

## PRESENT STATUS OF TRADITIONAL HEALTHCARE SYSTEM IN NEPAL

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### ABSTRACT

Nepal is very rich in tradition and use of traditional medicine. In the country, there are more than 60 traditions and about 85% of population depends upon the traditional medicines for their primary health care. Many people in Nepal use more than one type of health care system and medicines depending upon the type of ailments, medicine available, cost preference and faith. A large number of traditional healers have been practicing indigenous medicines for hundreds of years. The indigenous knowledge have been transmitting generation to generation in the form of inherited culture and such practices have been handed down verbally and only few of the information were documented in books and in many other religious scripts. The knowledge of the most of the healers may be at the edge of extinction. It is the right time to document their knowledge and evaluate their products with the scientific evidences. In this paper a descriptive-observational study for the documentation of various traditional healthcare systems (*Amachi, Jhakri, Banjhakri, Gosai achhat*) prevailing in Nepal, various herbal resources called *jadibuti* in Nepali language, their uses, a number of issues related to the standardization, safety, efficacy and biodiversity were highlighted.

**KEY WORDS:** Biodiversity, Inherited culture, Knowledge, Nepal, Traditional medicines

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### INTRODUCTION

Traditional health care system is a heterogeneous term referring to a broad range of ancient health care practices which was dominant until the application of modern scientific method in the beginning of nineteenth century<sup>1</sup>. Traditional medicine is the sum of total of knowledge, skill and practices based on the theories, beliefs and experiences indigenous to different cultures that are used to maintain health as well as to prevent, diagnose, improve or treat physical and mental illness<sup>2</sup>. With this description, it becomes apparent that the traditional medicines has wide spectrum. On one side, it encompasses highly developed and sophisticated traditional medical system such as Ayurveda, Siddha and others; on other extreme, it just covers a mother's household knowledge of curing her children's ailments such as cold and cough<sup>3</sup>. In countries where the dominant health care system is based on allopathic

medicine or where traditional medicine (TM) has not been incorporated into the health care system, TM is often termed as complementary or/and alternative medicine (CAM). The use of traditional medicine remains wide spread in the developing countries while the use of complementary and alternative medicine (CAM) is increasing rapidly in the developed countries. At the subsistence level about 85% of Nepalese rural population is dependent on the various traditional medical practices<sup>4</sup>. This figure occupies an important position among the various developing countries; the percentage of the population that has been using TM is 60% in Uganda and Tanzania, 70% in Rawanda, and India, 80% in Benin and 90% in Ethiopia<sup>2</sup> (Figure 1). The majority of the Nepalese population doesn't have the choice of allopathic medicine due to unavailability and high cost and they prefer to complement their treatment with the traditional medicines. The traditional medicine

is also said to be quite safe and side effect less. Many surveys have assessed the importance of phytotherapies among the various ethnic communities of Nepal<sup>5,6,7,8,9</sup>. Such research targets to document the traditional knowledge of healers used in folk medicines but not in depth regarding the issues related to the standardization, safety, efficacy, biodiversity and need of Intellectual property rights (IPRs). It is necessary to view the traditional medicines within the context of the healthcare model in which it is so as to be able to understand its current development in various geographic and cultural contexts, the way in which it adjusts to its environment and finally the health care services available. This paper presents the findings of various components of traditional healthcare system which can be classified into scholarly medical system, folk medical system and shamanistic system. Mainly the indigenous knowledge related to folk medicine and shamanistic medicines are at the edge of extinction due to sociocultural changes produced by economical and technological development.

#### **MATERIALS AND METHODS**

A descriptive-observational study was performed for the documentation of various traditional healthcare systems prevailing in Nepal. Important visits were made frequently to explore the various crude drugs as well as the various traditional systems in different parts of Nepal since 2008-2010. Participatory techniques were used for the collection of information. In each field visit, the study was conducted with the close assistance with the help and cooperation of twenty two traditional healers, thirteen shaman and eighteen elderly (age above 46 year) of various ethnicity. Besides these, the data for scholarly medical system were gathered from various departments of Government and the site where the systems were practiced.

#### **RESULT AND DISCUSSION**

This paper presents the findings of various components of traditional healthcare system which can be classified into scholarly medical system, folk medical system and shamanistic system.

##### **Scholarly Medical System**

**Ayurvedic System:** It is the most authentically recorded, culturally based health system in Nepal. Furthermore, this traditional knowledge provides great wealth and heritage to our nation. Two types of Ayurveda practitioners exist in Nepal. First, academic Ayurveda practitioners trained from educational institutions, training centers, colleges and universities, Second, Ayurveda based traditional healers who learn the knowledge and skill of the profession from their father or from the *gurus* (teachers) and obtain the required

knowledge and skill about the healing practice. The various components of Ayurveda found in Nepal are given below,

**Ayurvedic Hospitals:** There are two Ayurvedic hospitals – one in Kathmandu with hundred beds and a mid western regional hospital located in Dang, a place of western Nepal, with 30 beds. There are fourteen zonal Ayurvedic dispensaries and fifty-five district health centers distributed throughout the country on the government support. The number of patients in the government supported hospital rose from 777636 in 2007/2008 to 855163 in 2008/2009 but this figure slightly decreased to 720081 in the fiscal year 2009/2010. (Figure 2).

##### **Interaction with patients attending Nardevi Ayurvedic Hospital**

The following patients' opinion regarding the five diseases regarding diabetes, jaundice, gastritis, haemorrhoids, and hypertension were collected through the interaction with them during their visit in Nardevi hospital, Kathmandu

Most of the diabetic patients received Ayurvedic medicine due to complications of modern medicines. Common complications experienced are hyperglycaemia, allergy, restless, neuropathy, too much loss in weight, nocturia etc

Almost all the jaundice patients experienced that they were not cured by modern medicine. So they used the Ayurvedic medicines. Most of the respondents expressed their opinion on Ayurvedic medicines that the prognosis on jaundice is good.

In case of gastritis, majority of the respondents spent more money and time for the modern medicine but not significantly improvement. So they changed those medicines from allopathic to Ayurvedic.

In case of haemorrhoids, they used allopathic medicines since a long time but no cured. So they came to Ayurvedic hospital.

Some of the hypertensive patients complained about the side effects from their modern medicines treatments. The experienced side effects are mental depression, headache, easily fatigability, insomnia, dizziness etc.

**Ayurvedic Pharmaceutical Companies:** There is a single government supported Ayurvedic medicine production unit (industry) called Singh Durbar Vaidyakhana, located in Nardevi, Kathmandu. From the fiscal year 2007/2008 to 2008/2009, the foreign industries increased very slightly but the domestic industries increased very significantly to supply the ayurvedic drugs. In 2009/2010, Ayurvedic drugs were

supplied from 31 foreign and 39 domestic companies (Figure 3).

**Lab conditions:** In addition to good manufacturing practices, qualitative raw drugs are required to produce good drug. Out of 39 domestic companies, no single industry has received the GMP certificate till today. On the visit of 6 established companies in Nepal, the management of laboratory was very poor. There were no proper drying and storage houses along with no evaluating system of crude drugs as well as the finished products. All of them were suffering from the problems of academically sound human resources. Therefore, the safety and efficacy of crude drugs and their products are questionable.

**Ayurvedic Wholesaler and Retailers:** The number of Ayurvedic wholesaler increased slightly while homeopathic wholesaler remained constant and no any Unani wholesaler in the nation in the last three years. The Ayurvedic retailers increased significantly in the last three year (Figure 4 and 5).

**Ayurvedic Medicine Council:** Ayurvedic Medicine Council was established in accordance with Ayurvedic Medicine Council Act, 1990. This council acts as an authority to regulate and monitor the Ayurvedic education and services.

**Ayurvedic Education :** There is a single Ayurveda Campus run under the Tribhuvan University and offers the Bachelor of Ayurvedic Medicine and Surgery (BAMS), a five and half years long course. Three years diploma level courses (After 10 years of schooling) are being provided by Nepal Sanskrit University and Council of Technical Education and Vocational Training (CTEVT). Formal courses leading to Doctor of Medicine and PhD are not available in the country. Among the traditional medicines, there is only one Ayurvedic Diploma College in the present fiscal year (Figure 6).

**Homeopathic System:** This has been recognized as a component of national health care system by the Government of Nepal. At government level, there is only one hospital (six beded) named Sri Pashupati Homeopathic Hospital located in Lalitpur. A Homeopathic college named Nepal Homeopathy Medical College affiliated to Purbanchal University in Biratnagar has been established in 2002 and offers Bachelor of Homeopathic Medicine and Surgery (BHMS). Only one three year diploma course in Homeopathy is conducted with affiliation of the Council of Technical Education and Vocational Training (CTEVT). The Pashupati Hospital record shows that the number of patients was increasing but there was slight fall in this year. 60,155 received the services from the hospital in fiscal year

2006/2007. This figure rose slightly to 63,984 in 2007/2008 and 65,138 in 2008/2009. In the fiscal year 2009/2010, the number of patients decreased slightly to 64,640 patients (Figure 7).

**Unani System:** Unani medicines have been recognized by the Government of Nepal. One government sponsored Unani dispensary is in existence in Nepal and the Unani retailers at private level remained constant since last three year

**Naturopathy:** This is not an official system of medicine, but it has been well-practiced by the community. Training in naturopathy is provided by the private sector. There are private hospitals, training centers, clinics, and dispensaries in the country

**Tibetan System:** In Nepal it is popularly called Amachi system and Amchi are the names given to Tibetan medicine doctors or practitioners. This type of healing practice is existing in the upper Himalayan region of the country. This is not an official system of medicine. Himalayan Amchi Association established in 1998 in Kathmandu works for the recognition and support of the Tibetan medicines. There are two types of practitioners in this system. Some of them are institutionally trained and others follow the tradition. Lo Kunphen School situated in Lomonthang, Mustang provides academic and clinical education (1 year course) on the Traditional Tibetan Medicines.

**Folk Medicine:** Folk medicine is defined as the treatment of ailments outside clinical medicine by remedies and simple measures based on experience and knowledge handed down from generation to generation. In Nepal, it is an unofficial health related practices that has traditionally existed and is learned verbally and through observation and demonstration. Nepal possesses more than sixty culturally rich ethnic and indigenous groups. Folk medicine employs principles and practices sourced from this indigenous cultural development in treating symptoms of illness. It consists of materials of biological and mineral origin but the plant materials predominate and come to fore front. Some of the popular folk medicines practicing for different ailments in various regions of the nation are given in table A, B and C

**Biodiversity and Sustainability:** In addition to a role in traditional and complementary medicinal markets, the medicinal and aromatic plants maintain a role in conventional medicines. An estimated 25% of the conventional pharmaceuticals are derived from medicinal plants. The overharvesting of highly demandable plant species causes a threat towards their extinction.

**Shamanistic System (Faith Healing System)**

The faith healing system is defined as a method of treating diseases by prayer and exercise of faith in god and they are not included in the official system of health care system. In Nepal, the faith healers are of four types: Dhama-Jhankari, Pandit-Lama-Pujari-Gubhaju-Jyotshi and Gosai Achhat.

**Dhama Jhankri** – Ban Jhankri: Shaman who exercises evil spirits from the bodies of sick people and they use drum and sticks in their nightlong healing rituals. A Kirati shaman is called mangpa. Shamans are called bjuwa in the eastern part of Nepal. Some other names are ojha, fedangwa, phukne manchhe etc. The dhama use the ritual mantra and diagnose the type of spirit. They cure either by offering and placating their own powerful spirit or suck the offending spirit from the patient's body using a spirit bone or stick. Banjhakris (forest shaman) are assumed to live in the cave of forest.

**Pandit-Lama-Gubhaju-Pujari:** They are the priests of the different ethnic and religious groups in Nepal. Gubhaju are the priest of Buddhist Newar, Lamas are the priest at Buddhist monasteries. Pandit and pujari are the Hindu priests. They all diagnose and cure illness through prayers and rituals.

**Jyotishi:** Jyotishi are astrologers. They read the horoscope, palm and forehead of the patients.

**Gosai Achhat:** This is prevailing in most part of the Terai region. In this case a person prays the god and goddess. It is believed that the god and goddess enter into the soul of the person. After that he/she tells the past-present and future situation of the sick people and gives the grains of rice (called achhat) to eat or to keep under the bed sheet.

**CONCLUSION**

In fact, Ayurvedic and Homeopathic system of treatment are increasing their popularity day by day while the folk and shaman medical practices are declining and in many cases, are facing extinction. In many cases the threat to latter cases are directly attributed by the two factors; increasing the commercialization and modernization as well as growing demands for the medicinal plants leading to their deteriorating and a lack of significant financial and income generating opportunities to encourage the practices of traditional healers. It is important to note that graduate level there is only one Ayurvedic and homeopathic colleges and no other colleges at higher level related to the other systems as well as research centers. This situation is very far from the satisfactory level. Higher level education as well as advanced research on the traditional medicines is the demand of today. Many people in Nepal use more than

one type of health care systems depending on the type of ailments and medicine available, cost preference and faith while the majority of the population does not have a choice of allopathic medicine due to unavailability and high cost. Therefore, firstly it would encourage the folk healers' confidence in their own tested recipe along with the support of their livelihood. Secondly, it should provide a scientific basis for the folk system of medicine addressing the pharmaceutical issues relating to vital areas such as quality assurance, evaluation and standardization with the good manufacturing practices. Attention should also be paid to the intellectual property issues because the nation need to concern the wealth of traditional medical knowledge and /or the natural resources that are used in traditional medical products.

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**Table A: Folk medicines of the Terai and Siwalik Hills, up to 1000 meter**

Sample no.	Nepali names of plants	Scientific name of plants	Parts used	Uses	Dosages forms
101	Gandhe	<i>Ageratum conyzoides</i>	Whole plant	Cut and wounds	Juice
103	Ludhe	<i>Amaranthus spinosus</i>	Leaves	Galactagogue	Decoction
104	Punarnava	<i>Boerhavia diffusa</i>	Leaves	Diuretic, Laxative	Juice
105	Tejpat	<i>Cinnamomum tamala</i>	Leaves	Headache	Juice
106	Kurilo	<i>Asparagus racemosus</i>	Roots	Sexual tonic	Powder
107	Ghiukumari	<i>Aloe vera</i>	Leaf juice	Burn	Juice
108	Kalijhar	<i>Eupatorium adenophorum</i>	Leaves	Cut and Wound	Juice
109	Aiselu	<i>Rubus ellipticus</i>	Fruits	Fruits	Juice
110	Dudhe	<i>Euphorbia hirta</i>	Whole plants	Anthelmintic, Piles	Juice
111	Dudhe	<i>Euphorbia microphylla</i>	Whole plants	Piles	Juice
112	Dronpuspa	<i>Leucas indica</i>	Whole plants	Cough and cold	Juice
113	Marich	<i>Piper nigrum</i>	Fruits	Expectorant	Decoction
115	Ghodtapre	<i>Centella asiatica</i>	Leaves	Blood purifier, skin diseases	Juice
116	Bhringraj	<i>Eclipta prostrata</i>	Whole plants	Jaundice	Decoction
118	Amala	<i>Emblica officinalis</i>	Fruits	Laxative	Powder
119	Barro	<i>Terminalia bellerica</i>	Fruits	Laxative	Powder
120	Harro	<i>Terminalia chebula</i>	Fruits	Laxative	Powder
121	Gurjo	<i>Tinospora cordifolia</i>	Stem	Jaundice	Juice
122	Simali	<i>Vitex negundo</i>	Leaves	Joint pain	Juice
123	Akasebeli	<i>Cuscuta reflexa</i>	Whole plants	Jaundice	Decoction
124	Bel	<i>Aegle marmelos</i>	Fruits	Laxative	Juice
125	Neem	<i>Azadirachta indica</i>	Leaves	Diabetes	Decoction
127	Tulsi	<i>Ocimum sanctum</i>	Whole plants	Cough, Fever	Decoction
128	Parijat	<i>Nyctanthus arbostris</i>	Leaves	Cough, Fever	Decoction
129	Pudina	<i>Mentha spicata</i>	Leaves	Toothache, Fever	Juice
130	Kamalphul	<i>Nelumbo nucifera</i>	Seeds	Jaundice	Decoction
131	Sutho	<i>Zingiber officinale</i>	Rhizomes	Expectorant	Roasted

**Table B: Folk medicines of the Mid Hills, 1000-3000 meter**

Sample No.	Nepali name of plants	Scientific name of plants	Parts used	Uses	Dosages forms
132	Aswagandha	<i>Withania somnifera</i>	Roots	Galactagogue	Powder
133	Bojho	<i>Acorus calamus</i>	Rhizomes	Expectorant, Febrifuge	Roasted
134	Gandhe	<i>Ageratum conyzoides</i>	Leaves	Cut and wounds	Juice
135	Chutro	<i>Berberis asiatica</i>	Bark	Febrifuge	Decoction
136	Palas	<i>Butea monosperma</i>	Seeds	Vermifuge	Powder
137	Rajbrikchha	<i>Cassia fistula</i>	Fruits	Laxative	Decoction
138	Besar	<i>Curcuma longa</i>	Rhizomes	Sore throat	Decoction
139	Amala	<i>Emblica officinalis</i>	Fruits	Laxative	Powder
140	Souf	<i>Foeniculum vulgare</i>	Fruits	Expectorant	Powder
141	Asuro	<i>Justicia adhatoda</i>	Leaves	Expectorant	Decoction
142	Bakeno	<i>Melia azadarach</i>	Fruits	Vermifuge	Decoction
143	Jamuno	<i>Syzygium cumini</i>	Fruits	Diabetes	Infusion
144	Kamal	<i>Nelumbo nucifera</i>	Seeds	Jaundice,	Juice
145	Tulsi	<i>Ocimum sanctum</i>	Whole plants	Febrifuge	Decoction
146	Marich	<i>Piper nigrum</i>	Fruits	Expectorant, Febrifuge	Decoction
147	Laligurass	<i>Rhododendron arboreum</i>	Flowers	Digestive, Headache	Juice
148	Kantakari	<i>Solanum xanthocarpum</i>	Fruits	Toothache	Powder
149	Chiraita	<i>Swertia chirayita</i>	Whole Plants	Jaundice, Febrifuge	Juice
150	Barro	<i>Terminalia bellerica</i>	Fruits	Laxative	Decoction
151	Gokhur	<i>Tribulus terrestris</i>	Fruits	Sexual tonic,	Powder
152	Dhairo	<i>Woodfordia fruticosa</i>	Flowers	Dysentery	Decoction
153	Timur	<i>Zanthoxylum armatum</i>	Fruits	Expectorant, Febrifuge	Decoction
154	Sutho	<i>Zingiber officinale</i>	Rhizomes	Motion sickness	Juice

**Table C: Folk medicines of the High Mountains, 3000-5000 meter**

Sample No.	Nepali names of plants	Scientific names of plants	Parts used	Medicinal properties	Dosages forms
156	Talispatra	<i>Abies spectabilis</i>	Leaf	Asthma	Juice
157	Pasanbed	<i>Berginia ciliata</i>	Roots	Cuts and wounds, Loss of appetite	Powder
167	Yarsagumba	<i>Cordyceps sinensis</i>	Whole plant	Sexual tonic	Powder
158	Panchaunle	<i>Dactylorhiza haragirea</i>	Roots	Sexual tonic	Powder
159		<i>Gentiana capitata</i>			
160	Bakaino	<i>Melia azadirach</i>	Fruits	Vermifuse	Powder
161	Nagkeshar	<i>Mesua ferra</i>	Flower	Menstrual disorder	Infusion
162	Satuwa	<i>Paris polyphylla</i>	Rhizomes	Vermifuse	Powder
163	Salla	<i>Pinus roxburghii</i>	Oleo resin	Skin diseases	Powder
164	Raktachandan	<i>Pterocarpus santlinus</i>	Wood	Skin diseases	Paste
165	Padmchal	<i>Rheum emodii</i>	Root	Tonic	Decoction
166	Majitho	<i>Rubia manjith</i>		Appetizer	Decoction
155	Tisi	<i>Salix babylonica</i>	Leaf	Febrifuge	Decoction
168	Chiraita	<i>Swertia pedicellata</i>	Whole plant	Cough and fever	Decoction
169	Tukiphul	<i>Taraxacum officinalis</i>	Root	Disorder of lever	Infusion
170	Sugandhawal	<i>Valeriana jatamansi</i>	Root	Epilepsy	Decoction

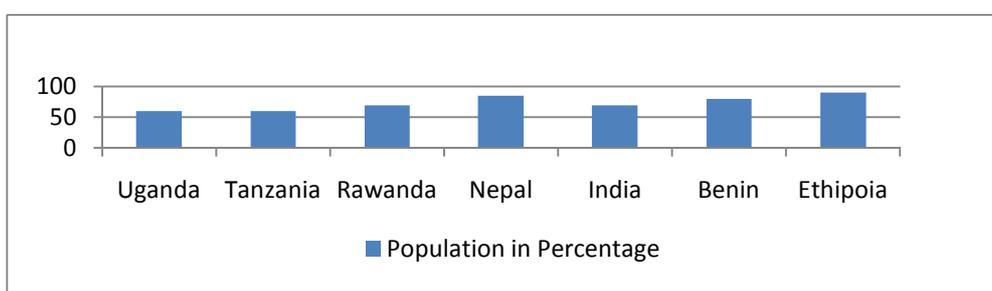


Fig 1: Use of traditional medicines in developing countries

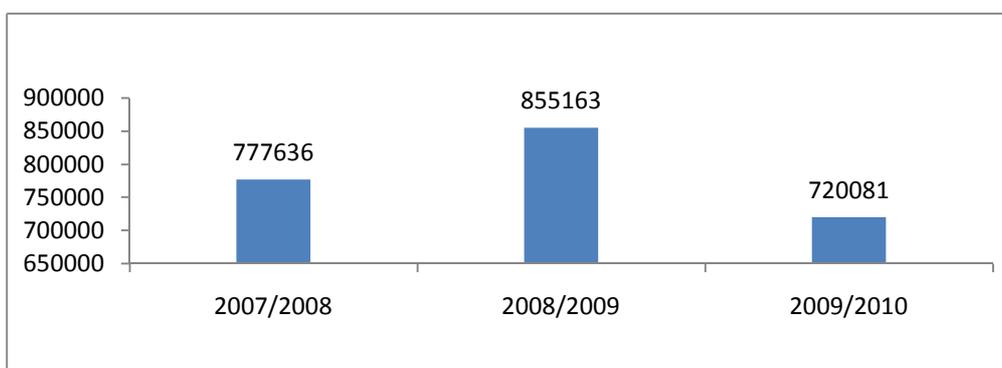


Fig 2: Patents in government supported Ayurvedic hospitals

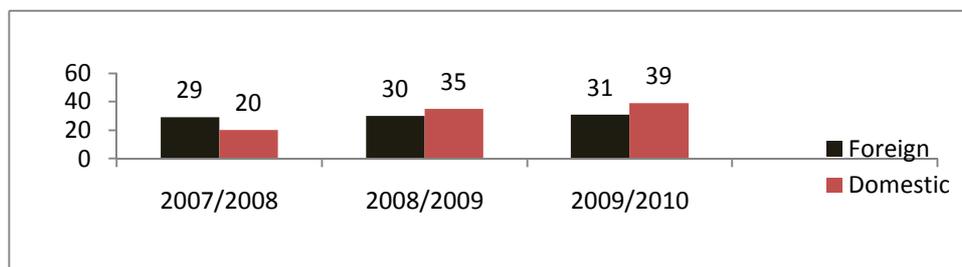


Fig 3: Ayurvedic drugs from pharmaceutical industries

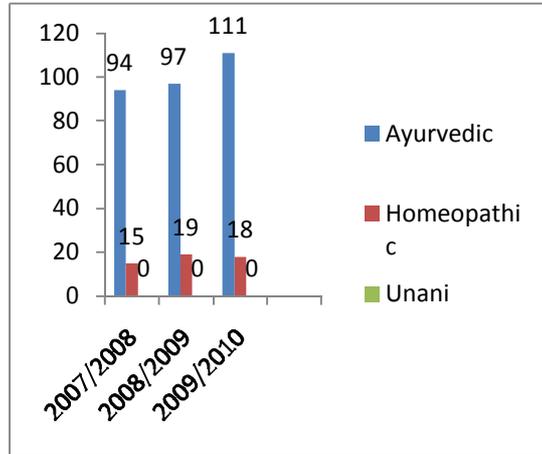
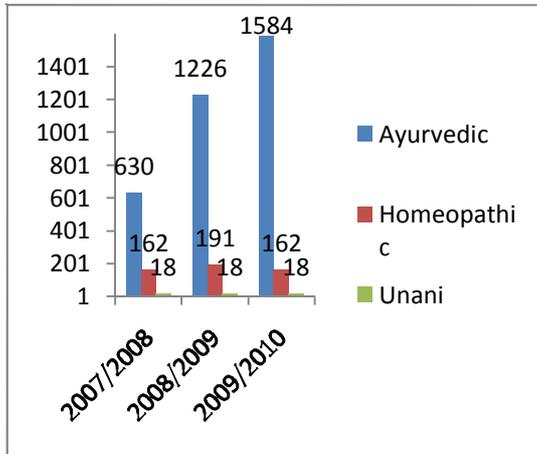


Fig 4: Wholesalers of traditional medicines      Fig 5: Retailers of traditional medicines

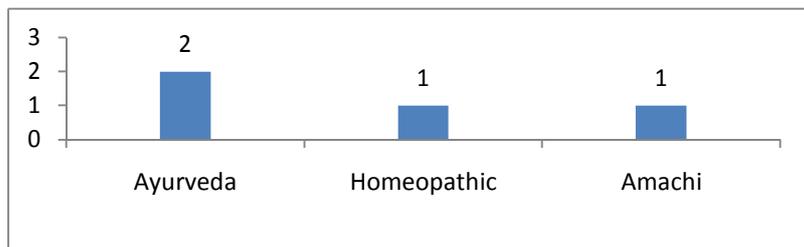


Fig 6: Diploma courses in traditional medicines

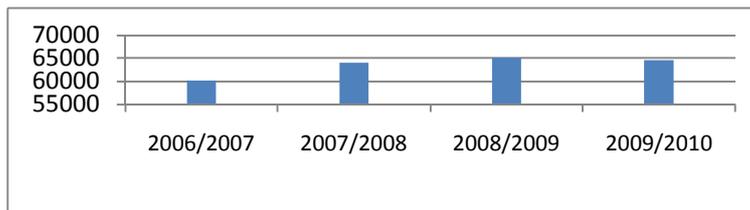


Fig 7: Patients in Pashupati homeopathic hospital

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