

# Alternative Systems of Medicine in India: An Overview

*Chandrakant Lahariya*

**T**raditional Medicine (TM) along with Complementary Medicine (CM) and Alternative Medicine (AM) are terminologies that are often used interchangeably for a broad range of healthcare practices, theory, service delivery and systems in both Eastern and Western parts of the world (including for Ayurvedic medicine, naturopathy, traditional Chinese medicine and homeopathy etc.) that have developed separately from the conventional system of medicine (Box 1). These systems, all put together are referred to as Traditional and Complementary Medicine (T&CM).

India has a rich culture of T&CM, hereafter used interchangeably in this article, the alternative systems of medicine (ASM), which include both Indian/indigenous systems i.e., Ayurveda and Siddha as well as

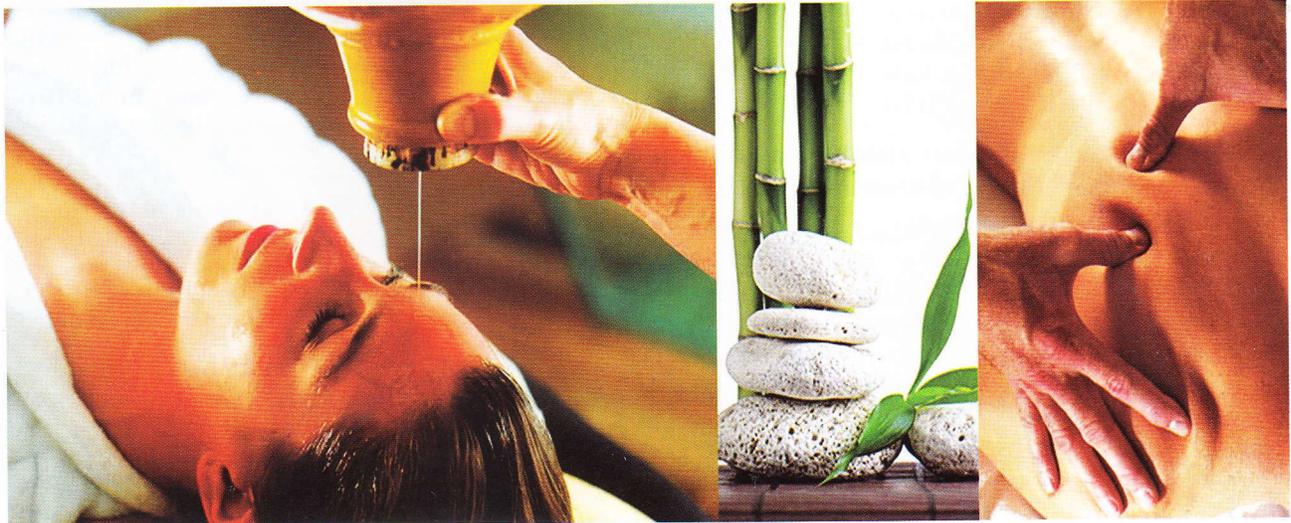
those not originated in India, i.e. Homeopathy. This article aims to (a) summarize the evolution of different types of medicine since antiquity; (b) provide an overview of ASM in India; and (c) suggest a way forward as the country intends to progress towards Universal Health Coverage (UHC).

## Evolution of Medicine Since Ancient Times

The history of medicine indicates that almost every major civilization and culture had developed their own system for curing diseases, though the approaches varied. From the very beginning of the human civilization, there has been an interest in controlling diseases, ensuring good health and prolonging life. Medicine in ancient form was practiced in all societies and civilizations—Egyptian, Chinese, Indian, Mesopotamian, Greek, Roman and Arab/Unani—and is referred to and recognized by the

**The history of medicine indicates that almost every major civilization and culture had developed their own system for curing diseases, though the approaches varied. From the very beginning of the human civilization, there has been an interest in controlling diseases, ensuring good health and prolonging life.**

names of the civilization. The early medicine practices, around 3000 BC to 3500 BC, started independently in every culture, which then started influencing each other starting 200 BC, with a major convergence around 800 AD onwards with the evolution



The author is National Professional Officer with the World Health Organization, based at New Delhi.

of Arab medicine (Box 2). The dawn of scientific or modern medicine started in the mid of the 15<sup>th</sup> century. It evolved on the foundation created by the ancient systems of medicine over a period of 4500 years (2500 BC-1500 AD). In the mid of the twentieth century, the stream of medicine based upon the concept of 'treatment of diseases by use of a drug which produces a reaction that itself neutralizes the disease condition or disease-causing agents' started getting popular and is now known as Allopathy or Allopathic Medicine. Allopathy is the most commonly used system of medicine in India and most other parts of the world. Most often, it is Allopathic medicine compared to which other systems are termed as traditional, complementary or alternative systems of medicine.

### India and Alternative Systems of Medicine

In the last three decades, there have been focused initiatives to mainstream traditional and alternative systems of medicine in healthcare services in India. The first full-fledged department for Indian Systems of Medicine and Homeopathy (ISM&H) was created under the Ministry of Health and Family Welfare, Government of India, in March 1995 to promote and regulate the practice of alternative systems of medicine in the country (Box 3). This department was, in November 2003, renamed as Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH). A fully independent Ministry of AYUSH

was formed in November 2014. In 2002, the Government of India also formulated the National Policy on Indian Systems of Medicine and Homeopathy.

Sustained efforts over the years have resulted in an increased availability of providers in alternative systems of medicine. By the end of March 2017, there were 3,943 hospitals and 27,698 dispensaries under AYUSH systems, under different administrative controls ranging from State and Union governments, local bodies and others (i.e. Central Government Health Services (CGHS); Railway, Coal and Labour Ministry and also run by research councils and national institutes). In March 2018, there were

773,668 already registered AYUSH practitioners, most of them being in Ayurveda followed by Homeopathy. There were 622 institutions offering under-graduate courses (annual intake of 40,151) and 201 institutes offering post-graduate courses (annual intake of 5,486) in AYUSH systems (Table 1).

The current National Health Policy of India has proposed functional linkage of AYUSH at all levels of health systems, including service delivery as well as work force. The policy proposal focuses on inclusion of Yoga at workplace, in schools and in the community as an important form of promoting health and wellness. The utilization of AYUSH services, ranges from 5-10 per

#### Box 1: Traditional and Complementary Medicine-Definitions

- **Traditional Medicine (TM):** The sum-total of the knowledge, skill and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness.
- **Complementary Medicine (CM) or Alternative Medicine (AM):** A broad set of healthcare practices that are not part of that country's own tradition or conventional medicine and are not fully integrated into the dominant healthcare system. In some countries, the term Traditional Medicine (TM) is used interchangeably with CM and AM and also together as 'Complementary and Alternative Medicine' (C&AM) and are used interchangeably. These systems typically use a variety of methods that fall under the CAM umbrella (herbal remedies, manipulative practices).
- **Traditional and Complementary Medicine (T&CM):** T&CM merges the terms TM and CM, encompassing products, practices and practitioners.

**Table 1: Human resource availability and production capacity for traditional and alternative systems of medicine in India (March 2017)**

	Already Registered practitioners	Under Graduate course		Post Graduate courses	
		No of Institutions	Annual intake	No. Institutions	Annual intake
Ayurveda	428,884	338	21,387	135	4,122
Unani	49,566	49	2,705	11	127
Siddha	8,505	09	520	02	94
Naturopathy	2,242	25	1,630	03	45
Homeopathy	284,471	201	13,909	50	1098
Total AYUSH	773,668	622	40,151	201	5,486

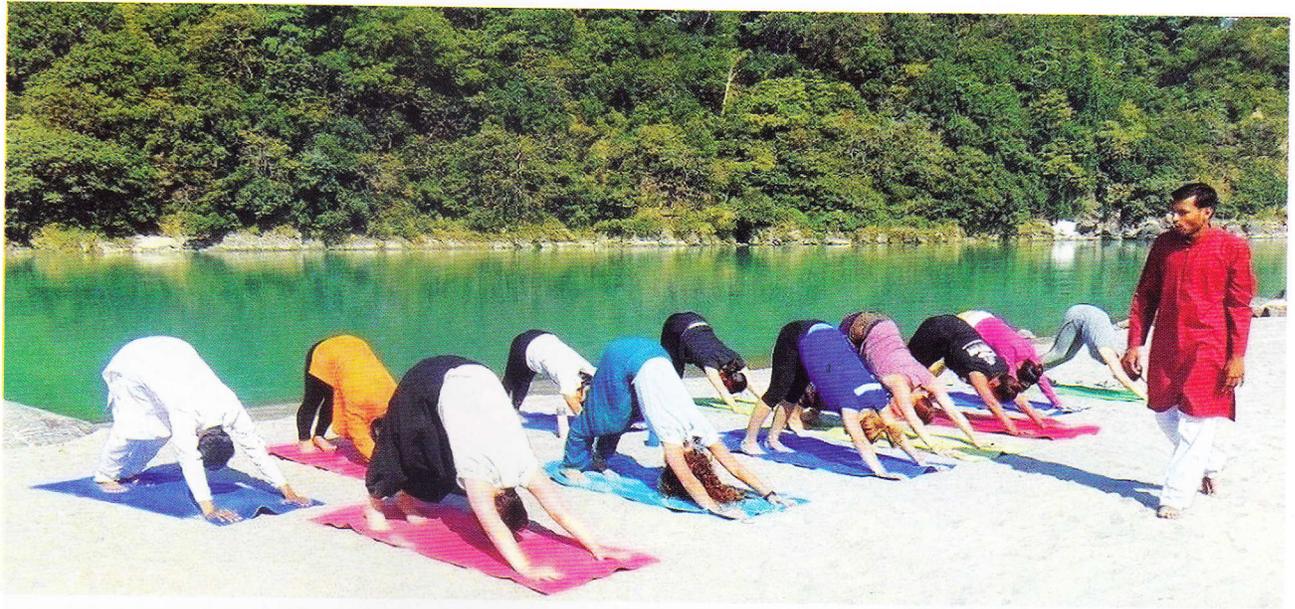
Source: National Health Profile of India, 2018.

**The current National Health Policy of India has proposed functional linkage of AYUSH at all levels of health systems, including service delivery as well as work force. The policy proposal focuses on inclusion of Yoga at workplace, in schools and in the community as an important form of promoting health and wellness.**



### Box 2: Evolution of Medicine Since Antiquity

- **Indian Medicine:** Medicine in India originated around 3000 BC, when the practice of Ayurveda is considered to have started. In addition, the Siddha system of medicine is also Indian in origin. The period of 800 BC to 600 AD is regarded as the golden period for Indian medicine, a period which coincides with widely accepted authorities in Ayurvedic medicine, such as Atreya, Charaka and Sushruta. Of them, Atreya (about 800 BC) is considered as the first great Indian physician and teacher. Charaka (200 AD; also written as Caraka) wrote *Charaka Samhita* and was the most popular physician of the time. Sushruta is referred to as the father of Indian surgery. He wrote *Sushruta Samhita*, a treatise on surgery (between 800 BC and 400 AD). Around 800 AD, the *Charaka* and *Sushruta Samhitas* were translated into Persian and Arabic and Indian medicine had spread to Indo-China, Indonesia, Tibet, central Asia and Japan.
- **Egyptian Medicine:** Egyptian civilization had well-advanced medicine, which is reported to have reached its peak in the days of Imhotep (2800 BC).
- **Chinese Medicine:** There are well-documented records of Chinese medicine since 2700 BC. Some of the medicinal practices of those times are still followed in various forms.
- **Mesopotamian Medicine:** The Codes of Hammurabi, in name of King of Baby Lone, were formulated around 2000 BC in the Mesopotamian civilization to govern the conduct of physicians to guide health practices.
- **Greek Medicine:** Greek Medicine was most evolved between 460 BC-136 BC and Aesculapius (around 1200 BC) and Hippocrates (460-370 BC) were amongst the leaders in Greek Medicine. Hippocrates is often termed as "Father of Medicine" and the oath drafted by him guides medical ethics even now.
- **Roman Medicine:** Roman Medicine emerged from Greek Medicine. Roman Medicine was more about overall health with focus on disease prevention and control (and not restricted to curing illnesses, as was the predominant feature of some other medicines prevalent at that time or earlier). Galen (130-205 AD) was a famous Roman medical teacher, whose teaching lasted till mid of sixteenth century when some recent knowledge on anatomy and physiology emerged.
- **Arab Medicine (Unani Medicine):** From 500 AD to 1500 AD, Greeco-Roman medical literature was translated into Arabic. The local adaptation gave birth to the Unani system of medicines in schools of medicines and hospitals in Baghdad, Damascus and Cairo. The period of 800-1300 AD is often referred to as the golden period in Arabic medicine. Abu Becr (865 AD-925 AD; also known as Rhazes) and Ibn Sina (980 AD-1037 AD; also known as Avicenna) are known as two leaders of Arab medicine.



cent of total health service utilization with variations across Indian states (Government of India, 2014). In the year 2015-16, people in India spent around INR 63,000 crore on AYUSH health services (public and private sector put together), which amounts to nearly 12 per cent of total health expenditure of INR 528,484 crore in the country as reported in National Health Accounts (MOHFW, 2018).

### Discussion and Way Forward

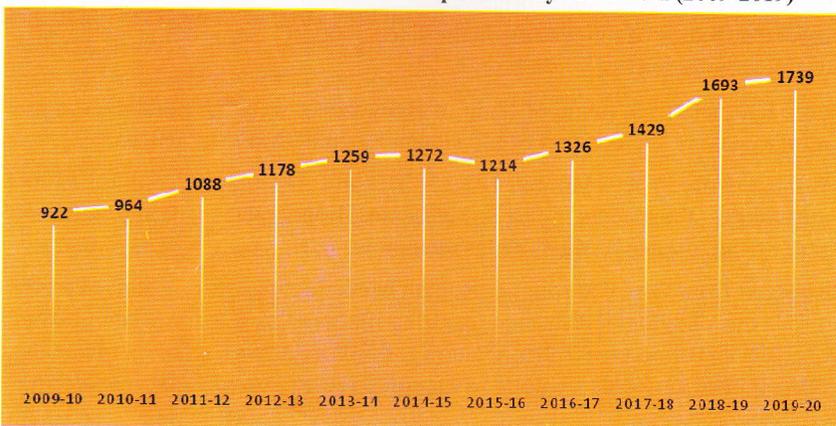
The current and predicted increasing burden of chronic and Non-

Communicable Diseases (NCDs) is often considered the most urgent reason for developing and strengthening collaboration between conventional and T&CM health sectors. The study of state level burden of diseases in India has highlighted the emerging burden of NCDs, which mandates higher provision of preventive and promotive health services, along with curative and diagnostic services. Many T&CM (especially Ayurveda, Yoga and Naturopathy) largely focus on principles of wellness and health promotion. There is a vast infrastructure

and plenty of providers in these systems and it is a great opportunity to tackle NCDs as well as other emerging health challenges in the country.

The global evidence has pointed towards the need for task shifting (assigning some of the tasks done by allopathic doctors to other cadres of healthcare providers) in health systems. A lot of such approaches are the standard of care in many resource poor settings and countries. The discourse is aligned with dialogues for moving from 'doctor-centric' to a 'team-based' approach to health service delivery, where each type

Figure 1: Financial allocations for Dept/Ministry of AYUSH (2009-2019)



\*Ministry of AYUSH was created in Nov 2014. The budget of the Dept. of AYUSH is shown prior to Financial year (FY) 2015-16.

The values are Indian Rupee in Crores and are actual expenditure till FY 2017-18; for FY 2018-19 Revised Estimates (RE) and for FY 2019-20 Budget Estimates (BE). These are values for budgetary allocation in union budget of India.

The state government spending is not part of the figures shown here.

Source: Union Budget of Govt of India; [www.indiabudget.gov.in](http://www.indiabudget.gov.in)

**There is a need for extending similar research on additional systems of medicine. More strategic approaches are needed in this area including building the knowledge base for T&CM through facilitating national policies; capacity building; further strengthening of quality assurance, safety, proper use and effectiveness of T&CM by-products, practices and practitioners and by integrating T&CM services into healthcare service delivery and self-healthcare.**

of provider (doctors, nurse, alternative system of medicine, pharmacist, counsellor) play different and complementary roles. India is making some progress in this area through MLHP under HWCs, yet more is needed and is possible through engagement of already available human resources under alternative systems of medicine in delivery of personal, population and public health services.

The ongoing initiatives at all levels need support through government leadership and financing. The research on different aspects of T&CM and the use of proven methods and approaches need to be promoted in addition to ensuring the availability



### Box 3: Traditional/Indigenous/Alternative Systems of Medicine in India

**Ayurveda:** The Ayurvedic System of Medicine evolved nearly 5000 years ago (3000 BC). The word Ayurveda means 'Science of Life' and employs treatment modalities, such as purification, palliation, prescription of various diets, exercises and the avoidance of disease causing factors. The Ayurvedic medicine, though practiced for a wide range of health needs, is more commonly used for preventive and health and immunity boosting activities. Ayurveda is widely used in India and is more popular in Kerala, Himachal Pradesh, Gujarat, Karnataka, Madhya Pradesh, Rajasthan, Uttar Pradesh and Orissa.

**Unani Medicine:** Unani Medicine originated in the Arab world, though over a period of time it imbibed some concepts from other contemporary systems of medicines in Egypt, Syria, Iraq, Persia, India, China and other Middle East countries. Unani medicine treats a patient with diet, pharmacotherapy, exercise, massages and surgery. Unani Medicine was introduced in India around the 10<sup>th</sup> century AD and at present it is popular in the states of Andhra Pradesh, Karnataka, Tamil Nadu, Bihar, Madhya Pradesh, Maharashtra, Uttar Pradesh, Delhi and Rajasthan.

**Homeopathy:** The word 'Homeopathy' is derived from the Greek words, 'Homois' meaning 'similar' and 'pathos' means 'suffering'. It originated in Germany and was introduced in India around 1810-1839. Homeopathy is based on the law of healing- 'Similia Similibus Curantur' which means 'likes are cured by likes'. It uses highly individualized remedies selected to address specific symptoms or symptom profiles. It is practiced in many countries and in India, where it is the second most popular system of medicine. Homeopathy is practiced all over the country and is popular in Uttar Pradesh, Kerala, West Bengal, Orissa, Andhra Pradesh, Maharashtra, Punjab, Tamil Nadu, Bihar, Gujarat and North-Eastern States. In the recent years, the popularity of homeopathy has witnessed some decline.

**Siddha:** This system has originated in India and is amongst the oldest systems of medicine in the country. It takes into account the patient, his/her surroundings, age, sex, race, habitat, diet, appetite, physical condition etc. to arrive at the diagnosis. Siddha System uses minerals, metals and alloys and drugs and inorganic compounds to treat the patients. Unlike most T&CM, this system is largely therapeutic in nature. Siddha literature is in Tamil and it is practiced largely in Tamil speaking part of India, i.e. Kerala and abroad.

**Sowa-Rigpa:** The word combination means the 'science of healing' and is considered one of the oldest living and well-documented medical traditions of the world. It originated from Tibet and is widely practiced in India, Nepal, Bhutan, Mongolia and Russia. In India, this system is practiced mainly in Sikkim, Arunachal Pradesh, Darjeeling (West Bengal), Dharamshala, Lahaul and Spiti (Himachal Pradesh), Ladakh region (Jammu and Kashmir) and in parts of Delhi.

**Yoga & Naturopathy:** The concepts and practices of Yoga are reported to have originated in India. Yoga is now being adapted to correct lifestyle by cultivating a rational, positive and spiritual attitude towards all life situations. The role of Yoga techniques in the prevention and mitigation of diseases and promotion of health are being studied. Yoga is widely practiced across India and has spread to many other parts of the world. The United Nations (UN) has designated 21<sup>st</sup> June as 'International Yoga Day'. Naturopathy or the naturopathic medicine is a drugless, non-invasive system of medicine imparting treatments with natural elements based on the theories of vitality, toxemia and the self-healing capacity of the body, as well as the principles of healthy living. The common naturopathy modalities include counseling, diet and fasting therapy, mud therapy, hydrotherapy, massage therapy, acupressure, acupuncture, magnet therapy and yoga therapy.

of these services for the people. There has been increasing research published in peer reviewed sources on effect of Yoga and other T&CM, which have shown beneficial effects on select health conditions. There is a need for extending similar research on additional systems of medicine. More strategic approaches are needed in this area including building the knowledge base for T&CM through facilitating national policies; capacity building; further strengthening of quality assurance, safety, proper use and effectiveness of T&CM by products, practices and practitioners; and by integrating T&CM services into healthcare service delivery and self-healthcare.

### Conclusion

There is a focus, both globally and in India, on strengthening primary healthcare (PHC) and advancing UHC, which would require interventions at all levels of health systems. This is possible if the potential contribution of T&CM to improve health services and health outcomes is fully used and by ensuring that users are able to make informed choices about self-healthcare. The renewed attention on strengthening PHCs and advancing UHC, the recognition of epidemiological shift towards burden of non-communicable diseases and the availability of trained health resources and extensive infrastructure in T&CM are opportunities on which India can embark upon for becoming a healthy nation. This would also need the right mix of preventive, promotive and curative health services and increasing integration of traditional, complementary and alternative systems of medicine (T&CM) in conventional health system. It is time to strategize in order to optimally utilize the knowledge, expertise and resources in T&CM to improve health outcome for citizens and advance UHC in India.

### References:

- Government of India (2019). Union Budgets of India. Ministry of Finance. Accessed at: <https://www.indiabudget.gov.in/>
- Government of India (2019). Ministry of AYUSH 2019. Accessed at: <http://ayush.gov.in/>
- Government of India (2018). National Health Accounts of India 2015-16. MoHFW, New Delhi. Accessed at: <http://nhsrindia.org/updates/national-health-accounts-estimates-india-2015-16>
- Government of India (2018). National Health Profile 2018. Accessed at: [http://www.cbhidghs.nic.in/WriteReadData/1892s/Before\\_per\\_cent20Chapter1.pdf](http://www.cbhidghs.nic.in/WriteReadData/1892s/Before_per_cent20Chapter1.pdf)
- Govt of India (2014). Report of 71<sup>st</sup> round of National Sample Survey data. MOSPI, New Delhi. Accessed at: [http://mospi.nic.in/sites/default/files/national\\_data\\_bank/ndb-rpts-71.htm](http://mospi.nic.in/sites/default/files/national_data_bank/ndb-rpts-71.htm)
- World Health Organization (2013). WHO Traditional medicine strategy 2014-23. WHO; Geneva 2013 Access Link: [https://www.who.int/medicines/publications/traditional/trm\\_strategy14\\_23/en/](https://www.who.int/medicines/publications/traditional/trm_strategy14_23/en/)

(E-mail: [c.lahariya@gmail.com](mailto:c.lahariya@gmail.com); [lahariyac@who.int](mailto:lahariyac@who.int))

## Admission Notice



**CHITRA MISHRA**



**ANKUR KAUSHIK**

**161 Selections in IAS 2018**

# GEN. STUDIES TEST SERIES

**Mains • Pre-Cum-Mains**  
**Offline/Online**  
**with Personal Attention**

### India's Most Experienced Team

- S. Baliyan** : History & Culture
- S.M. Thakur** : Geography & Envnt.
- A. Mangtani** : Indian Economy
- A.N. Reddy** : IR & Indian Polity
- Dr. Vivek** : Science & Tech.
- S. Baliyan** : Ethics, Int. & Aptitude

**www.baliyans.com**

**Unlimited Practice Tests**  
**Unlimited Videos**  
**Unlimited Study Material**  
**24 X 7 Support**

**One Stop Solution for All Your Needs**

**INSIGHT IAS ACADEMY**  
India's Best Institute for Civil Services Prep.

73, Near Axis Bank, Old Rajinder Nagar, New Delhi-60  
**Ph. : 011-45090051, 09818333201, 09871216382**

[www.insightiasacademy.com](http://www.insightiasacademy.com) • [insightiasacademydelhi@gmail.com](mailto:insightiasacademydelhi@gmail.com)

YE-1142/2018