 2007/08, female consumers (adults) accounted for nearly 65 percent of total consumers while

males (adults) accounted for over 34 percent. The share of children was less than 1 percent. Females outnumber males in all categories of consumers by residence, but the margin is highest in the expatriate category (78:22), followed by the tourist category (69:31). Among locals, females outnumber men by a narrow margin, 52:48 (Figure 4).

**Figure 3: Consumer flow by gender**



**Figure 4: Consumer flow by gender and residence (%)**



In the five-year period 2003/04-2007/08, AHH received consumers from 91 different countries (see Annex 1 for the list of countries). The major foreign markets are western European countries, United States (US) and Japan. The 18 major countries shown in Table 4 accounted for 57 percent to 67 percent of total consumers, and 81 percent to 90 percent of foreign consumers during the period.

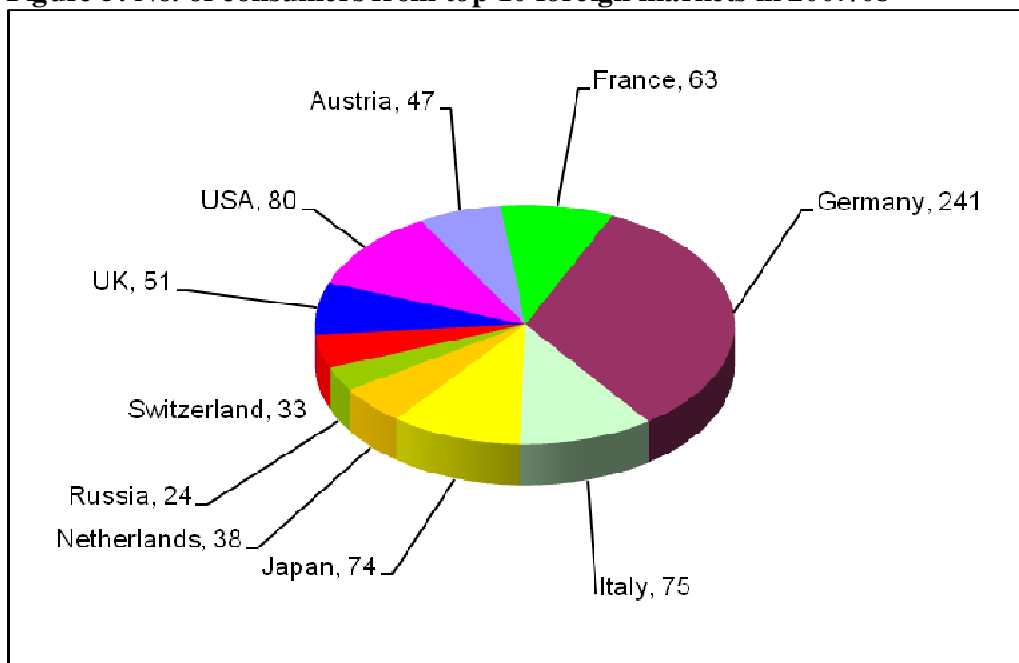
**Table 4: Consumer flow by major countries**

<b>Country</b>	<b>2003/04</b>	<b>2004/05</b>	<b>2005/06</b>	<b>2006/07</b>	<b>2007/08</b>	<b>As % of foreign consumers in 2007/08</b>
Australia	21	47	23	17	14	1.54
Austria	33	185	97	101	47	5.17
Belgium	13	33	15	15	10	1.10
Canada	7	16	21	21	14	1.54
Denmark	11	27	20	7	6	0.66
France	37	82	48	62	63	6.93
Germany	127	303	225	244	241	26.51
India	28	51	20	18	18	1.98
Italy	35	101	60	47	75	8.25
Japan	41	86	55	52	74	8.14
Malaysia	14	31	22	7	5	0.55
Netherland	37	69	42	45	38	4.18
Russia	11	11	21	23	24	2.64
Spain	6	22	33	20	13	1.43
Switzerland	28	53	36	53	33	6.63
Turkey	1	8	24	5	1	0.11
UK	45	93	78	45	51	5.61
USA	32	94	84	90	80	8.80
<b>% of total consumers</b>	<b>62.29</b>	<b>67.32</b>	<b>57.21</b>	<b>65.12</b>	<b>65.50</b>	
<b>% of foreign consumers</b>	<b>81.58</b>	<b>83.94</b>	<b>87.42</b>	<b>90.08</b>	<b>88.78</b>	

Consumers from 72 countries visited AHH in 2007/08. The top 10 countries in 2007/08 were Germany (26.51 percent of foreign consumers), the US (8.8 percent), Italy (8.25 percent), Japan (8.14 percent), France (6.93 percent), the United Kingdom (5.61 percent), Austria (5.17 percent), the Netherlands (4.18 percent), Switzerland (3.63 percent) and

Russia (2.64 percent). More than 20 consumers came from each of these countries (Figure 5); there were less than 20 consumers each from the remaining 62 countries in 2007/08). India took the 11th position with just under 2 percent share.

**Figure 5: No. of consumers from top 10 foreign markets in 2007/08**



In 2007/08, AHH got visitors from eight new countries. Some 25 percent (303) of the total visitors to AHH in that year were repeat visitors making follow-up visits to the institution (Table 5). The percentage of repeat visitors was the highest among expatriates (41 percent), followed by locals (36.5 percent) and tourists (17.4 percent).

**Table 5: New and repeat visitors to AHH in 2007/08**

<b>New visitors</b>	<b>Tourists</b>	<b>Expatriates</b>	<b>Locals</b>	<b>Total</b>
Male	206	15	107	<b>328</b>
Female	452	51	98	<b>601</b>
<b>Total</b>	<b>658</b>	<b>66</b>	<b>205</b>	<b>929</b>
<b>Repeat visitors</b>	<b>Tourists</b>	<b>Expatriates</b>	<b>Locals</b>	<b>Total</b>
Male	45	10	48	<b>103</b>
Female	94	36	70	<b>200</b>
<b>Total</b>	<b>139</b>	<b>46</b>	<b>118</b>	<b>303</b>
<b>Repeat</b>	<b>17.4</b>	<b>41</b>	<b>36.5</b>	<b>24.5</b>

<b>visitors as % of total within category</b>				
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### 7.1.3 Services

AHH's services are basically outpatient services. Located in a quiet and peaceful environment, it also serves as a guesthouse with six residential beds for its patients, but they are not meant for inpatient services in the conventional sense and are basically for sheer accommodation purposes. Patients staying at AHH are subject to a vegetarian diet drawing on Ayurveda. It provides a range of classical Ayurveda therapy services and guidance based on original Ayurvedic scriptures. It provides treatment services for stress-caused imbalances; muscle, joint and ligament and vertebral disorders caused by traumas, degenerations, or autoimmune reactions; respiratory system disorders; gastrointestinal disorders; liver disorders; skin diseases; metabolic disorders; gynecological disorders; neurological and immunological problems; and problems in the urogenital system. It also provides Pancha Karma treatment—which is highly popular among global consumers of Ayurveda services.

Therapy duration at AHH ranges from one day to 40 days. For therapies involving more than one day, patients stay at AHH or visit it every day; the latter is more common. A one-week therapy package attracts the maximum number of foreign consumers. However, the average services time consumed by foreigners is around two weeks. A therapy package, say lasting two weeks, comprises different therapies. There are targeted programmes for foreigners. Pre-designed programmes, ranging from 30 minutes to four weeks of duration, are offered in the form of therapy packages. Pancha Karma service, comprising four programmes, is specially designed for foreign consumers.

AHH's treatment services cover the following disorders/diseases:

#### *1. Stress-caused imbalances*

- Sleeplessness
- Migraine and other different headaches
- Different types of depression
- Post-traumatic stress disorders like panic attacks and emotional traumas
- Burned out syndromes
- Chronic fatigue syndromes

#### *2. Muscles, joints and ligaments and vertebral disorders caused by traumas, degenerations, or autoimmune reactions*

- Arthritis, ankylosing disorders, rheumatic joint problems, specially chronic pain, deformities, functional disorders



- Spinal or vertebral disorders, Lumbar or cervical spondylitis, gouty arthritis, frozen shoulders, knees problems, tennis elbow and others
- Muscles stiffness and tearing, dystrophy and atrophy of muscles

### *3. Respiratory system disorders*

- Post-high altitude respiratory sickness, recurrent cold, sinusitis, throat problems, etc.
- Chronic cough, chronic bronchitis, bronchial asthma

### *4. Gastrointestinal disorders*

- Digestion and absorption difficulties, hyperacidity, and chronic gastritis
- Irritable bowel syndromes, colitis and ulcerative colitis etc.
- Chronic constipation, piles and anal fissures
- Fistula in ano (by specific Kshara Sutra procedure)

### *5. Liver disorders*

- Chronic liver function disorders

### *6. Skin Diseases*

- Acne, facial hyperpigmentation
- Atopic Dermatitis, Neurodermatitis
- Psoriasis

### *7. Metabolic disorders*

- Lipid metabolic problems, e.g. High cholesterols, High triglycerides, Atherosclerosis
- Diabetes
- Overweight and underweight
- High Uric acid levels

### *8. Gynaecological disorders*

- Dysmenorrhoea, secondary amenorrhoea, and pre-menstrual stress,
- Pre-menopausal and post-menopausal syndrome

### *9. Neurological and immunological problems*

- Hemiparesis
- Parkinson's syndrome
- Multiple Sclerosis,
- Scleroderma

#### *10. Urogenital system-related problems*

- Chronic urinary tract infection
- Benign prostatic enlargement, chronic prostate infection
- Dyspareunia or dryness of genital tract

#### **7.1.4 Pricing**

AHH charges three sets of prices for its services in general. Foreign tourists are charged one set of prices, which are the quoted prices. Expatriates (those who have been in Nepal for more than six months) are given 20 percent discount. Nepali consumers get 40 percent discount on the majority of the services and up to 80 percent on some services. There is also a provision for 5-10 percent discount for foreign tourists on service packages, depending upon the duration of the treatment they opt for.

Quoted prices vary according to programmes and their duration. If a one-hour head and foot programme costs NRs. 2,060, a seven-day Ayurveda luxury programme costs NRs. 60,450. The most expensive programme is the 28-day Panca Karma programme, which costs NRs. 166,250. The price of consultation and counseling services ranges from NRs. 700 to NRs. 6,000. The price of individual therapies ranges from NRs. 750 to NRs. 2,650. Table 6 shows the prices of various therapy services and Table 7 shows room rates and other charges at AHH's guest house.

**Table 6: Prices of services at AHH**

<b>Services</b>	<b>Price</b>
<b>1 Hour Programme:</b> - Head & Foot Programme - Spinal Programme	NRs. 2060 NRs. 2250
<b>3 Hrs. Ayurveda Programme</b>	NRs. 4180
<b>1 Day Ayurveda Programme</b> <b>3 Days Programmes:</b> - Ayurveda Deluxe Programme - Ayurveda Programme	NRs. 8080 NRs. 34280 NRs. 21930
<b>5 Days Programmes:</b> - Ayurveda Deluxe Programme - Ayurveda Recreation Programme	NRs. 47150 NRs. 31590
<b>7 Days Programmes:</b> - Ayurveda Luxury Programme - Ayurveda Wellness Programme	NRs. 60450 NRs. 46990
<b>Intensive Cakra Therapy Package for 8 days</b>	NRs. 74150
<b>14 Days Ayurveda Cleansing &amp; Rejuvenation Programme</b>	NRs. 85710
<b>Panca-Karma Programmes:</b> - 7 Days Allied Panca-Karma - 10 Days Allied Panca-Karma - 14 Days Seasonal Panca-Karma - 28 Days Panca-Karma	NRs. 50700 NRs. 80200 NRs. 114360 NRs. 166250
<b>Consulation &amp; Counselling:</b> ➤ Short Consultation ➤ Consultation & Life Style Management ➤ Regular Consultation & Counseling ➤ Sattavajaya (Mastery over Mind)	NRs. 700 NRs. 3000 NRs. 6000 NRs. 3000
<b>Individual Therapies:</b> 1- Whole Body Relaxation Abhyanga 2- Synchronized Cleansing Abhyanga 3- Wholebody Cleansing Abhyanga 4- Ubatan Abhyanga 5- Master Kayaabhyanga 6- Relaxation Spinal Abhyanga 7- Relaxation Foot Abhyanga 8- Relaxation Head Abhyanga 9- Relaxation Facial Abhyanga 10- Facial Beauty Package 11- Whole Body Steam 12- Pinda Sveda 13- Siro Dhara 14- Siro Basti 15- Cakra Basti 16- Picu 15 min. 17- Picu 30 min. 18- Yoga/Meditation/Pranayama	NRs. 1430 NRs. 1850 NRs. 1600 NRs. 1880 NRs. 2600 NRs. 750 NRs. 750 NRs. 750 NRs. 750 NRs. 1250 NRs. 1200 NRs. 2650 NRs. 1550 NRs. 1900 NRs. 1350 NRs. 1350 NRs. 1500 NRs. 950

Prices are subject to government tax. Prices are effective up to 31 December 2009.

**Table 7: Room rates and other charges at AHH’s Guest House: “Happy Home”**

<b>Rooms</b>	<b>Single</b>	<b>Double</b>
Nights	(NRs./ per night)	(NRs./ per night)
1-5	1800	2800
6-12	1700	2700
13-23	1600	2600
>23	1550	2550
<b>Breakfast</b>	<b>Lunch</b>	<b>Dinner</b>
NRs. 350	NRs. 450	NRs. 450

Prices are subject to government tax. Prices are effective up to 31 December 2009.

#### **7.1.4 Service provider’s perspective<sup>41</sup>**

##### ***Why foreign consumers visit AHH?***

Foreign consumers (expatriates and tourists) visit AHH mainly because of their faith in the Ayurveda system and the quality of services provided by the organization. Another source of attraction for foreign consumers is that AHH offers specialized services (e.g., Pancha Karma) and pre-designed therapeutic programmes. Until about five years ago, most of the tourists that visited AHH were tourists visiting Nepal for some other purposes. However, AHH now receives foreign consumers who are visiting Nepal with health treatment as a primary purpose.

##### ***Business prospects for 2009***

The economic downturn will not affect AHH’s business volume in 2009 as the flow of patients is likely to remain robust. However, profits stand to fall due to an increase in operational cost due to high inflation.

##### ***Problems/barriers***

- **Language:** With consumers from 93 countries having visited AHH, language is a barrier to communicating effectively with consumers from non-English-speaking countries.
- **Human resource:** BAMS is the highest level of Ayurveda education formally taught in Nepal. However, Nepal’s BAMS is not recognized in India. As a result, BAMS products from Nepal cannot pursue advanced Ayurveda courses (e.g., Master’s) in India. Furthermore, BAMS students do not have practical experience, thereby constraining their potential to provide professional services. Lack of specialization is also a constraint. [The Chinese government is building a National

<sup>41</sup> Based on interview with Dr. Rishi Ram Koirala, Medical Director, Ayurveda Health Home.

Ayurveda Training and Research Institute at a total cost of NRs. 620 million. A major objective of establishing the institute is national documentation of Ayurveda resources. But there is an acute scarcity of human resources to operate the institute.]

- **Policy implementation:** The right policy framework for developing traditional medicine is there. However, implementation is very weak. There is leadership vacuum at the policymaking level [In 1993, the Japanese government had pledged NRs. 850 million to the development of Ayurveda in Nepal. The area of the pledged support encompassed Ayurveda hospital, Ayurveda pharmaceutical company and Ayurveda academic institution. However, the pledge did not materialize due to absence of effective leadership at the policymaking level.

### *Export potential*

- The increasing trend of foreigners visiting Nepal with the major purpose of health treatment at AHH is an indication of the potential for exporting Ayurveda health services through Mode 2.
- Under Mode 2, there is also potential for providing Ayurveda education to foreigners. Dr. Koirala, for one, gives training to foreign doctors in both general and specialized areas, as well as researchers.
- There is potential for supplying Ayurveda-related manpower to developed countries (Mode 4), which are gradually becoming receptive to the traditional medicine of the east. Provided that the Ayurveda course in Nepal is fully recognized, specialization is ensured and practical experience is provided to students, some 50-60 Ayurveda practitioners can be easily be exported to developed countries straightaway.

### **7.1.5 Survey of health consumers**

A total of 43 consumers—32 of them Nepali nationals and 11 foreign nationals—were surveyed. The Nepali consumers were surveyed at AHH and its outreach centre, Maharshi, while foreign consumers were surveyed at AHH. The survey results are analysed separately for Nepali and foreign consumers.

#### *Nepali consumers*

#### **Sampling and typology of respondents**

A total of 32 of Nepali nationals visiting Ayurveda Health Home and its outreach clinic, Maharshi, in Kathmandu for treatment were surveyed in March 2009. The sample was selected on a random/convenience basis. Of the 32 respondents, 25 (78 percent) were permanent residents of Kathmandu valley. Of the remaining seven (22 percent), one was a Nepali national residing in the United States (US), one was a Nepali national working in the United Arab Emirates (UAE) but with permanent residency in Kathmandu, one had come to Kathmandu exclusively for health treatment from Syangja district in west Nepal,

and the remaining four were temporary residents of Kathmandu valley. Both the respondents from the US and the UAE were in Kathmandu with the primary purpose of health treatment and the secondary purpose of visiting their family and friends.

An overwhelming majority of respondents were men (78 percent as opposed to 22 percent women). The age of the respondents ranged from 19 years to 61 years, with about 64 percent of the respondents in their mid-20s to early 40s. Nearly two thirds of the respondents had Bachelor's level education or above, about 19 percent had higher secondary level education, a little below 10 percent secondary level education and just above 6 percent were just literate. As regards profession, some 62.5 percent of the respondents were engaged in the service sector, about 22 percent in business, 9.4 percent were students, one respondent was engaged in industry, and another respondent was a farm labourer.

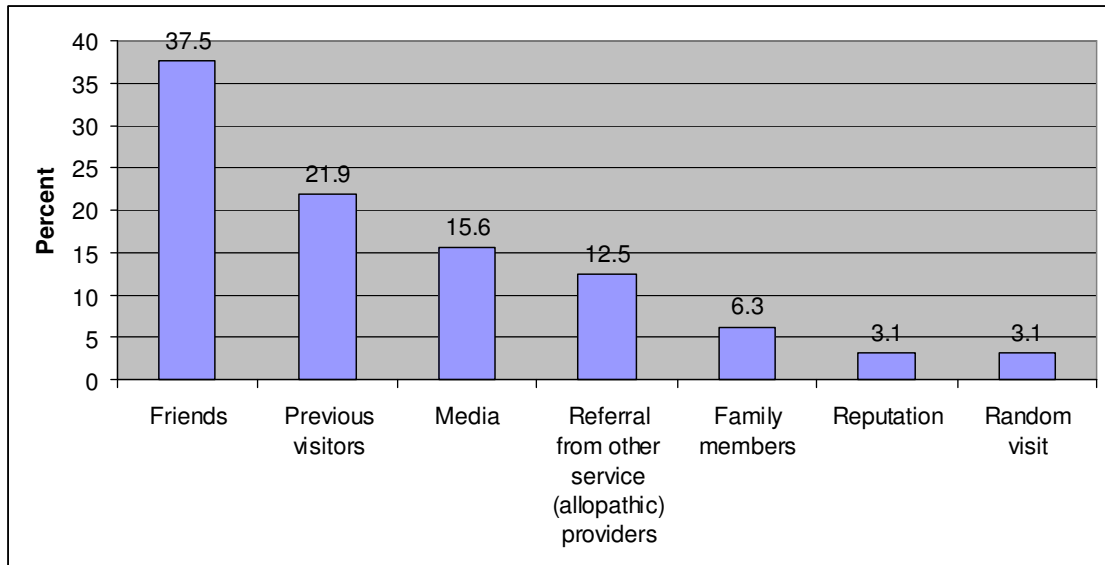
The monthly income of the respondents ranged from NRs. 1,500 to NRs. 176,000. However, about two thirds of them earned between NRs. 1,500 and NRs. 15,000. About 32 percent were in the NRs. 6,000-10,000 range, 19.4 percent in the NRs. 11,000-15,000 range, and 13 percent each in the NRs. 16,000-20,000 and NRs. 1,000-5,000 ranges.

Close to 60 percent of the respondents were accompanied by at least one person, while the rest were unaccompanied.

### **Channels of information**

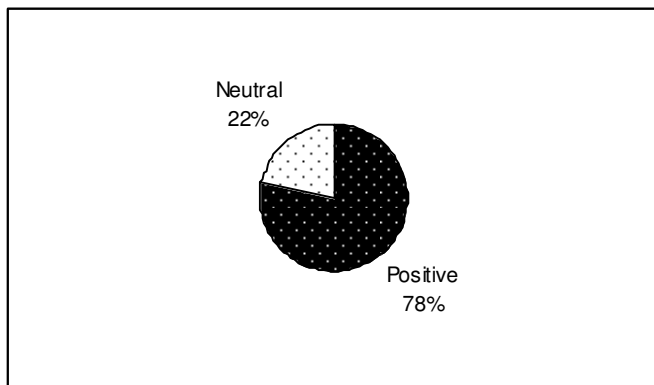
Friends were the main source of information about the traditional health service provider for 37.5 percent of the respondents; previous visitors for about 20 percent of the respondents; other service (allopathic) providers for 12.5 percent of the respondents; and media for another 15.6 percent (Figure 6). Other sources of information were family members and the reputation of the service provider itself, while one respondent was on a random visit.

Figure 6: Channels of information



For 78 percent of the respondents, the information thus received had a positive influence on them to decide to choose opt for traditional health service provider vis-à-vis other health systems. For the remaining 22 percent, the information had a neutral effect on their decision (Figure 7).

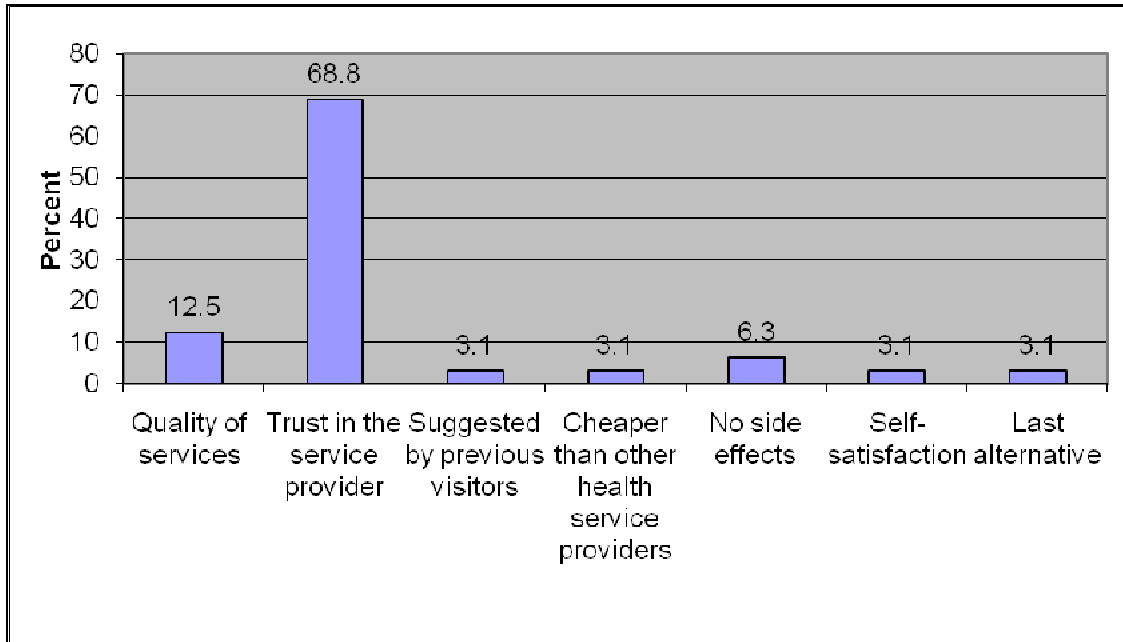
Figure 7: Effects of information on decision to choose traditional health service



**Reasons for visiting the service provider**

For well over two thirds of the respondents, trust in the service provider was the main reason for visiting the clinic. The other main reasons cited were quality of services (12.5 percent) and no side effects (6.3 percent) (Figure 8). For one respondent, treatment at the clinic was the last hope of getting cured.

Figure 8: Main reason for visiting the service provider



Respondents were asked to cite multiple reasons, if applicable, and rank them. The second important reason for visiting the clinic was quality of services for 74 percent of the respondents who cited more than one reason, followed by trust in the service provider (17.4 percent). Among the respondents who cited three reasons, 55.6 percent identified recommendation by previous visitors as the third reason for visiting the clinic.

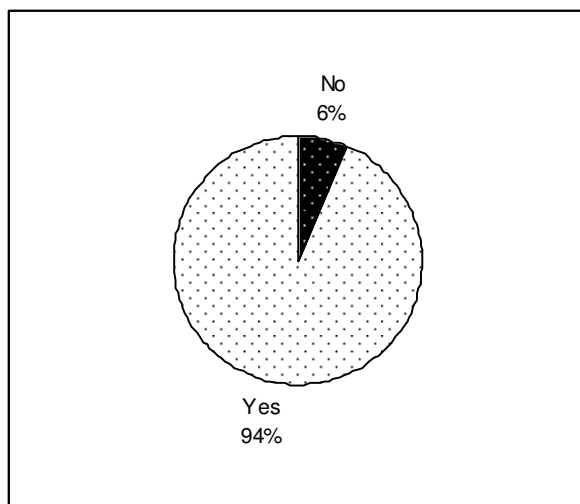
It should be noted that only four respondents said that a reason (first, second, third and fourth important, respectively) for visiting the clinic was it is cheaper than other health service providers.

### **Expectations, quality of services and satisfaction**

Of the 32 respondents, 30 said their expectations were met by the service provider while 2 said their expectations were not met by the service provider (Figure 9).

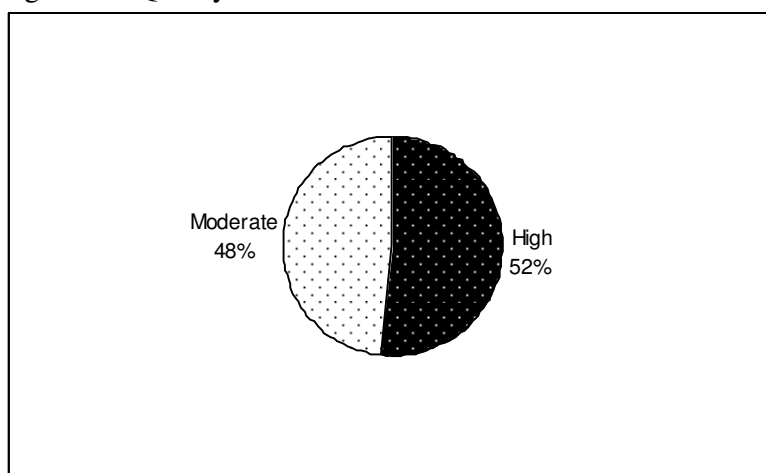
Figure 9: Were consumers' expectations met?





The majority of the respondents (50 percent) rate the quality of the services received as high while some 47 percent rate it as moderate (Figure 10). (One respondent did not respond). This indicates that the consumers are satisfied with the quality of services at the clinic.

Figure 10: Quality of services received



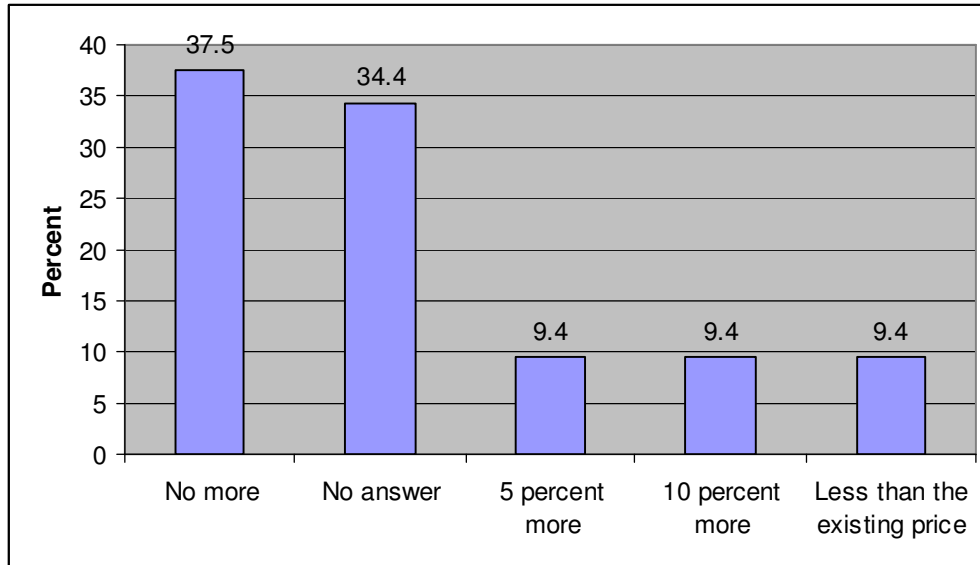
Likewise, all the respondents said they wanted to come to the same service provider for treatment again if need be and they would also recommend others to visit the place.

**Willingness to pay**

Willingness to pay indicates what a consumer is willing to pay for the service rather than go without that service. In our survey, the maximum proportion of respondents (37.5 percent) were not willing to pay any more than what they were already paying for the service, while 9.4 percent said that the service was very expensive and the cost should be reduced (Figure 11). Only 9.4 percent each were willing to pay 5 percent and 10 percent

more, respectively. There were no responses from a sizeable proportion of the respondents (34.4 percent). This, together with the responses regarding the reasons for visiting the service provider, indicates that the service is perceived as costly by consumers.

Figure 11: Willingness to pay



### Problems

The bulk of the respondents (84.4 percent) said they did not face any problems while receiving services at the clinic. For the 15.6 percent who faced problems while receiving services, the problems identified were the crowd of consumers at the clinic and lengthy queues leading to long waiting time, and the lengthy recovery process.

Likewise, 90.6 percent of the respondents said they did not face any problems outside the service provider in connection with receiving the service, while 9.4 percent of the respondents cited traffic jams in the major thoroughfares of Kathmandu valley as a problem while coming to the clinic to receive services.

### Recommendations

Respondents were asked to give suggestions for improving the services for Nepali patients. The majority of the respondents suggested improving accessibility for patients through branch expansion. A sizeable proportion of respondents (46.2 percent) identified the need for publicizing the service and the benefits of Ayurveda so that more patients can avail themselves of the traditional health service. About 19 percent said the clinic should be turned into a hospital (as so far there is not a single private Ayurveda hospital in Nepal). Other suggestions were provision of government support to Ayurveda health system, reduction of cost of Ayurveda medicines, opening up more Ayurveda research centers, production of qualified Ayurveda doctors, integration of Ayurveda with modern

medicine, assuring consumers that there are not side effects and further enhancing service quality.

### ***Foreign consumers***

#### **Sampling and typology of respondents**

A total of 11 foreigners visiting Ayurveda Health Home were surveyed in April 2009. The sample was selected on a random/convenience basis. Of the 11 respondents, two each were from Austria, the US, the UK and Switzerland, and one each from Turkey, France and Kazakhstan. All were tourists.

The majority of respondents were female (64 percent as opposed to 36 percent women). The age of the respondents ranged from 29 years to 66 years, with the median age of 49.5 years. Of the 10 respondents who stated their education level, the median years of education was 15 years. As regards profession, some 45.5 percent of the respondents (5) were engaged in the service sector, two respondents were therapists/health workers, and one each was engaged in business, a student, a housewife, and retired (doing voluntary work).

The average duration of stay of the nine respondents who replied to the query 21.56 days. Some 78 percent of them were staying for 21 days or more.

About 64 percent of respondents were accompanied by one person, 18 percent by two persons and the rest were unaccompanied.

#### **Purpose of visit**

The primary purpose of visit to Nepal for 9 respondents (81.8 percent) was health treatment. For one respondent religion was the primary purpose while for another, it was visiting friends and sightseeing. Among those respondents who also had a secondary purpose of visiting Nepal, 37.5 percent cited visiting friends and/or sightseeing, 25 percent each cited health and religion, and 12.5 percent cited business. One respondent had been visiting Nepal for “many years”. This indicates that the majority of visitors to AHH come to Nepal with health treatment as the main purpose.

#### **Channels of information**

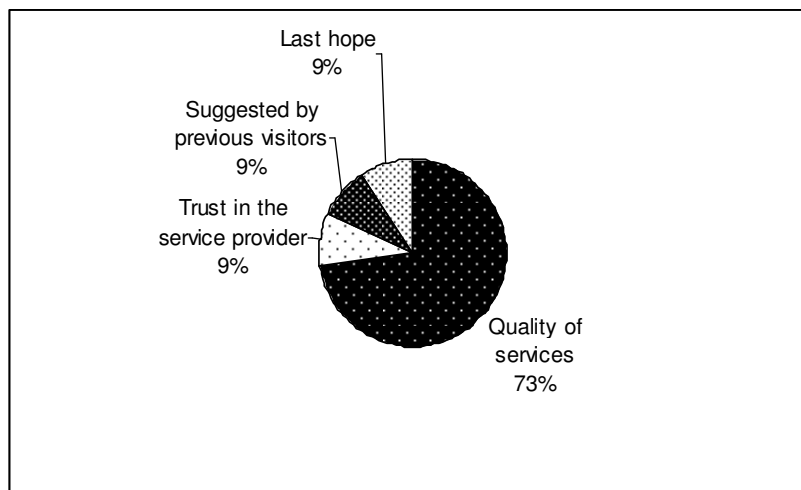
For 36.4 percent of the respondents, the media was the major source of information about AHH service. For 27.3 percent, previous visitors were the major source of information. Reputation of AHH was the major source of information for 18.2 percent, and family members and friends for 9 percent each. Respondents were also asked to cite multiple channels if applicable. Taking into account all the responses, previous visitors were a source of information for 54 percent of the respondents, and reputation for 36 percent. This indicates that word of mouth is an important source of information for foreign consumers.

All the respondents said the information they got positively influence their decision to opt for traditional health service vis-à-vis other health systems.

### Reasons for visiting the service provider

For 73 percent of the respondents, quality of the service was the main reason that drew them to AHH. Trust in the service provider and recommendation by previous visitors were cited as the main reason by 9 percent each. One respondent's reply was "they say they can treat", implying that treatment at AHH was his/her last hope of getting cured (Figure 12).

Figure 12: Major reasons for visiting service provider



Respondents were also asked to cite more than one reason if applicable and to rank them. Trust in the service provider was cited by 75 percent of the respondents (who gave two reasons) as the second important reason, followed by quality of services (25 percent). Among the five respondents who cited three reasons, two each cited recommendation by previous visitors and low cost of receiving services overall, and one cited quality of services.

This indicates that quality of services and trust in the service provider are the most important factors behind foreigners visiting AHH. It is to be noted that no respondent cited low cost of service at AHH as a reason for visiting the service provider.

### Cost

Only 8 of the 11 respondents gave data on their cost of receiving services. Data on cost breakdowns (cost of service, cost of travel to Nepal, transport cost within Nepal, food expenses within Nepal and other cost) were not available uniformly for all eight of them. However, all eight gave estimates of cost of health service (Table 8). The mean and

median costs of service were US\$1410.94 and US\$1500 respectively. Cost of service ranged from US\$600 to US\$1937.5.

**Table 8: Cost of service**

		<b>Cost of service (US\$)</b>
<b>Mean</b>		1410.938
<b>Median</b>		1500
<b>Std. Deviation</b>		483.0353
<b>Minimum</b>		600
<b>Maximum</b>		1937.5
<b>Observations</b>	<b>Valid</b>	8
	<b>Missing</b>	3

**Expectations, quality of services and satisfaction**

All the respondents said their expectations were met by the service provider (Figure 13). Similarly, all the respondents ranked the quality of service as high (Figure 14).

Likewise, all the respondents said they wanted to come to the same service provider for treatment again if need be and they would also recommend others to visit the place.

Figure 13: Were consumers’ expectations met?

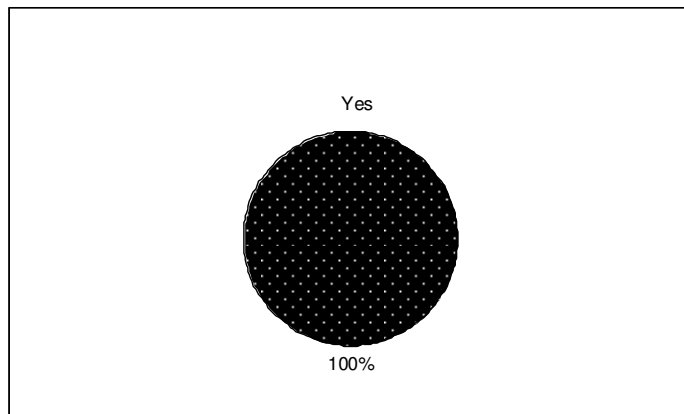
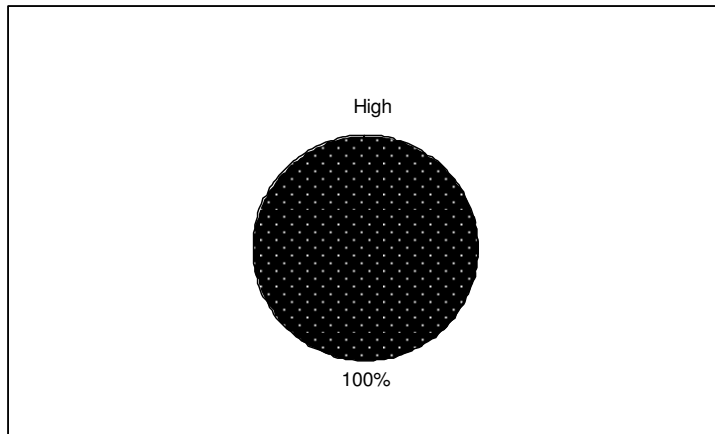


Figure 14: Quality of service



### **Willingness to pay**

Only five of the 11 respondents responded to the question of willingness to pay. Three (60 percent) were willing to pay 10 percent more, one (20 percent) was willing to pay 5 percent more and another one was not sure.

### **Problems**

All the respondents had come to Nepal by air. Only six respondents replied to the query about problem while traveling to Nepal. Four said they faced no problem, one cited cost of travel and one cited theft at the international airport in Kathmandu.

All respondents said they did not face any problem at the service provider.

As regards problem outside the service provider, six of the eight respondents said they did not face any problem while two cited heavy traffic in Kathmandu, pollution and power cuts as problems.

### **7.2 In-depth interview**

In-depth interviews were taken with one service provider (AHH), one policy maker<sup>42</sup> and one health economist<sup>43</sup>. The results of the interview with the service provider have been presented in the case study section above. The following is a summary of the findings from the two other interviews.

### **Status**

The Government of Nepal (GON) has a policy framework in place that recognizes people's right to choose from among various health/medical systems. The National

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<sup>42</sup> Gyanendra Kumar Shrestha, Coordinator, National Planning Commission, Government of Nepal.

<sup>43</sup> Bishnu Prasad Sharma, General Secretary, Nepal Health Economics Research Council, Kathmandu.

Health Policy, 1991 and the current Three-Year Interim Plan (TYIP) have provisions for developing and mainstreaming traditional health systems, including Ayurveda. However, despite the provisions and the fact that an overwhelming majority of the population has faith in and utilize the traditional health system<sup>44</sup>, traditional medicine has not received its due share in government budgetary allocation. The network of public Ayurveda facilities is not as widespread and dense as allopathic service facilities. The Tenth Five-Year Plan (2002-2007), which preceded the TYIP, had envisioned a policy of integrating modern and traditional health services into a single system so that both kinds of services are available at a single health facility. This provision, if implemented, would offer two benefits—first, a reduction in the cost of service delivery, mainly through reduced overhead expenses, and second, convenience for consumers and improvement in their access to health services.

### ***Export potential***

Consumption of traditional health services in Nepal by foreigners is grossly underreported. There are plenty of anecdotal evidences of foreign nationals suffering from terminal illness (e.g., cancer) and who could not be cured by allopathic medicine in their countries getting much relief or cured by traditional medicine in Nepal.

Furthermore, given that people of developed countries are increasingly attracted towards what they call alternative and complementary medicine, there is potential to export traditional health services through Mode 2. While it may not be feasible at the moment to attract foreigners exclusively for medication, tourists visiting Nepal for various purposes can be drawn to various forms of traditional health services. At this stage, it would not be realistic to attempt to attract developed-country nationals towards traditional health services in Nepal as a main source of treatment, though there is potential to develop such services as a secondary level of treatment, provided the quality of services is of international standard.

Nepal has a potential to export Ayurvedic services through Mode 2 by cashing in on its climatic diversity and pleasant climate of places like Kathmandu. Natural beauty is a potential source of comparative advantage for exporting traditional health services through Mode 2. Natural healing could be an attraction for tourists visiting Nepal and hence could be made a component of vacation packages. Ayurveda services could be offered at resorts/healing centres on the picturesque outskirts of Kathmandu valley.

### ***Barriers***

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<sup>44</sup> Nepalis are attracted to traditional medicine including Ayurveda as there are no side-effects of such treatment and they have faith in the system that is part of their own culture and heritage. Moreover, the popularization of pranayam/yoga by Ram Dev, the Indian pranayam guru, is also attracting city dwellers towards various forms of traditional medicine.

Absence of recognition by health insurance companies in developed countries of traditional medicine practised in Nepal is a major deterrent to inducing foreigners to seek medication in traditional health service facilities in the country for any illness.

Lack of awareness among foreigners about the effectiveness and special features of traditional medicine practised in Nepal (e.g., absence of side effects) is another barrier to exporting such services substantially. Lack of publicity is the major cause behind such lack of awareness.

Maintaining international standards in the quality of human resources and service quality is of vital importance.

Traditional medicine has developed as a supplementary medicine only. It remains to be systematized, institutionalized and made transparent. The attitude of modern medicine towards traditional medicine in Nepal is to a large extent that of mistrust.

The two state-run Ayurveda Hospitals do not provide individual care and comfort for patients—which is a must if foreign patients are to be drawn in.

### ***Suggestions***

- Improve and maintain quality of human resources and services
- Launch an effective publicity campaign highlighting the effectiveness and special features of traditional medicine of Nepal targeted at foreigners
- Increase budget for traditional medicine
- Enhance R&D in traditional medicine
- Implement the plan to integrate traditional and modern health systems so as to expedite the effective mainstreaming and formalization of traditional medicine in the country.
- Traditional medicine (e.g., natural healing therapies) should be incorporated in tourist packages and such packages should be publicized far and wide. Lessons can be drawn from India's success in publicizing its traditional medicine globally.
- Nepal's climatic conditions should be capitalized on for promoting health tourism with focus on traditional medicine.
- Ways to integrate traditional medicine with modern medicine should be explored. At least, disease-wise cross-referral, if not full-fledged integration altogether, may be feasible in the short to medium run. Traditional medicine should be institutionalized and systematized, and transparency should be ensured in its practice.



- Private sector should be encouraged to provide quality traditional health services targeting tourists.

### ***7.3 Focus group discussion***

A focus group discussion (FGD) was held on 13 May 2009 at SAWTEE office in Kathmandu. There were eight participants, including Ayurveda practitioners, academicians, public and private service providers, government officials, policy makers and experts. The FGD centred on two issues: Nepal's export potential in Ayurveda services and the constraints to realizing that potential.

#### ***Export potential***

Demand for traditional medicine (called complementary and alternative medicine in the West) has been growing strongly over the last 15 years, especially in developed countries. Though various traditional medicine services, including Ayurveda services, are available in rich countries, consuming those services at the countries of origin has a special appeal. As the land of Ayurveda, Nepal is a natural attraction for foreign consumers of alternative medicine. Encouragingly, there is resurgence of faith in traditional medicine among Nepalis living in urban areas after decades of domination of traditional health systems by modern medicine.

Nepal's altitudinal and climatic diversity that provides a natural habitat for medicinal plants, its rich Ayurvedic history and heritage rooted in its multi-ethnic and multi-cultural population, and the fact that the country has a huge tourism potential point towards potentiality in Ayurveda health tourism. Resorts offering Ayurveda health services in tourist circuits as in Sri Lanka could be an effective vehicle for health tourism. Such services can also be provided through old-age homes, in which Nepali has a comparative advantage due to pleasant climate and low of cost of living compared to developed countries. In fact, Americans and Japanese have shown interest to open such homes in Nepal.

Health tourism can also serve as a vehicle for exporting Ayurveda-based pharmaceuticals.

Another potential area is provision of Ayurveda-related training courses for foreigners.

#### ***Constraints/solutions***

Natural resources and knowledge have neither been effectively preserved nor utilized. Despite a ban, some medicinal plants are being smuggled out of the country through the open Nepal-India border. There is a growing practice of Indian traders buying certain medicinal plants (e.g. chirayatu) in advance from Nepali hill villages. Ancient texts of Ayurvedic knowledge are unaccounted for or have been pirated by foreigners. Also, there is no authority to verify claims regarding uses of medicinal plants.

Comprehensive identification, mapping and documentation of medicinal plants and traditional medicinal knowledge at the district level are required. Lesson can be learnt from Sri Lanka, where traditional medicine is promoted, including as an attraction for tourists.

There is not much research on Ayurveda. In-depth research and documentation are needed to inform foreigners about the special services Nepal has to offer in Ayurveda. It is important to identify diseases and ailments for which Ayurveda is more effective than modern medicine. Those Ayurveda services will have to be promoted. This will also help better integrate Ayurveda into the national health system.

Human resource is a constraint, both quantitatively and qualitatively. Nepal's BAMS course is not recognized abroad; this is holding BAMS graduates from pursuing higher Ayurveda education in India. Efforts should be made at the national level, making use of diplomatic channels, to have Nepali BAMS course recognized by Indian universities.

There is lack of inter-ministry coordination. There is little coordination between the Department of Ayurveda (DoA) under the Health Ministry and the Department of Plant Resources under the Ministry of Forests and Soil Conservation.

Maintaining quality standards expected by foreigners is a challenge. There are extremely few service centres offering international quality Ayurveda services.

The government-run Ayurveda Hospital at Nardevi, Kathmandu has a low occupancy rate (50 percent). Foreign patients are negligible in number although it has the potential to attract foreign consumers. Quality standard remains a barrier.

Ayurveda medicines not available in all districts in adequate quantities; pharmaceutical production is limited; 85 percent of Ayurveda pharmaceuticals are imported. There is a lot of room to broaden and deepen the use of Ayurveda medicine at the domestic level. Doing so will foster domestic consumption of Ayurveda services, creating a base for exports through Mode 2.

There is uncertainty about eligibility for reimbursement of expenses on Ayurveda medication by foreigners. Eligibility varies across insurance companies and services. However, 33 percent of the patients at AHH get reimbursed.

Allopathic medicine lobby dominates Ayurveda lobby in policy, plan and programme formulation and implementation. The Interim Plan has provisions for the development of the Ayurveda sector but when it comes to formulation of annual programmes, where the plan provisions are to be implemented, Ayurveda is completely overshadowed. There is a need for vigilance on the part of Ayurveda stakeholders to ensure that the plan provisions get implemented.

Ayurveda was recognized as a national medical science as opposed to alternative medicine in 1995, but implementation is weak. Ayurveda receives step-motherly

treatment from the state. Budgetary allocation for Ayurveda is a pittance. Many of the provisions of the Ayurveda Health Policy 1995 remain unimplemented.

There is insufficient publicity of Nepali Ayurveda resources and heritage globally. Ayurveda promotion can be linked with tourism promotion. Effective networking and marketing are crucial.

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[www.ayurvepal.com](http://www.ayurvepal.com)

**Annex 1: List of countries of origin of foreign tourists visiting AHH during 2003/04-2007/08**

S.N.	Country	S.N.	Country	S.N.	Country	S.N.	Country
1	Argentina	35	Indonesia	69	Salvador	82	Thailand
2	Australia	36	Ireland	70	Saudi Arabia	83	Tibet
3	Austria	37	Israel	71	Singapore	84	Taiwan
4	Bangladesh	38	Italy	72	Slovakia	85	Turkey
5	Belarus	39	Japan	73	Slovenia	86	UAE
6	Belgium	40	Jordan	74	Somalia	87	UK
7	Benin	41	Kazakhstan	75	South Africa	88	Ukraine
8	Bhutan	42	Korea	76	South Korea	89	USA
9	Bolivia	43	Kuwait	77	Spain	90	Vietnam
10	Brazil	44	Latvia	78	Sri-Lanka	91	Zimbabwe
11	Bulgaria	45	Lebanon	79	Sweden		
12	Burkina Faso	46	Lithuania	80	Switzerland		
13	Canada	47	Luxemburg	81	Syria		
14	Chile	48	Malaysia	82	Thailand		
15	China	49	Maldives	83	Tibet		
16	Columbia	50	Mali	84	Taiwan		
17	Croatia	51	Mauritius	85	Turkey		
18	Cyprus	52	Mexico	86	UAE		
19	Czech Rep.	53	Morocco	87	UK		
20	Denmark	54	Nepal	88	Ukraine		
21	Ecuador	55	Netherland	89	USA		
22	Eretria	56	New Zealand	90	Vietnam		
23	Estonia	57	Nicaragua	91	Zimbabwe		
24	Ethiopia	58	Nigeria	71	Singapore		
25	Fiji	59	Norway	72	Slovakia		
26	Finland	60	Pakistan	73	Slovenia		
27	France	61	Peru	74	Somalia		
28	Germany	62	Philippines	75	South Africa		
29	Greece	63	Poland	76	South Korea		
30	Guyana	64	Puerto Rico	77	Spain		
31	Hong Kong	65	Portugal	78	Sri-Lanka		
32	Hungary	66	Qatar	79	Sweden		
33	Iceland	67	Romania	80	Switzerland		
34	India	68	Russia	81	Syria		

#### **Annex 4:**

Comments by **Prof T. N. Srinivasan**  
for the study titled “South Asian Export Potential Traditional Health Services:  
A Case Study of Bhutan, India and Nepal”

This study has made substantial progress since it was prepared, although the India country report is still in progress. It is difficult to extract what exactly has been found through the surveys and interviews about export potential as compared to the ex ante belief that the potential is substantial. Moreover some barriers have been identified – yet it is hard to tell how easy or difficult it would be to address them or what their costs would be.

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