

INTRODUCTION

The Indian System of Medicine is of great antiquity. It is the culmination of Indian thought of medicine which represents a way of healthy living valued with a long and unique cultural history, as also amalgamating the best of influences that came in from contact with other civilizations be it Greece (resulting in Unani Medicine) or Germany (Homeopathy) or our scriptures/sages which gave us the science of Ayurveda, Siddha as also Yoga & Naturopathy. Like the multifaceted culture in our country, traditional medicines have evolved over centuries blessed with a plethora of traditional medicines and practices.

A separate Department of Indian Systems of Medicine and Homoeopathy (ISM&H) was set up in 1995 to ensure the optimal development and propagation of AYUSH systems of health care. The Department of ISM&H was re-named as the Department of AYUSH (an acronym for - Ayurveda, Yoga and Naturopathy, Unani, Siddha, Homoeopathy) in November 2003. With an increase in lifestyle-related disorders there is a world wide resurgence of interest in holistic systems of health care, particularly with respect to the prevention and management of chronic, non-communicable and systemic diseases. It is increasingly understood that no single health care system can provide satisfactory answers to all the health needs of modern society. Evidently there is a need for a new inclusive and integrated health care regime that should guide health policies and programmes in future. India has an advantage in this global resurgence of interest in holistic therapies as it has a rich heritage of indigenous medical knowledge coupled with strong infrastructure and skilled manpower in modern medicine. Medical pluralism is here to stay and the AYUSH sector has a critical role to play in the new and emerging situation.

The Department of AYUSH under Ministry of Health and Family Welfare, promotes and propagates Indian systems of Medicine and Homoeopathy, and is committed to infuse the wisdom of traditional medicine with the methodologies of modern science, scientifically validating the systems and presenting them in the scientific idiom, relating their efficacy to modern life styles. The Department has, over the years, developed a broad institutional framework to carry out its

activities. The National Medicinal Plants Board (NMPB) functions under the Department to coordinate activities relating to conservation, cultivation, marketing, export and policy making for the development of the medicinal plants sector. There are two statutory regulatory bodies, namely Central Council of Indian Medicine (CCIM) and Central Council of Homoeopathy (CCH) for laying down minimum standards of education, recommending recognition of medical qualifications, registering the practitioners and laying down of ethical codes. Four research councils, for Ayurveda and Siddha (CCRAS), Unani (CCRUM), Yoga and Naturopathy (CCRYN) and Homeopathy (CCRH) are responsible for the officially sponsored research activities. So far, eight National Institutes are existing at national level for teaching, research and clinical practices.

For Standardisation and testing of Drugs, various agencies have been put in plan by the Government of India. Four different Pharmacopoeia Committees are working for preparing official formularies / pharmacopoeias to evolve uniform standards in preparation of drugs of Ayurveda, Siddha, Unani and Homeopathy and to prescribe working standards for single drugs as well as compound formulations. A Drug Quality Control Cell is working in the Department to deal with the matters pertaining to licensing, regulation and control of drugs and the spurious manufacture of Ayurvedic, Unani and Siddha Drugs and other matters. Two apex Laboratories, namely, Pharmacopoeial Laboratory for Indian Medicine (PLIM) and Homoeopathic Pharmacopoeial Laboratory (HPL) are functioning as Standard Setting-Cum-Drug-testing Laboratories for Indian Medicines and Homoeopathy respectively. Indian Medicines Pharmaceutical Corporation Ltd. (IMPCL), a Public Sector Undertaking, manufactures classical Ayurveda and Unani drugs. The Department also manages the CGHS Ayurveda Hospital at Lodhi Road, New Delhi.

Bringing AYUSH into the mainstream health care delivery system of the country has long been a major policy objective of the Department. Under the NRHM, AYUSH facilities are being set up in PHCs and CHCs and are being manned by qualified AYUSH physicians appointed on contract basis.

Since the creation of a separate Department, there has been a substantial increase in the infrastructural facilities under

AYUSH systems in the country. Presently, there are 3371 hospitals with about 66272 beds, 22014 dispensaries, 7.55 lakhs doctors, 485 educational institutions with admission capacity of about 27265 UG students and 2402 PG students and 9173 drug-manufacturing units under AYUSH systems. Under NRHM, AYUSH facilities have been co-located with 182 District hospitals, 1008 CHCs and 4161 PHCs.

A. AYUSH SYSTEMS

i) Ayurveda :

Ayurveda is perhaps as old as our civilization. This “science of Life” (*Ayu + Veda*) takes an integrated view of the physical, mental, spiritual and social aspects of human beings, each impinging on the others. Ayurveda was referred to in the Vedas (*Rigveda* and *Atharvveda*) and around 1000 B.C. the knowledge of Ayurveda was comprehensively documented in Charak Samhita and Sushruta Samhita. According to Ayurveda, health is considered as a pre-requisite for achieving the goals of life - *Dharmas*, *Arth*, *Kama* and *Moksha* (Salvation) and all objects and living bodies are composed of five basic elements, the Pancha Mahabhootas, namely: *Prithvi* (earth), *Jal* (water), *Agni* (fire), *Vayu* (air) and *Akash* (ether). The philosophy of Ayurveda is based on the fundamental harmony between universe and man, a healthy balance between macrocosm and the microcosm. Ayurveda believes in the theory of Tridosha: Vata (ether + air), Pitta (fire) and Kapha (earth + water). These three ‘Doshas’ are physiological entities in living beings. The mental characters of men are described by Satva, Rajas and Tamas. Ayurveda aims to keep these structural and functional entities in a state of equilibrium which signifies good health (Swastha). Any imbalance due to internal or external factors causes disease and the treatment consists of restoring the equilibrium through various techniques, procedures, regimen, diet and medicine.

The treatment in the Ayurveda system is holistic and individualized having two components; preventive and curative. The preventive aspect of Ayurveda is called Svasth-Vritt and includes personal hygiene, regular daily and seasonal regimen, appropriate social behaviour and Rasayana Sevana, i.e., use of rejuvenative materials/food and rasayana drugs. The curative treatment consists of three major categories of procedures, Aushadhi(drugs), Anna(diet) and Vihara

(exercises and general mode of life). Ayurveda largely uses plants as raw materials for the manufacture of drugs, though materials of animal, marine origin, metals and minerals are also used. Ayurvedic medicines are safe and have little or no known adverse side-effects.

Ayurveda developed into eight distinct specialties, i.e., Kayachikitsa (Internal Medicine), Kaumar Bhritya (Pediatrics), Graha Chikitsa (Psychiatry), Shalakyia (Eye and ENT), Shalya Tantra (Surgery), Visha-Tantra (Toxicology), Rasayana (Geriatrics) and Vajikarna (Science of virility).

During the last 50 years of development in the teaching and training in Ayurveda, twenty two specialties have now been developed. These are Ayurveda Sidhanta (Fundamental Principles of Ayurveda), Ayurveda Samhita, Rachna Sharira (Anatomy), Kriya Sharira (Physiology), Dravya Guna Vigyan (Materia Medica and Pharmacology), Ras-Shashtra (Pharmaceuticals using minerals and metals), Bhaishajya Kalpana (Pharmaceuticals), Kaumar Bhritya - Bala Roga (Pediatrics), Prasuti -Tantra evum Stri Roga (Obstetrics and Gynaecology), Swasth-Vritta (Social and Preventive Medicine), Kayachiktisa (Internal Medicine), Rog Nidan avum Vikriti Vigyan (Pathology), Shalya Tantra (Samanya)(Surgery), Salya Tantra - Kshar Karma avum Anushastra Karma (Kshars Karma and Para-surgical procedure), Shalakyia Tantra -Netra Roga, Shalakyia Tantra - Shiro-Nasa-Karna Avum Kantha Roga (ENT), Shalakyia Tantra - Danta Avum Mukha Roga (Dentistry), Manovigyana avum Manas Roga (Psychiatry), Panchakarma, Agad Tantra avum Vidhi Vaidyaka (Toxicology and Jurisprudence), Sangyahaarana (Anaesthesiology) and Chhaya avum Vikiran Vigyan (Radiology).

Ayurveda provides a host of treatments for complex diseases, and the traditional and time-tested systems of Ayurveda for holistic healing are available around the country. During recent years, Kshar Sutra and Panchkarma have become popular among the public. **Panchakarma** is a unique therapeutic procedure for the radical elimination of disease-causing-factors and to maintain the equilibrium of *doshas*. The Panchakarma therapy reduces the chances of recurrence of the disease and promotes positive health by rejuvenating the vital body systems. **Kshar Sutra** is an Ayurvedic para-surgical intervention using a medicated thread, which is extremely effective in the treatment of fistula-in-ano and conditions which

demand gradual excision of overgrown soft tissues like polyps, warts, non healing chronic ulcers and sinuses and papillae without the need of hospitalization, antibiotics or anesthesia.

(ii) Unani:

The Unani System of Medicine, which originated in Greece and passed through many countries before establishing itself in India during the medieval period, is based on well-established knowledge and practices relating to the promotion of positive health and prevention of diseases. The Unani System has grown out of the fusion of the traditional knowledge of ancient civilizations like Egypt, Arabia, Iran, China, Syria and India. The system of medicine was documented in *Al-Qanoon*, a medical Bible, by Sheikh Bu-Ali Sina (Avicenna) (980-1037 AD), and in *Al-Havi* by Razi (850-923 AD) and in many other books written by the Unani physicians. The Unani system is based on the Humoral theory i.e., the presence of blood, phlegm, yellow bile and black bile in a person. The temperament of a person can accordingly be sanguine, phlegmatic, choleric and melancholic depending on the presence and combination of humors. According to Unani theory, the humors and medicinal plants themselves are assigned temperaments. Any change in quantity and quality of the humors, brings about a change in the status of the health of the human body. A proper balance of humors is required for the maintenance of health.

Treatment in Unani consists of three components, namely, preventive, promotive and curative. Unani system of Medicine has been found to be efficacious in conditions like Rheumatic Arthritis, Jaundice, Filariasis, Eczema, Sinusitis and Bronchial Asthma. For the prevention of disease and promotion of health, the Unani System emphasizes six essentials (*Asbab-e-Sitta Zarooria*):- (a) pure air (b) food and water (c) physical, movement and rest (d) psychic movement and rest (e) sleep and wakefulness and (f) retention of useful materials and evacuation of waste materials from the body. There are four forms of treatment in Unani medicine - Pharmacotherapy, Dietotherapy, Regimental Therapy and Surgery. Regimental therapy (*Ilaj Bid Tadbir*) is a special technique/ physical method of treatment to improve the constitution of body by removing waste materials and improving the defense mechanism of the body and protect health. The Unani system of

medicine offers various methods of treatment which are used for specific and complicated diseases. It emphasizes the use of naturally occurring, mostly herbal, medicines and also uses some medicines of animal, marine and mineral origin.

During the last 50 years, seven Post graduate specialties have been developed (i) Kulliyat (Fundamentals of Unani System of Medicine) (ii) *Ilmul Adviya* (Pharmacology) (iii) *Amraz-e-Niswan* (Gynaecology) (iv) *Amraz-e-Atfal* (Paediatrics) (v) *Tahafuzzi-wa-Samaji-Tib* (Social and Preventive Medicine) (vi) *Moalejat* (Medicine) and (vii) *Jarahiyat* (Surgery). National Institute of Unani Medicine is established in Bangalore to impart good P.G. education in Unani System.

(iii) Siddha:

The Siddha System is one of the oldest systems of medicine in India and is practiced in the Tamil speaking parts of India and abroad. The term Siddha means 'achievements' and Siddhars were saintly persons who achieved 'results' in medicine. Eighteen Siddhars were said to have contributed towards the development of this medical system. Siddha literature is in Tamil and it is largely therapeutic in nature.

The Siddha system of Medicine emphasizes that medical treatment is oriented not merely to disease but has to take into account the patient, the environment, age, sex, race, habits, mental frame, habitat, diet, appetite, physical condition, physiological constitution, etc. This means the treatment has to be individualistic and ensures a low probability of incorrect diagnosis or treatment. The diagnosis of diseases in Siddha involves identifying its causes through the examination of pulse, urine, eyes, study of voice, colour of body, tongue and the status of the digestive system. The system has developed a rich and unique treasure house of drug knowledge in which use of metals and minerals is liberally made. Siddha medicines containing mercury, silver, arsenic, lead and sulphur have been found to be effective in treating certain infectious diseases including venereal diseases. The Siddha system is effective in treating chronic cases of liver, skin diseases especially "Psoriasis", rheumatic problems, anemia, prostate enlargement, bleeding piles and peptic ulcer.

During the last four decades, there has been continuous development in Siddha

medical education and this has led to the establishment of the National Institute of Siddha at Chennai an apex institute having six specialties in post-graduate teaching and training. These are Maruthuvam (General Medicine), Sirappu Maruthuvam (Special Medicine), Kuzhanthai Maruthuvam (Paediatrics), Gunapadam (Pharmacology), Noi Nadal (Pathology) and Nanju Nool and Maruthuva Neethinool (Toxicology).

(iv) Yoga:

Yoga is primarily a way of life, first propounded by Patanjali in systematic form. It consists of eight components namely, restraint, observance of austerity, physical postures, breathing exercise, restraining of sense organs, contemplation, meditation and Samadhi. These steps in the practice of Yoga have the potential to improve social and personal behavior and to improve physical health by encouraging better circulation of oxygenated blood in the body, restraining the sense organs and thereby inducing tranquility and serenity of mind. The practice of Yoga has also been found to be useful in the prevention of certain psychosomatic disorders/diseases and improves individual resistance and ability to endure stressful situations. Yoga is a promotive, preventive and curative intervention. A number of postures are described in Yogic works to improve health, to prevent diseases and to cure illness. The physical postures are required to be chosen judiciously and have to be practiced in the correct way so that the benefits of prevention of disease, promotion of health and therapeutic use can be derived from them.

Studies have revealed that Yogic practice improves intelligence and memory and help in developing resistance to situations of strain and stress and also help individuals to develop an integrated personality. Meditation can stabilize emotional changes and prevent abnormal functions of the vital organs of the body. Studies have shown that meditation not only restrains the sense organs but also controls the nervous system. Yoga today is no longer restricted to hermits, saints, sages and it has taken its place in everyday life and has aroused a world-wide awakening and acceptance.

(v) Naturopathy:

Naturopathic medical system is rooted in the healing wisdom of many culture and times. The principles and practices of

Naturopathy are integrated in the life style of Indians which continue to grow and evolve, incorporating elements that advance knowledge of mechanism of Natural healing and therapeutics.

Naturopathy is a cost effective drugless, non-invasive therapy involving the use of natural materials in its treatment based on the theories of vitality, toxemia, self healing capacity of the body and the principles of healthy living. Naturopathy is not only a system of treatment but also a way of life. Naturopathy is a system of medicine widely practiced, globally accepted and recognized by WHO. Naturopathy is a system of man living in harmony with constructive principles of Nature on the physical, mental, moral and spiritual planes. It has great promotive, preventive, curative as well as restorative potential.

Naturopathy is a scientific system of healing stimulating the body's inherent power to regain health with the help of five great elements of nature - Earth, Water, Air, Fire and Ether. Naturopathy is a call to "Return to Nature" and to resort to a simple way of living in harmony with the self, society and environment. Naturopathy advocates 'Better Health without Medicines'. It is very effective in chronic, allergic and stress related disorders. The theory and practice of Naturopathy are based on a holistic view point. The advocates of Naturopathy pay particular attention to eating and living habits, adoption of purificatory measures, use of hydrotherapy, cold packs, mud packs, baths, massages, fasting etc.

(vi) Homoeopathy:

The Physicians from the time of Hippocrates (around 400 B.C.) have observed that certain substances could produce symptoms of a disease in healthy people similar to those of people suffering from the disease. Dr. Christian Friedrich Samuel Hahnemann, a German physician, scientifically examined this phenomenon and codified the fundamental principles of Homoeopathy. Homoeopathy was brought into India around 1810 A.D. by European missionaries and received official recognition by a resolution passed by the Constituent Assembly in 1948 and then by the Parliament.

The first principle of Homoeopathy 'Similia Similibus Curentur', says that a medicine which could induce a set of symptoms in healthy human beings would be capable of curing a similar set of symptoms in human

beings actually suffering from the disease. The second principle of 'Single Medicine' says that one medicine should be administered at a time to a particular patient during the treatment. The third principle of 'Minimum Dose' states that the bare minimum dose of a drug which would induce a curative action without any adverse effect should be administered. Homoeopathy is based on the assumption that the causation of a disease mainly depends upon the susceptibility or proneness of an individual to the incidence of the particular disease in addition to the action of external agents like bacteria, viruses, etc.

Homoeopathy is a method of treating diseases by administering drugs which have been experimentally proved to possess the power to produce similar symptoms on healthy human beings. Treatment in Homoeopathy, which is holistic in nature, focuses on an individual's response to a specific environment. Homoeopathic medicines are prepared mainly from natural substances such as plant products, minerals and from animal sources. Homoeopathic medicines do not have any toxic, poisonous or side effects. Homoeopathic treatment is economical as well and has a very broad public acceptance.

Homoeopathy has its own areas of strength in therapeutics and it is particularly useful in treatment for allergies, autoimmune disorders and viral infections. Many surgical, gynaecological and obstetrical and paediatric conditions and ailments affecting the eyes, nose, ear, teeth, skin, sexual organs etc. are amenable to homoeopathic treatment. Behavioral disorders, neurological problems and metabolic diseases can also be successfully treated by Homoeopathy. Homoeopathy can also be useful for de-addiction from drugs, tobacco and alcohol. Apart from the curative aspects, Homoeopathic medicines are also used in preventive and promotive health care. In recent times, there is an emergence of interest in the use of Homoeopathic medicines in veterinary care, agriculture, dentistry, etc. Homoeopathic medical education has developed in seven specialties in post-graduate teaching, which are Materia Medica, Organon of Medicine, Repertory, Practice of Medicine, Paediatrics, Pharmacy and Psychiatry.

(vii) Amchi:

The Amchi system also known as Tibetan system of medicine (Bodh-Kyi Sowa-

Rig-pa), traces its origin to Ayurvedic system of India. Tibetan medicine is a science, art and philosophy that provide a holistic approach to health care on the basis of principles which are systematically enumerated and logically framed, based on an understanding of the body and its relationship to the environment. It uses diagnostic techniques based on the creativity, insight, subtlety and compassion of the medical practitioner and it embraces the key Buddhist principles of altruism, karma and ethics. According to the Amchi system, proper alignment of the 3 humors, 7 bodily constituents and 3 excretions in the state of equilibrium constitute a healthy body. Any disequilibrium in any of these energies constitutes a state of disorder or ill-health. Tibetan medical theory states that everything in the universe is made up of the five proto-elements, namely, sa (Earth), chu (Water), me (Fire), rLung (Wind), Nam-mkha (Space). Amchi system is based on the following three Principle Energies -

1. *rLung* (wind) is one of the three principle energies of the body which manifests the nature of Air element. It is characterised as rough, light, cold, subtle, hard and mobile. It is responsible for the physical and mental activities, respiration, expulsion of urine, faces, foetus, menstruation, spitting, burping, speech, gives clarity to sense organs, sustains life by means of acting as a medium between mind and body.
2. *mKhris-pa* (Bile) basically has the nature of fire. It is characterised as oily, sharp, hot, light, fetid, purgative and fluidity. mKhris-pa is responsible for hunger, thirst, digestion and assimilation, promotes bodily heat, gives lustre to body complexion and provides courage and determination.
3. *Bad-kan* (Phlegm) is cold in nature and is characterized as oily, cool, heavy, blunt, smooth, firm and sticky. Bad-kan is responsible for firmness of the body, stability of mind, induces sleep, connects bodily joints, generates tolerance and lubricates the body.

The diagnostic techniques include visual observation, touch and interrogation. Therapy under this system is divided into treatment by herbs, minerals, animal organs, spring and mineral water, moxibustion and by mysticism and spiritual power. This system of medicine is practiced in Ladakh (J&K), Lahaul (Himachal Pradesh), Arunachal Pradesh, Sikkim and some other regions of the Himalayas. Tibetan medicines take various

forms, from decoctions, powders, general pills, precious pills, and syrups, and are prescribed in small doses.

B. MISSION, VISION AND OBJECTIVES OF DEPARTMENT OF AYUSH:

The Mission, Vision and objectives of the Department of AYUSH are given below:

(i) Mission and Vision:

The mission statement of Department of AYUSH is as follows:

- Promotion and propagation of Ayurveda, Unani, Siddha, Yoga, Naturopathy and Homoeopathy systems of medicine in India and abroad and to attain global leadership of the country in the field of traditional medicine.
- Establishing a dynamic and vibrant education system for these systems of medicine.
- Developing of the two regulatory bodies, four Central Research Councils, eight national institutes, two apex laboratories, four Pharmacopoeial Committees and Indian Medicines Pharmaceutical Corporation Ltd.(IMPCL) as model organization in their respective fields.
- Focusing a need-based research with due emphasis on emerging epidemiological shifts and potentiality of the systems.
- Recognition of other countries for AYUSH systems for health care and focusing on the marketing of AYUSH products in the markets of developed countries to attain global leadership.
- Completing drug standardization for classical formulations, ensuring good manufacturing practices, and strengthening regulatory mechanism.
- Integration of Indian Systems of Medicines and Homoeopathy in the national health programmes and health delivery system and expansion of AYUSH based health care systems.

(ii) Objectives:

The Department of AYUSH has the following objectives:-

- Promoting good health and expanding the outreach of health care
- Improving the quality of teachers and clinicians of various AYUSH systems
- Ensuring affordable AYUSH services and drugs which are safe and efficacious
- Facilitating availability of raw drugs which are authentic and contain essential components
- Integrate AYUSH systems in health care delivery system and National Programmes
- Re-orientation and prioritization of research in AYUSH systems
- Creating awareness about the strengths of AYUSH systems in India and abroad and sensitizing other stakeholders and providers of health, and
- Providing full opportunity for the growth and development of AYUSH systems.

C. NATIONAL MEDICINAL PLANTS BOARD (NMPB):

India has one of the oldest, richest and most diverse cultural traditions associated with the use of medicinal plants. World Health Organization (WHO) has estimated that approximately 80% of the world population relies on traditional medicines which are mostly plant-based drugs. About 7500-8000 species of plants are estimated to be used for human and veterinary health care in the country, across the various ecosystems from Ladakh to Kanyakumari and from Rajasthan to the hills of the North-East India. Indian systems of medicine use various raw materials of which medicinal plants constitute 90% of the raw material. About 3000 plants species are reported to be used in the codified Indian Systems of Medicinal like Ayurveda (900 species), Siddha (800 species), Unani (700 species) and Amchi (300 species). The rest of the species are used in local health traditions and with folk Indian systems. Medicinal plants thus contribute an important component of the plant resource wealth of our country. In addition to their use in the preparation of Tradition medicines, the medicinal plants are being used in preparation of various pharmaceuticals and

health products under the modern medicine system.

India has 15 Agro-Climatic zones and medicinal plants are distributed across all biogeographic regions, diverse habitats and landscapes. Around 70% of India's medicinal plants are found in the tropical areas. Less than 30% of the medicinal plants are found in the temperate and alpine areas and at higher altitudes. Micro studies show that a larger percentage of the known medicinal plants occur in the dry and moist deciduous vegetation as compared to the evergreen or temperate habitats. An analysis of the enlisted medicinal plants indicates that medicinal plants are well distributed across various habitats. One third are trees and an equal proportion are herbs including grasses and the remaining one third shrubs and climbers.

Keeping in view the need for availability of authentic raw drugs and the vast potential of herbal product/herbal drugs and the role India could play in the global market, Government of India has set up the National Medicinal Plants Board in the year 2000, a national level nodal body, which is responsible for co-ordination in all matters relating to development of medicinal plants including drawing up policies and strategies for conservation, proper harvesting, cost-effective cultivation and marketing of raw material etc. in order to protect, sustain and develop this sector. Functions of the Board are to co-ordinate with Ministries/ Department/ Organizations/ State/ UT Government for development of medicinal plants in general and specifically in the following fields.

- Assessment of demand/ supply position relating to medicinal plants both within the country and abroad.
- Advice concerned Ministries/ Departments/ Organizations/ State UT Government on policy matters relating to schemes and programmes for development of medicinal plants.
- Provide guidance in the formulation of proposals, schemes and programmes etc. to be taken by agencies having access to land for cultivation and infrastructure for collection, storage transportation of medicinal plants.
- Identification, inventorisation and quantification of medicinal plants.

- Promotion of ex-situ and in-situ cultivation and conservation of medicinal plants.
- Promotion of co-operative effort among collectors and growers and assisting them to store, transport and market their products effectively.
- Setting up of a database for inventorisation, dissemination of information and facilitation of the prevention of plants being obtained for medicinal use of plants which is in public domain.
- Matters relating to import/export of raw material, as well as value added products either as medicine, food supplements or as herbal cosmetics including adoption of better techniques for marketing of products to increase their reputation for quality and reliability in the country and abroad.
- Undertaking and funding scientific, technological research and cost-effectiveness studies.
- Development of protocols for cultivation and quality control.
- Encouraging the protection of Patent Rights and intellectual Property Rights (IPR).

National Medicinal Plants Board had been implementing an umbrella scheme viz. "Setting up of National Board for Medicinal Plants" during 10th plan under which promotional, commercial and contractual farming scheme were implemented and financial assistance provided for cultivation and development of medicinal plants as per operational guidelines. NMPB formulated following schemes for implementation of programmes with more focused approach considering the experience gained, during 11th plan:

(a) Central Sector Scheme for Conservation, Development and Sustainable Management of Medicinal Plants:

This scheme was approved by Cabinet Committee on Economic Affairs in its meeting on 26th June, 2008 with a total outlay of Rs. 321.30 crores during the 11th plan. This scheme is a revised version of the Central Sector Scheme implemented till 2007-08 and seeks to provide greater focus on the following activities:

1. Survey, Inventorisation and In-situ conservation by setting up

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| | Medicinal Plants Conservation Areas | | cosmeceuticals and AYUSH products. |
| 2. | Support to Joint Forest Management Committee (JFMCs) / Panchayats for value addition, warehousing and marketing | iii) | Support setting up processing zones / clusters through convergence of cultivation, warehousing, value addition and marketing and development of infrastructure for entrepreneurs to set up units in such zones / clusters. |
| 3. | <i>Ex situ</i> Conservation of Prioritized species of Conservation concern | | |
| 4. | Research and Development - development of comprehensive monographs, Common Technical Dossiers, agro-techniques and bio-activity guided phyto-chemical screening of plants etc.; establishing quality standards and certification mechanism | iv) | Implement and support certification mechanism for quality standards, Good Agricultural Practices (GAP), Good Collection Practices (GCP), and Good Storage Practices (GSP). |
| 5. | Training, Education and Capacity Building of stakeholders | v) | Adopt a Mission Mode approach and promote partnership, convergence and synergy among stake holders involved in R & D, processing and marketing in public as well as private sector at national, state and sub state level. |
| 6. | Promotional Activity viz. home/school herbal gardens etc. | | |
| 7. | Management support | | |

(b) Centrally Sponsored Scheme of National Mission on Medicinal Plants

Cultivation of medicinal plants is the key to quality, efficacy and safety for AYUSH medicines. In view of it, the board has been supporting programmes for cultivation of medicinal plants under Contractual Farming Scheme. However, need was felt to launch efforts to promote cultivation on intensive scale providing backward and forward linkages and pre/post harvest management interventions for proper marketing and remunerative prices to the growers. Keeping it, in view, a new scheme was formulated which was approved by CCEA in its meeting on 24th July 2008. The main objectives covered under the scheme as under:

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| i) | Support cultivation of medicinal plants which is the key to integrity, quality, efficacy and safety of AYUSH systems of medicinal plants in the farming systems, offer an option of crop diversification and enhance income of farmers. | | |
| ii) | Cultivation following the Good Agricultural and Collection Practices (GACPs) to promote standardization and quality assurance and thereby enhance acceptability of the AYUSH systems globally and increase export of value added items like herbal extracts, photochemical, dietary supplements, | ii) | The Mission also seeks to promote medicinal plants as a crop alternative to the farmers and through increased coverage of medicinal plants and with linkages for processing, marketing and testing, for remunerative prices to the growers / farmers. This will also |

The strategy of the National Mission on Medicinal Plants (NMMP) is as follows:

- i) The mission would adopt an end - to - end approach covering production, post harvest management, processing and marketing. This will be achieved by promoting cultivation of medicinal plants in identified clusters / zones within selected districts of states having potential for medicinal plants cultivation and to promote such cultivation following Good Agricultural and Collection Practices (GACPs) through synergistic linkage with production and supply of quality planting material, processing, quality testing, certification , warehousing and marketing for meeting the demands of the AYUSH industry and for exports of value added items.

reduce pressure on forests on account of wild collection.

- iii) Mission seeks to adopt communication through print and electronic media as a strong component of its strategy to promote integration of medicinal plants farming in the agriculture / horticulture systems with emphasis on quality and standardization through appropriate pre and post harvest linkages.
- iv) Promote and support collective efforts at cultivation and processing in clusters through Self Help Groups, growers cooperatives / associations, producer companies and such other organizations with strong linkages to manufacturer / traders and R & D institutions.

The scheme has been approved with a total outlay of Rs. 630.00 crores during 11th Plan for under mentioned activities.

OTHER IMPORTANT ACTIVITIES

i) Strengthening of State Medicinal Plants Boards:

Financial assistance is being provided to State Medicinal Plants Boards for maintenance of nucleus centre and day-to-day activities including the monitoring of sanctioned projects.

ii) Launch of Amla Campaign:

The NMPB has launched Amla Campaign through State Medicinal Plants Boards. The objective behind the Campaign is promotion of awareness regarding use of Amla, increase its production and consumption. Financial assistance is provided to organizations in States / UTs for promotion of cultivation, IEC activities, training, capacity building, value addition and project management etc.

iii) N.E Resource Centre:

NMPB has engaged M/s Council for Economic and Social Research (CESR), New Delhi as Ayush Resource Centre for North Eastern States to coordinate with State Govts. for sensitizing and helping them for implementation of schemes of D/o AYUSH. The Resource Centre has been located at

Central Institute of Tribal Medicine Borsojai (Bhetapara), Beltola, Guwahati, Assam. The Resource centre has been working in close coordination with concerned department of State Governments, resource persons and NGOs in the region. The centre is also working for creation of database of medicinal plants, related institutions, resource persons, stake holders for promotion of activities. Besides it, the centre is augmenting efforts in utilization of sanctioned grants and submission of Utilization Certificates. The centre is conducting visits to the Departments / organizations of States Governments and coordination on regular basis to undertake the assigned functions.

v) Setting up Facilitation Centres (FCs) for Extension and Support Services on medicinal plants :

Since SMPBs in states / UTs are not adequately equipped with staff and infrastructure support, NMPB has set up Facilitation Centres in State Agriculture University and R&D Institutions. These centres are to act as one stop shop for growers and other stake holders and would be required to work in close coordination with SMPBs. In all 23 Facilitation Centres have been set up so far. The State Chief Secretaries have been requested to set up Monitoring Committees under the chairpersonships of the Agricultural Production Commissioners to oversee the functioning of the FCs.

v) Herbal Garden network of India:

NMPB has sanctioned a project entitled "Networking of Herbal Gardens for quality planting material supply in India to National Research Centre for Medicinal and Aromatic Plants, Anand, Gujarat with the following objectives:

- To develop a national herbal garden network.
- Strengthen the Ex-situ conservation activities of Medicinal & Aromatic plants of India
- Provide access to quality planting material of MAP

Projects will undertake the following activities:

- Identify the locations of herbal gardens in India

- Construct an herbal garden network and link up all the herbal gardens to this net.
- Data base development on number of species, availability of planting material, quantity of the available planting material, cost of planting material etc. from different herbal gardens of India will be maintained under this umbrella.
- Structuring of information
- Development of web based software package
- Provide online information about the herbal gardens and facilitate the exchange of medicinal species among the member herbal gardens within the country.

(vi) Dissemination of information on marketing of medicinal plants:

Dissemination of market information is the key to promoting cultivation and marketing of the produce. For this purpose the Board has developed e-portal which seeks to disseminate information on medicinal plants and their prices in various mandies on a weekly basis. The portal can also function as a virtual mandi for trading medicinal plants by exchange of information between buyers and sellers. The activity was further continued through fresh projects/ implemented in collaboration with WHO for procurement / collection of information on market prices of about 100 commercially important plants from different mandies and trade centres, analyse for wider dissemination and market promotion.

(vii) Database on quantum of raw material used by ASU Industry:

Information regarding quantum of raw material consumed for preparation of medicines by ASU industry is felt required for planning of developmental activities. The Department of AYUSH has issued notification making mandatory for ASU Industry to provide this information to NMPB or an agency appointed by it by 30th June of every year. The work was initiated for identification of agency to collect, compile and maintain the information in respect of all ASU Industry units.

Creation of Awareness and dissemination of information

* Brochures, posters, bulletins and e-book etc. consisting of information on cultivation,

therapeutic values, cultivation economics and objectives/ activities of Medicinal Plants Board were prepared for wider dissemination.

* Participated in Arogya and other Health Mela's for propagation of information through display and distribution of publicity material relating to development of medicinal plants sector and schemes of NMPB.

D. RESEARCH COUNCILS:

The Central Council for Research in Indian Medicine and Homoeopathy (CCRIMH) was established in 1969 to carry out research in Ayurveda, Siddha, Unani, Yoga and Homoeopathy under the Ministry of Health and Family Welfare. Later, in 1978, this composite Council was dissolved to pave the way for the formation of four independent Research Councils, one each for Ayurveda and Siddha, Unani, Homoeopathy and Yoga and Naturopathy. The four successor Research Councils were established as autonomous organizations registered under Societies Act, to initiate, guide, develop and coordinate scientific research, both fundamental and applied, in different aspects of their respective systems. The Research Councils, which are fully financed by the Government of India, are the apex bodies for scientific research in the concerned systems of medicine. The research activities of the Research Councils are monitored and reviewed periodically in order to ensure that the research is focused and that it is undertaken in a time bound manner. The outputs of the research studies are disseminated among educationists, researchers, physicians, manufacturers and the common man.

(i) Central Council for Research in Ayurveda and Siddha (CCRAS):

The Central Council for Research in Ayurveda and Siddha an apex body for the formulation, coordination and development of research in Ayurveda and Siddha on scientific lines was established in 1978 (website : www.ccras.nic.in),. The research activities of the CCRAS are carried out through 35 Institutes/Centres/Units located all over India and also through collaborative studies with various ISM Institutions/Hospitals and premier modern medicine institutions and Hospitals. These units include 10 Central Research Institutes, 14 Regional Research Institutes, 2 Siddha Clinical Research Units, 2 Drug

Research Institutes, a Sowa Rigpa (Amchi) Research Centre, an Ayurvedic Research Unit at Bangalore, the Dr. A. Lakshmiapati Research Centre for Ayurveda at Chennai, Indian Institute of History of Medicine at Hyderabad, Survey of Medicinal Plants Unit at Palamkottai, RSSCA in Department of Pharmacology of Gujarat Ayurved University and Tribal Health Care Research Project at Car Nicobar. The CCRAS has 23 hospitals and 4 dispensaries existing in its various units (Annexure-III). The Council also finances research studies in Ayurveda, Siddha and the allied sciences. The emphasis is on finding effective and low cost remedies for various diseases through systematic research. The research activities of the Council include clinical and fundamental research, drug research, literary research and family welfare research. The Council has now also stepped into the field of Nutraceutical and Cosmeceutical research. The main objectives of the CCRAS are the following:

- Formulation of research Programme and projection in Ayurveda and Siddha in a scientific manner.
- Undertaking scientific research in Ayurveda and Siddha in a time bound and cost-effective manner.
- Literature Research, Standardisation of Drugs, Pre-clinical and clinical research, RCH research, Nutraceutical and Cosmeceutical research.
- The Coordination, aiding and promotion of research within units of CCRAS and with other sister Councils/Organizations.
- Printing, publishing and exhibiting research achievements/articles/research journals to propagate research outcomes for other stakeholders.
- Providing consultancy services for research projects/drug development.
- Modernization of equipment used in Ayurveda in collaboration with other technical organizations.

(ii) Central Council for Research in Unani Medicine (CCRUM):

The Central Council for Research in Unani Medicine was established in 1979 to initiate, aid, conduct, develop and co-ordinate scientific research in Unani system of medicine (website: www.ccrum.info). The research programme of CCRUM comprises clinical research, drug standardization, survey and cultivation of medicinal plants and literary research. These research activities are being carried out through a network of 18

Institutes/Units functioning in different parts of the country. These include two Central Research Institutes, ten Regional Research Institutes/Centres, five Clinical Research Units and one Unani Medical Centre. CCRUM has 7 hospitals and 10 dispensaries existing in its various units (Annexure-III).

Main Objectives of the Council are as follows:

- Formulation of aims and patterns of research on scientific lines in Unani Medicine.
- To undertake research or other programmes in Unani Medicine.
- Prosecution of and assistance in research and propagation of knowledge and experimental measures generally in connection with the causation, mode of spread and prevention of diseases.
- To initiate, aid, conduct, develop and co-ordinate scientific research into different aspects, fundamental and applied, of Unani Medicine and to promote and assist institutions of research for the study of diseases, their prevention causation and remedy.
- To finance enquiries and research for the furtherance of objectives of the Council.
- To exchange information with other institutions, associations and societies interested in the objectives of the Council and especially in observation and study of diseases in the East in general and in India in particular.
- To prepare, print, publish and exhibit papers, posters, pamphlets, periodicals and books to achieve the objectives of the Council and to contribute to such literature.

(iii) Central Council for Research in Yoga & Naturopathy (CCRYN):

Central Council for Research in Yoga & Naturopathy was established in 1978 with a view to provide better opportunities for all around development of Yoga and Naturopathy independently according to their own doctrines and fundamental principles(website : www.ccryn.org). The Council has been involved in carrying out research on various aspects of Yoga and Naturopathy by funding such research in various institutions. Leading Medical as well as Yoga institutions like the All India Institute of Medical Sciences (AIIMS), New Delhi; National Institute of Mental Health & Neuro-Sciences (NIMHANS), Bangalore; Dr. RML Hospital, New Delhi; Krishnamacharya

Yoga Mandiram, Chennai and Vivekananda Yoga Anusandhan Sansthan, Bangalore etc. are involved in conducting Clinical Research in the field of Yoga with the support of the Council. Besides, the OPD facility of Yoga and Naturopathy exists in Delhi at Safdarjung Hospital, Lady Harding Medical College, Dr. R.M.L. Hospital, University College of Medical Sciences and CCRYN and also Pt. B. D. Sharma Post Graduate Medical Institute, Rohtak.

The Council's first publication 'Yogic & Naturopathic Treatment for Common Ailments' has become very popular among practitioners of Yoga and Naturopathy and the general public. Six Yoga Classes for the local public, six days a week are being conducted at the Council Headquarters, Janakpuri, New Delhi. Council is running Yoga fitness classes for Government employees at Udyog Bhavan, New Delhi. The Council has the following objectives:-

- Formulation of aims and patterns of Research on scientific lines in Yoga and Naturopathy.
- Undertaking education, training, research and other programmes in Yoga and Naturopathy
- Promoting and assisting institutions in the prosecution of research, propagation of knowledge and experimental measures in connection with the study of disease, their prevention, causation and remedy especially with emphasis for covering the rural population of the country.
- Initiation, aiding, developing and co-ordinating of scientific research in fundamental and applied aspects of Yoga and Naturopathy.
- Financing enquiries and research for the furtherance of objects of the Council and exchanging information with other institutions, associations and societies having similar object.
- Preparing, printing, publishing and exhibiting papers, posters, pamphlets, periodicals and books for the furtherance of the objectives of the Council and to contribute to such literature.
- Grant-in-aid to Naturopathy & Yoga Hospitals under Treatment cum Propagation Centre, and Patient Care Centre Schemes.
- National Awards for Yoga, Naturopathy Eminent and Young Scientist.

- Scholarships for Ph.D. Fellows.
- Research Monographs Published:
 - (i) Coronary Atherosclerosis Reversal Potential of Yoga Life Style Intervention
 - (ii) Clinical Research Profile
 - (iii) Yoga and Biofeedback for the treatment of Irritable Bowel Syndrome
 - (iv) Research Methodology in Naturopathy & Yoga
 - (v) Yoga for Computer Related health Problems
 - (vi) Yogic Relaxation in the Management of Ulcerative Colitis
 - (vii) Uni-nostril Yoga breathing and Obesity: A study of efficacy & Mechanisms
 - (viii) Effect of Asans and Pranayams on Neurological, Neuromuscular & Cardio-Respiratory functions in Healthy Human Volunteers
 - (ix) Autonomic Function Tests in Epilepsy: Effect of Hetha Yoga
 - (x) Assessment of the efficacy of Vipasana Meditation on various age groups: A polysomnographic and endocrine function evolution.

(iv) Central Council for Research in Homoeopathy (CCRH):

Homoeopathy is one of the most popular Traditional/Complementary systems of Medicine. The Government of India, recognized the mass acceptance of the system in the country, established the Central Council for Research in Indian Medicine and Homoeopathy in 1969. To streamline research in Homoeopathy, the Government of India established the Central Council for Research in Homoeopathy as an autonomous organization at New Delhi in 1978 (Website: www.ccrhindia.org). Over the years, CCRH had branched into 51 subordinate Institutes/Units functioning in different parts of the country. As a result of re-organization of the Council, a number of Units have been merged with other Institutes making it a total of 25 Institutes/Units and 02 Extension units, upto March 2008. The total comprises of 02 Central Research Institute, 01 Homoeopathic Drug Research Institute, 07 Regional Research Institutes, 10 Clinical Research Units (03 in general areas and 07 in tribal areas), 01 Drug Proving Research Units, 02 Drug

Standardization Units, 01 Survey of Medicinal Plants and Cultivation Unit, 01 Homoeopathic Treatment Center and 02 Extension Units. The Council has I.P.D facilities at 04 centers and O.P.D services at 21 centers.

Out of the units mentioned above, the units of the Council that are not directly dealing with the patients are Drug Proving Extension Unit of RRI (H), Puri, Survey of Medical Plants & Collection Unit (H), Ooty, Drug Standardization Unit (H), Ghaziabad and Drug Proving Research Unit (H), Kolkata.

The main objectives of CCRH are:

- Formulation of aims and patterns of research on scientific lines in Homoeopathy.
- Initiation, development, undertaking and co-ordination of scientific research in fundamental and applied aspects of Homoeopathy.
- Collaboration of research studies with other institutes of excellence towards promotion of Homoeopathy.
- Exchanging of information with other institutions, associations and societies interested in the objects similar to those of the Central Council and especially in observation and study of diseases.
- Propagation of research findings through monographs, journals/workshops & develop audiovisual aids for dissemination of information to the profession & Public.

The main areas of research of the Council are Clinical Research, Drug Standardisation, Drug Proving, Clinical Verification, Survey, Collection and Cultivation of medicinal plants, Extramural and Collaborative research studies.

E. STATUTORY REGULATORY BODIES:

There is a need to initiate measures to improve the standards of Medical Education by revising curricula to contemporary relevance by creating medical institutions and Centre of Excellence and providing assistance for infrastructural growth. The Department is committed for the development and propagation of Ayurveda, Yoga, Naturopathy, Unani, Siddha and Homoeopathy systems and strives to maintain standards of education in the existing colleges. AYUSH teaching institutions

are being provided financial assistance for creating infrastructural facilities as specified in the Minimum Standards Regulations and the regulations of Under-graduate and Post-graduate education issued by Central Council of Indian Medicine (CCIM) and Central Council of Homoeopathy (CCH). So far, total 290 and 185 colleges/institutions have been permitted by CCIM and CCH respectively to undertake UG /PG courses and these colleges are affiliated with 57 recognized universities through out the country including two exclusive Ayurveda universities and six Health Universities (Annexure -VI).

Regulation of Medical education and maintenance of Central Register of ISM &H are two main functions of these regulatory bodies. There are 47 State Boards of Indian System of Medicine and Homoeopathy (Annexure-VIII) for registering AYUSH practitioners possessing recognized medical qualifications.

(i) Central Council of Indian Medicine (CCIM):

The Central Council of Indian Medicine is a statutory body constituted under the Indian Medicine Central Council Act, 1970 vide Gazette Notification Extraordinary Part II Section 3(ii) dated 10.8.1971. The Government of India vide issuing amendments in the said Gazette Notification has changed the members from time to time. The main objects of the Central Council are as under:-

- To Prescribing minimum standards of education in Indian Systems of Medicine viz. Ayurveda, Siddha and Unani Tibb.
- To Advising Central Government in matters relating to the recognition (inclusion/withdrawal) of medical qualifications in/from Second Schedule to Indian Medicine Central Council Act, 1970.
- To Maintaining a Central Register of Indian Medicine and revise the Register from time to
- To Prescribing Standards of Professional Conduct, Etiquette and Code of Ethics to be observed by the practitioners.
- To considering and furnishing the recommendation to Government of India on the proposal received from various institutions from Government of India for establishment of new colleges of Indian Systems of Medicine, to increase intake capacity in Under-graduate, Post-graduate and to start new post-graduate or additional subjects.

Since its establishment in 1971, the Central Council has been framing and implementing various regulation including the Curricula and Syllabus in Indian Systems of Medicine viz. Ayurveda, Siddha and Unani Tibb at Under-graduate level.

(a) Regulation of Medical Education:

The Central Council of Indian Medicine, with the previous sanction of the Central Government as required under Section-36 of the Indian Medicine Central Council Act, 1970 and after obtaining the comments of the State Governments as required under Section 22 of the said Act has prescribed courses for Under-Graduate and Post-Graduate education in Ayurveda, Unani & Siddha through the following Regulations.

Under Graduate Course:

The Regulations of CCIM prescribing the Under Graduate education in Ayurveda, Unani and Siddha are as under:

1. Indian Medicine Central Council (Minimum Standards of Education in Indian Medicine) (Amendment) Regulations, 1989 further amended in 2005 for Ayurvedacharya (Bachelor of Ayurvedic Surgery) Course.
2. Indian Medicine Central Council (Minimum Standards of Education in Indian Medicine) (Amendment) Regulations, 1995 for Kamil-e-tib-o-Jarahat (Bachelor of Unani Surgery) Course.
3. Indian Medicine Central Council (Minimum Standards of Education in Indian Medicine) (Amendment) Regulations, 2006 for Siddha Maruthuva Arignar (Bachelor of Siddha Medicine and Surgery) BSMS Course.

Post Graduate Course:

The Regulations of CCIM prescribing the Post Graduate education in Ayurveda, Unani and Siddha are as under:

1. Indian Medicine Central Council (Post-Graduate Education) (Amendment) Regulation, 2005 for Ayurved Vachaspati M.D. (Ayurveda)
2. Indian Medicine Central Council (Post-graduate Unani (Education) Regulations, 2007 for Mahir-e-Tib (Doctor of Medicine) and Mahir-e-Jarahat (Master of Surgery).
3. Indian Medicine Central Council (Post-graduate Education) Regulations, 1979

further amended in 1986 for Siddha Maruthuva, M.D. (Siddha) course.

These courses are being imparted in Ayurved, Unani Siddha Colleges affiliated to 47 universities of the Country At present 251 Ay, 47 Unani and 09 Siddha colleges are running in various States of the Country.

The Central Council has also prescribed the following Regulations:-

1. Central Council of Indian Medicine (Election of President and Vice-President) Regulations, 1971.
2. Central Council of Indian Medicine (General) Regulation, 1976.
3. Central Council of Indian Medicine (Inspectors and Visitors) Regulations, 1977.
4. Central Council of Indian Medicine (Central Register of Indian Medicine) Regulation, 1979.
5. Practitioner of Indian Medicine (Standards of Professional Conduct, Etiquette and Code of Ethics) Regulations, 1982.
6. Establishment of New Medical College opening of new or Higher Course Training and increase of admission capacity by a Medical College Regulation, 2003.
7. Indian Medicine Central Council (Permission of Existing Medical Colleges) Regulation, 2006.

As per the provision of Section 13 A of the IMCC Act, 1970, the Establishment of New Medical College, Opening of New or Higher Course of Study or training and increase of Admission Capacity by Medical Colleges Regulation, 2003. The Central Council visited 61 colleges of Ayurveda, 03 Unani and 01 Siddha and made recommendations for approval and disapproval to the Department of AYUSH.

(b) Central Register Of Indian Medicine:

Preparation and maintenance of Central Register of Indian Medicine is one of the main objects of the Central Council. As per

provisions of the IMCC Act, 1970, Central Council is maintaining a Central Register in the prescribed manner, which contains the name of persons who are enrolled on any State Register of Indian Medicine and who possess any of the recognized medical qualifications included in the Schedules to the Indian Medicine Central Council Act, 1970. The maintenance of Central Register of Indian Medicine and updating of the same is a continuous process.

(ii) Central Council of Homoeopathy (CCH):

The Central Council of Homoeopathy is a statutory body constituted by the Government of India under the provisions of Homoeopathy Central Council Act, 1973 (website: www.cchindia.com). The CCH is constituted of elected members from the State Boards/Councils of Homoeopathy and from the University Faculties/Departments of Homoeopathy and of members nominated by the Central Government. Its main objectives are:

- Regulation of Homoeopathy medical education,
- Maintenance of a Central Register of Homoeopathic Practitioners in the country,
- Prescribing standards of professional conduct, etiquette and a code of ethics for the practitioners of Homoeopathy.

(a) Regulation of Medical Education of Homoeopathy: The Regulations of CCH prescribing Under Graduate degree course 'Bachelor of Homoeopathic Medicine and Surgery (BHMS)' (5 & 1/2 years) and Post Graduate M.D (Homoeopathy) courses (3 years) in Homoeopathy are as under:

- Homoeopathy (Degree Course) Regulations 1983 further amended in 2003 for Under Graduate education 'Bachelor of Homoeopathy Medicine Surgery (BHMS)'.
- Homoeopathy (Post Graduate Degree Course) Regulation 1989, further amended in 2001 for Post Graduate Education in Homoeopathy, M.D. (Hom.).

The Homoeopathy Central Council Act, 1973 was amended in 2002 and the power to grant permission for starting new colleges, introducing new or higher courses of study and increasing the number of seats in a college is now vested with the Central Government.

(b) Central Register of Homoeopathy:

Under the provisions of Homoeopathy Central Council Act, 1973, CCH has the responsibility to maintain the Central Register of Homoeopathy in two parts (Part I and in Part II); Part I contains the names of all the persons who possess any of the recognised medical qualification in Homoeopathy. Part II contains the names of all the persons other than those included in Part I who were enrolled on any State Register of Homoeopathy before the commencement of the provisions of the Homoeopathy Central Council Act, 1973. Direct registration is also done by Central Council as per provisions of Homoeopathy Central Council (Registration) Regulations, 1982. As reported by State Governments, there are 2.18 lakh Homoeopathy doctors in the country.

F. NATIONAL INSTITUTES:

National Institutes in various AYUSH systems have been set up by the Central Government to set benchmarks for teaching, research and clinical practices. Upgrading these National institutes into Centres of Excellence has been a constant endeavour of the Department. There are three National Institute under Ayurveda system, whereas, one National Institute exists each in Unani, Siddha, Yoga, Naturopathy and Homoeopathy systems.

(i) National Institute of Ayurveda (NIA), Jaipur:

National Institute of Ayurveda, Jaipur established in 1976 by the Government of India, is an apex Institute of Ayurveda in the country to develop high standards of teaching, training and research in all aspects of the Ayurvedic System of Medicine with scientific approach (website: www.nia.nic.in). It is affiliated to the Rajasthan Ayurved University, Jodhpur. The Institute is conducting an Under-Graduate Course (BAMS) with 92 Seats in 2009. The Institute is also conducting a three year Post-Graduate Course "Ayurveda Vachaspati" (M.D. Ayurveda) in 14 Subjects, viz. Dravya Guna Vigyana, Kayachikitsa, Kaumarbhritya, Panchakarma, Rasa Shastra and Bhaishajya Kalpana, Roga and Vikriti Vigyan, Maulik Siddhanta (Samhita), Shalya Tantra and Sharir Kriya, Sharir Rachana, Swastha Vritta, Shalaky Tantra, Prasuti, Stri Roga and Agad Tantra with admission capacity of 5 students per subject. The Institute also grants regular Fellowships leading to the award of Ph.D.(Ayurved) in 9 Subjects, viz. Kaya Chikitsa, Shalya Tantra, Maulik Siddhanta, Rog

Vigyan, Dravya Guna, Sharir Kriya, Panchakarma, Rasa Shastra and Bala Roga. The Institute also conducts a Diploma Course in Ayurveda Nursing and Pharmacy of two and a half years duration with an intake capacity of 30 seats annually. Besides, the Institute is involved in Clinical Research.

The Institute has 2 Hospitals with a Bed Strength of 241. It also has a separate fully equipped Panchakarma Hospital and also Speciality Clinics like Geriatrics & Dietetics, Nature Cure, Diabetic, Allergic, Child Mental Health and also Tele-Medicine and Satellite Clinics. There is a Central Laboratory for various types of patient investigations including TMT, ECG etc. It has a Centre of Excellence for Eye Diseases in collaboration with Sreedhareeyam of Kerala. The Institute is soon starting another Centre of Excellence with Vaidyaratnam Oushadhalaya of Kerala. The Institute is in the active process of developing a unique and model Herbal Garden in an 8 hectares of land recently acquired.

(ii) Rashtriya Ayurveda Vidyapeeth (RAV), New Delhi:

The Rashtriya Ayurveda Vidyapeeth, New Delhi, an autonomous organization, registered under the Societies' Act was established in 1988 (website: www.ravdelhi.nic.in). The RAV imparts practical training to Ayurvedic graduates and post graduates below the age of 45 years through the Guru-Shishya Parampara i.e. the traditional method of transfer of knowledge. The two-year course of Member of Rashtriya Ayurveda Vidyapeeth (MRAV) facilitates literary research for the acquisition of knowledge of the Ayurvedic Samhitas and commentaries thereon in order to enable the students to become good teachers, research scholars and experts in Samhitas. The students, who have completed post graduation in Ayurveda, are admitted for critical study on Samhita, related to their P.G. studies. In the one-year Certificate Course of Rashtriya Ayurveda Vidyapeeth (CRAV), candidates possessing Ayurvedacharya (BAMS) or equivalent degree are trained under eminent Vaidyas in some Ayurvedic clinical practices.

The Vidyapeeth organizes Seminars/Workshops every year to disseminate traditional knowledge and research outcomes to practitioners and researchers. The Vidyapeeth also conducts interactive

workshops for the discussion of controversial issues between students and teachers so as to provide clarity for further utilization in the fields of education, research and patient care.

(iii) Institute for Post Graduate Teaching and Research in Ayurveda (IPGTRA), Jamnagar (GUJARAT):

The Institute for Post Graduate Teaching and Research in Ayurveda, Jamnagar established in 1956 by the Government of India, was put under the governance of the Gujarat Ayurved University, Jamnagar in 1965 (website: www.ayurveduniversity.com). It is now one of the constituents of the Gujarat Ayurved University. It is one of the oldest Ayurveda Post Graduate teaching centres in the country. There are 9 teaching departments in the Institute with facilities for teaching and research in 13 specialties for a Post-Graduate degree (M.D.) and for a doctorate (Ph. D). The Institute is also conducting an M. Pharma (Ayurveda) and M. Sc.(Ayurvedic Med Plants) course under the Self Financing Scheme. Besides, the institute is also conducting short duration course, like, three month Introductory Course of Ayurveda, four month training programme on Panchkarma, etc. for specific type of students (foreigners, etc.) from time to time. The main thrust areas of research were anemia, diabetes, obesity, spondylosis, hyperlipidemia, ageing, thalessemia, etc.

There are well equipped laboratories in the Institute viz. Pathology, Bio-chemistry, Pharmacology, Pharmacognosy, Modern Medicine, and Pharmaceutical Chemistry. Besides, the institute has a Nimi Agara (Ophthalmic O.T.) in Shalaky Department and a Family Planning Unit in Stri Roga and Prasuti Tantra Department and an IT centre also.

(iv) National Institute of Unani Medicine (NIUM), Bangalore:

National Institute of Unani Medicine, Bangalore established in 1984 as an autonomous organization under Ministry of Health and Family Welfare, registered under the Societies Registration Act, is sought to be developed as a Centre of Excellence for the propagation of the Unani system of Medicine (website: www.nium.in). NIUM is a joint venture of the Government of India and the State Government of Karnataka. It is affiliated to Rajiv Gandhi University of Health Sciences, Bangalore, Karnataka. The Institute is being developed as a model Post Graduate, teaching, training, and research institution in the Unani

System. Post Graduate Courses in M.D. Unani are offered in four subjects, namely, Moalijat (Medicine), Ilmul Qablat wa Amraz-e-Niswan (Obstetrics and Gynecology), Hifzan-e-Sehat (Preventive and Social Medicine) and Ilmul Advia (Pharmacology). This Institute has a 100 bedded hospital, academic block, hostel building, administrative block, pharmacy and library.

(v) National Institute of Siddha (NIS), Chennai:

National Institute of Siddha, Chennai established in 1998, as an autonomous organization, under the control of the Ministry of Health and Family Welfare, is being developed as a Centre of Excellence for the Siddha system of Medicine (website: www.nischennai.org). The Institute has been established by the Government of India as a joint venture with the Government of Tamil Nadu under the Societies (Registration) Act, 1860. The Institute conducts Post Graduate courses in Siddha in six specialized branches of Siddha viz. Maruthuvam, Gunapadam, Sirappu Maruthuvam, Noi Nadal, Kuzhanthai maruthuvam and Nanju Noolum Maruthuva Neethi Noolum with 5 students in each branch. and provides medical care and conducts research to develop, promote and propagate the system. The Outdoor Patient Department (OPD), Indoor Patient Department and the Pathological laboratories are also functional in the institute.

(vi) Morarji Desai National Institute of Yoga (MDNIY), New Delhi

Morarji Desai National Institute of Yoga (MDNIY), New Delhi is an autonomous organization registered under the Societies Registration Act, 1860 and fully funded by Department of AYUSH. MDNIY is the focal Institute for planning, training, promotion and coordination of Yoga Education, Training, Therapy and Research in all aspects (www.yogamdniy.com). The objectives of the Institute are:

- To act as a Centre of Excellence in Yoga;
- To develop, promote and propagate the science and art of Yoga; and
- To provide and promote facilities of training, teaching and research to fulfill the above two objectives.

The vision and mission of the Institute is Health, Happiness and Harmony for all through Yoga. The Institute provides the best of Teaching, Education, Training, Therapy and Research facilities to Yoga aspirants. The aim of the Institute is to promote deeper understanding of Yoga philosophy and practices based on classical Yoga amongst the people.

The Institute conducts one year regular Diploma in Yoga Sciences (DYSc.) for graduates and 3½ months Certificate in Yoga Science for target groups like Air Force, BSF etc. Besides, the Institute also runs one month Foundation Course in Yoga Science for general public. It is also conducting several Yoga training programmes for the general public, working executives, women, children etc. in the Institute and outside. Different Yoga therapy Programmes are also conducted in the Institute for patients having different disorders.

MDNIY is running an OPD attached with Pathological & Biochemistry Lab, Sleep Lab and an X-Ray unit. It has also established four Yoga therapy and Research Lab and X-ray Unit programmes on different disorders. It has also established four Yoga Therapy and Research Centres in Govt./ Tertiary Hospitals of Delhi, besides establishing Yoga Centres at Nellore (A.P.) and Port Blair (A&N Islands). Four Advanced Centres for Yoga Therapy and Research have been set up by the Institute in leading Medical institute of the country like NIMHANS, Bangalore, JIPMER, Puducherry, DIPAS, Delhi and GAU, Jamnagar, Gujarat.

The Institute is also participating in National/ International events like Health exhibitions, Health Melas, Festivals, Seminars, Conferences etc. It is involved in propagation of Yoga through various print and electronic media. The Institute brings out Quarterly News Letter and a Quarterly Journal "Yoga Vijnana" for disseminating the knowledge of Yoga. It has brought out 10 disease-wise booklets for the benefit of the public and a Yoga manual for medical professional/Students is being published. It has taken up a project "Introduction of Yoga in School Health" with the help of 6 leading Yoga Institutes of the Country. The TKDL (Yoga) project is housed in the MDNIY premises and the Institute is extending the technical inputs for the project.

(vii) National Institute of Naturopathy (NIN), Pune:

National Institute of Naturopathy, Pune registered under the Societies Registration Act was established in 1986 at Babu Bhawan with an objective of promotion and propagation of Naturopathy in the country and to encourage research in the field of naturopathy treatments to cure chronic ailments, prevent diseases and promote healthy living (website: www.punenin.org). This institute sponsors Naturopathy Awareness Programmes and Camps through various Naturopathy hospitals and NGOs. The institute is conducting One-Year full-time "Treatment Attendant Training Course" (TATC).

The NIN has an OPD clinic with free consultation services where various Naturopathy treatments are given to the patients at very subsidized rates. Free acupressure treatment is given to patient for six days in a week. The institute also conducts Yoga classes. A health shop is being run in the institute where natural food and drinks, chemical-free products are made available to the public. Also, books on Naturopathy, Yoga and other Health subjects and various instruments used in the treatment of Naturopathy are sold. The Institute publishes "Nisargopachar varta" - a bilingual magazine (English/ Hindi) every month. The NIN is running a Naturopathic Diet Centre for providing diet facilities to the general public and patients who visit this institute.

(viii) National Institute of Homoeopathy (NIH), Kolkata:

The National Institute of Homoeopathy was established on 10th December 1975 at Kolkata as an autonomous institution (website: www.nih.nic.in / <http://nih.net.in>) is affiliated to the West Bengal University of Health Sciences. This Institute is governed by the Ministry of Health and Family Welfare, Govt. of India, to be a model institution in Homoeopathy in the country.

Major **Aims and Objectives** of the NIH are 'Excellence in Homoeopathic Education', 'Outstanding patient care services' and 'Need based Research'.

Presently it conducts two regular **academic courses** in Homoeopathy. The undergraduate course is Bachelor of Homoeopathic Medicine & Surgery (BHMS). 83 students are admitted in the course. The post graduate course is the Doctor of Medicine

in Homoeopathy - MD (Homoeopathy), in five subject's viz. Homoeopathic Philosophy (6 seats), Repertory (6 seats), Materia Medica (6 seats), Practice of Medicine (3 seats) and Pediatrics (3 seats). The Institute also regularly arranges Re-Orientation Training Program (ROTP) for Teachers and Continuing Medical Education (CME) programmes to the Physicians.

Research Programme:

Research Wing of NIH is entrusted with following clinical trials (5-research projects) in Homoeopathy: Thyroid dysfunction, Cancer, Psoriasis, Spondylosis and Allergic Rhinitis.

The **Hospital Services** in the NIH could be categorized broadly as follows: (i) Out Patient Services (OPD) (ii) In-Patient Services (IPD) (iii) Diagnostic Services (iv) Laboratory Medicine (V) Yoga & Physiotherapy.

The Institute has a **100-bedded** modern hospital with a computerized patient care system for providing better quality treatment. The In-patient and Out-patient departments in the NIH provide subsidized and in some cases free medical services to patients. The Institute has a surgical and an obstetrical wing. New apparatus / instruments, such as Pulse Oxymeter, Diathermy, Portable X-ray and Endoscopy etc. have been introduced in these sections. Orthopaedic surgery has also been started. The Institute has a Labour room and undertakes antenatal / post-natal care of the mother and child and also giving clinical training to the Under-graduate students. There are Cardiology, ENT, Dental and Physiotherapy Departments in the OPD to give specialized consultations exclusively. The hospital bed strength is being increased to 250 numbers.

The institute is one of partner institutions is implementation of the flagship scheme of the Department of AYUSH on the National campaign in Homoeopathy for "HEALTHY MOTHER & HAPPY CHILD". It also conducted an International Seminar on "Recent Advances in Homoeopathy" from 19-21 February, 2010.

A new academic cum library block is being constructed.

G. STANDARDISATION OF ASU & H DRUGS:

Laying down the Pharmacopoeial standards for Ayurveda, Siddha and Unani medicine, both for single and compound drugs, is essential, as Pharmacopoeial standards are important and are mandatory for the implementation of the drug testing provisions under the Drugs and Cosmetics Act, 1940 and Rules there under. These standards are also essential to check samples of drugs available in the market for their safety and efficacy. Government of India had taken up the task of developing Pharmacopoeial standards through Pharmacopoeia Committees.. Four different Pharmacopoeia Committees are working for preparing official formularies/pharmacopoeias of Ayurveda, Siddha, Unani and Homoeopathy drugs. These committees are engaged in evolving uniform standards for preparation of drugs of and in prescribing working standards for single drugs as well as compound formulations. Standards for around 40% of the raw materials and around 15% of formulations have been published by these Pharmacopoeial committees. In Ayurveda, 5 volumes of Pharmacopoeia and 3 volumes of Formularies have been published.

Drug Control Cell (AYUSH) is working in the Department to deal with the matters pertaining to Drug Quality Control and the regulation of Ayurveda, Siddha and Unani drugs under the provisions of the Drugs and Cosmetics Act, 1940 and Rules, 1945. The Cell is looking after the activities of Ayurveda, Siddha, Unani Drug Technical Advisory Board (ASUDTAB) and Ayurveda, Siddha, Unani Drugs Consultative Committee (ASUDCC). Besides, Pharmacopoeial Laboratory for Indian Medicine (PLIM) and Homoeopathic Pharmacopoeia Laboratory (HPL) are Standard-setting-cum-Drug-Testing-Laboratories at National level functioning at Ghaziabad (Uttar Pradesh). A public sector undertaking 'Indian Medicines Pharmaceutical Corporation Limited (IMPCL)' is engaged in manufacturing and marketing of Ayurveda and Unani products.

(i) Pharmacopoeial Laboratory for Indian Medicine (PLIM), Ghaziabad:

Pharmacopoeial Laboratory for Indian Medicine was established in the year 1970 as Standard-setting-cum-Drug-Testing-Laboratory for Indian Medicines (Ayurveda, Unani and Siddha Systems) at the National level (website:

www.plimism.nic.in). The Laboratory is also notified as an appellate laboratory for drug testing and quality control. The main objectives of establishing Pharmacopoeial Laboratory for Indian Medicine are as under:

- Laying down standards of single drugs and compound formulations to be incorporated Ayurvedic, Unani and Siddha Pharmacopoeia.
- Collecting genuine samples of crude drugs from different Agro-Climatic Zones of the country for Pharmacopoeial Standardization.
- Analyzing the survey, official samples and samples received from Drug Control Authorities.
- Maintaining Medicinal Plants Garden and finding out indigenous substitutes for exotic plants.
- Organizing Orientation Lecture Programmes for Drugs Inspectors/Drug Analysts and Training Programmes for Scientists working in the Pharmaceutical Industry of ISM.
- Preserving standard and authentic specimen in Herbarium and Museum.
- Establishing Drug Depot of genuine crude drug samples.

The PLIM has a medicinal herbarium of 750 specimens and a museum of 4000 exhibits of raw material used in the formulations of ISM drugs. The laboratory is imparting training to Drug Control Authorities and Quality Control personnel from Government laboratories and private manufacturers. The Department of AYUSH publishes the worked-out standards in the form of monographs for the Ayurvedic, Unani and Siddha Pharmacopoeia of India. The laboratory has developed the chromatographic profile of 50 plant-drugs for publishing in the Atlas. The laboratory has also published two books, "Legal Status of Ayurvedic, Siddha and Unani Drugs" and "Protocol for Testing of Ayurvedic, Siddha and Unani Medicines".

(ii) Homoeopathic Pharmacopoeia Laboratory (HPL), Ghaziabad:

Homoeopathic Pharmacopoeial Laboratory was established in 1975, as a National Laboratory for the purpose of laying down standards and testing for identity, purity and quality of Homoeopathic medicines (website : www.hplism.org). The Laboratory also functions as a Central Drug Laboratory for the testing of Homoeopathic Medicines under Rule 3A for the Drugs and Cosmetics Act. The

Department of Science and Technology has recognized HPL as a Scientific and Technological Institution. The main objectives of establishing Homoeopathic Pharmacopoeia Laboratory are as under:

- Laying down of standards for identity and purity of Homoeopathic Drugs and finding out indigenous substitutes for foreign Drugs.
- Verification of Pharmacopoeial standards, done elsewhere, for adoption or improvement or updation of standards.
- Testing of samples of Homoeopathic Drugs, referred by drug control authorities, port authorities, state Government etc., for identity and quality under different provisions of Drugs and cosmetics act and rules.
- Survey and collection of samples of Homoeopathic Drugs for verification of quality and adulteration trends of drugs marketed.
- Maintaining medicinal plants garden with preference to plants used in Homoeopathy alongwith cultivation and introduction of medicinal plants.
- Surveying and collecting of Medicinal Plants.
- Imparting orientation in methods of standardization, identification and testing of Homoeopathic Drugs and application of various provision of Drugs Act to all India state / central Government Drug Authorities, Drug inspectors, Drug Analysts, Pharmacists etc.

Standards worked out by the HPL laboratory are published in the Homoeopathic Pharmacopoeia of India (HPI). A small herbarium and museum of medicinal plants and an experimental garden of medicinal plants including some rare and very important exotic medicinal plants has been maintained for the purpose of verification and comparative studies of standards. The HPL maintains a seed bank of important exotic medicinal plants.

(iii) Indian Medicines Pharmaceutical Corporation Limited (IMPCL), Mohan (Almora):

Indian Medicines Pharmaceutical Corporation Limited is a Government of India Enterprise under the administrative control of the Department of AYUSH to manufacture and market Ayurvedic and Unani products (website: www.impclmohan.com). The company, which is a 'MINI RATNA', was incorporated in 1978 and had started

commercial production in 1983. The primary objective of the company is to manufacture and supply authentic quality Ayurvedic and Unani products. The IMPCL products are mainly used in the Central Government Health Scheme (CGHS), Government Hospitals, dispensaries and by various AYUSH Research Councils. The company also sells its products to some State Governments and in the open market. The formulations are tested in its competent in-house QC Laboratory as also in National accredited laboratories before issue.

The major products of IMPCL are M-Liv Syrup, M-Vasako Syrup, M-Shankhapushpi Syrup, M-Tribhuvan Mishran, Chavanaprasha, Brahmrasayana, Vasavaleha, Ashokarishta, Ashwagandhadyarishta, Dashmularishta, Drakshasava, Lohasava, Punarnavasava, Khadiradi Gutika (Mukhroga), Chitrakadi Gutika, Lashunadi Vati, Avipattikar Choorna, Bhaskarlavan Choorna, Dadimashtak Choorna, Dashan Sanskar Choorna, Hingvashtak Choorna, Mahanarayan Taila, Panchguna Taila, Yograj Guggulu, Araq-e-Ajeeb, Jawarish Jalinoos, Shargat-e-Zufamurakkab and Sharbet-e-Buzoorimotadil.

H. MAINSTREAMING OF AYUSH IN THE HEALTH CARE SYSTEM UNDER NATIONAL RURAL HEALTH MISSION (NRHM):

The National Policy on Indian Systems of Medicine and Homoeopathy, 2002 envisaged integration of AYUSH Systems into the health care delivery system and the national health programmes ensuring optimal use of the infrastructure of hospitals, dispensaries and physicians. Mainstreaming of AYUSH is one of the strategies envisaged under National Rural Health Mission (NRHM) with the objective of providing accessible, affordable and accountable quality health services to the poorest households in the remotest rural regions. The objective of integration of AYUSH systems in the health care infrastructure is to facilitate the use to natural, safe and friendly remedies, which are time-tested, accessible and affordable, to create interest and faith in Indian System of Medicine and Homoeopathy and to restructure the delivery mechanism of AYUSH System to make them responsive to the peoples' needs. It also seeks to support NRHM to reduce the Maternal Mortality Ratio (MMR), Infant Morality Ratio (IMR), and the Total Fertility Rate (TFR) in the country.

Within the communities in India this have been an age old tradition and wide acceptance of AYUSH System of medicine and can play an important role in the prevention and mitigation of diseases. The potential of these systems have not been fully realized in public health care. There is a need for service integration by providing the best and unique from each system to patients as a complementary therapy and an alternative choice of treatment. There is an important role for the AYUSH practitioners in the delivery of health services.

Under NRHM, AYUSH doctors and facilities are being co-located in PHCs, CHCs and District Hospitals. Total functional integration between the AYUSH dispensaries/hospitals and the health care facilities under the allopathic system is also envisaged so that the entire spectrum of treatments is made available to the public. The mainstreaming of AYUSH under NRHM is mainly based on the following aspects:

- AYUSH systems of medicine are well accepted by community, particularly in rural areas. These medicines are economical, comparatively safe, efficacious and easily available and can be prepared from locally available resources.
- Integration of AYUSH systems including infrastructure, man-power, and medicines to strengthen the public health care delivery system at all levels and promote AYUSH medicines at grass root level with different national health programmes.
- Utilisation of services of AYUSH doctors after appropriate training and orientation towards providing advocacy, counseling and dissemination upto village.

The Department of AYUSH has been providing substantial financial assistance to the states for opening of AYUSH wings in District Hospitals (DH) and Speciality / OPD clinics in others hospitals with a view to provide AYUSH facilities alongwith modern medicine under one roof. Substantial financial assistance has also been made available for an ambitious initiative to provide the services of AYUSH doctors in CHCs / PHCs under the NRHM.