

# MODULE ON INDIAN MEDICAL PLURALISM

## A CONCEPT PRESENTATION

A Collaborative Project of Rajiv Gandhi University of Health  
Sciences, Bangalore  
&  
Foundation for Revitalisation of Local Health Traditions



ETC-COMPAS  
Sep 2004

# Sequence of the Presentation

1. Context of this module
2. Purpose, form and intended users
3. Broad outline of the content of the module
4. Profile of the Pluralistic Health Culture in the Indian subcontinent (History & current status)
5. Health content of the various systems of medicine
6. Theoretical foundations and key concepts
7. Scope, Purpose and Methodology for collaborative research

# 1. Context of this module

- Global resurgence of the idea of medical pluralism. Around 40% of population is seeking health in a pluralistic way and is well accepted among lay people both in the developed world and the developing countries.
- Recognition of Complementary and Alternative Medicine (CAM) both in academic and legal systems in the developed world
- Public institutions have been slow to respond to public demand for pluralism
- Different systems have their own inherent strengths and this need to be appreciated and encouraged in a balanced way
- Integration of medical systems is a long way ahead, first step is to create mutual respect and understanding that could subsequently lead to collaborative research
- Collaborative research would further deepen the mutual understanding and integrated medical management approaches

## 2. Purpose of the Module

- Knowing the other
- Not as history but as aspects of contemporary relevance
- Awareness about medical pluralism and importance of cultural diversity
- Better communication and referral systems
- Promoting collaborative research and theory building
- Not intended to promote any integrated medical practices

### Form

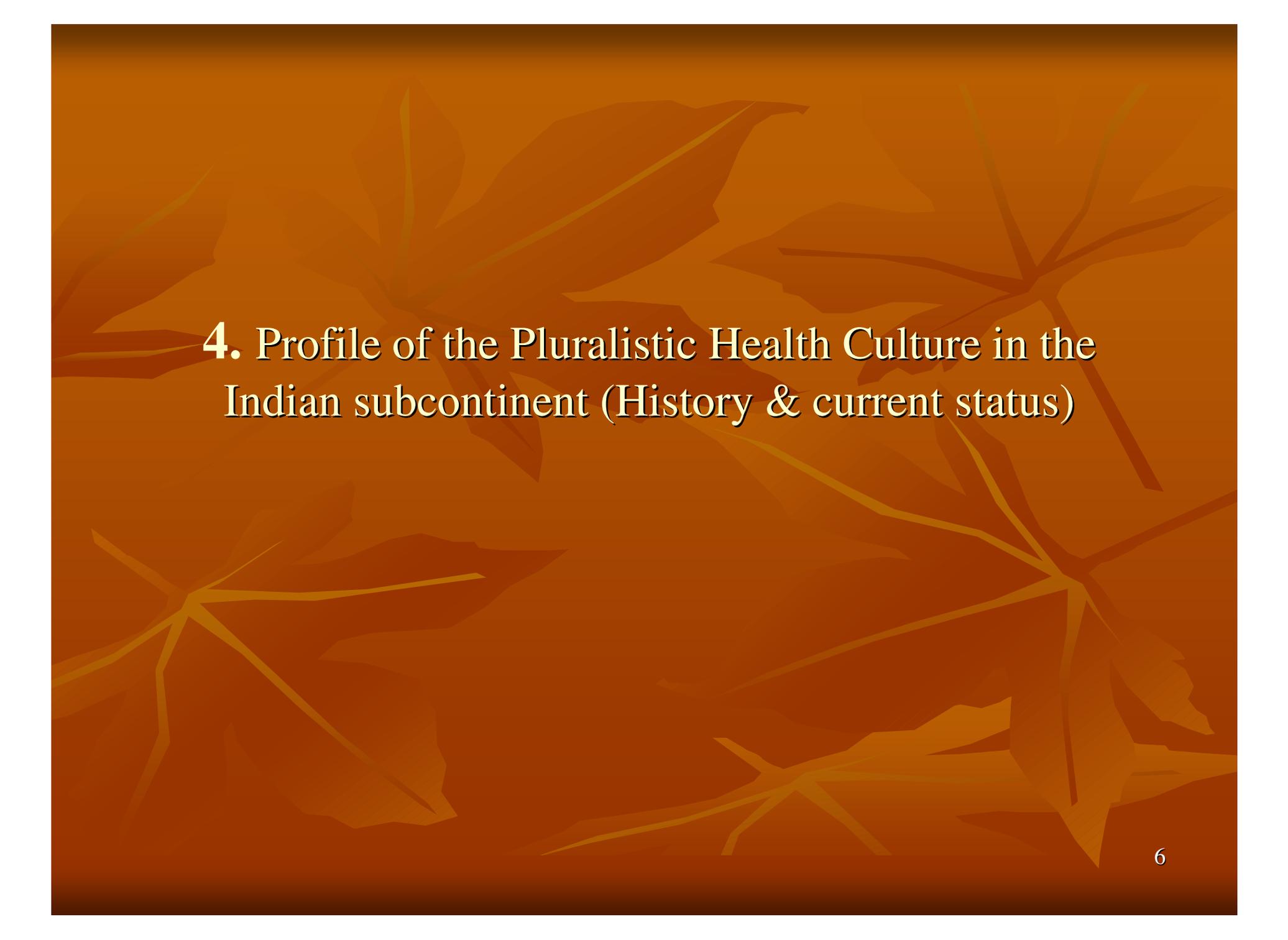
Audiovisual in the form of a CD/DVD of 1- 1 and 1/2 hour duration along with Reading materials

### Intended Users

Undergraduate students of a different medical programs including, nursing and pharmacy courses.

### 3. Features to be covered

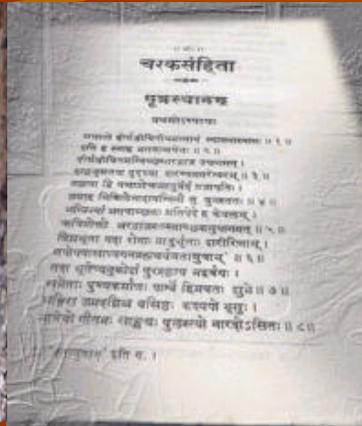
- What is medical pluralism? What are the streams in Indian Medical Pluralism?
- Current issues related of Indian Medical Pluralism
- Theoretical aspects of Ayurveda, Siddha, Unani, Tibetan, yoga, homeopathy and naturopathy and Western medicine
- Audio-visuals on highlights of best practices from Indian medical systems, Yoga, Homeopathy, collaborative research programs, and the lay people's experiences
- Profile of Centers of Excellence and eminent physicians
- Cross-cultural collaboration - relevance, issues and perspectives for collaborations
- A pluralistic way forward



## 4. Profile of the Pluralistic Health Culture in the Indian subcontinent (History & current status)

# Various Streams

- Oral folk stream – Folk medicine
- Codified classical stream – Ayurveda, Siddha, Unani and Tibetan medicine
- Allied systems - Yoga and naturopathy
- Systems of foreign origin – Homeopathy, Western biomedicine



# The Folk Stream

- Presence all over the country
- Diverse and varied
- Oral and undocumented
- Eco-system and ethnic community specific
- They are (contrary to superficial belief) dynamic, innovative and evolving
- Generated over centuries by sensitive & intelligent lay people – tribals, farmers, artisans, shepherds, barbers, housewives, wandering monks
- Some elements have been drawn from the classical codified stream
- Consists of home- remedies, food & nutrition, obstetrics, bone setting, treatment of poison, chronic & common ailments, acupressure, pulse diagnosis, use of plants, animal & mineral products
- Local people have adopted certain customs, which are preventive and promotive health practices. E.g. During onset of summer **neem flowers** with **jaggery** as a ritual, “**Ugadi**”, *Alstonia scholaris* to prevent **Malaria** during monsoons
- A symbiotic relationship between local and codified traditions has been reported right from the Caraka samhita period
- In official policy, the fact and presence of the folk stream goes unnoticed indicating an alienation from ground realities



# Carriers of Folk Stream

- Millions of ordinary households
- Village healers- birth attendants (6,00,000) bone-setters (60,000) herbal healers (1,00,000) healers who treat poisons (60,000), veterinary practitioners (60,000)
- A survey indicates that the largest numbers of traditional healers are women. They comprise traditional birth attendants (TBA) and people who practice home remedies - Antenatal and post- natal care and also attend delivery. They attend normal and sometimes complicated delivery
- Bonesetters - second largest group of local healers in India. 50 to 60 per cent of sprain, dislocation, and fractures are handled. More men practice bone setting than women (the ratio is 298:5)
- The third largest proportion of the folk healers is the **Visha Vaidyas**, who treat the poisonous bites. More than 4000 deaths occur in India annually due to snakebites. These practices have not been seriously studied
- No legal status, but enjoy a definite social legitimacy in their own localities.

## Transmission of Folk Knowledge

- No institutions promoting or coordinating the transmission or learning of the folk stream.
- “People to people” process
- *Gurus* (teachers) to their *shishyas* (students) guided by local cultural & ethical codes
- Highly decentralized method of knowledge generation and dissemination.



# Natural Resources Used in Folk Medicine

- Out of the 350,000 higher plants identified so far about 35,000 to 70,000 (the estimation vary) species have at one time or other used by some people or cultures for medicinal purpose.
- It is estimated that more than 8000 species of plants, several hundred species animal, and also metals and minerals are utilized by the folk traditions across the country and there are 50000 local names used (FRLHT nomenclature database).



## Social Spectrum

- 4635 ethnic communities - every community has unique practices
- LHT is not restricted to any social or economic class
- They include certain professionals such as potters, goldsmiths, blacksmiths, barbers and even wandering monks
- Particular ethnic community is specialized in certain local health practices. E.g. Navidhars or barber community of certain locations in Tamil Nadu are experts in treating skin troubles. Similarly Kurubas in Karnataka and Konars of Tamil Nadu, the shepherd or cattle rearing communities are experts in veterinary medicine. The Irula tribes are known for their skills in treating poisonous bites
- The prevalence of a particular category of vaidyas in a locality is related to the local needs. Pashu vaidyas (veterinary healers) -in North Karnataka - cattle rearing is a major profession. Visha Vaidyas - in dry and drought prone areas – snakebites are common

## Household Practices



- Management of common ailments –a survey indicated that remedies for nearly hundred common conditions/symptoms are known to knowledgeable households
- The knowledge of health and health related practices such as food and dietetics have become part of the day today life in the community.
- As the time passed these practices have acquired religious significance and presently they are followed as rituals.E.g. **Ramanavami**, a celebration in the summer month of April has a lot of mandatory food preparations such as limejuice, butter milk and cucumber salad. In some part of **Kerala** medical porridge forms a part of diet during rainy season. A winter festival, **Sankaranthi** has preparation containing Sesamum seeds, ground nuts and dry fruits, which provide nourishment to the body during winter. According to Ayurveda the metabolic process increases during this period.

## Relevance of Folk Knowledge

- The majority of the deliveries in the world (60%) are managed by the LHT, which includes antenatal and postnatal care.
- The discovery of quinine, a drug from Cinchona tree was possible from the lead from a Peruvian LHT
- Promising drug Artemesia is being sought from a Chinese LHT
- The solution for Hepatitis B and C is being developed from Indian LHT (*Phyllanthus amarus*). Turmeric, neem are examples of other excellent remedies
- According to NAPRALERT database (University of Illinois, WHO), 95% of all modern drugs derived from plants have been based on leads provided by LHT and the modern applications are similar to the traditional ones.

# Contemporary Social Issues Related to Folk Medicine

- Lack of political support
- Lack of social support and esteem
- Marginalization by other systems
- Issues related to IPR and benefit sharing
- Lack of serious effort for fundamental research
- Loss of resource base
- Lack of collaborative research efforts to mainstream the traditions



# Erosion of Local Health Traditions

- The various traditional systems of health care practices in India are associated with the rich cultural diversity. However, there has been a constant erosion of these traditions in the past two centuries.
- Besides the known reasons of erosion of cultural diversity, the promotion and acceptance of western medical systems, which are inherently techno-centric, external resource dependent and alien to the understanding of health traditions in India, has been one of the largest contributors to the erosion of Local Health Traditions.
- The current western model education also fails to impress on the young generation the rationale and logic of the sound traditional practices, leading to their negligence.
- It is very often noticed that the younger generations today look at local health traditions with suspicion and often believe them to be superstitions and deride the use of these traditions.
- Consequently there is a reduction in the use of home remedies, and preventive and promotive diets at the household level. Presently the number of folk healers in the community and people accessing them are also reduced.

- There is concern as there is distinct unwillingness of younger generation to take up the LHT profession
- The process of learning involves all the aspects of treatments starting from selection and identification of the right resource to dispensing of the appropriate dosages of medicine
- It is a full package of traditional teaching through practical work with guru, where guru continues to transfer diagnostic skills and procedures, properties of herbs and other ingredients used preparation of medicine and precautions over a period of time
- The disciple have to follow strict code of conduct, undergo rigorous training and yet remain out of the main stream of medicine due to lack of social recognition this is one of the major reason for the younger generation not to carry on this tradition and therefore only about 18 percent of the vaidyas were able to pass on their knowledge to the successive generation
- The present average age group of the vaidyas is 50 and if this generation of healers with their diverse skills passes away, the LHT are sure to die a slow death. In a recently survey, out of the 303 vaidyas documented 142 vaidyas are above 40 to 60 years old indicating that the new generation is showing less interest in this tradition and it is getting eroded slowly

## **The Codified Medical Systems**

- Medical knowledge systems like Ayurveda, Siddha, Tibetan & Unani.
- Has different specialty areas
- Has sophisticated theoretical foundations.
- Has special understanding of physiology, pathogenesis, pharmacology and pharmaceuticals, which is different from Western Biomedicine.

## **The Size and Carriers**

Approx. 600000 licensed practitioners recognized and registered under the Indian Medicine practitioners Act.

# Transmission of Codified Knowledge

- Until the start of the 20th Century – the transmission was mostly non-institutional from physicians/teachers to their chosen students.
- Historically, there are limited examples of institutionalized medical education.
- However, towards the end of the colonial period, teaching colleges for traditional medicine were established
- Today there are over 300 poorly funded medical colleges imparting education in various Indian Systems of Medicine through a 5½ year course, similar in its structure to Western Bio-medicine courses.
- Today only a graduate of a recognized medical college is legally entitled to practice traditional medicine.
- Although institutionalized education was intended to improve the quality of medical education, this has not happened so far, and while access to education has improved, the quality of education is believed to have generally deteriorated.
- A critical view suggests that “less than” 10% of licensed medical practitioners practice genuine traditional medicine.



- Profile and health content of -

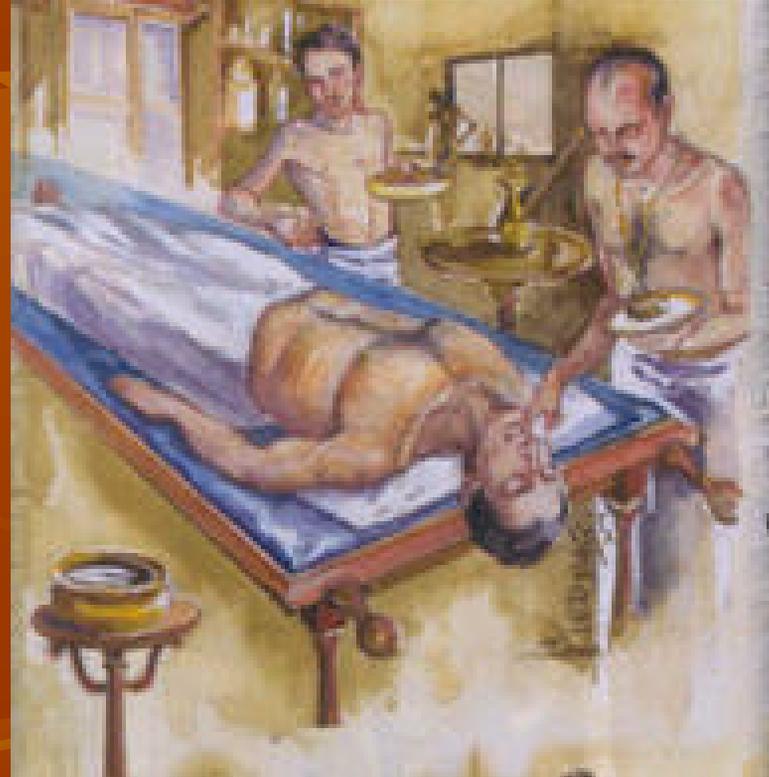
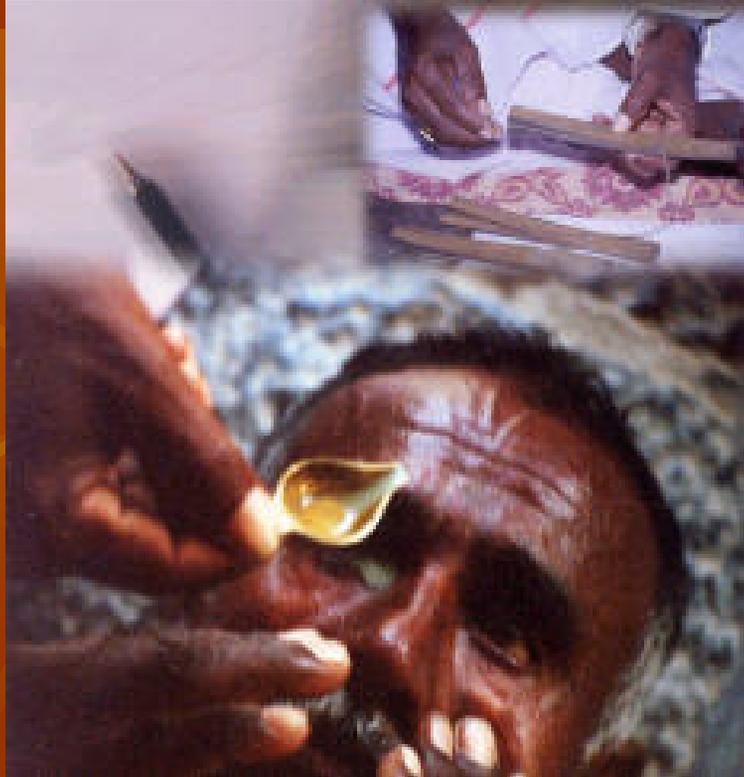
- Yoga

- Naturopathy

- Homeopathy

- Modern medicine

## 5. HEALTH CONTENT OF VARIOUS MEDICAL TRADITIONS



# FOLK MEDICINE - Ocean of Knowledge

- Over 8000 species of plants, several hundred species of animals and several minerals and metals are being used
- Around 50,000 herbal and natural product formulations
- The folk stream has nutritional knowledge of thousands of ecosystem specific food resources that are not documented
- It has unique knowledge of therapeutic & manufacturing techniques for local resources
- Specialised skills include diagnostic methods such as *nadi pariksa* (pulse examination), *mutra pariksa* (examination of urine), *visa pariksa* (diagnostic and prognostic methods used in cases of poisoning), and *varma kalai* (diagnosis and treatment using vital points in the body), diagnosis and reduction techniques for fractures, emergency care like treating natural poisons, specialised eye care, and treatment of individual, organ-related conditions

# Types of Folk healers

- General practitioners
- Traditional bone setters
- Traditional birth attendants
- Poison healers
- Ethno-veterinary practitioners
- Traditional ophthalmologists

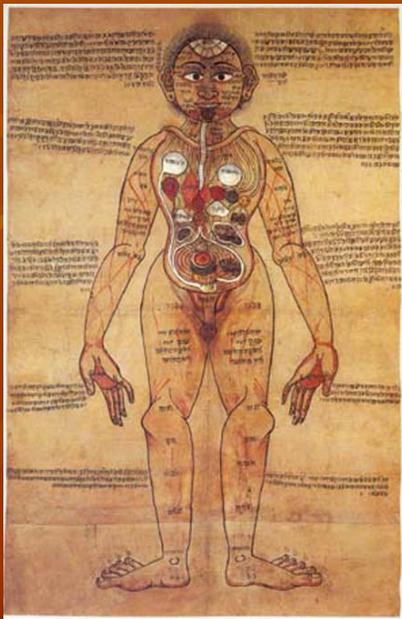


# AYURVEDA - History and Chronology

- Indus valley tradition, Vedic medicine, Samhita period
- In the Indian context, the codified medical traditions are drawn from knowledge systems like *Ayurveda*, *Unani*, *Siddha* and *Gso-rig-pa* (the Tibetan system).
- In Ayurveda the medical knowledge is documented and presented in thousands of medical manuscripts such as treatises of Caraka (BC1500-400AD), Sushruta (BC1500-500AD), Vagbhata (7<sup>th</sup> century AD) and various Nighatus written between 12<sup>th</sup> and 19<sup>th</sup> centuries.
- They deal with subjects related to medicine and surgery. There is also literature on medicinal materials, viz., plants, animals, metals and mineral products, processes and therapeutic applications.
- Over 25,000 natural products are documented in traditional texts along with their applications.

# Speciality Areas

Cover eight broad areas: *Kaaya chikitsa* (general medicine), *Bala chikitsa* (paediatrics), *Graha chikitsa* (psychiatry), *Oordhwanga chikitsa* (ENT & Eye), *Salya chikitsa* (surgery), *Damshtra chikitsa* (toxicology), *Jara chikitsa* (rejuvenation) and *Vajeekarana chikitsa* (Reproductive health virilification).



Anatomical painting with Sanskrit medical annotation. Despite the enormous number of manuscripts concerned with medicine, India has no known tradition of illustrated medical texts. This Nepalese painting is one of the only known examples. Wellcome Institute for the History of Medicine, London.



Centrifugal instruments with their respective handles. National Museum, Copenhagen.



Selection of Tibetan medical implements. Heinrich Harter Museum, Hildesheim.

# Allied systems - Yoga



- History
- Content
- Various schools and practitioners

# Naturopathy

- History
- Content
- Various schools and practitioners

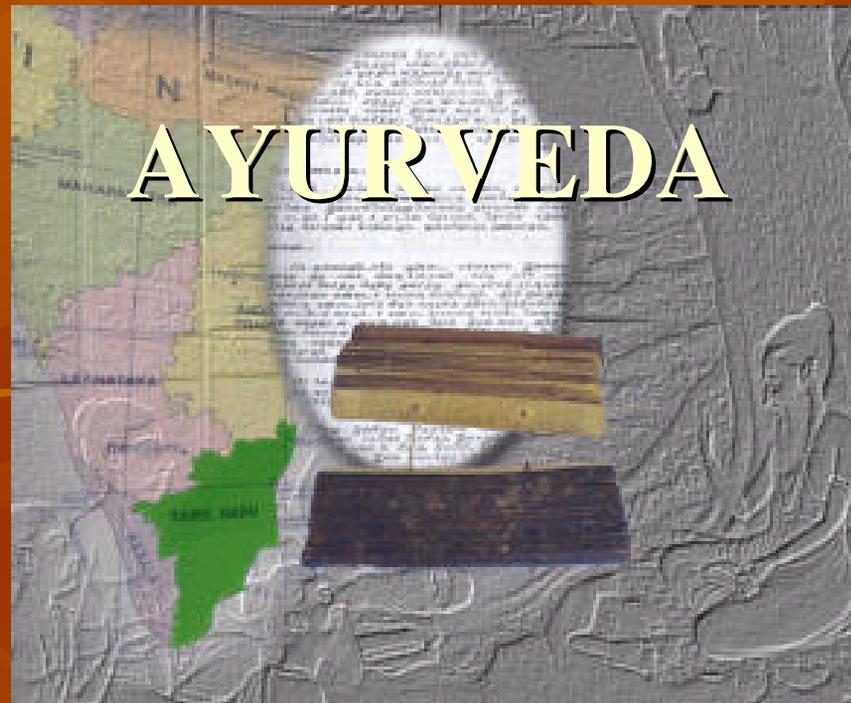
# Homeopathy

- History
- Content
- Various schools and practitioners

# Western biomedicine

- History
- Overview of present status

# 6. THEORETICAL FOUNDATIONS AND KEY CONCEPTS OF INDIAN SYSTEMS OF MEDICINE



## Worldview of Ayurveda

- Sankhya philosophy - universe evolved out of the “*Unmanifest*” – The entire material world is made up of *pancha mahabhutas* and the living things consist of *pancha mahabhutas*, atma, sense organs and faculty of mind
- The basic principles of Ayurveda are founded on *Pancha mahabhutas* in relation with *Triguna* (*Satwa, raja, tamas*) and *tridosha* thus evolving a psychosomatic approach
- Ayurveda is holistic, integrated psychosomatic medical system and is based on the view of universal natural law of balancing the *Pancha bhutas*.
- Ayurveda- science of healthy living

# Milestones in Ayurvedic Literatures

S No.	Text name	Chronology	Author	Region	Plant ref. No
1	Caraka Samhita	1500BC-400AD	Agnivesa Caraka Drdhabla	Himalaya Kashmir	12870
2	Susruta Samhita	1500BC-500AD	Susruta Nagarjuna	Kasi Sindhudesa	9650
3	Astanga Sangraha	500 AD	Vagbhata	Sindhudesa	20500
4	Astanga Hridayam	600 AD	Vagbhata	Sindhudesa	9900
5	Astanga Nighantu	800 AD	Vagbhata		2100
6	Paryayaratnamala	900 AD	Madhava	Silahrda	1900
7	Dhanvantari Nighantu	200AD-1000AD	Unknown	Unknown	3250
8	Cakradatta	1075 AD	Cakrpanidatta	Vanga desa	12300
9	Dravyaguna sangraha	1075 AD	Cakrapanidatta	Vangadesa	320
10	Madhavadravyaguna	1250 AD	Madhava	Unknown	750
11	Sarngadhara Samhita	1300 AD	Sarngadhara	Devagiri	4200
12	Nighantu Sesa	1200 AD	Hemachandra	unknown	2950
13	Siddhamantra	1210AD-1247AD	Kesava	Unknown	950
14	Hridayadipaka Nighantu	1260AD-1271AD	Bopadeva	Unknown	820
15	Madanapala Nighantu	1374 AD	Madanapala	Kashthanagara	3000
16	Bhavaprakasa	1550 AD	Bhavamisra	Kasi Kanyakubja	11200
17	Bhavaprakasa Nighantu	1550 AD	Bhavamisra	Kasi Kanyakubja	2600
18	Raja Nighantu	1700 AD	Naraharipandita	Kasmira	7300
19	Saligrama Nighantu	1896 AD	Saligramvaisya	Muradabad	4200
20	Siddhabhesajanimala	1896 AD	Krshnaramabhata	Jayapura	620

# Key Concepts & Definitions

- **Svastha (Health)**
- **Concept of Three Dosa, Seven Dhatu, Three Mala**
- **Concept of Agni**
- **Concept of Mala**
- **Prakruti - The biological constitution**
- **Understanding of drug materials**
- **Rasayana (Rejuvenation)**
- **Sodhana (purification)**

# Holistic Scheme for Understanding the Genesis of Diseases

- Nidana (Aetiology)
- Purvarupa (Prodroma)
- Rupa (Symptom manifestation)
- Upasaya (therapeutic diagnosis)
- Samprapti (Complete manifestation)

# The Holistic Scheme of Diagnosis

<i>Dusya</i> (structure)	<i>Rasa</i> (plasma), <i>Rakta</i> (blood), <i>Mamsa</i> (muscular tissue), <i>Medas</i> (adipose tissue), <i>Asthi</i> (bone tissue), <i>Majja</i> (marrow), <i>Sukra</i> (reproductive tissue)
<i>Desa</i> (habitat)	<i>Anupa</i> (wetland), <i>Jangala</i> (arid land), <i>Sadharana</i> (moderate land)
<i>Bala</i> (strength)	<i>Sahaja</i> (natural), <i>Kalakrta</i> (seasonal), <i>Yuktikrta</i> (induced)
<i>Kala</i> (time)	<i>Ksanadi</i> (natural divisions of time), <i>Vyadhyavastha</i> (stages of disease)
<i>Anala</i> (digestive capacity)	<i>Sama</i> (normal), <i>Tiksna</i> (acute), <i>Visama</i> (irregular), <i>Manda</i> (dull)
<i>Prakrti</i> (constitution)	<i>Vata</i> , <i>Pitta</i> , <i>Kapha</i> , <i>Vatapitta</i> , <i>Vatakapha</i> , <i>Pittakapha</i> , <i>Sama</i>
<i>Vaya</i> (age)	<i>Balya</i> (infancy), <i>Kaumara</i> (childhood), <i>Yauvana</i> (youth), <i>Vardhakya</i> (old age)
<i>Sattva</i> (mind)	<i>Sattvika</i> (calm), <i>Rajasika</i> (active), <i>Tamasika</i> (dull)
<i>Satmya</i> (habits)	<i>Okasatmya</i> (habituated by practice), <i>Desasatmya</i> (habituated by place), <i>Kulasatmya</i> (habituated by family)
<i>Ahara</i> (food)	<i>Dhanya</i> (grains), <i>Phala</i> (fruits), <i>Saka</i> (vegetables), <i>Harita</i> (spices and seasonings), <i>Mamsa</i> (meat), <i>Ksira</i> (dairy products), <i>Jala</i> (liquids), <i>Iksu</i> (sugarcane products)
<i>Avastha</i> (stages of disease)	<i>Sama-Nirama</i> , <i>Vega-Avega</i> , <i>Alpadosa-Bahudosa</i> , <i>Caladosa</i> , <i>Linadosa</i>

# Disease Classification

- \*Based on etiology – Nija (Endogenous) – Agantuja (Exogenous)
- \* As per the location – Sarira, (Body), manasa (mind)
- \* As per dosa – Nanatmaja (Specific to dosa), Samanyaja (nonspecific to dosa)
- \* According to origin – Adhyatmika (biological)
  - Adibalapravrta (hereditary)
  - Janmabalapravrta (Congenital)
  - Dosabalapravrta (Humoral)
  - Adhibhautika (Externally invaded)
  - Sanghatabalapravrta (Accidental)
  - Aadhidaivika (Natural & Environmental)
  - Kalabalapravrta (Due to time factor)
  - Daivabalapravrta (Environmental)
  - Svabhavabalapravrta (Natural)

# Three Types of Treatment

- Yuktivyapasraya – treatment using plants, animals, minerals and metals through logical method
- Satvavajaya – treatment using mental control through practices such as yoga
- Daivavyapasraya - using spiritual methods



# Holistic Scheme for Treatment

<i>Vyadhihara</i> (curative)	<i>Langhana</i> (depletive)	<i>Sodhana</i> (purificatory)	<i>Vamana</i> (emesis), <i>Vireka</i> (purgation), <i>Vasti</i> (enemata) <i>Nasya</i> (errhines), <i>Raktamoksa</i> (blood letting)
		<i>Samana</i> (restorative)	<i>Dipana</i> (activating digestive and metabolic process), <i>Pacana</i> (digestion and metabolism), <i>Ksut</i> , <i>Trt</i> , (fasting), <i>Vyayama</i> (exercise), <i>Atapa</i> (exposure to sun), <i>Maruta</i> (exposure to wind)
	<i>Brmhana</i> (replenishing)	<i>Samana</i> (restorative)	<i>Snehana</i> (adding), <i>Stambhana</i> (saving)
<i>Urjaskara</i> (promotive)		<i>Rasayana</i> restorative)	<i>Vatatapika</i> (casual)
			<i>Kutipravesika</i> (under controlled conditions)

# The Materia Medica of Ayurveda

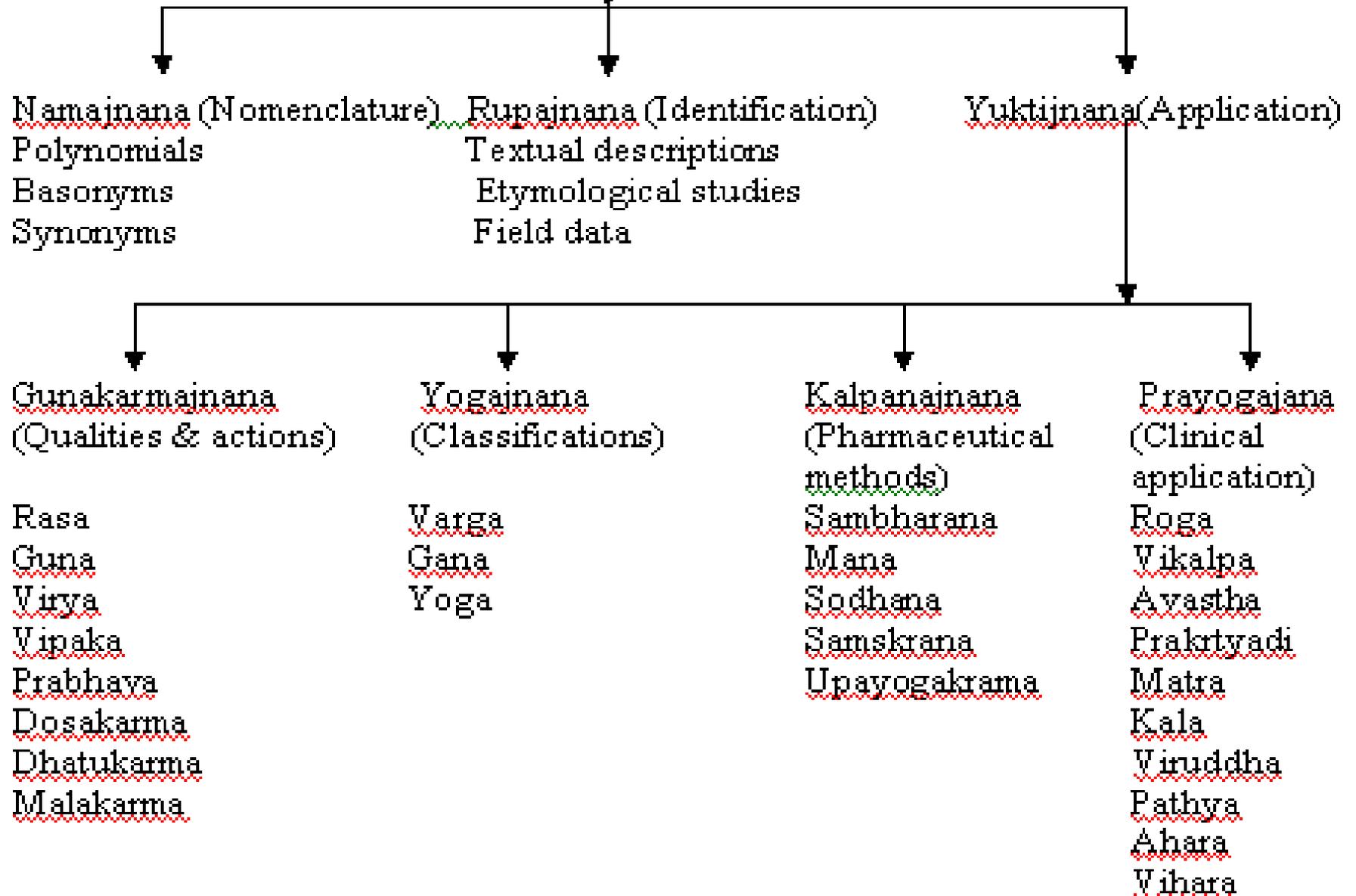
- Traditional systems of medicine make use of a wide spectrum of natural resources as part of their pharmacopoeia. Around 50,000 herbal formulations documented
- The Ausadhi sukta in the Rig Veda is the oldest document available on medicinal plants in this region. It briefly describes the morphological character of medicinal plants, their habitat, their therapeutic classification and their uses in various ailments
- ⊙ systematic documentation of the understanding of medicinal plants in the post-Vedic/Samhita period, which came to be expressed in a body of knowledge called 'Ayurveda'
- ⊙ Information related to nomenclature; descriptions for identification, biological properties and action, habitat, regional specifications of substitutes, poisonous plants, methods for collecting plants and of classifying, combining and processing their applications in specific stages and conditions, incompatibility, contraindications, recipes and information regarding poisons
- ⊙ *Samhitas* (treatises), *samgrahas* (compendiums), *nighantus* (lexicons), *vyakhyas* (critical treatises) and texts on specific areas like pharmacy (*Bhaisajya kalpana*), paediatrics, etc. The major *samhitas* include *Caraka Samhita*, *Susruta Samhita*, *Astanga Samgraha*, *Astanga Hridaya*, *Harita Samhita*, *Bhela Samhita*, *Kasyapa Samhita*
- *Bhavaprakasa Nighantu*, *Raja Nighantu*, *Saligrama Nighantu*, *Sivakosa*, *Vaidyavatamsam* and *Dravyagunasatakam*, *Rajavallabha nighantu* and *Nigahntu Ratnakaram* and *Nighantu Samgraham*

# Medicinal Plants in Indian Traditional Medicine

	<b>Ayur veda</b>	<b>Folk</b>	<b>Homeo pathy</b>	<b>Mod ern</b>	<b>Sidd ha</b>	<b>Tib etan</b>	<b>Unani</b>
Ayurveda	1769	731	164	55	743	271	653
Folk	731	4671	147	56	635	201	486
Homeopa thy	164	147	482	60	142	70	155
Modern	55	56	60	105	41	17	50
Siddha	743	635	142	41	1121	227	486
Tibetan	271	201	70	17	227	279	227
Unani	653	486	155	50	486	224	751

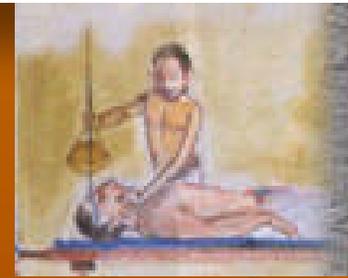
Source – FRLHT databases

# Dravyagunavyijnana



# Some Specialty Areas

- Rasayana (Rejuvenation)
- Ksarasutra (surgical management of fistula in ano and hemorrhoids)
- Social and preventive Medicine – sadvritta, dinacarya, ritucarya
- Pancakarma



**Panchakarma** literally means five actions or techniques. They are *vamana* (induced vomiting/emesis), *virechana* (purgation), *kashaya vasti* and *sneha vasti* (two kinds of medicated enemas with decoction and unctuous material), *nasya* (nasal medication) and *raktamoksha* (blood letting). Panchakarma is commonly used in treating broad categories of conditions - arthritic, rheumatic, neurological, neuromuscular, musculo-skeletal disorders, other degenerative disorders, mental disorders, insomnia, depression, menstrual irregularities, infertility, obesity, asthma and other respiratory conditions, irritable bowel syndrome, gastro-intestinal conditions, chronic conditions, etc. Panchakarma has preventive, curative and promotive functions.

# Ayurveda and Western Medicine — A Comparison of the Syllabi

Ayurveda	Western Medicine
----------	------------------

- |   |  |
|---|--|
| 1. <i>Padartha vijnana (darsanas)</i><br>(Physics and chemistry pertaining to Ayurveda) | 1. Basic sciences (biology)                  |
| 2. <i>Sarira</i>  | 2. Anatomy                                   |
| 3. <i>Dosa-dhatu mala vijnana</i>   | 3. Physiology                                |
| 4. <i>Dravya guna vijnana, rasa sastra</i><br>and <i>ausadha nirmana</i>                | 4. Pharmacology, pharmacy                    |
| 5. <i>Svastha vrtta</i>   | 5. Hygiene and public health                 |
| 6. <i>Nidana (roga-vijnana)</i>   | 6. Pathology                                 |
| 7. <i>Kaya cikitsa</i>  | 7. General medicine                          |
| 8. <i>Salya and salakya</i>   | 8. Surgery & eye, ENT                        |
| 9. <i>Prasuti-tantra, stri-roga,</i><br><i>kaumarabhrtya</i>                            | 9. Midwifery, gynaecology and<br>paediatrics |
| 10. <i>Agada-tantra</i> and<br><i>vyavahara-ayurveda</i>                                | 10. Toxicology and medical<br>jurisprudence  |

# SIDDHA



# SIDDHA

- Entire literature in Tamil
- ⑩ 18 Siddhars: Agasthya is prominent
- ⑩ Siddha means – a person who has achieved extraordinary merit of power (Siddhi)
- Basic concepts are similar to Ayurveda with slight differences – practical aspects are close to Rasasastra in Ayurveda
- Worldview - Anda (microcosm), pinda (macrocosm)
- Pancabhuta – munn, neer, thee, vayu, akasam
- ⑩ Tridosa – Three patho-physiological principles, vatam, pittam, kapham
- ⑩ Saptadhatu –7 body tissues



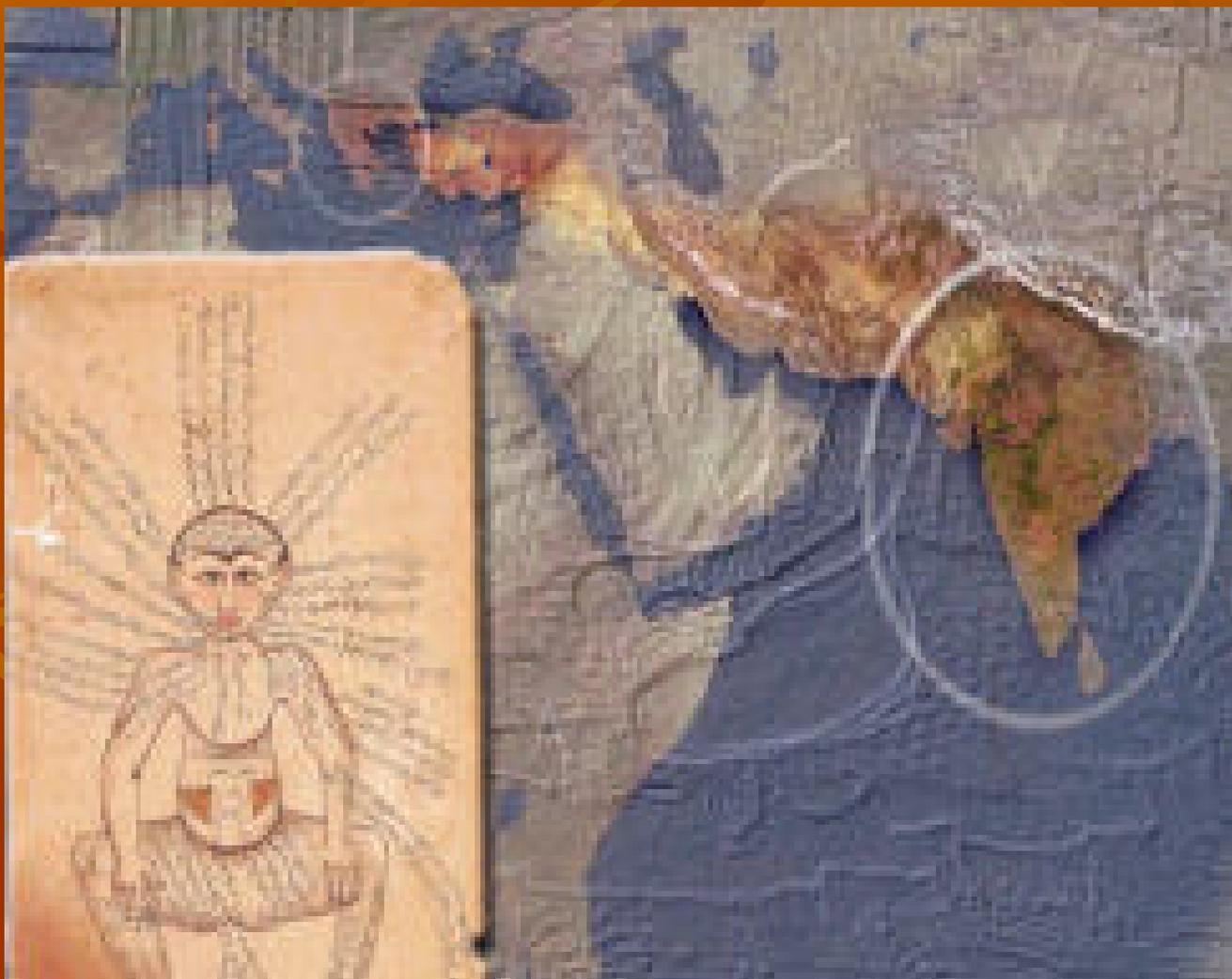
## Siddha contd....

- ⑩ Use of metals and minerals are predominant. They are classified into five groups based on pancabhuta
- ⑩ Drugs are classified as six groups such as uppu (salts), pashanam, uparasam, loham, rasam, Gandhakam
- ⑩ Mercury used in five forms – Rasam (mercury), Lingam (red sulphide of mercury), Veram (Mercury perchloride), Pooram (Mercury subchloride), Rasachinduram (Red oxide of mercury)
  - Pharmaceutical preparations are unique - chunnam (alkaline preparations of metals), kattu (bound mercury), *mezhuga* (waxy preparations), bhasmas
  - Diagnosis – nadi (pulse), kan (eye), svara(voice), sparisam (touch), varna(physiognomy), na(tongue), mala(faeces), neer (urine). Pulse reading is a key technique for diagnosis and prognosis
  - Kayakalpa is a major method of treatment

## Siddha contd....

- There are around 13000 qualified Siddha practitioners (registered) in the country, 90% from Tamil Nadu.
- This system of medicine has five institutions which award Bachelor of Siddha Medicine and Surgery degree.
- Two among these institutions also has facilities for post graduation in Siddha Medicine
- A great deal of teaching in classical Siddha is also happening through guru shishyaparampara across the country.

# UNANI



# Origin of Unani System of Medicine



- ⑩ Originated in Greece, about 460 BC - BOKHRATH (hippocrates) is the father and founder of unani system of medicine.
- ⑩ It was then later on developed by the Arab and popularized by the muslim rulers
- ⑩ This system is also called as Greco-Arab medicine, Lonian medicine, Arab medicine, Islamic medicine
- ⑩ Unani medicine got enriched in Egypt ,Syria, South Asia
- ⑩ It also benifited from the native medical systems in vounge at the time in various parts of central Asia.
- In India it was introduced by the Arabs, soon it took firm roots in the soil.

## History of Tibb-e-Unani

- Bokrath-(Hippocrates) founded ilm-e-Tibb,(unani medicine)  
Jalinoos (Galalen) gave life to it.
- Al Razi (Razes) collectively upheld it and at last Bu-Ali-sena (Avisena) completed it.
- It is mostly practiced & theoretically based on the teachings of Bokhrath (hippocrates),Jalinoos (Galalean),Bu ali sena(Avicena),Al Razi (razes) & many other arab physicians.
- It had a very good reign during the period of Alexander the great in the 3<sup>rd</sup> centuary B.C., in this period the tibb saw the foundation of Madrasa-e-Iskhandria (Alexandria.) school of medicine.

## Madrasa-e-Iskhandria school of medicine (Alexandria school):

- Madrasa-e-Iskhandria school of medicine (Alexandria school) Started in 3<sup>rd</sup> century B.C 344 B.C the Alexandria school of medicine came into existence after the reign of Alexander the great which is school of physicians sprang up at Alexandria called the Emphirical school, which observed the effect instead of enquiring after the causes.
- Around the 5<sup>th</sup> centuary it was popularised by the followers of **MOHAMMED the Prophet (PBUH)**, here it was called **ISLAMIC MEDICINE** & had a good reign during this period it was practiced as an holy medicine.

## Unani contd..

### Islamic medicine

- Unani medicine had its good reign during the period of the great prophet **MOHAMED** (PBUH) during this period it was called **Tibb-e-nabavi**. He advised the followers remedies of common ailments from the **glorious quaran** which has many references/advice towards the hygienic regulations and sanitary orders.
- Drugs like wheat, dates, honey, oils, milk ,were commonly used by the people during this reign.
- Unani had its golden period; with its credit owing to **BU ALI-SENA(AVICENNA)** who not only completed it but gave a new horizon to it ; his classic book of medicine; i.e **Kitab QANOON -E-TIBB** has been used all over the world even till now.
- If **Bokhrath** (Hippocrates )-460-370 B.C systematized medicine and gave it the status of science **Jalinoos**(Galen )-131-201A.D stabilized its foundation on which Arab physicians like **Al-Razi**(Razes )-850-925 A.D & **Bu Ali Sena (Avicenna )**-980-1037 A.D constructed an imposing edifice. In India it was masilul-mulk-**Hakim Ajmal khan** (1864-1927 AD) who championed the cause of Unani medicine in the east and matched the sena (Avicenna)

## Unani contd..

### Basic Principles

- Unani system is based on 4 Arkan (Elements), 4 Akhlath (Humours) & Mizaj (temperament). They are:

#### 4 Arkan/Anasir (elements)

1. Al-nar-fire- Aag
2. Al-hawa-air- Hawa
3. Al-maa-water- Paani
4. Al-Ardh-earth- Mitti

#### 4 humours (Akhlath) are:

1. Dam (blood)
2. Balgham (phlegm)
3. Safra (yellow bile)
4. Sauda (black bile)



Painting of a Hakim and an ancient Unani text published in Rome

## Unani contd..

### Al-mizaj (Temperment)

The literal meaning of mizaj according to Nafis is inter mixture, he says:

- Mizaj indicated the properties of an unsur (atom), a molecule, a cell, a tissue, an organ and the organism as a whole.
- Mijaz is defined as (who kaifiyat hai to ansir ke mutazad kaifiyat ke baham fail-o-infal se paida hoti hai anasir, chote chote hoti hain. mizaj (temperament) is defined as the new state of a matter, having quality different from the present in the elements or compounds before coming into imtizaj (intermixture or chemical combination)

# Concept of Health

Unani contd..

Al –mudabbir –lil-Badam (supreme planner of the body)

Al-mudabbir-lil badan is considered the supreme-planner of our body, this is an natural power that is a prime-mover, which then exists in a body, becomes a direct cause or an proximate for its active motion or rest.

Therefore umoor-e-tabiyah deals with the nature (al-tabiah of a thing (human body) which is considered of 7 natural principles or components of the human body. They are:

Al-Arkan/Al Anasir (elements)

Al.mizaj/(Temperament)

Al-Akhlath (humor/body fluids)

Al-Aza (organs or members)

Al-Arwah (Pneuma/vital spirit)

Al-Quwa (facilities or power)

Al-Afaal (functions)

Ilme-e-Tibb: It is the art of maintaining the health. It is divided into 2 groups:

1.Hifzan-e-sehath: Prevention of a disease and to maintain health of a healthy person.

2. Ilm -ul –Ilaj:It is the treatment to cure a allied person to bring back his healthy state. Ilm –ul- ilaj is divided into 2 groups:

1.Tibbe ilmi or nazree 2. Tibb –Amali

## Knowledge Base

**Tibb-e-ilmi or Nazaree (theoretical knowledge):** Tibb-e ilmi means having the knowledge of a disease from the theoretical aspect, and it is no way connected to the practical knowledge (tibb –e amali). For example, it is observed that when a person suffers from fever he experiences headache, body ache, thirst etc.

**Tibb-e-Amali (practical knowledge):** Tibb–e-amali is the knowledge acquired due to practice, it can be related to the theoretical aspect directly. For example, the person suffering from fever should be given cold water, medicines like analgesics, which relieve pain, antipyretics which reduce temperature & massaging should be done for him.

## Major Textual Sources

Sl.no	Books	Authors	Period in which they were written
1	Tibb-e-Nabavi & Tibb-e-Nabavi aur jaded science.	During the period of Prophet Mohammed(PBUH)	560AD-632AD
2	Khazanatul Advia (Extract from Al Qanoon fil tibb)	Ibn Sina (Avicenna)	980AD-1037AD
3	Al Jamil mufradath Al adviya wal aghziya	Ibn Al Baytar	1197AD-1248AD
4	Tibb-e-Ehasani	Hakim-Ehasan Ali	1312AD (Reprinted 1899 AD)
5	Bustan-ul-Mufradath	Hakeem Mohamed Abdul Hakeem	1815AD-1856AD
6	Moghzan-ul-Mufradath	Hakim Kabiruddin	1875AD-1930AD
7	Unani Adviya Mufradah	Hakeem Syed Safi-uddin Ali	1900AD-1973AD

# Resource Base

**Mawalid-e-salasa:** means origin from three things, medicine used in Unani tibb are classified under three categories they are:

1. Nabathi: plants and matter originating from plants.

2. Haiwani: animals and matter relating animal origin.

3. Jamadi: minerals and substances, which have the origin apart from animal & plant origin.

- **Nabathi Advia:** (Plant drugs) The things which originate from the earth after sowing seeds, whole plant is used or even its parts like roots, stem, branches, leaves, flowers, seeds, gums, bark etc/- can be used as medicine.
- **Haivani Advia:** (animal drugs) A Group of living organisms, which can walk, fly, crawl, etc. For example, grazing animals, flying birds, insects, fishes etc.
- **Madani Advia:** (mineral drugs) Non-living things found in the earth's crust or below the earth or the minerals & salts. For example, iron, silver, petroleum, tar coal, copper, brass, gold, black stone.
- **Definition of a drug:** Drug is a substance, which cures a disease from the human body. But according to tibb dawa (drug) is defined as a substance, which after consumption enters the body & acquires a new property on account of body heat & effectively cures the human body.

## Humoral principles:

- **Akhlath (humours):** are those fluids or moist parts of the body, which are produced after transformation and metabolism of the elements.
- The right proportion and intermixture of the 4 akhlath according to the kaifiyath and Kamiyath (quantity and quality) constitute health (Sehath) and any irregularity or wrong proportion or imbalance (Su -al-mizaj) according to quantity and quality leads to the marz (disease)
- **Humoral theory** was proposed by **Bokhrath (Hippocrates)**, according to it; Deals with all the aspects of disease that is aetiology, pathology, prevention and treatment of the disease and this holds good especially to kaun-o-fasad (metabolism) and infection diseases. According to Abu sahal masihi the entire body consists of three kinds of substances that is Aza-(organs), Akhlath are moist and fluid substances enclosed in the vessels, (and interstitial spaces and cavities of the organs) to prevent them from flaw.

# TIBETAN MEDICINE



# GSO- RIG-PA (Tibetan medicine)

## Origin

- ⑩ Tibetan medicine is said to have developed in three phases. The first one, according to Tibetan mythology, began with Brahma who first heard the teaching from the Buddha Kasyapa. Brahma then composed 1000 verses on medicine (the *gSo-dpyad 'Bum-pa*). This was passed on through various Deva-Rishis to Indra. Finally it reached the King of Banares. The second phase was also in India and involved Sakyamuni Buddha, Vairochana, Asvaghosha, Kumarajiva etc. The last phase took place in Tibet, with Yuthog Yontan Gonpo (the Elder and Younger), Rinchen Zangpo and others.
- ⑩ Tibetan medicine has its beginnings in the first half of the seventh century during the time of King Songtsen Gampo. He created a script that was derived from the Devanagiri alphabet. It is said that King Songtsen Gampo invited three physicians from India, China and Iran to his court, who brought out a composition of work in Tibetan.
- ⑩ Foreign influence of Tibetan medicine.



## Basic Concepts

- ⑩ The philosophy behind Tibetan medicine is Buddhist. Most of the theories, on physiology, pathology, and therapeutics, of Tibetan medicine are similar to those of Ayurveda.
- ⑩ Tibetan medicine believes that the universe is made up of four basic elements- earth (sa), water (chu), fire (me) and air (rluh). All the elements are represented in the body in the form of Nes-pa gsum, Lus zuns bdun and Dri ma. These can be equated to the tridoshas, saptadhatus and malas of Ayurveda respectively.

## Humoral Theory (Nes-pa gsum)

- Three humours in the body which are known as *rlung* (wind), *mkhris-pa* (bile) and *bad-kan* (phlegm). These are fundamental for the activities of the body and control various functions of the body.
- ⑩ The humours also have their own seats in the body, i.e. they are found to be mainly found in certain parts of the body. For example, wind or air is located in the hips, colon ears, thigh, bones and the organs of touch though its main location is the colon.
- ⑩ The three humours are also used in the classification of body types as *rlung* type, *mkhris-pa* type or *bad-kan* type.

## Body Constituents (Lus zuns bdun)

- ⑩ There are also seven basic body constituents (similar to the dhatus in Ayurveda) which are: essence (the nutritive qualities of food) or *Dangs-ma*, blood or *Khrag*, flesh or *Sha*, fat or *Tsil*, bone or *Rus*, bone marrow or *rKang*, regenerative fluids- semen and ovum or *Khu-ba*. Each of these is derived from the constituent before them in the order given above.

## Concept of Health

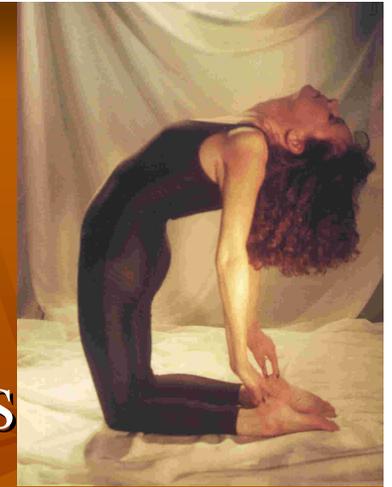
- ⑩ The three humours and the seven *Lus zuns* should be in a state of dynamic equilibrium for good health. When this state is disturbed, disease occurs.
- ⑩ Buddhism premises that everything in the universe is in a constant state of flux or impermanence. So the only permanent phenomenon is impermanence. Thus this impermanence ensures that everyone suffers at some time or the other. Release from this can be only through proper knowledge and practice of Dharma.
- The cause of all suffering, according to the Buddha, is due to *bdag-'dzin* (ego) which is manifested as *ma-rig-pa* (ignorance) which in turn gives rise to *'dod-chags* (attachment), *zhe-sdang* (hatred) and *gti-mug* (close-mindedness). These three give rise to the afflictions of *rlung* (wind), *mkhris-pa* (bile) and *bad-kan* (phlegm) respectively. Various aspects such as diet and behaviour also affect health.

## Texts

The most important secular works of Tibet are the Four Medical Tantras or the ‘Gyu-shi’ (rGyud bzhi) meaning ‘four treatises’. These are the Root Treatise or Mula Tantra (rtsa-rgyud); the Explanatory Text or Akhyata Tantra (bShad-rgyud); the Practice Instruction Text or Upadesha Tantra (man-ngag-rgyud) and the Last Text or Uttantra (phyi-ma-rgyud). The Uttantra gives an explanation of the other three Tantras and is written in the form of question and answers between the Rishi Rig-Pa’I Yeshe and the Rishi Yid-las-skye. The two rishis are said to be manifestations of the Medicine Buddha (a manifestation of the Buddha).

# Yoga

- Philosophy and Theoretical foundations



# Naturopathy

- Philosophy and Theoretical foundations

# Homeopathy

- Philosophy and Theoretical foundations

# Western biomedicine

- Philosophy and the worldview
- Theoretical concepts and Methodology

# 7. COLLABORATIVE RESEARCH - SCOPE, PURPOSE & METHODOLOGY



## Contemporary relevance - Country's Mainstream Health Care Scenario

- “Government Expenditure forms only 1/3 of the total health expenditure in the country”
- “Rapid Growth of Western Medicine has been associated with growth of of the private sector which accounts for 78% of the total health expenditure (of the country)”
- “This is amongst the highest in the world”(WHO)
- •High cost of Staff or drugs, traveling distances, lack of supply of drugs, facilities, long waits, absence of staff are some of the reasons identified as reasons for dissatisfaction with existing Government health care delivery systems

## Promise of a pluralistic health culture for a better health Care

- Outreach of this system of health care is very high
- Consumer choice is vast
- Remedies used for primary health care aspect are affordable and accessible as they are locally grown medicinal plants and kitchen condiments
- Most of them are the products in semi-processed form or simple preparations can be made in any rural kitchen
- These are culturally compatible practices

# Cross Cultural Collaboration - Purpose

- ⑩ It can help to communicate the value of Indian Medical Pluralism. It could provide new solutions to some of the health problems, that have incomplete or no solutions in other systems of medicine.
- ⑩ It is, however, impractical, unaffordable and wholly unnecessary to attempt to translate the “ocean of traditional knowledge” into western science. Such an exercise would take centuries & the cost would be unbearable (It takes 200,000 USD and 8-10 years to validate a single new drug).
- ⑩ The translation would also be imperfect and, therefore, incomplete because of the difference in the paradigms of the two knowledge systems.
- ⑩ Collaboration with western science can help to explain some aspects of the traditional medical knowledge to the western world but it cannot revitalize indigenous medical knowledge or help Indian medicine recover its creativity: that will be recovered only when the indigenous knowledge system becomes self generating again.

# The Epistemological Divide

	Sastra	Science
Principles	Tridosa vicara	Modern physiology
Categories	Dravya guna sastra	Phyto-chemistry Pharmacology
Concepts	Ama, Agni, Kleda	Energy, elements, atoms etc
Logical system	Nyaya vaisesika	Aristotelian logic
Philosophical frame work	Sankhya, other darsanas	Logical positivism and later schools
World view	Loka Purusa samanya	Body mind dualism, Cartesian world view <sup>74</sup>

# Issues Related to Cross Cultural Research

- ⑩ Diverse and complex due to different principles, categories and approaches
- ⑩ Lack of appropriate cross-cultural research methodology
- ⑩ Poorly designed one sided research protocols
- ⑩ No fundamental correlation of concept/disease understanding in different systems
- ⑩ Drug hunt
- ⑩ Not strengthening traditional medical understanding
- ⑩ Medical absorption
- ⑩ Lack of acknowledgement
- ⑩ Lack of respectful, systematic dialogues between systems in research and improper communication

# Cross Cultural Research Methodology

- Developing an appropriate cross cultural research methodology
  - ⑩ Foundational correlation studies
  - ⑩ Appropriate research protocols
  - ⑩ Ensuring pluralism

# Potential Areas of Folk Medicine for Collaborative Research

- Traditional birth attendants
- Traditional bone setting
- Home remedies
- Visha vaidyas
- Specific practices related to other specialty areas

## Potential Areas of Codified Medicine for Collaborative Research

- Immunology
- Skin diseases
- Arthritic conditions
- Eye diseases
- Wound management
- Mental health
- Cardiology
- Neurological and neuro-muscular conditions
- Gynaecology
- Reproductive health etc.

# Potential areas of Yoga and Naturopathic sciences for collaborative research

# Potential areas of Homeopathy for collaborative research

# A Pluralistic Way Forward

