



**GOVERNMENT OF KERALA
KERALA STATE PLANNING BOARD**

**FOURTEENTH FIVE-YEAR PLAN
(2022-2027)**

**WORKING GROUP REPORT ON
AYUSH**

**SOCIAL SERVICES DIVISION
NOVEMBER 2021**

PREFACE

In Kerala, the process of a Five-Year Plan is an exercise in people's participation. At the end of September 2021, the Kerala State Planning Board began an effort to conduct consultations before formulating the Plan. The Planning Board formed 44 working groups, with a total of more than 1200 members – scholars, administrators, social and political activists and other experts. Although the reports do not represent the official position of the Government of Kerala, their content will help in the formulation of the Fourteenth Five-Year Plan document.

This document is the report of the Working Group on AYUSH. The Co-Chairpersons of the Working Group were Dr Sharmila Mary Joseph IAS and Dr Jayadevan CV. The Member of the Planning Board who coordinated the activities of the working group was Dr Jameela PK. The Secretary of the Department of Ayush who finalised the working group was Dr. Rajan N. Khobragade IAS. The concerned chief of division was Dr. Bindu P Varghese and the sector in charge was Shri. Saji V, Assistant Director.

Member Secretary

CONTENTS

| | | |
|------------|---|----|
| Chapter 1 | Introduction | 03 |
| Chapter 2 | Health sector (AYUSH) in Kerala | 05 |
| Chapter 3 | 12thFYP (2012-2017) outlay and expenditure | 11 |
| Chapter 4 | Critical gaps in health sector | 13 |
| Chapter 5 | Executive summary and recommendations - Indian Systems of | 15 |
| Annexure 1 | Constitution of Working | 69 |
| Annexure 2 | Co-opting of Members to the Working Group | 73 |
| Annexure 3 | Subgroups | 79 |
| Annexure 4 | Report Drafting Committee | 85 |
| Annexure 5 | Invitees to the Working Group | 86 |

CHAPTER 1 INTRODUCTION

1. In many respects, Kerala's health status is almost on par with that of countries with developed economy. Kerala has succeeded in increasing life expectancy. It has achieved high benchmarks in health quality indices like infant and maternal mortality. Comparing the achievements in Kerala in health sector with that of other parts of the World, 'Kerala Model of Health' has been highlighted as "Good Health at low cost based upon social justice and equity". Despite Allopathy being the most popular and developed health care system, Ayurveda and Homoeopathy has also contributed to the above claim.
2. Even though, the mortality rate has been reduced on the whole, the appalling morbidity rate is challenging on the ascendant due to the ever-increasing environmental pollution particularly owing to the failure in the waste management, consumption of unhealthy and adulterated food, dependence on alcohol and narcotic drugs, unhealthy life styles and habits along with the injudicious use of allopathic drugs thanks to over health consciousness of Keralites. So, what is required here is to take steps to develop and popularise such system(s) of medicine which are far from being harmful, affordable and accessible. In this perspective the relevance of AYUSH systems of medicine cannot be ignored. It is with the sole intension of developing and promoting AYUSH systems that Government of Kerala formed a separate Department of AYUSH in the State in August 2015, following the formation of Ministry of AYUSH at the Centre. This is how a Working Group has been formed by the SPB exclusively for AYUSH for the first time for drafting 13th and 14th FYP.
3. The terms of reference of the working group were
 - (i) To outline special problems pertaining to the Ayush sector and to improve the functioning of the institutions in terms of human resource planning and sustainable infrastructure development plan
 - (ii) To identify the gaps in research and development in Ayush sector and to suggest ways to overcome the issue with focus on the cultivation and utilisation of medicinal plants for purposes of R & D and production of medicine.
 - (iii) To suggest the mechanism for introducing treatment protocol in Ayush.
 - (iv) To examine the possibilities of preventive, curative and palliative care and of promotion of specialty clinics under Ayush.
 - (v) To suggest ways to cater to the needs of persons belonging to scheduled castes and scheduled tribes, women, fishworkers, elderly and persons with physical and mental disabilities for health care under Ayush.
 - (vi) To explore the possibilities of promotion of Ayush wellness medicine in connection with tourism.

The draft proposal is prepared based on the above said terms so as to align the Ayush sector towards SDG by filling the gaps.

The protocol development activities are under way by various agencies of both the central and state governments. However, a high-power committee comprising of academicians, researchers and practitioners may be constituted for making necessary modifications to make those guidelines suitable for the circumstances in Kerala.

4. There are two sections in the report, one relating to the Indian Systems of Medicine (ISM) consisting of Ayurveda, Yoga and Naturopathy, Siddha and Unani and the other exclusively for Homoeopathy. Each section deals with its own education, training and research as well as service and drugs with their quality control. Besides the above, a comprehensive detailed exposure containing the outlay and expenditure of 13thFYP, along with the critical gaps in health sector etc. has also been furnished. Abstracts of the proposals/ schemes relating to ISM and Homoeopathy have also been furnished in this report for easy perusal and implementation.
5. In the light of the above revelations, the Working Group has studied the matter in detail and proposes various programmes and schemes to be included for implementation in the 14th Five-YearPlan.

CHAPTER 2 HEALTH SECTOR (AYUSH) IN KERALA

Ayurveda, being the indigenous medical system in India is an accepted health care system by a majority of the Indian population in almost all parts of the country. The other systems prevalent in some areas, also recognized by law are the Siddha system of medicine in Tamil Nadu and the Sowa Rigpa system of medicine in the North Eastern States and the Ladakh region. Both these systems are basically derivatives and regional adaptations of Ayurveda, sharing a similar philosophy and approach. Yoga, a non-invasive supportive medical system is now accorded a separate system status combining it with Naturopathy. Yoga with its base in Indian philosophy is indeed an integral part of Ayurveda. The other healthcare components are the import health care systems of Unani, Homeopathy and Naturopathy which have their origins elsewhere but have prevailed in India for a few hundred years.

WHO has given clear directions to all countries regarding the positioning of all health care systems prevalent in each country, 'Planning and execution of policies for mainstreaming of traditional medicines (TRM) of respective countries along with the conventional system of medicine (allopathy), first in the country of origin followed by the international arena, is the priority agenda of operations of WHO. Relating the directive to the Indian context, WHO accorded prime focus to Ayurveda in its activities and considered Ayurveda as Indian TRM.

According to the WHO, Traditional Medicine (TM) is defined as the sum total of the knowledge, skills 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 prevention, diagnosis, improvement or treatment of physical and mental illnesses.

Whereas, Complementary and Alternative Medicine (CAM) is often referred to as a broad set of health-care practices that are not part of a country's own tradition and are not integrated into the dominant health-care system. Other terms sometimes used to describe these health-care practices include 'natural medicine', 'non-conventional medicine' and 'holistic medicine'. Hence in the Indian context Ayurveda, Yoga, Siddha and Sowa Rigpa are TM and Homeopathy, Naturopathy and Unani are CAM.

Kerala has a rich heritage of a traditional scientific health care system which is integrated into the lifestyle of the Keralite population and has influenced the social, cultural, economic and cultural ethos of the Kerala society. Each and every lifestyle practice from the customary daily routine of personal hygiene to the highly specialized obstetric care that includes the antenatal and postnatal care were customized on the Ayurveda principles, developed and are still being followed by the Keralite society.

A rich Ayurveda principle based culinary tradition existed and is still prevailing in Kerala. This is an important area where Ayurveda knowledge has been effectively blended with the nutritional and dietary needs influencing the eating habits of the society. Seasonal variations in food preparations were also followed. The clinical experience of the Kerala physicians

was also well documented and made available for future generations. The clinically oriented texts, *Yogamrutham*, *Chikitsamanjari*, *Sahasrayogam*, and *Chikitsanool* are the major mentions. *Hortus Malabaricus* published by Van Reed with help of the famous Vaidyan Itty Achuthan stands as an unquestionable testimony of their knowledge in medicinal plants.

The legitimate academic training for Ayurveda was started here in 1889 at Thiruvananthapuram by Travancore Maharaja Sri. Moolam Thirunal. It denotes that an organized health care system in Ayurveda was prevalent in Kerala even in 19thCAD and the then rulers gave due importance to the teaching and training of the traditional medicine through an accepted academic system. Thereby the health index of Kerala rose above the national average even before the emergence of modern medicine in Kerala. Because of this medical awareness, modern system of medicine spread very easily in the Kerala society with the help of technological support from the entire world as well as the vital political support.

It is interesting that the first allopathic college was started in Kerala at Thiruvananthapuram in 1953, after the establishment of five Ayurveda Colleges. Of the early five, Thiruvananthapuram Ayurveda College in 1889, Kottakkal Ayurveda College in 1917 and Tripunithura Ayurveda College in 1926 are still flourishing successively. The Madhava Ayurveda College, Kannur, Arya Vaidya Samajam Shornur were suspended due to the implementation of a unified degree course. It is also worth noting that till Indian Independence no other medical system including Allopathy, Homeopathy, Siddha or Unani had an established college in Kerala. Siddha System of medicine got its first college that too in the private sector during the previous decade. A dedicated Unani College is a very recent happening. All these facts establish and confirm that Ayurveda is the sole indigenous medical system of Kerala. This is an important fact to be duly considered while positioning the complementary medical systems in the health care delivery system of the state and making budgetary allocations.

The WHO policy on traditional and complementary medicine do not mandate to provide the facility of CAM to all systems irrespective of geographical importance. It only suggests developing and utilizing the indigenous systems of the geographical area to complement with conventional medicine. In this context, we should judiciously analyse the history and evolution of other AYUSH component systems in Kerala.

Alphabetically Yoga and Naturopathy are placed second in the AYUSH group in which Yoga is pure of Indian origin and naturopathy is of foreign origin. Yoga is closely associated with the Sankhya philosophy which is also the part and parcel of Ayurveda. Naturopathy is a non-invasive system of medicine propagated by Dr. Benedict Lust who is known as the father of modern-day naturopathy, as it is he who introduced and spread the knowledge of naturopathy in the US in 1892. In India, these two systems are combined and formed as a separate component in AYUSH systems and these two systems are well integrated with Ayurveda curriculum from the beginning itself.

Unani Medicine is a form of traditional medicine practiced in Middle- East and South-Asian countries. It refers to a tradition of Greeco-Arabic medicine, which is based on the teachings of Greek physician Hippocrates and Roman physician Galen and was developed

into an elaborate medical system in the middle age by Arabian and Persian physicians. It was originated in Greece almost 2,500 years back, which is herboanimo-mineral in origin. In India, Unani System of Medicine was introduced by the Persians and Arabs around the eleventh century. It has the largest number of Unani educational, research and health care institutions.

6. Siddha is an ancient Indian traditional medical system which evolved in South India, and is considered as a Dravidian system of medicine. 18 Saiva Siddhars are considered as the main preachers of this system, among them Siddhar Agasthyar is considered as the father of Siddha medicine. The basic concepts of the system include 96 principles which also includes panchabhoothas, dasanadis, tridoshas and 5 sense organs. Diseases are classified into 4,448 and the main diagnostic methods are 8-fold which includes nadipareeksha and urine tests (neerkuri, neikuri). Being Dravidian, the traditional medical practices prevailed in Kerala were very much influenced by Siddha medicine. These include the Kalari chikilsa, different gothra medical treatises, Bala chikilsa, visha vaidyam and practices related with pregnancy and post delivery period.
7. Homoeopathy has a history of 125 years in India and was recognized in Kerala in 1928. It took its place in the Travancore Medical Practitioners Act in 1943 and subsequently in the Travancore Cochin Medical Practitioners Act of 1953 and 2021. Homeopathy was included in the public healthcare service in 1957. There is also an issue of duplicity between AYUSH systems as they share a considerable similarity in therapies and medication. The major difference is in the language in which they are written. It also attracts a meaningful integration of these systems to save money and duplicity in future.
8. The importance of Traditional, Complementary and Alternative systems of medicine for the universal availability of health care was first placed by World Health Organisation in their Alma Ata Declaration in 1978. Followed by this, a Traditional Medicine Programme of WHO was also introduced for the standardisation of traditional and complementary medicine. India being the custodian of rich tradition in medicine, inspired by WHO, established a separate Department for Indian Systems of Medicines and Homoeopathy under the Ministry of Health and Family Welfare in 1995 to develop these systems as per the needs of modern era. In March 2003 the ISM and Homoeopathy Department was renamed as Department of AYUSH with a view to provide focused attention to the development of education and research in Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy Systems. In 2014 Central Government formed separate Ministry for AYUSH to give more importance to these systems. Government of Kerala has also started a separate Department for AYUSH on 5th August 2015 launched the Department of AYUSH in Kerala.

Ayush Health Policy

9. Soon after the establishment of Department of AYUSH, Government of Kerala appointed a committee to form a policy on AYUSH systems in Kerala. Accordingly in April 2016 Government of Kerala declared an AYUSH health policy. The policy aims at improv-

ing the performance of the AYUSH systems so as to address the emerging challenges in the health sector in view of the majority of them can be efficiently managed by AYUSH systems of medicine. The policy recognizes the principles of health care for AYUSH systems of medicine and the mainstreaming would involve nurturing the individual system of medicine through development of infrastructural facilities, setting up of teaching institutions, improving quality control of drugs, capacity building of institutions and professionals, research and public health skills of practical utility and initiating community-based AYUSH interventions for preventive, curative and promotive healthcare.

Health Care Infra Structure in AYUSH Sector

10. The health infrastructure of the State AYUSH Department consists of 1,661 institutions with 5,718 beds. Besides there are 59 sub centres in Kerala. Out of the total institutions 57.25 % are under ISM Dept (Ayurveda, Yoga, Naturopathy, Unani and Siddha together). and 42.75 % are under Homoeopathy departments. Medical services are also provided through co-operative and the private sectors.

Table 1 AYUSH infrastructure in government sector, Kerala, 2020-21 in numbers

| Sl No. | System of Medicine | Institutions | Beds | Patients treated | |
|--------|-----------------------|--------------|-------|------------------|-------------|
| | | | | IP | OP |
| 1 | Ayurveda (ISM) | 948 | 3,154 | 88,643 | 1,54,83,601 |
| 2 | Ayurveda (DAME) | 3 | 1,361 | 3,987 | 2,34,089 |
| 3 | Homoeopathy | 708 | 985 | 4,391 | 72,39,074 |
| 4 | Homoeopathy Education | 2 | 218 | 1,991 | 2,08,338 |
| Total | | 1,661 | 5,718 | 99,012 | 2,31,65,102 |

Source: Economic Review 2021

National AYUSH Mission

11. National AYUSH Mission (NAM) is a centrally sponsored scheme (CSS) under Ministry of AYUSH. Government of India has launched National AYUSH Mission (NAM) during 12th plan in 2014. In Kerala, NAM started activities in 2015. The aim of NAM is to main-stream AYUSH Systems into health care services, to develop evidence-based AYUSH management protocol through scientific documentation and to ensure the accessibility of quality AYUSH services. Regarding the funding pattern, 60% share is provided by central govt and 40 % is provided by state government. NAM is support-

ing four-line departments under AYUSH department in the state and also supports ASU&H drug sector and Medicinal plant cultivation through State Medicinal Plant Board. It is running variety of projects on healthcare in AYUSH streams and supports institutions under AYUSH departments by various means. For the year 2021-22 the State annual action plan is been proposed for INR 35 crores. The earmarked state share is received from plan fund of ISM and Homoeopathy departments.

12. NAM is functioning under State AYUSH Health Society which is regulated by Governing Body, chaired by Chief Secretary and AYUSH secretary as member secretary. The Executive committee under the society, chaired by AYUSH secretary and SMD NAM as member secretary is managing routine activities. NAM has State Programme Management and Supporting Unit (SPMSU) functioning under State Mission Director who is an IAS officer. State level functions are coordinated by two State Programme Managers, one each from Ayurveda and Homoeopathy. The major activities of NAM are (1) upgradation of AYUSH institutions (2)HR support (3) infrastructure development (4) quality standardization and (5) AYUSH Health and Wellness Centres. NAM can support the state's initiatives in quality improvement by providing supports in terms of infrastructure, HR etc.

CHAPTER 3

13th FYP (2012-2017) OUTLAY AND EXPENDITURE

13. During 13th FYP the major objective of the Government has been to provide universal health security, the larger responsibility for which lies on the public health system. During the Plan period, more trust has been given to equip Government hospitals with advanced medical equipment and implementation of speciality cadre in all health institutions with more than 100 beds. Gender development has also gained special attention through schemes such as Ayurveda in gynaecology, Seethalayam etc. Women and Children Hospitals etc. Seethalayam is a scheme under the Department of Homoeopathy aiming to provide aid for suffering women particularly women victims of violence in the society by addressing their mental, physical and social health through Homoeopathic treatment and counselling. State Institute of Sports Medicine in Ayurveda and Kerala University for Health Sciences received special importance during the 12th and 13th FYP. However, the implementation of 12th and 13th Plan programmes has resulted significantly in an all-round improvement in the public health system.

Outlay and Expenditure

14. The outlay earmarked for the implementation of schemes during 13th FYP was INR 60,714 lakh. The total expenditure reported so far (December 31, 2021) during the Plan period is INR 42,458 lakh (69.93%). For ISM Department, an amount of INR 21,665 lakh was provided during the plan period and the expenditure incurred so far was INR 18,236 lakh (84.17%). The amount allotted under the Directorate of Ayurveda Medical education was INR 22,375 lakh and the expenditure incurred so far is INR 10,834 lakh (48.42%). Under Homoeopathy, an amount of INR 12,130 lakh was allotted for the implementation of schemes and Rs 10,267 (84.64%) was incurred. An amount of INR 4,544 was allotted under Homoeopathic Medical Education during 13th Plan. Out of this, the expenditure reported so far is INR 3,122 (68.70%) lakhs.

Table 2. 13th Plan outlay and expenditure in Rupees (lakh)

| Sector | 2017-18 | | 2018-19 | | 2019-20 | | 2020-21 | | 2021-22 | |
|--------------------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|
| | Outlay | Exp. (%) | Outlay | Exp. (%) | Outlay | Exp. (%) | Outlay | Exp. (%) | Outlay | Exp. (%)** |
| ISM | 4,320 | 96.76 | 4,133* | 82.02 | 4,755 | 67.13 | 4,195 | 119.77 | 4,195 | 57.47 |
| DAME | 4,600 | 48.52 | 4,160 | 59.28 | 4,975 | 44.98 | 4,320 | 51.55 | 4,320 | 38.68 |
| Homoeo | 2,000 | 78.03 | 2,700 | 100.00 | 2,660 | 67.12 | 2,375 | 84.17 | 2,395 | 91.77 |
| Homoeo Medical Education | 864 | 89.27 | 1,015 | 70.12 | 1,000 | 72.82 | 865 | 71.73 | 800 | 36.28 |
| Total | 11,784 | 78.15 | 12,008 | 77.85 | 13,390 | 63.01 | 11,755 | 82.06 | 11,777 | 56.05 |

* 20 % cut in outlay ** As on 31-12-2021

15. While looking into the major achievements of AYUSH department we should focus on need-based development programme as well as a mission-based development programme to address the health crises of the State. The need-based development is the necessary improvement of infrastructure as well as manpower in terms of service requirements such as providing IPH standards, specialty care facilities etc. Mission-based development is the developmental requirements of each system to address the present health crises of the State in a participatory manner in which each system can contribute its effective service in mutual supplementation.

CHAPTER 4

CRITICAL GAPS IN HEALTH SECTOR

16. During the past few years, Kerala's health care sector has been facing serious crises. Important among them are:

- Covid 19 and Post Covid ailments
- Return of previously eradicated infectious diseases and the emergence of new ones
- Rapid increase in the incidence of non-communicable diseases
- Health problems marginalized to tribal population and fisher folks
- Health problems specific to women
- Demographic shift and health problems of the aged
- Constraints of government hospitals – infrastructure, manpower etc.
- Rising costs of treatment
- Mushrooming of self-financing medical education institutions
- Dearth of personnel/ human resource in healthcare sector
- Lack of research in health sciences
- Insufficient drug regulations – sale licence, pharmaco vigilance unit etc.
- Rising prices of drugs and raw material scarcity

17. Today, the health institutions lack adequate infrastructure facilities especially for providing curative and preventive services to the changing health needs especially with the advent of communicable and lifestyle diseases. Hence health sector needs sufficient resources-both financial and man power along with better organizational set up. The Central Government must provide funds and other facilities to complement the health projects for mulated by the State Government. Currently, expenditure on health by the Central Government is only 2.1% of GDP as per the Economic Survey 2021-22. This is not enough to tackle the health issues faced by the nation. Local Self Government Institutions are also involving in improving the infrastructure and other amenities of the health care institutions under their control.

18. Kerala's achievements in health care are the outcome of people's interventions and the implementation of public health provisions by various Governmental agencies. But Kerala is moving away from success to severe crisis in health sector. Comprehensive efforts to tackle these problems must form an integral part of the struggle for a new Kerala Model of Health Care.

19. One Health

Concept of health and diseases changes substantially due to the emergence of new pan-

demics and re-emergence of diseases which was thought to be eradicated. Philosophy, principles and practices of health-related discourses has been started revision by widening human health to health of the ecosystem including that of the flora and fauna. “One Health” being defined as a collaborative effort of multiple health science professions, together with their related disciplines and institutions – working locally, nationally, and globally – to attain optimal health for people domestic animals, wildlife, plants, and our environment. This interdisciplinarity is becoming vital, especially where human health is not deemed as isolated from the complex interaction with the surroundings and nature. Ayurveda has an in born integration with nature and natural phenomena, which explains that the very existence of human health to be interlinked with surroundings and the ecosystem. Any developmental policies in health sector needs to be perceived in the background of One Health, where Ayurveda and other AYUSH systems will have a definite role to play with. Intertwining AYUSH programs with Public health programs, Veterinary medicine, Agriculture, Water resource management, food safety measures, afforestation, and other programs under sustainable development schemes becomes imperative.

20. The present status related to One Health, as put in practice by One Health Commission mainly deals with diseases of animal origin (zoonotic diseases), their prevention, anti-microbial resistance, environmental contamination, food safety measures etc. Ayurvedic knowledge system developed its own allied disciplines like Virshayurveda (traditional Agri-medicine) and Mrigayurveda (traditional Veterinary medicine) encompassing the concerns related to maintenance of health of the Flora and Fauna respectively. On the other side, misusing and overusing antibiotics in animals lead to the development and spread of antibiotic-resistant bacteria, which affects human also. In reducing the anti-biotic load, alternative modalities are much pursued, where the traditional veterinary practice encoded in Mrigayurveda has a promising role. Projects has already been initiated by K-VASU in this direction. Unscientific pesticide usage is another threat to human health. When we call for return to Organic Agriculture, the role of Vrikshayurveda need to be explored properly. That means, when we seek for alternatives for antibiotic resistance and pesticide threat, essentially, we need to look for Vrishayurveda and Mrigayurveda. Ayurveda proposes food safety as an integrated part of its practice and put forth alternative models for dealing with the food safety issues, which need to be explored properly. All these factors lead to the importance of integrating the One Health concerns to the programs planned in health sector. 14th FYP may deem this as the central theme in health sector.

CHAPTER 5

EXECUTIVE SUMMARY AND RECOMMENDATIONS

INDIAN SYSTEMS OF MEDICINE (ISM)

21. The ISM Dept. is now rendering services of Ayurveda, Siddha, Unani and Naturopathy to the people of Kerala through a network of 130 hospitals, 818 dispensaries and 59 sub-centres across the State.
22. Government health institutions under the ISM can be broadly classified into two groups (1) the institutions coming under the Department of Indian Systems of Medicine and (2) the institutions coming under the Directorate of Ayurveda Medical Education (DAME). The latter is attached to the teaching institutions which provide all specialty care. Each group has specific developmental requirements, and requires specific policy approaches. 258 institutions are working under the National Health Mission (NHM).

Ayurveda

23. Introduction

While considering the development and mainstreaming of AYUSH systems the government health policies should focus more on the original traditional system of medicine along with the conventional Allopathic medicine. The other components of AYUSH systems can be provided in the areas where they enjoy good appreciation and in the other areas they can be integrated with Ayurveda with proper orientation to the physicians in certain unique medicines and therapies if any of these systems. This approach will eventually reduce the unnecessary expenditure in health budgeting and ensure the development of Ayurveda.

Along with contributing positively to the health and well-being of the society, Ayurveda has contributed to the income generation also. During the previous years, a major portion of income from the tourism segment was contributed by the Ayurveda based tourists. Still, the science is lacking its edges in the modern world due to the poor research and documentation. Hence, the state has to take up the responsibility of presenting the ancient traditional science with a modern outlook before the world. Hence, it has to focus on three core segments namely (1) Public health services related (2) Education and Research and (3) Private sector including Ayurveda tourism, medicinal plants cultivation, medicine manufacturing and hospitals. Thus, the recommendations are thus broadly grouped into these three segments. The first two come under the service sector and the latter is revenue generating. The revenue required for the first two segments can be generated from the 3rd segment.

Public Health Services

24. Redefining the public health service sector

Thrust areas

Gaps in the public sector, as per the NFHS data where the State is lagging behind viz., anaemia, Non-Communicable Diseases (NCD), geriatric issues and palliative care may be selected as the core areas, where Ayurveda can offer better results. Base line indicator frame work related to these priority areas are to be prepared. A perfect data collecting mechanism is to be in place by the initial year itself and data may be collected and monitored in the coming years.

A high-power committee

A high- power committee may be constituted to optimally explore the potential of Ayurveda to encounter the challenges in health arena, acknowledging at least next 25 years, and to suggest updations, reforms and monitoring systems to be established with respect to restructuring the administration, infrastructure and manning of the department so as to equip the same to face the challenges.

Quality improvement

The vision, mission and objectives of the ISM department may be redefined in parlance with the emerging needs of health and wellness segment. Adequate HR has to be provided in the administrative sector as well as in the service sector so as to manage the current excessive workload and to enable them to effectively involve in various public health segments like palliative care, NCD prevention etc. An additional post of a Public health Medical Officer is highly solicited for exclusive management of the public health activities in different domains. Support may be sought from NAM in the HR, infrastructure and other areas for this purpose. Precisely, the focus points of the coming FYP shall be quality improvements in infrastructure and services provided therewith. More over IEC activities are to be streamlined as per the recent guidelines in this regard.

This is aimed at increasing utilization of public health facilities by 50% from current levels by 2025 (NHP 2017)

Linking with the public health mechanisms

The existing public health mechanism may be linked effectively in prevention and control of communicable and non-communicable diseases wherever possible. Accredited Social Health Activists (ASHA) play a major role in this aspect. ASHAs, an inevitable part of NHM, though originally planned for the service of all systems of medicine, is currently not available for AYUSH in Kerala. This has been a handicap for ISM in the present scenario. Services of ASHAs, if incorporated into the activities of department of Indian Systems of Medicine would definitely be a shot in the arm for it. Due to the uniqueness in approach of Indian systems of medicines towards diseases and also patients ASHAs working for ISM requires special orientation and training. Hence, ideally a separate pool of ASHA's may be created exclusively for the department of ISM.

25. Development of specialties and super specialties

Ayurveda is the first medical system in the world which introduced specialty health care through Ashtanga Chikitsaat the very outset. However, the specialty health care facilities

in the department of ISM are not much developed; specialty clinics are not available in most of the hospitals. The potentials of Ayurveda are not utilised much in many of the areas like geriatric and reproductive care. Hence steps may be taken to introduce all clinical specialties viz Kayachikitsa (General Medicine), Balachikitsa (Paediatrics), Manasaroga chikitsa (Psychiatry), Saalakya chikitsa (ENT and Eye), Salyachikitsa (Surgery including Orthopaedics), Vishachikitsa (Toxicology), Prasootitantra (Obstetrics and Gynaecology), Swasthavrutha (Preventive Medicine), Jarachikitsa (Geriatric care), Vrusha chikitsa (Reproductive medicine) in all district hospitals and selected 3 specialties in Block Panchayat level / Taluk level hospitals.

26. Implementation of 3-tier system in the public health sector

Three tier system may be implemented in the ISM Department for ensuring effective health care delivery and the utilization of specialties. Existing dispensaries may be upgraded as Ayurveda Primary Healthcare Centres as Primary level healthcare delivery points. Hospitals in block and district levels may be provided with adequate facilities and human resources so that they can function as the secondary level supporting system. A minimum of three specialty services may be provided at block level hospitals. District hospitals may be upgraded to provide services in all specialty segments. Collegiate hospitals in government and aided sectors may be upgraded so that they can function as the tertiary care centres. The college hospitals are now working with high patient load beyond its capacity. It should be raised to the status of a referral hospital with all specialty and super specialty wings in a structured manner. Again, integration of other supportive modalities / therapies to the Ayurveda management is also practised these days in selected institutions in managing difficult conditions like developmental disorders and other neurological disorders. Such practices of integrating the supportive therapies along with Ayurveda should be followed in tertiary care centres in a phased manner so that more needy people are benefitted.

For this, all Block Panchayaths may be equipped with hospitals with a bed strength of 30. Similarly, all Taluks may be equipped with a General Hospital with 50 beds. All district level hospitals may be upgraded to the bed strength of minimum 100. Existing hospitals / dispensaries may be upgraded to this level, wherever possible.

27. New institutions in all Local Self Government Institutions (LSGIs)

It is to be stated that 164 LSGIs in the state are still not equipped with permanent ISM institutions. In many such LSGIs, the purpose is partially served by small NHM dispensaries which are again sparsely equipped with just a Medical Officer and a single supporting staff on contract basis. The project once expired will leave these miniscule facilities also void. Hence new permanently staffed institutions under ISM may be started in all these 164 LSGIs in a phased manner for effective Ayurveda health care delivery. Current NHM facilities shall work as sub centers under such ISM facilities till the time the project is called off. This will assure better service and continuity for the public.

28. Restructuring Ayurveda institutions for catering the public health needs:

In accordance with the Sustainable Development Goal (SDG) No. 3 (good health & well-being), primary health care includes preventive, promotive, curative, rehabilitative and palliative aspects. Department of Indian Systems of Medicine, though having good patient strength in rural and remote areas, is not having a proper and sufficient structure of staff pattern and other facilities to provide these services. A restructuring of staff pattern is highly essential in this area. As per the recent guidelines, a dispensary when upgraded to an AYUSH Health and Wellness Centre (HWC) under the Ayushman Bharath scheme, gets an additional temporary post of a Yoga instructor and a Multi-Purpose Worker along with the existing posts of a Medical Officer, Pharmacist, an Attender and a Part Time Sweeper.

By further upgrading it to a Kerala model, by adding the posts of male and female therapists and that of Ayurkarma Medical Officer, the HWC will be able to provide services in all the segments of the primary health in a better way, with longer working hours. By providing preparatory and purificatory therapies aimed at detoxification and rejuvenation, Ayurveda can effectively be utilized for the health and well-being of the public. By introducing these purificatory therapies at the grass root level, many of the Non-Communicable Diseases (NCD) and degenerative conditions can be managed with a much better efficacy. The additional expenses may be met with using the funds of LSGI and by collecting a reasonable amount as user fee, as and where applicable. The services of the existing staff may be upgraded by re-designating them and providing proper capacity building measures. The services of the additional staff can be utilized for the curative aspects as well as for the promotive aspects. These OP level therapies will definitely help in prevention of ageing and in reducing the morbidity. Thus, it can contribute in reducing the disability-adjusted life years (DALY). The projects that showed good impact in public health in the previous FYP may be selected and pursued in a better way through these institutions.

Separate specialty clinics can be arranged in the HWCs throughout the week. Separate modules, SOPs and protocols may be prepared and implemented for each type of clinic namely (1) Antenatal, post-natal and adolescent care (2) School Health (3) NCD management (4) Geriatric care (5) Post COVID 19 management and (6) Pre-school clinic. The projects being implemented in these areas may be merged. SOPs and protocols may be prepared for the effective functioning of these services. HR support for these may be arranged through the LSGIs, wherever possible.

Antenatal, post-natal and adolescent care

Kerala's traditional practices of Ante-natal and post-natal regimes are based on Ayurveda. It includes care of pregnant woman, delivery management, post-natal care for women and new born. It ensures a problem-free delivery as well as health of the individual. These are time-tested and well adopted by the community. The increasing number of caesarean sections and developmental disorders essentially need special attention. This is one of the main areas where Ayurveda can be integrated with the conventional medicine to reduce the risk factors. Apart from these, issues of infertility and uterine disorders are

also increasing in our society. Many of these issues are triggered by the changing food habits and life style. An early intervention may help in reducing the disease burden. Ayurveda can play a vital role in this regard. Ayurveda care for menstrual issues and poly cystic ovary syndrome can be done at dispensary level. Treatment for infertility is now carried out only in specialty level hospitals. A day a week may be dedicated for this specialty OP in all the dispensaries across the state. Selected hospitals may be provided with facilities for in-patient procedures.

This aims at supporting the National target of Increasing Life Expectancy at birth from 67.5 to 70 by 2025 and to reduce neo-natal mortality to 16 and still birth rate to “single digit” by 2025 (NHP 2017).

SDG addressed

Goal 3.1: By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

Indicators:

3.1.1 Maternal mortality ratio

3.1.2 Proportion of births attended by skilled health personnel

School health

Being the traditional system, Ayurveda has a role in the comprehensive healthy upbringing of our children. Children should be trained in the concepts of frugality and good social conduct as well as healthy living with nature. Healthy living with nature is to be promoted as per the concepts of SDGs.

The school health related programs were conducted in selected schools of selected districts earlier. Program named Kiranam is aimed at the prevention and management of COVID 19 related issues is being implemented throughout the state. Project Prasad-am was aimed at the anaemia management and project Ayur Mukulam was aimed at managing the recurrent respiratory infections in children. All these may be combined together to form a comprehensive school health project to support the existing programs and protocols may be revised accordingly. A special OP may be conducted with priorities for school going children may be conducted on a weekly basis.

NCD clinic (Madhuram Jeevitham)

Jeevani – the project for the management of Type 2 Diabetes mellitus is being run in selected districts of the state. This is showing promising results not only in managing the blood glucose levels but also in preventing the complications like cardiac issues and stroke. The quality of life is also improved considerably. Ayurvedic interventions with medicines and lifestyle modifications can contribute a lot to the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke. It may include awareness programmes, survey and exclusive OP to propagate healthy life style, good food, exercise promotion and Yoga training, home remedies and counselling.

There is scope of secondary prevention through breaking the disease process by early intervention. These programmes can be implemented with the cooperation of Local Self Government Institutions (LSGIs), Kudumbasree, private practitioners etc.

This is aimed at reducing premature mortality from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases by 25% by 2025 (NHP 2017). It also aimed at supporting the target of making 80% of known hypertensive and diabetic individuals at household level to maintain controlled disease status by 2025.

SDG addressed

Goal 3.4: By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

Indicators:

3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease

Geriatric care (Saadaram)

Geriatric care project, managed through selected hospitals in the state has already proven to be quite efficient in supporting the physical, mental and social health of the elderly. Making this service available to the whole of the geriatric population in the rural as well as urban areas of the state by utilising the available infrastructure and manpower in our dispensaries and hospitals will help in reducing the various problems arising as part of ageing in the elderly. The quality of life will improve to a considerable extent and the disability quotient will be reduced to minimum. Everyone receiving equal health management in spite of regional, age, gender or financial discrimination is one of the main goals of National Health Policy which can be easily achieved by effective execution of the geriatric project at various levels. At OP levels, a special day can be allotted for this on a weekly basis. Those who need further care, may be directed to the hospitals.

Post COVID 19 management (Punarjani)

As Ayurveda is proven effective in the management of COVID 19 and its complications through the projects Bshhajam and Punarjani, the same is to be incorporated as a special component of the clinics of institutions under the ISM department. It will help in alleviating the complications and to prevent the long-term morbidities and promote the well-being of the people. At OP level, a special day can be dedicated for Post COVID 19 management on a weekly basis. Hospitals also may be provided with facilities for managing such cases.

Pre-school clinic (Thenum Vayambum)

As requested by the Women and Child Development department, awareness classes and anaemia prevention programs are being conducted for the pre-school children and adolescents through the 258 ICDS units and 33,115 Anganwadis in the state, in association with the National AYUSH Mission (NAM) and private practitioners. This program may

be developed adding components for physical and psychological well-being and Healthy Parenting Practices (HPP). A special OP can be conducted in HWC on a weekly basis.

The psychological issues of the adolescents also can be managed through the adolescent clubs (varnnakkootu). Capacity building in managing sessions on life skills may be arranged for the purpose.

This aims at supporting the National plan to reduce Under Five Mortality to 23 by 2025 (NHP 2017).

29. Quality upgradation

All the institutions under the ISM department may be upgraded to conform to quality standards such as Kerala Accreditation Standards for Hospitals - AYUSH (KASH AYUSH), National Accreditation Board for Hospitals (NABH) or ISO 9001:2001 in a phased manner. This will definitely be a facelift to the institutions and such institutions will be able to provide better healthcare delivery in the rural areas.

Services provided at the institutions also should be in a standardised pattern. Different tiers of institutions and referral services may be brought into practice for enabling professionalism in services. Protocols for different ailments, prepared by the Central AYUSH department may be modified to suit to situation in Kerala.

30. E governance

At present Health Management Information System (HMIS) is totally lacking. Better functioning of the institutions and better healthcare delivery services may be ensured through the implementation of e governance. There has to be disease-treatment-outcomes related data and analysis so as to take concurrent decisions regarding improvement and investment for the specific cause. So, development of comprehensive HMIS in the first year followed by consolidating data and analysis in the subsequent years which will help in providing accurate clinical and administrative decisions on a real time basis.

Hardware may be provided using the funds of the concerned LSGI and software for the purpose may be designed and implemented state-wide. Connectivity may be ensured using the KFON services. Qualified and trained HR and other infrastructures including software and monitoring mechanisms should be in place in the first year itself.

31. Strengthening health service administration

The institutions are provided with minimum staff, based on the previous working conditions. With the strengthening of decentralized governance, the workload in the Ayurveda institutions have grown up exponentially. All the institutions in the department may be provided with minimum staff pattern as envisaged so as to meet the needs of healthcare delivery system. Clerical posts are highly essential considering the data management and other administrative works in all the institutions. Gap analysis is to be made throughout the institutions in the state and appropriate actions may be taken.

Administrative cadre

A separate administrative cadre may be formed in the department and postings to the posts of CMO and above may be made from this cadre. A dedicated and trained administrative cadre will definitely help in the effective administration. Strengthening the clinical cadre, will help in providing quality clinical services at the grassroot level.

State level project management/evaluation / documentation system

Different projects are implemented in various centres of the state. Currently, there is no proper system for monitoring these projects and no evaluation data is available with the department. Hence many prestigious projects are still working in hypothetical level without data analysis. Hence, a state level project management system with sufficient technical staff and facilities should be made available in the department of ISM.

District medical office development

The DMOs are the direct controlling office of the rural network. The public health activities and management of projects can be coordinated from this office very effectively if provided with the post of a Deputy DMO.

Additional MO posts in 10 bedded hospitals

As of now, in many of the department's hospitals the whole management is run by a single Doctor. Time and again this has resulted in serious lapses amounting to gross medical negligence especially during night hours. Additional MO posts are emergency in these institutions to protect the rights of the patients admitted in these hospitals. Immediate preference shall be given in creating such additional posts, though in a phased manner to address, this matter. More over most of the 10 bedded hospitals have exceeded their built-in capacity years back that they are not able to cater to the needs of the people in those areas. These institutions may also be upgraded to 20 or 30 bedded hospitals wherever possible, in a phased manner.

One additional medical officer in each dispensary

The rise in the 'non-communicable disease burden' needs to be addressed with effective preventive health care. The time-tested Ayurvedic preventive and promotive health cares are culturally integrated with our society. With less effort it will be accepted if propagated well. The present manpower in the dispensary is too inadequate to undertake these public health activities. If one additional Medical Officer is provided under each dispensary, he/she can coordinate the programme with the help of ASHA workers. This additional Medical Officer may be given charge of the Specialty OPs as envisaged above.

SDG addressed

Goal 3.a Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis

Indicators:

3.a.1 Substantially increase health financing and the recruitment, development, training

and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

3.a.2 Health worker density and distribution

32. Waste management

A sustainable solution for the treatment and disposal of waste generated with the implementation of proper waste management system in institutions under the ISM Department is the need of the day (SDG No. 6 – clean water and sanitation). Proper training on segregation of different types of waste may be provided to all staff. Biomedical waste management system should be implemented by preparing a Memorandum of Understanding for the collection and disposal of bio medical waste with IMAGE (Indian Medical Association Goes Eco-friendly). Biodegradable waste can be managed by biodigester pot or bio bin unit system or compost system. Plastic waste and e-waste collection booths should be installed in all institutions. E waste may be collected from all institutions on a periodic basis and processed. A Memorandum of understanding (MoU) should be prepared between each institution with the Haritha Karma Sena in the concerned Local Self Government Institution (LSGI) for collecting paper and plastic waste. Arrangements may be done with Clean Kerala Company Limited (CKCL) for collecting e-waste. Incinerator for the incineration of dry waste may be installed, wherever possible.

33. ISM service training institute

Health services need regular updating in professional and operational levels. The periodic training shall be given to doctors and paramedics for the effective delivery of the healthcare. Currently, the training programme is being conducted through IMG and it is not able to cater the needs in real time. Hence a Service Training Institute shall be set up in the state for the capacity building of the personnel and utilize the same effectively.

34. Upgradation of existing institutes to Centres of Excellence (CE)

Govt Ayurveda Research Institute for Mental Diseases, Kottakkal (GARIM)

Established in 1974, Govt Ayurveda Research Institute for Mental Diseases (GARIM), Kottakkal; has become a premier institute in Ayurvedic mental health care in the public sector where authentic Ayurvedic treatments for mental disorders are provided cost effectively to the population. Being the one and only institute of its kind in India, this Institute is a boon to many who suffer from disability of chronic and recurrent mental disorders. Many people from various parts of the country resort to this institute for Ayurvedic management of mental disorders. In addition to its role as a mental health care provider, it offers efficient human resources in the mental health arena of our country by providing training to different stakeholders. This proves that the Institute has immense scope for development as a centre of excellence in mental health care.

AC Shanmughadas Memorial Ayurvedic Child & Adolescent Care Centre (ACACC), Kozhikode

AC Shanmughadas Memorial Ayurvedic Child & Adolescent Care Centre situated in Thalakkulathur Grama Panchayath of Kozhikode District. It was started as a paediatric OP in 2012 at District Ayurveda Hospital and in 2013 Jilla Panchayath has taken it up and started the project 'Spandanam' which focusses on learning & behavioural problems of children apart from general illnesses. Along with Ayurvedic medication and Panchakarma therapy, services from departments of Learning Assessment and Remedial Training, Physiotherapy, Occupational Therapy, Speech & Language Therapy, Clinical Yoga, Psychology are also provided for the needy child and caregivers. In 2015 the hospital came up at Purakkattiri with 30 bed facility. Cerebral Palsy, Autism, ADHD etc. are well treated in the hospital. Apart from the individual therapies, group therapy, parental education programs, school remedial program and awareness classes are also conducted. Right from 2015 near about 2,78,000 children were benefited from this institution. The Social Security Mission during their visit in 14-09-2019 suggested the importance of starting such a project state wide. Spandanam was selected as the best project during National AYUSH Conclave in 2019.

No doubt that a healthy child is the wealth of a nation. So as to bring up a physically, mentally and socially healthy baby, a proper care must be given for the pregnant lady. The food, social stigma, thoughts etc of a pregnant lady has direct influence on intra uterine foetus. Hence, an Ayurvedic Gynaecology unit (Prasooti & Streeroga) is an unavoidable factor, along with this Ayurvedic Child & Adolescent Care Centre. A healthy future generation without any pre disposition for genetic / developmental disorders is the aim and dream of this institution. To fulfil this, the institution has to be uplifted to a centre of excellence. For the same, provision of comprehensive Ayurvedic health care from a population ranging from pre-marital stage to child birth, children up to 20 years from a centre of international standard is inevitable. Early detection, stimulation and early Ayurvedic intervention in developmental disorders will help to prevent the permanent disability markedly. Hence, this institution may be uplifted as a Centre of Excellence.

Kerala Institute of Sports Ayurveda Research (KISAR), Thrissur

Kerala Institute of Sports Ayurveda Research (KISAR) inaugurated on 2019 located in Thrissur is the first sports Ayurveda hospital in Kerala in the public sector. Limited human resources and infrastructure are the challenges faced by KISAR. Upgradation of infrastructural facilities and human resources should be made to give support for maintaining the health of sports persons for preparing them to the optimum level of performance. Research studies in the field of Sports Ayurveda specifically should be promoted. Regional centres may to be started at the northern and southern areas in a phased manner,

35. New institutes

State Research Institute for revalidating Ayurveda to evidence-based medicine

There are many areas in Ayurveda where research and validation as per the modern scientific protocols and parameters would amplify its acceptability among scientific com-

munity world over. Even as there are many complicated health events where Ayurveda offers better, safer and cost-effective solutions, on many occasions, unfortunately, an evidence-based protocol is not available in public domain. Hence the results remain individualized where the possibility of duplication is challengeable. This scenario highlights the need of evidence-based research in many different aspects of Ayurveda. An interdisciplinary research centre with international standards would be a right step in this direction. A drug research unit shall also be attached to this centre to revalidate the classical formulations and develop new drug formulations. Research on Nanotechnology, Biotechnology and allied sciences can also be carried out in the institute. This could be initiated in the facility and premises of School of Fundamental Research in Ayurveda, Trippunithura (SFRA) which functions under KUHS. ISM department shall also provide data regarding its projects to this institution for evaluation so that duplication of facilities could be avoided.

Mental health institute at southern area

An exclusive Mental Health Institute for teaching, training and research may be established in the southern part of the state. The potential of Ayurveda in this segment is well established through the ISM hospital at Kottakkal. Considering the strength of Ayurveda in this area and the rising demand of the society, an exclusive 50 bedded hospital facility may be established as a satellite centre of the Institute at Kottakkal.

Neuro rehabilitation institute

Non-communicable Diseases (NCDs) are currently the leading cause of preventable deaths and disability in India. The four identified major NCDs are cardiovascular diseases (CVD) such as heart attacks and stroke, Diabetes, Chronic Respiratory Diseases (Chronic Obstructive Pulmonary Diseases and Asthma) and Cancer. They are the leading cause of death, accounting for over 60% of premature mortality, placing them ahead of Communicable diseases and other conditions. (WHO 2014). The national policy document emphasizes the need for involving AYUSH practitioners in prevention and control of NCDs. Rehabilitative aspects should be given top priority once the acute phase is managed. A treatment approach that combines various aspects such as Ayurvedic medicine formulated specifically based on the patient's disease severity and body nature, Kerala Panchakarma treatment, physiotherapy, speech therapy and occupational therapy, etc., is found to be the most effective. This well-balanced approach is the specialty of the Punarnava - the Ayurveda stroke treatment programme, implemented in selected institutions at present. The new building at Purakkattiri, Kozhikode may be utilized for the purpose integrating with the Punarnava project.

Institute for Ayurveda based eye care

Salakyatantra is one branch among Ashtangas of classical Ayurveda which comprises both Ophthalmology and ENT of Allopathic medicine. Ayurveda Ophthalmology is fast gaining acceptance world over. Project Drishti of ISM has clearly demonstrated the relevance of Ayurveda Eye Treatments with respect to both preventive and curative aspects of eye care. At present Salakya speciality is not available in public sector. A

speciality institute with clinical as well as research facilities fortified with all supportive modern amenities would be of great benefit for common people to avail high quality specialty treatments at affordable price. This would be a major step in prevention and alleviation of Blindness from the society. The Speciality Hospital at Chalakkudy, Trissur named after renowned physician Shri Raghavan Tirumulpad could be upgraded to this status to function as the nodal centre to control and coordinate all the activities in this speciality across the state.

Terminal care centre

Even as the average life span of people in the state is increasing, morbidity also shows a sharp rise. Old age diseases along with sharp increase in the incidences of Cancer, Renal failure and such other conditions has affected the quality of life of citizens of modern-day Kerala. Ensuring a painless life and a peaceful death is of high importance in this scenario. Ayurveda can contribute a lot in improving the quality of life for the bedridden patients as well as for the terminally ill persons. Such centres with emergency facilities may be set up in all the districts in a phased manner. Either District hospital at Varkkala, Trivandrum or District Hospital, Kollam may be upgraded as an Institute for Ayurveda Palliative Care with facilities for research and education in this area, which can also act as a nodal centre for the satellite centres in other districts.

36. Upgrading agadatantra speciality hospitals into toxicity management centres

Agadatantra, one of the Ashtanga specialties in Ayurveda for addressing toxins is now getting more importance in the emerging health issues. The major reason for rising incidence of deadly diseases like cancer and various allergic manifestations, is toxins. The environmental pollution and usage of pesticides are alarming situations. The endotoxins produced as part of dysbiosis and leaky gut syndrome are also believed to be the contributing factors for many of the auto-immune diseases and chronic debilitating conditions.

Ayurveda has simple and effective management system for detoxification and many indigenous practices similar to those for snake venoms. Kerala being the abode of many such traditional practices in the management of toxins can be a forerunner to popularise these techniques across the country. The 10 Visha Dispensaries and One Visha Hospital under the Department of ISM may be upgraded to detoxification centres and specialty hospital respectively.

37. Special projects to support the goal of reduced inequalities

Reducing inequalities (SDG No 10) is a focus area for healthy living. Special programmes may be conducted in the health segment so that the inequalities are brought to minimum. Following projects can be implemented in association with the existing programs and in association with the various other departments and agencies.

Mental health program

Presently many mental health projects are being conducted in the Ayurveda sector under ISM department and NAM viz. Sudheeram focusing on exam fear, Kusruthi with

focus on ADHD, Susmrutham focusing on cognitive impairment and dementia, Harsham focusing on depression etc. Apart from this, a Medical Officer with Post Graduation in Ayurveda Psychiatry is also posted in each district under the plan project of ISM department. These activities may be integrated and grouped as two entities viz. (1) Child / School mental health programmes and (2) Adult and geriatric mental health programmes.

Child / School Mental health programme may include (a) exam phobia (b) substance abuse (c) learning disabilities (d) ADHD (e) intellectual disabilities (f) childhood depression and other psychological issues (g) developmental disorders and (h) psychological issues of abused children. Adult and Geriatric Mental health programme may include (a) alcoholism and substance abuse (b) major and minor psychiatric disorders (c) occupational stress (d) psychiatric issues of prisoners (e) psychological issues of transgenders (f) psychological issues of patients under palliative care and (g) mild cognitive impairment and dementia.

GARIM a unique and pioneer institution of its kind situated at Kottakkal, Malappuram District is a capable institution to conceive and monitor all such projects and activities. Hence GARIM shall be raised as the nodal centre for all such activities under ISM so as to ensure the high standards of service. Post graduate scholars at GARIM would be beneficiaries and also an added resource pool for such projects all over Kerala.

SDG addressed

Goal 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

Indicators:

3.4.2 Suicide mortality rate

Tribal health care program

The tribal population in Kerala is still lagging behind in many socio economic and health indices, despite the untiring efforts of various departments. Results of the comprehensive projects implemented in some parts of the state by the department of ISM are showing positive results in this regard. The sickle cell anaemia control program in Wayanad district, the anaemia control program held with the support of the private practitioners in the Attappady area of Palakkad and the Harikiranam project implemented by the Kattippara Grama Panchayath of Kozhikode are showing excellent results in their holistic development.

Local actions with the support of the concerned LSGIs and the department of Tribal development can contribute much in upbringing the community in their physical, mental and social aspects. Major areas of focus here may be deaddiction, anaemia control, promoting education etc. Proper field study and implementation of a multi-year Ayurveda

health program across the state with the help of local self-government institutions may produce good results by the end of the FYP.

Costal health program

Fishermen, of late redesignated as Kerala Army, and their families are found to be having slightly different sort of health issues, compared to other population in the state. which require a special attention. Their hard physical labour, climatic conditions, proximity to sea and winds, quality of drinking water, humidity, social and educational background and backwardness and several other factors is thought to play a role in their physical and mental health conditions. A detailed health and social survey in collaboration with the fisheries department would definitely throw light into the details of many such issues faced by this community. A chain of Special Ayurveda Health Bays under Fisheries department along the coastal belt is the proposal in this regard. A pilot project in this line is already in place at Thiruvananthapuram on an OP basis. This could be adopted in all these centers with an extension into IP treatments also.

Spandanam program

Spandanam is a project being initiated by the Kozhikode District Panchayath in association with the department of Indian Systems of Medicine. The project is intended at early detection of learning, developmental and behavioural abnormalities in children and providing remedies at an affordable cost for the needy. Integration of allied systems like psychology, Yoga, special education, physiotherapy, speech therapy etc. is the highlight of the program. The facilities, though utilised by people from all socio-economic standards, are highly useful for those below the poverty line. The management may take a longer duration and the economic burden will be very high on the family. Similar program may be initiated throughout the state in the district level, keeping the Kozhikode centre as the nodal centre.

Geriatric care centres

One of the mis concepts attached to Ayurveda is that it is a system for old age disease. Reality is that it highlights the efficacy of Ayurveda in Geriatric management. Ayurveda Geriatric Day care Centres and Ayurveda Geriatric Shelters shall be started in all Districts with both free and paid service options. This will be a great support to the working young generation apart from providing a fresh breath to the age-old section of the society. This again will be an income generating centre for the government even as it is an essential service in the modern society.

Palliative care

Ayurveda is having an inherent strength in palliative care with its holistic concept of health and human life. It can provide a great support in physical, psychological and social aspects of the bedridden patients. A long-term plan is to be designed understanding the strengths, weaknesses, opportunities and threats of the system.

Anavadya – care for transgenders

Assessment and intervention of the demographic and psychosocial factors associated with psychological distress and resilience among transgender community

The project Anavadya aims to identify and manage the psychological issues of the transgender community as the psychiatric morbidity prevalence is substantially higher among transgender individuals than that of both the general population. By identifying the independent factors associated with psychological distress among transgenders we can provide essential psychological support and a comprehensive intervention to address the psychosocial issues and thus improving their mental well-being. Thus, the benefits of the indigenous medicinal system Ayurveda and Ayurveda psychiatry can reach the diverse parts of community. Initially the transgenders from 3 districts of Kerala (Kozhikode, Ernakulam, Thiruvananthapuram) with different mental health issues will be the beneficiaries of the project (Around 100 in number from each district).

The first phase of the programme will be a socio-economic survey to identify the transgenders and their psychological status. The next stage will be the intervention stage which include medicinal intervention, administration of different counselling techniques, psychotherapy, Yoga and relaxation technique for the selected members. The service of a Manasika Specialist medical officer and a clinical psychologist is needed exclusively for the project. The financial commitment for one year will be INR 13,60,000 including the honorarium of supporting staff, cost of medicines, IEC materials and mobility charges. Through this project we expect to bring psychological wellness by addressing the gender minority stress and other mental health problems among a transgender community and improving the quality of life through essential psychological support and medicinal intervention and to bring them frontline of society by reducing social stigma, prejudice and barriers and fear on current social scenario and also by developing self-confidence.

38. Mobile Medical Services

Peculiar terrain of the state and lack of transportation facilities in certain remote areas due to the same, is preventing a sector of people from those areas from availing services of ISM especially in districts like Wayanad, Kasaragod, Malappuram, Palakkad and Idukki. One of the major goals of 14th FYP is to provide services at doorstep. Whereas setting up medical facilities in those areas would be uneconomical due to small number of beneficiaries, introduction of mobile medical services would be very useful for them and also economically viable. Such a permanent mobile medical services would be a solace for Tribes and others in remote areas of the state.

39. Integration of plan projects

As of now, 15 projects are being implemented state wide in selected dispensaries through selected institutions. Similar projects are being implemented under National AYUSH Mission also are implementing similar projects some of these projects may be integrated and implemented through the current health care delivery system.

Jeevani - Ayurveda management programme for Type 2 Diabetes Mellitus

Diabetes is becoming a major life style disorder leading to various health issues including heart disease, renal failure, visual defects, rheumatic complaints, neurological problems etc: Ayurveda has time tested multi-level management programmes in diabetes and its complications. Early intervention, prevention of disease progression, life quality improvement, and complication management is possible with Ayurveda. Jeevani envisaged for the treatment of type 2 diabetes with the above concept. The project has been implemented in Thiruvananthapuram, Kollam and Ernakulum district hospitals with 100 beneficiaries in each district. Considering the rising diabetic population this project needs also to be extended to all other districts is showing commendable reduction in glucose levels as well as improvement in quality of life. The protocol may be developed for implementing it throughout the state as part of the OP on a weekly basis with adequate medicines and other HR supports.

Punarnava (Ayurveda stroke management programme)

Stroke management (Pakshakhata Chikitsa) is one core area of Ayurveda. Nowadays acute stroke management is usually done in modern hospitals there after many are living with different disabilities where Ayurveda can intervene effectively. In these cases, Ayurveda can speed up the recovery or minimise the disabilities or improve the quality of life. This is one of the areas where Ayurveda can be integrated with the conventional management. This project is implemented in two districts but need to be developed.

This programme may be implemented in all the hospitals under the department of ISM with revised protocols and other supports.

Snehadhara (Ayurveda palliative care programme)

The rising morbidity with fatal diseases attracts increasing number of bedridden populations. One of the main objectives of palliative care is to improve the quality of life. Ayurvedic measures are well suited in this area and can be clubbed with the conventional therapies. Data from the existing project shows that a major portion of the bedridden population opts for the Ayurveda programme. Hence this may be implemented state wide through all the institutions.

Drishti (Ayurveda eye care program for the school going children)

Many school going children are having vision problems which affects their education at large. In many conditions Ayurveda management responds well and it can be utilized for the prevention of such disorders. This project is aimed at giving eye care for the age group of 7-15 and is managed by the Eye specialists in the department of ISM.

This is aimed at reducing the prevalence of blindness to 0.25/ 1000 by 2025 and disease burden by one third from current levels (NHP 2017).

Sports Ayurveda

Ayurveda is well known for the maintenance of physical health. Ayurveda concepts are

well suited for the needs of Sports Medicine. There are safe measures for maintaining physical fitness, endurance development, injury prevention and management in Ayurveda. These are well appreciated by the sports community. Two hospitals at Thrissur and Thodupuzha are having exclusive facilities for sports medicine. There are also many District and Taluk hospitals providing sports medicine in limited levels.

40. Awareness campaigns / programs

Awareness regarding healthy lifestyle and healthy food habits should be continued using all the modalities like audio visual media, print media and social media. IEC materials should be published and updated as and when needed. Scientific data should be disseminated to the public from an authentic source only. A mass media wing with facilities and experts for the wing should be constituted and SOPs formulated. This should focus on enabling dissemination of authentic knowledge and on changing the habits of the people in a positive way.

Arogya Yajnam

A separate campaign may be initiated with a branding Arogya Yajnam. All the awareness activities may be kept under this single umbrella so as to provide uniformity. The services of the experts in the private sector and academy may be utilised for the purpose.

Arogya Gramam

The concepts of AYUSH Gramam being conducted under NAM may be utilised and concepts of healthy living and living with nature may be promoted. One village in each Block Panchayat may be selected and developed in accordance with these concepts. The concepts of sustainability, frugality, healthy living should be made part of the life gradually. This will help in promoting self-sustainable societies. Mutually benefiting activities can be planned in association with the departments of Tourism, Fisheries, Social Justice etc.

41. Health insurance programme of Government is extended to AYUSH Departments

The Central Government introduced RSBY to enable poor people to get all sorts of health care but AYUSH systems were excluded from the programme. In tune with RSBY Government of Kerala also introduced a Comprehensive Health Insurance Scheme (CHIS) in which AYUSH systems are also excluded. It's a serious discrimination which eventually hindering the public to use these systems for their health care needs. So, all legitimate medical systems shall be accepted for the existing health insurance schemes in the country.

42. Insurance medical service

Ayurveda is very effectively co located with ESI medical service and thousands of people are benefited. In few districts Idukki, Pathananhitta, Malappuram, Wayanad and Kasaragod this facility is not available. High priority should be given to provide Ayurveda health care in these districts. Steps should be taken to avoid operational hurdles to start the allotted dispensaries in Thodupuzha and Chavara.

There is no hospital facility for Ayurveda in ESI at North zone. In Farook ESI hospital about 50% of beds are always kept vacant. It may be considered to provide hospital facility for Ayurveda in that hospital.

Ayurveda Education And Research

43. Enhancement of Ayurvedic Educational Infrastructure

Kerala has had the unique distinction of preserving the heart and soul of Ayurvedic education while it was being severely challenged in the rest of the country. A strong political and social commitment towards education throughout Kerala's history had helped it to preserve this unique tradition. The government and aided Ayurvedic colleges of the state are among the best in the country. A number of self-financing Ayurvedic colleges of the state are also beginning to make their mark in the national stage.

New Government Ayurveda Colleges

Although Kerala has sanctioned the opening of about 12 self-financing Ayurveda colleges in the state, the government has continued its strong support for Ayurveda education through the sanctioning of a new Government Ayurveda college in Idukki. Another government Ayurveda college has been proposed in the hilly tribal district of Wayanad which will go a long way in improving the healthcare infrastructure and delivery of this remote district inhabited by the ancient tribes of the western ghats. FYP 2022-27 recommends the early completion of the Idukki Government Ayurveda College and the sanctioning of the Wayanad Government Ayurveda College.

New Post-graduate courses

Considering the huge demand for the Post Graduate courses from the fresh Ayurveda graduates, efforts may be made to start all the post-graduate courses, approved by the National Council for Indian systems of Medicine in the government and aided Ayurveda colleges, taking into consideration the availability of staff, amenities and favourable ground situations for the initiation of these courses. Optimum number of new teaching, non-teaching and technical posts may be sanctioned so as to cause as little fiscal burden as possible to the state exchequer.

New Post-graduate Diploma Courses

Currently, out of the 16 post-graduate diploma courses sanctioned by the National Council for Indian Systems of Medicine, only 11 courses are available in the government and aided Ayurveda colleges of the state. Sanctioning of additional courses may be done without incurring excessive financial expenditure in terms of staffing or amenities. Wherever such additional courses could be sanctioned without much fiscal burden, the government may do so.

New Doctoral and Post-doctoral Courses

Doctoral and Post-doctoral courses are ideal avenues for academically oriented scholars and educators to pursue their research and at the same time, promulgate their important and valid research findings among the young scholars. They also provide unique oppor-

tunities to pursue researches that cross the traditional boundaries of medicine into social humanities, technology and such other relevant fields. The setting-up of Kerala University of Health Sciences (KUHS) has given a huge leg-up for the doctoral and post-doctoral education in Ayurveda. During FYP 2022-27 period, the government may work in tandem with the university to sanction additional doctoral and post-doctoral centres in government and self-financing Ayurveda colleges of Kerala.

International Ayurveda Research Institute, Kannur

The setting-up of the International Ayurveda Research Institute at Kallyad village in the Kannur district has been a watershed moment for Ayurvedic research in Kerala. The Research Institute with all modern bio-medical research facilities, associated amenities, hospital, museum and medicinal herb garden is coming up in a huge, 311-acre campus near the Kannur International Airport. 37 acres of land has already been sanctioned and the ongoing construction of the research hospital is expected to be completed by mid-2023. The land acquisition of the remaining land parcels is nearing completion and the government may, during the FYP 2022-27 period expedite the construction and sanctioning of the entire project.

Formulating the Administration Policy for the International Research Institute

While the government can expedite the construction of the International Research Institute, it is the bound duty of the Ayurvedic academia and administrative think-tank to formulate a sound administrative and research policy for the institute, the lack of which could severely impact the impact and efficiency of such projects on which the government, society and the Ayurvedic fraternity have put high hopes on. All efforts must be made to invite open and innovative suggestions from the larger public, scholars, students and other stakeholders and formulate an administrative policy that promotes innovation, cross-integration, flexibility and one which guards against bureaucracy, delay and administrative rigidity. Meanwhile, the administrative policy must transcend the geographical and political boundaries and strive to address the burning issues in the local, national and global healthcare scene.

National Institute for Ayurvedic Management of Communicable Diseases and Epidemics

Communicable Diseases, epidemics and pandemics have always challenged human progress and welfare throughout our recorded history. Ayurvedic texts have recorded such records by the term *janapadodhvamsa*. Kerala has historically been a global hub for trade and travel and therefore, stands in the direct line of fire of such devastating epidemics. Our recent trysts with the deadly outbreaks of Nipah Virus Disease and Covid-19 validates the burning need of fortifying our defences. Ayurveda has emerged in the national scene during the current Covid outbreak by offering safe and cost-effective solutions for the prevention, treatment and convalescence of the Covid-19 outbreak.

Kerala has the unique opportunity of harnessing its vast resources of knowledge, tech-

nical know-how, personnel and an accommodative academic milieu to establish a National Institute for the Communicable Diseases and Epidemics Management through Ayurveda (NICDEMA) with the financial and technical assistance from the central government. The institute can host researches, educational and training activities on communicable diseases and epidemics, thus giving a boost to the state government's efforts to contain the ongoing pandemic and preventing such future challenges.

Development of Centres of Excellence (CoE)

With their long history of delivering quality Ayurvedic care, the government and aided Ayurveda colleges with their attached teaching hospitals are vast repositories of knowledge and experience in varied clinical fields. Our state is yet to claim its rightful due in implementing central government projects such as Centres of Excellence (CoE). These projects provide us with excellent opportunities to enhance the physical amenities of such centres.

Ayurveda Finishing Schools

Finishing schools have played the critical role of supplementing the necessary hard and soft skills that are often missed by standard course curricula. Ayurveda graduates currently find job placements around the globe and with more and more countries officially recognizing it as an alternate healthcare option, a finishing school that professionally equips our Ayurveda graduates with the necessary hard and soft skills, in collaboration with Kerala knowledge Economy Mission, will greatly improve their employability and in turn, the social and economic prospects of the state.

Entrepreneurial Training Centres and Start-up Incubators

Ayurveda holds vast potential to provide innovative products and services in the fields of nutrition, food processing, cosmeceuticals, therapeutic equipment, consumer goods, animal husbandry, veterinary medicine, agriculture and other such avenues. Designing, production and marketing of such products can become far more efficient by training upcoming Ayurveda entrepreneurs and incubating their start-ups. These may be implemented in close co-operation with the industries department and other relevant agencies.

Formation of a Sub-directorate for Para-medical Training in Ayurveda

Currently the para-medical training in Ayurvedic therapy and pharmacy courses is organized by various institutions under the direct supervision of the Directorate of Ayurveda Medical Education. However, given the wide prospects of these programs, the courses need to have a more organized and standardized implementation. This could be achieved by forming a sub-directorate under DAME fully dedicated to the management of such courses in Ayurveda Colleges in Government, aided and private sectors.

Establishment of a dedicated Publication Division and IT Cell

Important research findings find no practical value unless they are communicated effectively. A dedicated publication division, could run a regular academic journal fea-

turing the results of Ayurvedic researches in the state and publish text books and other similar scientific publications harnessing modern avenues such as E-books, E-journals, and Print-on-demand that significantly reduce costs and make resources easily available to students and public. An IT cell can effectively disseminate information, news and official publications to the public and also defend against maleficent social media campaigns against Ayurveda.

44. Enhancement of functionality of Ayurvedic Institutions in the State

The government needs to ensure that not only are the physical infrastructures established, but the functionality and efficiency of these institutions and facilities are constantly monitored and optimized. Public spending on health and traditional medicine are open to public scrutiny and we must not leave any stone unturned to bring about fiscal discipline and focus on the functionality and efficiency of our operations.

The central theme of the current Five-Year Plan is to enhance efficiency in operations of AYUSH institutions by eschewing duplication of amenities. Research labs, equipment and chemical reagents do not come cheap and must be employed to their full efficiency to do justice to the government support for such research activities.

Student and researcher exchange programs

As and where applicable, administrative reforms must be made to facilitate inter-institutional student and researcher exchanges so that research facilities wherever available are accessible to those who need them but often cannot take up their research projects for the unavailability of facilities at their alma mater.

Establishing a Central Facilitation Centre for Research Funding

Success of a research enterprise lies in the capacity to properly plan the research and secure all necessary funding to complete the project. Although many research grants and funding opportunities do exist, AYUSH researchers often fail to secure them owing to the lack of information and the necessary training to properly apply for such funds. More important is the training to execute such projects utilizing the available funds and with proper record keeping. Establishing a central facilitation center for AYUSH Research Funding can improve the chances of AYUSH researchers to secure these lifelines for their researches. This agency may be established as a part of any centrally located Government/Aided Ayurveda colleges as a pilot project. Additionally, this center can provide training for research scholars on bio-medical ethics and sustainable research.

Private Sector

The private sector has a wide range of potential in alleviating unemployment as well as income generation. It is spread in the fields of hospital service, medical tourism, wellness medicine, pharmaceutical industry, herbal cultivation, Ayurvedic food etc. There are many more untapped areas in this segment. A far-sighted approach is needed here to utilize them more effectively for the income generation and development of the state.

45. Kerala Ayurveda Development Authority

Employment generation is one of the major focus areas of 14th FYP. The brand 'Kerala Ayurveda' has all the potential to become the most eco-friendly and largest revenue generator of the state. A development authority under the state government for planning and implementation of this idea is the proposal to tap this hidden potential of Ayurveda. The proposed Kerala Ayurveda Development Authority (KADA) comprising of the Secretary to AYUSH department of Kerala, Directors of departments of ISM and Ayurveda Medical Education, representatives of Department of Tourism and the top officials from Oushadhi, State Medicinal Plants Board and the representatives from different walks of Ayurveda fraternity can bring in a world of change in the sector, utilising it effectively for the State's growth.

46. Strengthening of the co-operative sector

Potentials of the private sector can be effectively utilised in the various segments like service sector, manufacturing sector, cultivation sector etc. It can tap the potentials of the unorganised private sector in new areas like Ayurveda Aahar, cosmetics etc. The manpower and other resources available in the sector can be channelised in a productive way by enabling the formation of institutions in co-operative sector and by strengthening the existing institutions.

47. Support Ayurveda hospital service to increase the employment potency

In Ayurveda, the small hospitals can play a very good role in serving curative and preventive management for common ailments with cost effective treatments. Many ailments like back pain, joint pain and issues related to occupation and age are demanding Ayurvedic treatment at affordable cost. Many of the doctors are currently doing OP level practices without Panchakarma treatment facilities. One hospital needs near about 8 to 10 employees (1-2 doctors, 4 therapists, 1 Pharmacist, 2 Nurse, 1 Receptionist and 1 multipurpose worker). Ayurveda hospitals are usually using locally available raw materials and medicines. It will generate additional employments. Many of these hospitals are attached with trained birth attendants for post-natal care in Ayurveda. Accordingly, each hospital is having very good employment potential. But number of such hospitals is very few because of financial constraints and administrative hassles. However, these hospitals can be started with small investment compared to the modern hospitals. To promote such institutions the state government may declare a special scheme with following features viz., (a) interest-free loans for 5 years for hospitals (b) interest-free loans for 5 years for clinics having panchakarma facility and (c) single window licensing system shall be implemented for hospital and institutions in private sector.

48. Stress Management Services

Blooming of IT sector in the state has resulted in the inevitable occupational hazard of stress and other consequential NCDs. Stress is a major phenomenon for banking sector employees also. Ayurveda combined with Yoga offers very effective methods both in preventive and curative aspects of stress. In this context, speciality Stress Management Services is another proposal which would contribute in a big way to overall health of the

community. This can be implemented with the help of the concerned IT parks / banks with the help of private sector institutions.

49. Employment generation in Ayurveda sector under Kerala Knowledge Economy Mission

The Government of Kerala in its policy announcement declared 20 lakhs new employment generation in the coming year through Kerala Knowledge Economy Mission. Ayurveda is considered as one of the target areas in this mission. All over the world, the demand for Ayurvedic health care is increasing day by day. We need to meet the international standards in terms of manpower as well as in products. Many health-related services are emerging in the field of health care as well as in wellness medicine. This makes updations in knowledge and skills mandatory for both the medical professionals and paramedics. Some policy decisions are required in this regard, a few of these kinds are mentioned below.

Certificate course for additional skill development for professionals

The opportunities existing in abroad are entirely different and the level of skill required is also different. We are training our doctors to handle the health care requirements in Indian conditions. They are not trained according to the different geographical conditions. The seasons, climate, needs of the society are different across the globe. The Ayurvedic management differs accordingly. Hence, to equip professionals in different angles, the courses like Certificate course in Ayurvedic Dietetics, Certificate course in Content writing, Certificate course in Yoga and Physical medicine, Certificate course in public speaking, Certificate course in continental Ayurveda can be considered.

Regular courses for paramedical training

There is huge potency for therapists trained in Kerala. Unfortunately, there is no regular government course existing in Kerala. We are training paramedical manpower for the government requirements only. Many private agencies are conducting these courses which are main source of paramedical staff in the private sector. But these courses are not recognized by DAME. Hence these issues are to be addressed immediately to promote Ayurveda. The following shall be considered as remedial measures.

Regular paramedical courses shall be conducted and it should be announced just after the result of plus two results.

The same courses shall be allowed in private sector and a common examination shall be introduced as in the case of nursing courses in modern medicine.

Birth attenders training (Five for each Grama Panchayath)

Ayurveda Postpartum care and Post-natal care which is very popular in Kerala, is a highly stressed area in Ayurveda. It is becoming increasingly indispensable in modern times in the wake of ever-increasing incidence of postpartum depression and other physical and mental issues of mother and early developmental issues of child. In the present-day

nuclear family system prevailing in Kerala this Postpartum/ post-natal care is of high social importance. Said so, the popularity itself has caused the whole exercise to drift away from its scientific bases where ill trained personal and quacks occupying this area create more damages than good. So as to rectify these unscientific practices, selected and interested persons from CDS may be imparted with proper training and deployed under the guidance of Medical Officer on a daily wage basis. Beneficiaries shall register during the last month of the pregnancy so that she and the child shall avail the care from the 5th day of delivery till the 6th week. The whole exercise shall be under the expert guidance and monitoring of a Medical Officer. An exclusive online portal for registration of service, booking of medical consultation, monitoring, data collection and evaluation will make the whole system transparent, effective and user friendly.

MOH exam centre in Kerala

To get employment in Middle East, one should qualify the MOH examination. As of now, there are examination centres available only in the middle east. The examination is usually very tough and many candidates need to visit many times. The para medical persons also need to follow this procedure. Hence, it is necessary to provide facility to write the exam in Kerala, it shall be implemented with an agreement between the Kerala government and MOH authorities of different nations.

50. Tourism based development

Ayurveda has attained global attraction as a scientific art of healing and rejuvenation. Consumers of Ayurveda tourism are diverse and the international tourists coming to India is also increasing year by year. Hopefully, by the coming years, Kerala should be the preferred location worldwide for Ayurvedic tourism. The total size of the Indian Ayurvedic market is approximately INR 50 billion and it is growing substantially at a rate between 10-15 per cent, with the same growth rate targeted for the next 10 years. Ayurveda is popular in UK, France, Spain, Italy, Germany and few countries in the middle eastlike Saudi Arabia and UAE.

Even as the economy of the state is oriented predominantly on service sector, Tourism being a major contributor to this cause, it is noticeable that, during the financial year 2019-'20, INR 25,000 Cr out of INR 45,000 Cr contributed by Tourism sector was handled out by Ayurveda sector alone. More importantly, lion share of this INR 25,000 Cr comes in as foreign currency and from people outside the state who look for genuine Kerala Model Ayurveda Care. The dream combination of Kerala's nature and Kerala Model Ayurveda, if blended judiciously and branded properly, is certain to escalate this income exponentially in near future.

To attain the projected target a focused planning is required. This field is having very good employment potential for skilled and non-skilled labours.

Building the Kerala Ayurveda Brand in India and abroad

Kerala is considered as the Ayurveda capital of India and having very good trust in

the international community. National as well as international acceptance of “Kerala Ayurveda” has definitely widened up the prospects of Ayurveda tourism. Hence separate brand building strategies shall be adopted to attract national and international consumers.

Utilizing the service of authentic Ayurveda hospitals outside the tourism sector

Now the number of foreigners seeking Ayurveda for the treatment of serious ailments is increasing. They usually were reaching out to the wellness centres. They often do not have the access to the authentic Ayurvedic hospitals to get proper treatment. This will spread misconceptions about the efficacy of Ayurvedic treatment. Studies in this regard revealed this. Right now, only the institutions in the tourism field such as resorts and hotels are the major stakeholders. They regularly participate in the travel fairs and market themselves. Most of the small and medium hospitals imparting genuine Ayurveda treatments are not able to participate in these programmes. Hence steps shall be taken to provide the information about these institutions be made available everywhere.

Take advantage of post COVID possibilities

Globally corona virus infection has affected a major portion of the population and the post Covid health issues are emerging seriously. Ayurveda is seen very effective in managing most of the post Covid health issues. With Punarjani, the project for Post Covid Care, being implemented successfully as a part of several other Ayurveda interventions during Covid-19 pandemic scenario, Kerala stands testimonial for this programme. The studies identified more than 40 clinical conditions and they are well responded to Ayurveda management. A similar project, if made available for foreign citizens, it is sure to have takers from Post Covid patients all over the globe.

Information dissemination using technology

An authentic web portal shall be provided to identify the entire treatment facilities available in the state. It shall be inclusive of all government and private sector institutions. It will help in making the system accountable and transparent and accessible from round the globe.

Standardization of services

Although Ayurveda is an individualized medical system, certain general quality determinations and treatment criteria are essential factor in tourism sector. Treatment protocol are just as important as determining the quality of facilities. A permanent system is needed to design the same, ensuring the implementation and to review as and when necessary.

Promoting inter-sector coordination

Tourism industry is linked with many sectors especially Ayurveda tourism. Tourism department, Department of ISM, Allopathic hospitals, departments of Home Affairs and LSG are connected with the tourism operation. There shall be a healthy coordination among these departments. A policy shall be drafted accordingly.

Including Ayurveda division in the existing organizational structure of the Department of Tourism

In Kerala tourism, the major area of operation is Ayurveda Tourism. Almost all properties are having treatment facilities. Also, it deals with accreditation and grading responsibilities. Quality assurance is the major issue in this sector. But in the department of Tourism, technical expertise in this regard, is not available. Lack of expertise can also create limitations while attending travel marts. To address this, an Ayurveda division should be started under the department of Tourism.

Constitute Kerala State Ayurveda Tourism Regulatory Authority (KSATRA)

To streamline the regulatory mechanism in the field of Ayurveda Tourism, a separate regulatory body is required. Such a regulatory authority must be having sufficient number of experts from Ayurveda fraternity as well as members from the department of ISM, Directorate of Medical Education and department of Tourism, department of Home Affairs and LSGI. The suggested name is Kerala State Ayurveda Tourism Regulatory Authority (KSATRA).

Ayurveda visa

A special provision shall be made to allocate Ayurveda Health Tourism Visa in line with regular Health Tourism Visa to tap these opportunities.

51. Ayurvedic food courts providing healthy Ayurveda recipes at college levels and at Grama Panchayath levels in association with Tourism Dept and CDS.

The prime cause for most morbid diseases in the society is improper food habits. Popularizing Ayurveda food at the public food catering entities including in-dining restaurants, food joints, cafeteria, take away counters, railway stations, bus stations, airports, institutional canteens and event caterings is a long-standing solution to this problem. The concept is to eradicate the myths about Ayurveda food in the society through Ayurveda food festivals and setting up a chain of branded Ayurveda food outlets through a collaboration of ISM with Department of Tourism for high end establishments and CDS for middle segments. A standard recipe that is contemporary and conforming to Ayurveda daily food principles of Nithyahara is to be developed and a batch of chefs and service personnel are to be trained to ensure uniformity of standards and taste across all outlets of the brand. The project aims to penetrate into the food habits of the society and replace the present active food and healthy food sector with Ayurveda healthy active food.

52. Medicine manufacturing sector

It is one of the areas identified as the core competency of Kerala economy. There are about 850 Ayurveda medicine manufacturing units of which 7 have turnover above 50 crore per annum while major Indian companies are having turnover above 1000 crore. The export sector is facing a lot of regulatory and certification issues.

Revamping the ASU drug control department

The Ayurveda drug industry in Kerala is having a turnover of about 2,000 Cr. It is pro-

posed to attain 10,000 Cr by 2030. There is a lot of scope in drug export in the name of Kerala brand as the name Kerala is trusted for Ayurveda globally. We are having a licensing system, which is having very poor facilities and manpower. A huge funding from the central government is continuously lapsing due to the non-availability of a separate drug control department in Kerala. The steps have been initiated in 2010 but not completed. Right now, it takes much time to get a sale license or an export clearance. New drug licensing is also lagging for years. In these circumstances, many manufactures are shifting their units to other states. Therefore, urgent attention is needed in this area because it's one of the prime areas where huge potential of income generation is expected. The following steps shall be taken to revamp the Ayurveda – Siddha – Unani (ASU) Drug control Department.

- (a) A separate Drug Control Department shall be constituted with financial independent.
- (b) A citizen charter shall be implemented in the department to get the service within a stipulated time.
- (c) A drug certification lab shall be started under the department to generate income.

Quality of drugs both, crude drugs and manufactured formulations, has been an area of concern in the field of Ayurveda for long. A centralised state of art Drug testing and certification Laboratory is the best solution for this issue, the service of which could be availed by both manufacturers and crude drug vendors. This would help ensure standardisation of Ayurveda drugs across the state which is the need of the hour. This would also be a deterrent to false allegations like heavy metal contamination. More over Drugs department could test the market samples on a routine basis and on specific complaints. This facility apart from being a great asset for the Ayurveda sector would also be a source of income for the state.

- (d) Drug sale license shall be implemented in ASU sector. It will be another source of income generation.
- (e) Adequate manpower shall be deployed to the ASU section to support these activities.

Promote manufacturing in Kerala to check the revenue loss

Kerala being a consumer state, approximately 80% of the cosmetic and patented drugs sold in the state is manufactured outside Kerala. So, a major income in terms of tax is being pooled to other states. So, measures should be made to improvise and increase the manufacturing in Kerala.

Moreover, the quality of the drugs that reaches here from outside the state, is not at par with the quality standards. Lack of proper quality analysis also prevail in this sector. If this issue is not addressed properly, it will affect the credibility of the science. Measures should be taken to support the drug manufacturing in the state. Thus, a Kerala Model

can be put build up with top notch quality by utilizing the small scale to the large-scale Ayurveda drug manufacturing industries as the demand for the drugs manufactured in Kerala is higher.

53. The scope of “Ayurved Aahaar” shall be utilized

The Ayurveda drug manufacturing companies which are GMP certified may be certified by FSSAI on the ‘same door number’ basis to manufacture, market and sale of “Ayurved Aahaar” products. Technical support of a BAMS graduate for quality control should be ensured in the non ayurvedic companies that manufacture “Ayurved Aahaar” products. The licensing authority that issues license to “Ayurved Aahaar” should appoint a BAMS graduate as the food safety officer, who shall approve the procedures as per the protocols laid in for the purpose. A certain amount as cess should be added to the products that come under “Ayurved Aahaar” and the amount thus collected should be included in the annual budget of Ayurveda sector, which should be utilized for the research and development of the sector.

54. Ayurveda cosmetics

Ayurveda concept of beauty is radiance emanating from a healthy person and not just the skin and hair texture or body contour. Beauty is dependent on the basic constitution of an individual (prakriti) of a person and hence beauty care also has to be prakriti based, customized and personalized. A comprehensive beauty care program incorporating the routine and seasonal regimen and cosmetic products incorporating together the best of Ayurveda principles, medicines and cosmetic manufacturing modern technology has to be developed. Specialized Ayurveda beauty clinics under a single brand promoted by ISM and managed by ISM trained private practitioners can be a viable successful project. Popularization of Ayurveda beauty concepts, eradicating the non-ethical marketing and usage of the term Ayurveda Herbal Cosmetics and establishing genuine Ayurveda cosmetology are the prospects of Ayurveda cosmetics and beauty care projects.

55. Medicinal plants

Medicinal plants in required quantity and desired quality is the most essential thing as far as Ayurveda drug industry is concerned. Cultivation of medicinal plants will help much in reducing the green-house effect and help in prevention and mitigations of many disasters.

Project for utilizing the vacant land for medicinal plant cultivation

Kerala Model Ayurveda is a brand among the people from wide and far. For the perfect run of Ayurveda treatment, a major concern is the proper availability of raw materials for the manufacture of Ayurveda medicines. Ayurveda medical plant cultivation should be encouraged on a commercial basis to address the issue of scarcity of raw materials in desired quantity and quality. A separate category should be reserved for medicinal plant as of an intermediate crop for the cultivators. 20% of the area in the estates in Kerala should be utilised for the cultivation of medicinal plants and trees. This can be done in association with the departments of LSGI, poverty alleviation and the Mahatma Gandhi

National Rural Employment Guarantee Scheme (MGNREGES). New techniques like terrestrial farming and tubular farming may be propagated in medicinal plant cultivation.

Tribal societies for collection and distribution of forest products

The collection of forest produces is one of the areas to be streamlined to protect the existing forest resources. Many unscientific practices are there to exploit these resources. To prevent exploitation and maintain sustainable harvesting a fool proof system should be introduced. Tribal societies can be formed to collect these products and those can be stored in the local collection centres. A Central Store is to be formed with all modern facilities for storing and preservation. Oushadhi may be considered as the nodal agency to run this system.

Replacement of invasive plant species and employment generation to tribal community

This project envisages to the replacement of invasive plant species with native medicinal plants and thereby ensuring quality raw materials for the Ayurvedic/herbal medicine manufacturing industry. It also helps in income generation to local communities and enriches the flora of the area. It also helps in producing value added products from this medicinal plant cultivation thereby giving employment and income for the tribal as well as rural population. Moreover, location-specific medicinal plants can be utilised in primary health care.

Proposal for carbon sequesters bio-valley

To establish a carbon sequesters bio-valley with plantations of medicinal perennials and thereby ensuring quality raw materials for the Ayurvedic medicine manufacturing industry. It will also contribute to the reduced carbon foot print of the local self-government institutions in the project area. It can be considered as an evolving model for climate change adaptation and mitigation.

Proposal for three State level mandi or medicine collection

Kerala is widely considered as last stronghold of pristine Ayurveda, about 1,000 active Ayurvedic medicine-manufacturing units in the state account to about INR 2,000 crore worth of annual production. Almost 450 raw drugs are used in the manufacture of 500 Ayurvedic medicines on a commercial basis. The raw drugs are usually grouped into pettimarunnu (dried) and pachamarunnu (fresh). Presently, weekly mandies specially dealing in medicinal plants are functioning in the state at places such as Vatakara (Kozhikode), Velanthavalam (Palakakd), Kottayam, Perumbavoor (Ernakulam), Palode (Thiruvananthapuram) etc.

The collectors bring their collection of raw drugs to these mandi and their products are auctioned by the agencies. The collectors and cultivators get price, based on the demand of the raw drugs in the market. In some cases, the collectors and cultivators are compelled to dispose their products at cheaper rates as the product may prove to have

poor immediate demand. To overcome these difficulties, three mandis located on the southern, central and northern parts of Kerala with facilities for information aggregation on notified supply and demand, storage, semi processing and value addition of the of harvested raw materials, with proper training to the farmers and middle men by State Medicinal Plant Board (SMPB) so that the individual farmers and farmers' societies would be able to preserve their products and sell them at appropriate price.

56. Co-operative sector

The cooperative sector is one of the ground level organizational systems to mobilize participatory investment for the development of the society. In Kerala cooperative sector is well established in many areas like agriculture, small scale industry, milk marketing etc. There are four Ayurveda drug manufacturing units now successfully working in this sector which are to be strengthened. These units are maintaining good standards as they are run by doctors' participation and the products are intended for their own use. The Oushadhi is the only government company to supply medicines to Government institutions. Many a times, it fails to meet the actual needs on time. In such circumstances co-operative sector may be utilised to meet the supply shortcomings of Oushadhi. The other area is the scope of co-operative hospitals to provide low-cost medical care to the poor. Many related areas like buy back arrangements for medicinal plant products, propagation of medicinal plant cultivation and propagation of home remedies etc. can be organized through this sector.

Low cost medical and allied facilities in association with cooperative sector and philanthropic organisations. The rising cost of health care demands the availability of low-cost health care for the poor and needy people in the society. A co-operative hospital network can be established throughout Kerala in association with the existing cooperative institutions in the State in this regard.

57. Action against quacks

The health service in private sector is playing a vital role in providing Ayurveda care to the society. It ranges from small Vaidya Sala to big hospitals. The major problem in this field is the presence of quacks and objectionable advertisements. Stringent action should be taken to streamline the medical profession by preventing quacks and advertisements.

Yoga And Naturopathy

58. Introduction

Naturopathy and Yoga, which is one among the seven recognized AYUSH Medical System, by Govt. of India, is a system of health care practiced by Naturopathic & Yoga physicians for the prevention, diagnosis and treatment of diseases. Naturopathy and Yoga form a complete health care system which emphasizes on both healing and prevention through education, self-responsibility, natural remedies and therapies to support and stimulate the individual's self-healing processes as well as health. As a distinct health profession in our country, Naturopathic medicine is over 150 years old. The profession continues to grow and evolve, incorporating elements of modern conventional medicine

that advances the knowledge of the mechanisms of natural healing and therapeutics, especially in the fields of diagnosis, immunology and clinical nutrition.

Yoga, which is an invaluable treasure from our ancient wisdom, has an answer for all the physical and mental issues of human beings. It is an inseparable part of Naturopathic education and clinical practice in India, requiring regulatory and administrative control. It provides the ground to effectively and safely treat not only physical but also psychological and psychosomatic diseases. Yoga is also a drugless, non-invasive, rational and evidence-based health program. Yoga develops all round personality and elicits innate healing and health realization through its concepts and systematically described practices by which the vitality of the individual comes to the most active phase, which helps in health promotion, disease prevention and plays an important role in the effective management of the diseases in synergy with other Naturopathic modalities of treatment.

Kerala is the first state in India to start a Govt Nature cure Hospital. The Govt Nature cure hospital Varkala was started on 15th January 1981. Further Development in Kerala under Govt sector is very meagre except that in 1991, 10 beds have been allotted in the Govt Ayurveda Hospital, Ottapalam. In the recent past one more Dispensary started at Punalur. 18 Yoga naturopathy wellness units has been started in the District Ayurveda Hospitals with BNYS doctors as medical officers in 2015.

59. Centre of Excellence for Govt Naturopathy Yoga Hospital, Varkala

The Government Yoga Naturopathy Hospital, Varkala is functioning under the department of Indian Systems of Medicine governed by the Kerala Ayush Department. Since 1980, the hospital has remained the only independent 50 bedded hospital for Naturopathy and Yoga in Kerala. This hospital specializes specific preventive care for lifestyle diseases and offers a wide range of treatments for various conditions. Now this hospital may be upgraded to a Centre of Excellence with 100 bed inpatient capacity. It will help in bringing lots of research and development in the field of Naturopathy and Yoga, attracting people from other states and countries, being its situation at International Tourist Destination. A well-equipped fitness center for managing the obesity and a unit with Physiotherapy and Electrotherapy facilities will be very beneficial for the patients who suffer from lifestyle diseases and degenerative diseases.

60. Upgradation of the institutions

Punalur

The only one Naturopathy dispensary in Kerala which is situated in Punalur Municipality of Kollam district, may be upgraded to a ten bedded hospital with sufficient equipment and staff.

Ottapalam

A ten-bedded Naturopathy unit is functioning in Government Ayurveda Hospital, Ottapalam at Palakkad District. Necessary steps may be taken to upgrade this unit to a 30 bedded independent hospital with all the necessary facilities. It may be shifted to a new

campus with state-of-the-art facilities.

61. Starting 10 bedded Naturopathy Yoga Department in all District Ayurveda Hospitals

Naturopathy & Yoga being the drugless system of medicine and well known for its capability in helping lifestyle disorders, which can be complimentary with other AYUSH systems. Hence starting 10 beds for Naturopathy & Yoga Inpatient facility in all District Ayurveda & homeopathy District hospitals will be helpful for General public.

62. 10-bedded Naturopathy Yoga Hospital in the Neyyattinkara Ayurveda Hospital campus making it a 'holistic health hub'

The GAH Neyyattinkara campus is presently having Ayurveda, Siddha and Homoeopathy. Inclusion of Naturopathy Yoga can make it an integrated AYUSH Campus with an innovative concept. Neyyattinkara Municipality has initiated the process in 2013 with its decision to start 10 bedded Naturopathy Yoga Hospital in the same campus having adequate area for building.

63. Naturopathy Yoga Medical Officer in Taluk ISM hospitals

The Taluk ISM hospitals are the places where people can access doctors very easily near their premises. Having a Naturopathy and Yoga Medical Officer in every Taluk ISM Hospital will benefit lots of common people to access the service at reachable area in order to save them from lifestyle disorders and other ailments.

64. Yoga Naturopathy Therapist Training Institute at Govt Nature Cure Hospital, Varkala

There are many Naturopathy Hospitals in private sector other than Government Hospital, in Naturopathy Yoga. They need properly trained Nurse/ therapist in Naturopathy and Yoga therapy, like the nursing colleges and allied science training centers are available for Modern Medicine, Naturopathy hospitals needs therapists. Imparting proper training will help in preventing the malpractices and help in quality improvement.

65. Posting Yoga Naturopathy Medical Officers at various institutions Hotels owned by KTDC as wellness professionals / wellness managers

The SPA industry that helps people in detox and rejuvenation can be introduced in KTDC hotels. Being a place of high tourism destinations, such facilities will give quality health care services to tourists for promotion of health and wellness. It also may help in increasing the revenue of KTDC firms.

Prisons in Kerala

The prisoners who are entitled for punishment, needs healing and wellness. When they are released after their tenure of punishment, Yoga Naturopathy wellness will bring a good transformation in their physical and mental health. An improved insight and positive motivation would certainly help the accused to open up a new path of life inculcated with positive thoughts, patience, and positive outlook, makes him / her a perfect

citizen.

The Armed Forces

The people who serve our nation need optimum wellness. It has to be holistic healing catering for better physical and mental health. Having a naturopathy and yoga wellness officer in armed forces in each district will be very helpful for the armed forces.

Secretariate and MLA Hostel

The leaders who are elected by the people should have an enhanced physical and mental and social health, which can be attained through Naturopathy and Yoga. The physical and psychological relaxation through Naturopathy and Yoga improves their endurance and physical stamina. Starting the Centre of Naturopathy Yoga will help our administrators to directly access the health care amidst their busy schedule.

66. Naturopathy Diet and yoga training programme for adolescent

Nowadays adolescent students are facing many problems such as anxiety, depression, body image issues, cyber and drug addiction, lack of concentration etc. Following Naturopathy diet and daily practice of Yoga can have an impact and transform adolescent life into a healthier one. They learn to cope with any challenge in life and build healthy population. Healthy children are the real wealth of the country. Natural diet and Yoga may be introduced in government and private educational institutions. This scheme may be implemented in all the educational institutions of our state through a joint venture from both education and Indian Systems of Medicine Department.

67. Medical education

Government Yoga Naturopathy Hospital is in need of an academic centre for BNYS graduates. Kerala Government hasn't yet started any of Yoga and Naturopathy Medical College in our state. Most of the students in our state are getting graduation from other states. Hence, a Medical College on Naturopathy and Yoga at Varkalamay be started for the students in Kerala to go on with their academics in Naturopathy and Yoga.

Unani Medicine

68. Introduction

The Unani System of Medicine is a medical system, which deals with the various states of health and disease. It provides promotive, preventive, curative and rehabilitative health-care. The fundamentals, diagnosis and treatment modalities of the system are based on scientific principles and holistic concepts of health and healing. Accordingly, it considers an individual in relation to his environment and stresses on health of body, mind and soul. The healing capacity of this system can be utilised in managing the ailments along with the other systems of medicines.

69. Health services

The following may be considered during the 14th Five Year Plan.

Dispensaries in rural areas and clinics in District Hospitals

Currently there is only one Unani dispensary in Kerala. Steps may be taken to start dispensaries in LSGIS where from demands have already been submitted. Starting of Unani clinics in District Ayurveda / Homoeo hospitals may be considered.

Upgradation to hospital

The Government Unani dispensary of Mogral situated in Kumbala Grama Panchayat of Kasaragod district is the only government Unani dispensary in Kerala. Upgrading this to a 30-bedded hospital, as existing building is capable of being upgraded as a hospital.

Medicine manufacturing unit

The medicines required for Unani dispensaries of Kerala are purchased from various government Unani manufacturing companies outside the state of Kerala. A manufacturing unit may be established for the production of Unani medicines with desired quality for the usage in the public and private sectors.

Special unit for leukoderma

Unani has a very effective and proven treatment for leukoderma. Research units in Unani system is working in other states for the purpose. The strengths of Unani system in managing this ailment may be utilised by starting a specialty centre.

Unani Research Unit at Kannur

The proposed Unani Research Unit Pattiam Grama Panchayath of at Kannur may be made a reality during the 14th Five Year Plan.

Siddha Medicine

70. Introduction

Siddha system of medicine extends its routes to the Sangam era which was absolutely considered as a Dravidian civilization. The time period of this medicine dates back up to 10,000 B.C. according to Sangam literature. Kerala was essentially a part of the Sangam civilization and the culture, food habits, language and traditional medicine of Kerala are all extensively influenced by this tradition. Siddha system of medicine was predominantly evolved during this Sangam era. The basic treaties and medical knowledge of this system are thus found mostly in ancient Tamil language. Agasthiyarkoodam which is widely considered the abode of many Siddha saints is also located in Kerala. The Varma / Marma science which is now widely recognised and being practised in different parts of Kerala was also evolved in the Kanyakumari region of Tamil Nādu and the southern parts of Kerala. The first Siddha medical college in the Travancore region was established in the year 1937 in Munchirai, now in the Kanyakumari district of Tamil Nadu under the 'Akhila Thiruvithamkoor Siddha Vaidya Samajam'.

The ancient rulers of Kerala were believed to have their own palace physicians who are known as 'Chinthamani Vaidhyars' who were Siddha physicians. The traditional folklore physicians of Kerala also use many Siddha manuscripts and many medical practices from Siddha texts for centuries.

71. Public health sector

At present, for Siddha, in the State, there are only 6 separate dispensaries, one 20 bedded hospital and 10 attached units under the ISM Department. There haven't been any new institutions established under the department after 1986. Initiating new Public Health-care Centres for Siddha, in Taluk Level has to be considered, with a view to expanding the needy being benefited through the system.

The lone Siddha Hospital in the Government sector, situated at Vallakkadavu, Thiruvananthapuram, has to be expanded from the current 20-bed level to 50-bed level so that the treatment possibility can be further expanded and more referrals from public and private sector Siddha Dispensaries and clinics can be accommodated.

The current six Government Siddha dispensaries are isolated dispensaries working for decades. Many of these dispensaries have already established infrastructure for up-gradation to hospitals. Considering this opportunity of available infrastructure, these dispensaries may be upgraded to 30-bedded hospitals.

New dispensaries may be started under NHM (National Health Mission) at Panchayat Level considering the demand from many LSGDs.

Presently, there are 9 attached units for Siddha in district Ayurveda hospitals. At least five inpatient units may be allocated each for these units at the respective district hospitals for expanding the treatment possibilities. This can be implemented without any major additional infrastructure facilities.

The dispensaries and hospitals working under ISM department and NHM has to be upgraded to KASH AYUSH level (Kerala Accreditation Standards for Health care: AYUSH).

Public Healthcare Projects

'Magalir Jyothi' is a Siddha project aimed at women and child healthcare. As of now, there are only 6 Siddha units working under the scheme. This may be extended to the remaining 8 districts.

There is demand from the public in Siddha OP units for skin diseases, especially psoriasis. A separate Siddha project may be implemented for treating psoriasis patients in every district with a view to benefiting the needy and scientific documentation.

Siddha Varma Therapy is a very effective treatment method for treating neurological ailments, musculoskeletal diseases, post-stroke management and trauma care. This wide possibility may be utilized at the district level through a separate project.

More Siddha tribal units should be started for the benefit of tribal community under the tribal department. This will help us improve the General Health and Living Status of these people, and to scientifically document and validate their traditional healthcare

knowledge and practices, which may further expand the reach and possibility of our health tradition. It is notable that, many of the tribes in Kerala speak the Dravidian language similar to Tamil. For example, Paniya is one of the South Dravidian languages spoken in India. It is spoken by the Paniya people, a scheduled tribe with a majority of its speakers in the state of Kerala. It belongs to the Dravidian family of languages mainly similar to Tamil. According to the 1981 Census, there were 63,827 speakers of Paniya which includes 56,952 in Kerala, 6,393 in Tamil Nadu. Most of its speakers are found in the Wayanad, Kozhikode, Kannur and Malappuram districts of Kerala, and to the west of the Nilgiri Hills.

72. Medicine manufacture and development

At present, there is no dedicated public sector Siddha Drug Manufacturing Unit in the State of Kerala. Oushadhi has started manufacturing some of the Siddha Medicines, at a minimal level. The remaining demand for the medicines of this System is met by purchasing the drugs from the neighbouring State of Tamil Nadu. This situation is a bottleneck for the development of the System, has to be considered as an important necessity and a Public Sector Siddha Medicine Manufacturing facility may be instituted;

Only a very few Siddha literature are recognised as Accredited References for licensing medicines, at the Drugs Control Administration. This makes it difficult even for Classical and proven medicinal formulations, only because their references are not accredited by the Drugs and Cosmetics Act and the Rules thereof. This situation has to be considered with importance and steps has to be initiated to further expand the list of literature approved for reference in licensing the medicines;

Research and Development activities have to happen at the Drug Standardization and Harmonization level, based on scientific facts and observations so that modern dosage forms and other pharmaceutical developments could also be adapted to AYUSH Systems of medicine. Such projects have to be formulated and implemented.

The Ayurveda, Siddha and Unani drug manufacturing regulation comes under the Drug Controller for Modern medicine as of now. A Deputy Drug Controller from ASU is taking charge of the sector. There needs a separate department and a separate Drug Controller for AYUSH. There is no separate Drug inspector for Siddha as of now. Siddha drug manufacturing industries are suffering due to the lack of Siddha experts in the department. Drug inspector posts reserved for Siddha should be implemented in the department.

73. Medicinal plant cultivation

Expecting the developments in AYUSH Medical Systems, which are widely dependant on natural sources, especially for officinal plants, a project for identification and sustainable utilization of these natural raw materials may be initiated. That has to consider, botanical documentation of plant material, herbal cultivation, post-harvest management and single window dispensation.

74. Private Sector - Siddha Healthcare Network

Healthcare facilities in the private sector, which includes, single room clinics to hospitals, also play a significant role in reaching the public with adequate healthcare. Along with Government sector PHCs in Siddha, these private sector initiations may also be validated and willing institutions may be considered as loci for Public Healthcare Projects. For example, private clinical establishments can be encouraged to be part of 'Punarjani' project which aims at restoration of health of persons affected by Covid 19 through Siddha system, once the patient is relieved from acute phase of the disease.

Private Siddha practitioners can be encouraged to start implementing projects as part of State Medicinal Plant Board, thereby enabling them as nodal agencies to distribute, facilitate and collect selected medicinal plants for cultivation among local farmers and interested groups.

Re imbursement facility for State Government employees should be added for Siddha treatment done in private sector where adequate facilities and criteria are fulfilled.

Norms and regulations should be established for tele consultation and online consultation for registered medical practitioners under provisions of Kerala State Medical Council.

75. Medical education

There is a lack of Siddha educational institutions in Kerala for a long period. Even though the first Siddha College in Travancore was established in the year 1937 at Munchirai, now in Tamil Nadu, there was a lack of a Government Siddha Medical college. Even though many committees were constituted by government in this regard after the formation of Kerala state, no such college was implemented. In the year 2000, Dr Mohanlal committee had suggested for a Siddha Medical College, but that has never been implemented so far. Santhigiri Siddha Medical College which was started under Santhigiri Ashramam in 2002 is the only affiliated Medical College for Siddha System of Medicine in Kerala. A Government Medical College for Siddha has to be started in the southern part of Kerala especially where we can utilize the traditional medical knowledge and manuscripts, the endangered medical plants of western ghats, and the folklore knowledge.

At present, the Government hospitals and dispensaries of Siddha in the State are employing pharmacists who are taught in Tamil Nadu Siddha pharmacy institutions. There is an urgent necessity for trained paramedical staff like pharmacists, nurses and therapists. A dedicated Siddha hospital cum paramedical institute is an immediate necessity, which has to focus on external therapies of the Siddha system which is mainly based on Varma therapy and Kalari Chikithsa which can be planned to be a part of medical tourism.

New Under Graduate and Post Graduate Colleges in the private sector may also be

encouraged and accredited with a view to expanding the network and popularity of the system, thereby benefiting the public at large.

Homoeopathy

76. Introduction

Homoeopathy which has completed only 200 years now occupies the status of second largest system of medicine used by the World population as assessed by the WHO. The prime reason for this fast-spreading acceptance can be reasonably attributed to its salient features in being “safe, simple, scientific, economic and effective medicine for all”.

The department of Homoeopathy formed in Kerala in the year 1973, has presently 669 homoeopathic dispensaries and 34 hospitals with total bed strength of 985 across the State, 409 NHM dispensaries & 29 SCPHHC dispensaries. In addition to this, there are 3 floating dispensaries functioning regularly in Alappuzha District. 3 mobile dispensaries are also functioning in the state.

14 District Medical Offices and the Directorate at the apex level of the department are working under the administrative control of the Director of Homoeopathy. A Homoeo medicine manufacturing unit, Kerala State Homoeopathic Co-operative Pharmacy Limited (HOMCO) Alappuzha, established in 1978 in the co-operative sector, has been functioning under the chairmanship of the Director of Homoeopathy.

The prime policy of the department is to render free quality health care services in preventive and curative aspects to the public through Homoeopathy. The holistic form of this complementary medicine noted for its economy and absence of serious adverse effects. The department works with a vision of “Harmony of Health, Happiness and Wellness through Homoeopathy”.

77. A brief outline of major activities

Major activities of the department are (1) comprehensive quality health care services (2) pain & cancer palliative care services (3) communicable disease management & prevention by Rapid Action Epidemic Control Cell in Homoeopathy (RAECH) (4) AYUSH holistic health care service for prevention & management of lifestyle diseases (AyushmanBhava) (5) adolescent health care & behavioural management (Sadgamaya) (6) solace for suffering womenfolk through women health care centre (Seethalayam) (7) Allergy asthma op (8) temporary dispensaries at pilgrim centers during festival seasons (9) specialty clinics for endocrine disorders (10) special clinics for infertility (Janani) & de-addiction centres to correct substance abuse (11) continuing medical education & training (12) weekly clinic at central prison (13) geriatric care service and (14) mobile/floating Homoeopathic health care service. (15) Speciality clinic for transgenders (Nisarga)

Life-style diseases and epidemics are emerging as never before and pose a great threat to our health. The effective management of these diseases are really challenging to the

healthcare delivery system. It demands a strong public health approach and commitment in the public health sector. It needs an integrated approach involving the participation of all branches of medical science, for effective implementation of healthcare programmes so as to ensure the quality of healthcare services.

The draft document on 14th Five-year plan is prepared with a long vision to tackle the existing and emerging health issues during the period. The focus will be to standardize the homoeopathic institutions, to transform the quality and to improve the access and affordability of the health care services. This can be effectively done by expanding facilities for public health and by implementing various schemes and programmes that are intended to tackle the health issues of the community.

Draft proposals for the 14th five-year plan focus on (1) standardization and modernization of department of Homoeopathy (2) Health management and specialty health care centres in Homoeopathy (3) capital fund for construction/renovation of homoeopathic institutions (4) National Mission on AYUSH – Homoeo (5) Janani (6) Homoeopathic co-operative Pharmacy (HOMCO) and (7) new proposals

78. Standardization and modernization of department of Homoeopathy

For delivering equitable & quality health services, standardization and modernization of all institutions under the department of Homoeopathy is inevitable. The standardization of homoeopathic department is considered under 3 headings.

Standardization of Homoeopathic hospitals & dispensaries

As of now, 140 dispensaries have been upgraded to model dispensaries. Every year one dispensary in each district is selected for upgradation, thereby adding 14 dispensaries annually.

Govt. of Kerala has launched a state level accreditation programme Kerala Accreditation Standards for Hospitals (KASH). The major emphasis of KASH programme is on sensitization of health care organization in the importance of quality health care services, Involvement of staff for improving the quality of patient services, development review and implementation of policies and procedures for implementation of quality management. Till now 3 dispensaries have been accredited to KASH standards. KASH accreditation of institutions, aiming to complete half of the institutions by the next 5 years in a phased manner – 75 institutions per year. The following points may be considered viz., (a) allocation of funds to meet the recurring expenditure for upgrading the existing service delivery in model dispensaries (b) upgradation of existing laboratories in district hospitals and starting new laboratories in 20 more hospitals in a phased manner (c) mobility services (d) construction/renovation / refurbishment of Homoeopathic institutions and (e) biomedical waste and other waste management systems. As part of standardization, amenities like token system, seating facilities, drinking water, toilet facilities, public address system, signage systems etc. may be made available in a phased manner. Evening OP may be started in hospitals.

The need for strengthening of IP can be for decreasing the gap between sanctioned strength & running bed strength by rectifying the bed deficiency, rectifying the space deficiency. ECG, X-Ray, Physiotherapy units, pay ward & canteen can be set up & running maintenance can be overseen by HMC.

Computerization/ modernization of department of Homoeopathy

It requires, modernization of the department in resonance with the timely developmental changes to carry out the duties and functions of the institutions efficiently and smoothly, with the objective of delivering better quality health care services beneficial to the public ultimately. The highlights include strengthening of AHIMS, web site updation, e-office, e-hospital, e-dispensary, e-laboratory, mobile app etc. In modernization of Homoeopathic department, the following activities are proposed purchase of computers & accessories, AMC for computers, peripherals & printers, purchase of furniture & maintenance (civil & electrical) of Directorate, purchase of lab / hospital equipment.

Strengthening of central store & district medical stores

For streamlining the process of purchase, preservation, storage and supply of medicines to the Homoeopathic Hospitals and dispensaries throughout the whole length and breadth of the State, department has presently 13 district medical stores and one central medical store at Thiruvanthapuram. This system has to be equipped so that the institutions in far off places must not suffer from shortage of medicine which will affect treatment and patient care. So in the interest of the general public, the process of purchase, preservation, and storage and supply of medicines has to be streamlined and made more effective. AHIMS should be incorporated to reduce the delivery time.

79. Health management and specialty health care centres in Homoeopathy

Health Policy of Kerala (2019) clearly specifies that the commercialization and privatization of health care, lacunae in empowering public health sector, inadequate availability of free of cost care to poor as impediments in Kerala's public health scenario. Department of Homoeopathy's Specialty OPs (projects) facilitate interventions in this regard.

Adolescent health care and behavioural management (Sadgamaya)

Adolescent Health Care and Behavioural Management Programme (SADGAMAYA) aims to solve problems concerning emotional dysfunction, behavioural and cognitive disorders in children through systematic treatment. The outlay proposed is for the implementation of school health programme and strengthening the adolescent health care centres which involves the honorarium of necessary staff also.

Homoeopathy speciality care centres

Special OPs for giving treatment to diseases such as diabetes, thyroid, asthma, allergy etc are now functioning in district hospitals on particular days by deploying Medical Officers from the peripheral dispensaries. The speciality projects are geriatric care centres, speciality clinic for Transgenders (nisarga), speciality clinics for diabetes, asthma,

thyroid, allergy, arthritis, endocrine disorders and mobile homoeopathy health centres etc

Women health care centre (Seethalayam)

Seethalayam is the first gender-based project of Homoeopathy Department, Government of Kerala for women's mental, physical and social health. Majority of women face physical and mental torture in domestic and social environment. Domestic tortures mainly occur due to dowry related issues, nuclear family constrains and substance abuse. Increasing incidence of suicidal tendencies in women is mainly attributed to their family problems, mental illness, physical illness and financial problems. It is well proved that Homoeopathy can alleviate mental aberrations and suicidal tendencies without any bad effects and financial burden. Campaign for antidowry & domestic violence is being made. Now de-addiction treatment facilities are also available in the Seethalayam centres at Thiruvananthapuram, Kottayam and Kozhikode districts.

Pain and palliative care centres

Pain & palliative project under the department of Homoeopathy was started following the palliative care policy of govt of Kerala, the first state in India to implement it. The pain & palliative project addresses patients with chronic & debilitating incurable & terminal illnesses including chronic debilitating diseases, incurable & metastatic cancers, bedridden patients, geriatric patients, patients with neurological deficits & retardation. It aims at improving the quality of life of patients, providing cost-effective, comprehensive treatment to patients with no-side effects, providing relief to patients suffering from pain and other physical difficulties arising from long-term/chronic diseases & providing home care to bed-ridden patients. Homoeopathy system of medicines focuses on providing mental, physical, spiritual well-being for the patients and homoeopathy is well-suited to integrate with other medical disciplines. Pain & palliative projects are functioning in all 14 district hospitals, extending the services to 1 selected institution in each district in each year. A centralised training centre proposed at Kurichi, Kottayam to extend training to all employees in a phased manner.

AYUSH holistic centre for prevention and management of life style diseases (Ayushman Bhava)

Lifestyle diseases are different from other diseases because they are potentially preventable, and the incidence and effects can be lowered with changes in diet, lifestyle, and environment. Kerala is going through an epidemiological transition; it has the lowest prevalence of communicable diseases and has the highest prevalence of the non-communicable diseases (NCD). Ayushman Bhava offers preventive medicine & treatment of non-communicable diseases and palliative care for those who suffer from complications from the same mainly focusing on diabetes, hypertension and other cardiac complaints, hyperlipidaemia, PCOD, obesity. Diagnosed patients are given a combined management based on principles of Homoeopathy, Naturopathy and Yoga. Pre-diabetic treatment for higher secondary school children.

Continuing medical education and training

The component is proposed for continuing medical education and training & IEC activities during developments in the field. IMG training should be continued.

Rapid Action Epidemic Control Cell Homoeopathy (RAECH)

It is a protocol for finding the genus epidemicus (medicine) for containing epidemic diseases prevailing in specific areas under specific situation. It also conducts medical camps, health awareness programmes and seminars throughout the State with emphasis to areas more prone to epidemic outbreak. Human resources is necessary for monitoring & feedback study. The activities proposed are, Regular Communicable Disease Management Programme, Regional Communicable Disease Prevention Programme, Temporary dispensaries at pilgrim centres during festival seasons, Floating Homoeo Dispensaries with honorarium for staff.

80. Capital fund for construction/renovation of homoeopathic institutions

Well-constructed Homeopathic Institutions with the state-of-the-art infrastructure providing ample patient friendly amenities and facilities to deliver quality health care services to the public. Completion of the 27 ongoing constructions. New IP block at Government Homoeopathic Hospital Muvattupuzha & Government Homoeopathic Hospital Kayamkulam & Government Homoeopathic Hospital Karakulam.

81. Janani (Fertility centre)

It is a project for infertility treatment at zero pocket expenditure. Now it is functioning as a project in 14 districts. "A happy family with healthy mother and child" is the vision of this scheme. Establishing new infertility centre in Kannur district.

82. National Mission on AYUSH (NAM) - Homoeo

Utilization of centrally sponsored scheme, NAM. NAM was implemented for filling the gap in the present health care delivery system with the help of Central funding. These resources may be explored very well for the development of AYUSH sector in the State. To strengthen institutional capacity at the state level through upgrading AYUSH Institutions.

83. The Kerala State Homoeopathic Co-operative Pharmacy (HOMCO)

HOMCO is registered as a Co-operative society under the Kerala Co-operative Societies Act- 1969 on 11.07.1974 and commissioned on 14.01.1975. It was a joint venture of Govt. of Kerala with 51 % share capital and Homoeopathic Practitioners of the State with 49 % share. Now the state Govt. is holding 95% shares and fully under control of department of AYUSH, Government of Kerala. HOMCO supplies medicines to all the AYUSH health centers of 20 states including Kerala and has a turnover of INR 29.84 Cr in the year 2020-2021 and profit of INR 9.39 Cr.

Expansion of HOMCO is progressing. New factory at an estimate cost of Rs.52.88Cr is under construction. The same will be commissioned in the next financial year. On com-

missioning the factory HOMCO will turn up to new heights by multifold production.

To enhance the activities of HOMCO, the focus may be on the starting (1) an additional production unit at Thiruvananthapuram with emphasis on cosmetic products by 2023 (2) sales outlets in all the district headquarters by 2022 so as to get the public good quality medicines at affordable price which will in turn helps to control the open market price (3) factory for packing materials like master cartons and bottle caps by purchasing new land (4) hospital division by developing existing out-patient clinic Soukhyam (5) scrapping unit for bottles (6) off-campus outlets (7) drug testing laboratory in Homoeopathy (DTL-H) (8) drug standardization unit and (9) printing unit and renovation of existing factory building and development of HOMCO's medicinal plant farm utilizing assistance from State / National Medicinal Plant Board (10) Drug control Wing for Homoeopathy.

84. New projects

Shradha project has been implemented on coastal areas of the corporation of Thiruvananthapuram extending from Vizhinjam to Perumathura and Urban areas of Thiruvananthapuram covered by 14 Govt Homoeo Dispensaries for the last two years from 2019 to 2021. The beneficiary outcome has made corporation of Thiruvananthapuram to continue the project in larger scale in corporation area. The object of the project is to screen high risk hypertension & diabetic patients, prevention of recurrence of stroke among stroke affected peoples with coronary artery diseases, hypertension, diabetes mellitus and transient ischemic attack or minor stroke & Medicinal and physiotherapy intervention in managing disabilities resulting after stroke in the covering areas of major cities of Calicut, Ernakulum, Kollam, Kottayam, Thrissur, & Thiruvananthapuram.

Uyarae project for the physical mental, emotional & social empowerment of adolescents & young adults in tribal colony through Homoeopathic Health Care system. This population remains still as a challenge to health, education & social welfare departments of our state. Low educational status due to increased school dropouts rates & lack of effective health & social awareness make their improvement extremely difficult. Department of Homoeopathy has been providing services such as women empowerment, de addiction, and intervention in behavioral & learning disabilities in children since many years. In these circumstances Kozhikode district homoeopathic department propose an innovative project to identify and intervene the hindrances in the path of the tribes residing in Vattachira Tribal Colony and help them to lead a life of social empowerment, education and physical wellbeing.

Kunnimani project Homoeopathy will find its best in anganwadi where pre-school children are dealt with. It can render significant service in dealing with the complaints of recurrent attacks of URT infections, allergic manifestations, otitis media, tonsillitis, adenoids, diarrhoea, marasmus etc., ridding the tendency to such ailments in both preventive and curative spheres in children. The kunnimani project may be implemented on selected block panchayats.

Project for Pravasi (Gulf Returned Expatriate's Family Health Care)-A special OP for Pravasi in selected GHD of the state where the NRIs are large in numbers. It is very essential to specifically focus on the health status of the Pravasi and his family in order to reduce the disease burden which in turn becomes an economic burden to Kerala.

Speciality centre in child health. A majority of population depends on homoeopathic management for paediatric cases. Homoeopathy offers safe & effective treatment in paediatric cases. A Speciality centre in child health is proposed at Kizhakkampattukara Thrissur for exclusive management of paediatric cases & thereby providing safe & effective Homoeopathic treatment to help the future generation of our country to be disability free & intellectually keen.

Speciality centre for geriatricsin Neyyatinkara & Muttom government homoeopathic hospitals. Access to homoeopathic health care facilities especially for the aged population in rural areas. In homoeopathy, we are considering every individual as a unique, from this perspective to minimize limitations of old age and to promote comparatively healthy life, homoeopathy deserves its role and significance in a harmless and gentle way. Integration of homoeopathy with naturopathy & yoga, physiotherapy, recreations, library.

Homoeopathic Intervention In Sickle Cell Anaemia. Project proposes to assess the health status of sickle cell anaemia affected persons in Attappady area of Palakkad district and modify the health hardships faced by them with homoeopathic medicines.

Establishing new deaddiction centres.

Establishing a training centre for regular training of employees in clinical & administrative sections. Regular training to improve skills in paramedical employees. Provide training on e-tools for documentations and project management to employees. Provide training on research methodology to all the departmental doctors. Refresher trainings for project staffs. Patient management training for GNM nurses. Training on Digital Marketing. Training on Empathetic Communication. Legal awareness training to all doctors.

Strategic information & Monitoring Unit (SIMU) is proposed along with the directorate of homoeopathy under director with the supervision of Technical Assistant. The activity of SIMU is for designing the data sheet for collection & compiling of data, steering the data, reporting the data to government, department website & to others as needed, making annual reports to other departments, digitalization of records, providing on facility for online meeting. New post for biostatistician & computer programmer.

Ethics committee under department of Homoeopathy Kerala is to ensure the protection of the rights and welfare of human participants in biomedical, experimental, and

behavioural researches.

Provision of basic health care service at backward, tribal, coastal, plantations and backwater valley area - Hospitals may be planned in tribal areas like Attapady, Thirunelli, Marayoor and Kuttampuzha, Health on wheels may be made functional in coastal, plantation and tribal areas.

Declaring HOMOEEO friendly State by starting dispensaries in 36 panchayaths, 7 Municipalities.

Meritorious appreciation associated with World Homoeopathic Day Celebration- Best doctor award in department sector, medical education sector, private sector. Best doctor in homoeopathic research sector.

Celebrating 50 years of Homoeopathy Department in Kerala.

Disaster Management Cell (Homoeopathy Department)– State wise & district units.

Human resources needed - Strengthening the following sections at directorate in Planning section -> 1 Joint Director, 1 senior Superintendent, 2 clerks, in Account Section-> 1 Finance officer, 1 senior Superintendent, 2 clerks, Pharmacist, Attender & PTS posts in 10 dispensaries, Senior superintendent post in 1 DMO office, Pharmacist post in 93 dispensaries to standardize the staff strength 4 (medical officer, pharmacist, attender, PTS)

Integrative medicine- collaboration for research & training-Ethics committee, Communicable diseases with Virology institute, Rare and deadly diseases and cancer with CCRH and State health department, Homoeopathic medical colleges within & outside Kerala.

Public relations Public relation officer at directorate, Mass media cell, Publication of journals.

Homoeopathic Medical Education

85. Introduction

Our state has already formulated a 'perspective plan by 2030' for developing Kerala as a "World hub of Education and Health". While looking into the major achievements of Homoeopathic system of medicine, we should focus on need-based development programme as well as an outcome-based development programme to address the health crises. The need-based development is the necessary improvement of infrastructure as well as manpower in terms of service requirements and CCH regulations such as providing minimum standards of Homoeopathic education. Outcome based development is the developmental requirements of the department to address the present health crises of the State in a participatory manner in which the Department of Medical Education can contribute its effective service in supplementation with Department of Homoeopathy.

14th five-year plan may focus on (1) UG & PG education (2) Collegiate hospital (3) Paramedics in Homoeopathy (4) Training (5) Research and (6) DHME

86.UG & PG education

UG education

It is noticed that the annual intake for graduates for Ayurveda and Allopathy has increased manifold after 2002 whereas the UG seats for Homoeopathy have remained static at 250 per year in all the two government and three aided HMCs in the State. Recently there is a marginal increase in the intake capacity of each college to 60 seats. Thus, a total of 300 seats per year. It is also noticed that the registration for Homoeopathic UGs passing out from outside States is almost equal to the registration by UGs passing from within the State every year and hence the intake capacity in the State may be increased considering the increasing popularity of Homoeopathy.

Enhancement of UG seats: It may here be considered that there is a feasibility of enhancing the existing 60 seats to 100 as per the MSR Regulations 2013. Hence necessary action may be initiated to increase the UG seats to 100 in both Government and aided colleges with judicious changes in the infrastructure, if required, with the consent of affiliation of the KUHS for obtaining the letter of permission (LoP) from the Ministry of AYUSH.

Constituent College of the University in KUHS: A new college may be started as Constituent College of the University in KUHS campus at Thrissur as recommended in the report of the Homoeopathic Committee for the formation of the Health University.

New Govt. Homoeopathic Medical College in Kannur: Considering the huge popularity of Homoeopathy in the Malabar area and the large number of students migrating to other States like Karnataka, TamilNadu, etc., for pursuing Homoeopathic education, a new GHMC may be established in Kannur, taking the total number of HMCs in the State to 7 in place of the existing 5 -making 3 in government sector, 3 in aided sector and 1 in the University.

Placement & career guidance wing: A placement & career guidance wing for students & pass-outs may be started under this department in all HMCs to increase the awareness among the fresh aspirants and interns regarding the career options and placement opportunities available in the field.

Ensuring the continuity of existing courses: The central AYUSH Ministry has issued strict instructions for obtaining continuous permission for existing UG seats from 2017-18 onwards as per the MSR Regulations 2013, under which a functional operation theatre and labour room should be made available in the HMCs for teaching surgery and OBG. The last CCH inspection has pointed out along with certain minor deficiencies that in the GHMCs no functional operation theatres/labour rooms are available. This matter is not solved till now. Hence a functional operation theatre and labour room

must be made available in HMCs for teaching surgery and OBG.

Ministry of AYUSH has also issued instructions that NABH accreditation for the collegiate hospital within one year and NAAC accreditation for the college within two years may be obtained for conducting UG/PG courses in all HMCs. Preliminary discussions related to NAAC were conducted. Training and basic steps to NABH accreditation done. Necessary action may be taken in this regard.

Hostel facilities for aided HMCs: Proper hostel facilities should be ensured in all three aided HMCs and adequate grant for this should be made available.

PG education: It is noted that even though 4 new specialties were introduced in PG courses in 2001 Regulations, only one of them could be started regularly in Kerala due to various reasons and at present there are only 4 existing specialties. It was also noted that the students of Kerala are compelled to go to outside colleges for PG courses. Hence steps may be taken to start PG courses in the new 3 specialties- Paediatrics, Psychiatry & Pharmacy.

MD (Hom) in the subject of Pharmacy can be started either in the aided college in Kurichi, Kottayam or in the proposed 'Institute of Paramedics in Homoeopathy' at Kurichi, Kottayam, considering the proximity of HOMCO, whose facilities could be utilized for the purpose.

For the new specialties of Psychiatry and Paediatrics, which are in great demand, action may be initiated to start them in the 2 GHMCs by upgrading their infrastructural facilities including faculty. A separate PG & PHD block may be constructed in the existing campus.

PG courses in aided HMCs: PG courses may be started in the 3 aided homoeopathic medical colleges where infrastructure and faculty are available.

87. Collegiate hospitals

Development of collegiate hospital

There are two GHMCs in the State with 100 bedded hospitals in each. For providing more beds, necessary buildings have already been constructed in both colleges. It is in the absence of the academic complex in full shape, the buildings constructed for the hospital are being put into use for academic activities. Construction of separate academic block, to accommodate the academic departments, which are now housed in the existing hospital building to be started at the earliest. In both these colleges there are sufficient paid medical manpower (42 faculties, more than 70 PG students and about 30 – 40 interns in each college) which are now really underused. If their services are properly used in the Peripheral Health Centres (PHC), more and more patients can be made to frequent the collegiate hospital for clinical studies. All the Maternity and Child Health (MCH) Centres under the City Corporation can be clubbed together under a

tie-up programme for the PHCs. If this manpower is properly put into use, several specialty clinics, research programmes can also be undertaken besides the above PHCs.

Specialty clinics:

Specialty clinics for women, fish workers, elderly & those with physical and mental disabilities can be started in the collegiate hospital. In the same manner, the cancer care unit and palliative care wing of HMCs can be developed into speciality centres. Speciality clinics for fishermen may be set up in coastal areas.

Government Homoeopathic Medical College, Thiruvananthapuram (GHMCT): At present most of the academic activities are being conducted in the buildings constructed for accommodating 250 bedded hospitals. The bed strength of the hospital has to be enhanced to 150 at least from the existing 100 for introducing newer PG courses and PhD programmes during 14th FYP. This demands the construction of a well-planned academic complex required for NAAC accreditation. Necessary steps for the above may be urgently taken.

Government Homoeopathic Medical College, Kozhikode (GHMCK): 1st phase of construction of the new hospital building which houses the hospital complex is done. Sanction for the construction of remaining 3 stories of new hospital building may be made available in the next five-year plan.

Aided Homoeopathic Medical Colleges: At present there are three aided HMCs in the state for UG education. Together, they accommodate 60% of the total annual intake of BHMS students. The facilities and infrastructure of these institutions have to be upgraded at par with the Government HMCs to improve the quality of education. Posts may be created in collegiate hospitals of aided HMCs at par with GHMCs as per in CCH MSR 2013 to ensure a uniform staff pattern in all HMCs. Adequate Grant in aid may also be made available to these aided HMCs to meet NABH, NACC, NABL standards.

In addition to this, the following facilities may be provided in the collegiate hospitals in the coming five-year plan viz., (1) improving e-hospital facility & e-services to the public (2) creating patient database (3) lab facilities with NABL standards (either in house or out sourced) (4) enhancing preventive medicine distribution as in covid-19 (5) setting-up of post covid OPDs & IPDs as per the guidelines (6) School Health Programme focusing tribal areas & among fisherman population (7) energy efficient hospitals by tapping solar energy in all collegiate hospitals (8) aim is to acquire NQAS, for obtaining grants.

The existing academic and clinical facilities have necessarily to be broadened and enhanced when viewed against the new situation requiring the enhancement of 60 UG seats to 100, adequate tertiary care level hospital with more beds befitting the NABH accreditation, concomitant installation of students' hostels, RMO quarters, Nurses quarters, Central Research Lab, Information and documentation Centre, Clinical and Com-

munication Skills Development Centre, and associated infrastructural development for gaining NACC accreditation need to be accommodated in the present campus lying in 3 adjacent pieces of land at Iranimuttom.

Utilization of additionally acquired lands

Utilization of additional acquired land. It is in the newly acquired 5 ½ acres land foundation stones have already been laid for constructing “Homoeo Bhawan” for housing the Departments of Services and Education and for starting other unit of HOMCO, a medicine manufacturing unit. Construction of the building for Pharmacy College is completed in that campus. Apart from the above, the proposed State Homoeopathic Research Interdisciplinary Institute For Research and Training having Training division, R&D division, IEC division etc. has also to be provided here. For achieving the above goal, a strategy has to be evolved for utilizing the optimum level of available land. This necessitates the preparation of a master plan with a suitable landscape of the existing land initiating side by side necessary prudent action to acquire bits of land lying there in between the old and new campus. Necessary actions in this regard may be done during the 14thFYP.

There is at present a total landed area of almost 11 acres in GHMCT, which is the pivotal area in the capital city that can be made use of for the purpose of development of GHMCT into a “National Centre of Excellence in Education and Research in Homoeopathy”. The chances of getting Central assistance are also brighter.

Government Homoeopathic Medical College, Kozhikode (GHMCK):All the essential requirements required in respect of GHMCT have to be afforded to the GHMC, Kozhikode also especially when NABH and NAAC accreditation for the hospital and the College respectively as mandatory for the continuance of existing courses and proposed higher courses. These developments have to be confined to within the 3 ½ acres of landed area left for the said developments. A new academic complex has been constructed at a cost of 7 crore in the same campus. All the possibilities for developing this college need to be probed into with a view to making the college befitting the above accreditations. Necessary action directed towards making available the required fund may be taken urgently.

15 acres of land is available with GHMC Kozhikode at Kakkur: The fencing work of this entire area will be started by PWD in the coming months. In a phased manner a peripheral unit for the nearby SC/ST colony, various specialty clinics, a herbal garden with medicine procurement unit, preclinical classes, staff quarters and students hostel with playground are to be set up.

88. Paramedics in homoeopathy

At present there are only 2 GHMCs for training the paramedics for filling up the posts of Pharmacists / Dispensers and Nurses in government institutions –earlier there was Nurse cum-Pharmacist course (NCP). At present Homoeopathic orientation course is

provided to the Nurses having General Nursing certificates and for Pharmacists/Dispensers Certificate Course in Pharmacy (CCP) training is imparted in 2 GHMCs. However, they are not able to train sufficient numbers and provide effective training due to lack of hospital facilities and pharmacy (medicine manufacturing unit). The government had contemplated setting up a new Pharmacy College for this purpose at Thiruvananthapuram and even allocated funds.

Institute of Paramedics in Homoeopathy: It is noted that Kurichi, Kottayam has got proximity to HOMCO, a medicine manufacturing unit under public sector, and a good number of hospitals – the 125 bedded Government hospital at Kurichi, 100 bedded CRIH hospital and 25 bedded ANSS HMC hospital nearby would be very helpful in providing training to the Pharmacists/Dispensers and Nurses in Homoeopathy. It was further noted that about 3 acres of land is available in the GHH campus, Kurichi. What this shows is that all these positive prospectuses if taken together will certainly pave way for the establishment of a ‘Paramedical Institute in Homoeopathy’ at Kurichy which may be better than the one already under proposal for construction at GHMCT campus. It will be therefore be prudent if that fund is reallocated to the above proposed institute of Paramedics at Kurichi. The necessary DPR for the above Institute may be prepared and other follow up action to set up the Institute maybe initiated immediately if, in-principle, approval is accorded by the Government. The institute could be temporarily located in the GHH buildings, Kurichi to start with. For the time being, the services of the suitable staff of the Government hospital and nearby aided HMC can also be utilized. Availability of Central funds through NAM could also be explored for further development at appropriate time.

D. Pharm courses in Homoeopathy may be started in the next five-year plan

89. Training

Training for the Human Resources in Homoeopathy (HRH) viz, teachers, medical officers, private practitioners, paramedics, etc. is highly essential for ensuring their efficiency in service by updating them in their respective spheres. It is highly relevant today in as much as no such regular institution in training is in vogue anywhere in the country. It is only through such an established institution with necessary paraphernalia that the imparting of systematic and monitored training could be expected. This is the spirit which is displayed in the present Government’s election manifesto behind the proposal for establishing a SHIIRT-State Homoeopathic Research Interdisciplinary Institute for Research and Training. It may be set up in the GHMC campus at Thiruvananthapuram. The said Institute could have three divisions – training, research and development and IEC. The process of developing treatment protocols in homoeopathy may be done by SHIIRT. The activities of SHIIRT may be extended to Aided HMCs also. Necessary action for the preparation of DPR, budgetary provisions, etc. for establishing the above Institute may be initiated urgently so that the Institute could be set up in the 14th FYP itself. The Ministry of AYUSH (GoI) provides lot of funds for training and efforts could be made to make available such funds for the project.

90. Directorate of Homoeopathic Medical Education (DHME)

At present there is the Directorate of Homoeopathy in the State to look after the entire affairs of Homoeopathy except education. Homoeopathic education was separated from the Directorate in 1982. At that time there was only one college at Kozhikode. There after another Government college was established at Thiruvananthapuram in 1983. Subsequently in both the colleges PG courses in 4 disciplines were started. Later on 3 private colleges were brought under direct payment. Then the activities increased manifold – new courses were introduced, research work started, speciality clinics established etc. All issues related to Homoeopathic education are being handled by the Principal and Controlling Officer (PCO) of GHMCT. He has to attend to all matters relating to medical education in Homoeopathy; all court cases and departmental cases are to be dealt by him; PCO is involved in preparation of all schemes including research proposals, schemes under NAM, etc; all queries on medical education in Homoeopathy are to be answered by him. In view of the increasing activities in the medical education sector in homoeopathy and stagnant situation in the education front, a separate Directorate of Homoeopathic Medical Education, is urgently required. Necessary proposals were submitted to the Government by Homoeopathy and Ayurveda for setting up separate Directorates of Medical Education in respective systems as far back as 1997. But the Directorate of Education was set up for Ayurveda only and the requirement of Homoeopathy was overlooked. This necessity was strongly felt years ago especially during the time when the direct payment system was introduced in all the three HMCs under private sector. This was again brought to the notice of the Government through SPB in the XI Plan proposals. But this was left unattended to so far. In view of the increasing activities in the Medical Education sector of Homoeopathy, the PCO is not able to effectively attend to all the institutional responsibilities in the GHMCT or provide effective supervision for Medical Education in Homoeopathy as his additional charge. As such there is urgent need of having a separate Directorate of Medical Education in Homoeopathy to attend to all matters related to medical education.

The proposed State Homoeopathic Research Interdisciplinary Institute for Research and Training also could be brought under the supervisory responsibility of this Directorate. The proposed Directorate could be housed in the building being constructed in the GHMC campus at Thiruvananthapuram for Homoeo Bhavan where the Directorate of Homoeopathy would be housed, as has been done in the case of Ayurveda. Till that building is completed, the office could be housed in the GHMCT buildings and made operational with minimum support staff by upgrading some of the existing supervisory posts and within existing infrastructure of that college. If it is approved, necessary proposal with the DPR, budgetary and other related matters could be moved to the Government immediately.

91. Research

Research and advanced studies are the basic things on which all medical sciences are veering round for the full and optimum development of them. This being the case

necessary competent research activities need to be initiated. In the wake of PG courses being conducted in GHMCs and attempts are afoot for introducing PhD programmes in Homoeopathy, the relevance of starting research activities has to be recognized without any loss of time. It is noticed that a DRW is now functioning in GHMCT. Similar DRWs should be set up in all HMCs and may also work in collaboration with leading scientific institutions.

The ideal most place for conducting research activities especially clinical research is collegiate hospitals themselves. All the research facilities such as hospital, labs and category wise human resources in medical, paramedical and technical sections are already available in collegiate hospitals. As noted by Ministry of AYUSH, GoI has directed all the collegiate hospitals to ensure NABH accreditation within a period of one year for continuing their courses.

The Central Ministry has again a Central sector scheme titled 'Extra Mural Research' earmarking Rs 70 lakh for a period of 3 years for a project. This situation has to be fully utilized by the teaching faculty of our colleges. Necessary effective steps to this direction may be taken urgently.

The SHIIRT especially the R&D division should also seize this opportunity to conduct research activities in the departmental hospitals by deploying the above Central sector scheme of EMR to the maximum optimum level.

The R&D division of the SHIIRT should take diligent action to issue necessary guidance to the dept. staff after assessing the quality of their routine work including related to speciality projects. Necessary improvement / modifications should also be made in the existing formats, registers etc. as and when required as per the assessment made from time to time.

Major/ minor grants may be made available for faculty research in aided colleges through NAM, KUHS etc.

92. Miscellaneous

Clinical Establishment Act

With a view to maintaining standardization in medical practice, clinical establishments under both public and private sectors, a State Clinical Establishment Act may be enacted in the analogy of Central Clinical Establishment Act 2010. While formulating the above Act particular requirements/features of Homoeopathy should also be considered.

World Homoeopathy Day- should be observed in befitting manner.

State journal publishing

With a view to making optimum propaganda and maximum publicity highlighting the salient features of Homoeopathy among the public and others, attempts should be made in Government level to utilize the social media in all its vigour and force. To keep the

people and professionals abreast of all the trendy developments of Homoeopathy an official journal may also be brought in under the proposed SHIIRT.

Government must provide funds and other facilities to complement the health projects formulated by the State Government. Currently, expenditure on health by the Central Government is only 2.1% of GDP as per the Economic Survey 2021-22. This is not enough to tackle the health issues faced by the nation. Local Self Government Institutions are also involving in improving the infrastructure and other amenities of the healthcare institutions under their control. Government must provide funds and other facilities to complement the health projects formulated by the State Government. Currently, expenditure on health by the Central Government is only 2.1% of GDP as per the Economic Survey 2021-22. This is not enough to tackle the health issues faced by the nation. Local Self Government Institutions are also involving in improving the infrastructure and other amenities of the healthcare institutions under their control. Government must provide funds and other facilities to complement the health projects formulated by the State Government. Currently, expenditure on health by the Central Government is only 2.1% of GDP as per the Economic Survey 2021-22. This is not enough to tackle the health issues faced by the nation. Local Self Government Institutions are also involving in improving the infrastructure and other amenities of the healthcare institutions under their control. Government must provide funds and other facilities to complement the health projects formulated by the State Government. Currently, expenditure on health by the Central Government is only 2.1% of GDP as per the Economic Survey 2021-22. This is not enough to tackle the health issues faced by the nation. Local Self Government Institutions are also involving in improving the infrastructure and other amenities of the healthcare institutions under their control. Government must provide funds and other facilities to complement the health projects formulated by the State Government. Currently, expenditure on health by the Central Government is only 2.1% of GDP as per the Economic Survey 2021-22. This is not enough to tackle the health issues faced by the nation. Local Self Government Institutions are also involving in improving the infrastructure and other amenities of the healthcare institutions under their control.

Kerala's achievements in health care are the outcome of people's interventions and the implementation of public health provisions by various Governmental agencies. But Kerala is moving away from success to severe crisis in health sector. Comprehensive efforts to tackle these problems must form an integral part of the struggle for a new Kerala Model of Health Care.

One Health

Concept of health and diseases changes substantially due to the emergence of new pandemics and re-emergence of diseases which was thought to be eradicated. Philosophy, principles and practices of health-related discourses has been started revision by widening human health to health of the ecosystem including that of the flora and fauna. "One Health" being defined as a collaborative effort of multiple health science professions, together with their related disciplines and institutions – working locally, nationally, and

globally – to attain optimal health for people domestic animals, wildlife, plants, and our environment. This interdisciplinarity is becoming vital, especially where human health is not deemed as isolated from the complex interaction with the surroundings and nature. Ayurveda has an in born integration with nature and natural phenomena, which explains that the very existence of human health to be interlinked with surroundings and the ecosystem. Any developmental policies in health sector needs to be perceived in the background of One Health, where Ayurveda and other AYUSH systems will have a definite role to play with. Intertwining AYUSH programs with Public health programs, Veterinary medicine, Agriculture, Water resource management, food safety measures, afforestation, and other programs under sustainable development schemes becomes imperative.

20. The present status related to One Health, as put in practice by One Health Commission mainly deals with diseases of animal origin (zoonotic diseases), their prevention, anti-microbial resistance, environmental contamination, food safety measures etc. Ayurvedic knowledge system developed its own allied disciplines like Virshayurveda (traditional Agri-medicine) and Mrigayurveda (traditional Veterinary medicine) encompassing the concerns related to maintenance of health of the Flora and Fauna respectively. On the other side, misusing and overusing antibiotics in animals lead to the development and spread of antibiotic-resistant bacteria, which affects human also. In reducing the anti-biotic load, alternative modalities are much pursued, where the traditional veterinary practice encoded in Mrigayurveda has a promising role. Projects has already been initiated by K-VASU in this direction. Unscientific pesticide usage is another threat to human health. When we call for return to Organic Agriculture, the role of Vrikshayurveda need to be explored properly. That means, when we seek for alternatives for antibiotic resistance and pesticide threat, essentially, we need to look for Vrishayurveda and Mrigayurveda. Ayurveda proposes food safety as an integrated part of its practice and put forth alternative models for dealing with the food safety issues, which need to be explored properly. All these factors lead to the importance of integrating the One Health concerns to the programs planned in health sector. 14thFYP may deem this as the central theme in health sector

Annexure 1

PROCEEDINGS OF THE MEMBER SECRETARY STATE PLANNING BOARD

(Present: Sri. Teeka Ram Meena IAS)

Sub: - Formulation of Fourteenth Five Year Plan (2022-27) – Constitution of Working

Group on **Ayush** – reg.

Read: 1. Note No. 297/2021/PCD/SPB dated: 27/08/2021

2. Guidelines on Working Groups

**ORDER No. 448 / 2021 / SS (Ayush) / SPB Dated:
08.09.2021**

As part of the formulation of Fourteenth Five Year Plan, it has been decided to constitute various Working Groups under the priority sectors. Accordingly, the Working Group on **Ayush** is here by constituted with the following members. The Working Group shall also take into consideration the guidelines read 2nd above in fulfilling the tasks outlined in the ToR for the Group.

Co - Chairperson

1. Dr. Sharmila Mary Joseph IAS, Secretary to Government, AYUSH Department, Room No. 606, 6th Floor, Annex II, Government Secretariat, Tvm. PH: 0471-2328410, 0471-2518459, Mob: 9446528400, E-mail: ayush@kerala.gov.in
2. Dr C V Jayadevan, Principal, Vaidyaratnam P.S. Varier Ayurveda College, Kottakkal PH: 9847160340 email: drcvjd@gmail.com

Members

1. Dr. Sajith Babu IAS, State Mission Director, National Ayush Mission, Ist floor, Bliss Heaven, 82/1827(3), Convent Road, Vanchiyoor, Tvm – e-mail: namkerala@gmail.com
2. Dr. K S Preeya, Director, Directorate of ISM, Puthenchantha, Thiruvananthapuram - Ph: 8547102577 email: directorism@yahoo.com
3. Dr. Harikrishnan Thirumangalath, Director, Directorate of Ayurveda Medical Education, Puthenchantha, Thiruvananthapuram PH: 6282882507 email: director.ame@kerala.gov.in
4. Dr. M N Vijayambika, Director, Directorate of Homoeopathy, East Fort,

Thiruvananthapuram - PH: 9447170342 - *E-mail:*directorhomoeokerala@gmail.com

5. Dr. Sunil Raj P, Principal and Controlling Officer, Homoeopathic Medical Education Department, Iranimuttom, Manacaud P.O., Thiruvananthapuram, PH: 9447383745, 9207092739 - drsunilraj.94@gmail.com
6. Dr. Sheela, **Professor**, KMCT Ayurveda Medical College, Kozhikode, 9447126137, email. aleeshdr@gmail.com
7. Dr. K Jyothilal, Professor (Rtd), Ayurveda Medical Education Dept., Sevasadanam, Parottukonam, Nalanchira PO, Tvm.-15 -PH: 9387805568, email: jyothilaldr@gmail.com
8. Dr. Viswanathan K G, Principal (Rtd), Vaidyaratnam Ayurveda College Olloor / Swasthi, Chiyaram, Trissur - 680026 PH: 9495926137, Email: viswanathankgdr@gmail.com
9. Dr. R. Santhosh Kumar, Reader & HoD, Department of Anatomy, Shree Vidhyadhiraja Homoeopathic Medical College, Nemom P.O. Thiruvananthapuram – 695020, PH: 9447051352, email: santhoshraghav@rediffmail.com
10. Dr Saji PR, State Programme Officer (ISM), Ayush Mission, Kerala PH:9447219750, email: drsajipr@gmail.com

Convener

Dr. Bindu P Verghese, Chief, Social Services Division, State Planning Board, Tvm, PH: 0471-2540609, 9495098606, e-mail: ssdnklaspb@gmail.com

Co- Convener

Sri. Saji V., Assistant Director, State Planning Board, Tvm, PH: 9447799496, e-mail: ssdnklaspb@gmail.com

Terms of Reference

1. To outline special problems pertaining to the Ayush sector and to improve the functioning of the institutions in terms of human resource planning and sustainable infrastructure development plan.
2. To identify the gaps in research and development in Ayush sector and to suggest ways to overcome the issue with focus on the cultivation and utilisation of medicinal plants for purposes of R & D and production of medicine.

3. To suggest the mechanism for introducing treatment protocol in Ayush.
4. To examine the possibilities of preventive, curative and palliative care and of promotion of speciality clinics under Ayush.
5. To suggest ways to cater to the needs of persons belonging to scheduled castes and scheduled tribes, women, fishworkers, elderly, and persons with physical and mental disabilities for health care under Ayush.
6. To explore the possibilities of promotion of Ayush wellness medicine in connection with tourism.

Terms of Reference (General)

1. The non-official members (and invitees) of the Working Group will be entitled to travelling allowances as per existing government norms. The Class I Officers of GoI will be entitled to travelling allowances as per rules if reimbursement is not allowed from Departments.
2. The expenditure towards TA, DA and Honorarium will be met from the following Head of Account of the State Planning Board “3451-00-101-93”- Preparation of Plans and Conduct of Surveys and Studies.

Sd/-

**M e m b e r
Secretary**

To

The Members concerned

Copy to

PS to VC

PA to MS

CA to Member (Dr. P K Jameela, PH: 9447737579, drjameelabalan@gmail.com)

Sr. A.O, SPB

The Accountant General, Kerala

Finance Officer, SPB
Publication Officer, SPB
Sub Treasury, Vellayambalam
Accounts Section
File/Stock File

Forwarded / By Order

Sd/-
Joint Director (T E Santhi)

Annexure 2

PROCEEDINGS OF THE MEMBER SECRETARY STATE PLANNING BOARD

(Present: Sri. Teeka Ram Meena IAS)

Sub: - Formulation of Fourteenth Five Year Plan (2022-27) –Working
Group on **Ayush** – reg.

Read: 1. Note No. 297/2021/PCD/SPB dated: 27/08/2021

2. Guidelines on Working Groups

3. Order No. 448 / 2021 / SS (Ayush) / SPB Dated: 08.09.2021

**ORDER No. 448 / 2021 / SS (Ayush) / SPB Dated:
07.10.2021**

As part of the formulation of Fourteenth Five Year Plan, Working Groups has been formed under the priority sectors. Accordingly, the Working Group on Ayush has been formed as per reference 3rd cited. The first meeting of the working group on Ayush held on 15/09/2021 decided to co-opt members to the working group for two sub group viz. Ayurveda and homoeopathy. Hence the following members are included in the Working Group on Ayush.

Members

| Sl. No. | Name | Address |
|---------|-----------------------|---|
| 1 | Dr. V G Udayakumar | Medical superintendent, Dhanwanthari Vaidyashala, Chalappuram, Kozhikko- de, 673002 PH: 8547720163 udayakumarvg@gmail.com |
| 2 | Dr. Sadath Dinakar | Ayurveda Medical Association of India, Ayurveda Bhavan, P.B. No. 93 Angamaly - 683572 PH: 9895989586 doctorsadath@gmail.com |

| | | |
|---|---------------------------|--|
| 3 | Dr. Rajesh Neelamana | Senior Medical officer (ISM), Govt. Ayurveda Dispensary, Edachery, Vadakara, Kozhikkode - 673542 PH: 9447541829, 9961991819 rajeshndr@gmail.com |
| 4 | Dr. P R Jaya | Senior Medical officer (ISM), Govt. Ayurveda Hospital, Ayoor, Kollam - 691533 PH: 9447397809 drjayapr@gmail.com |
| 5 | Dr. K V Raja- gopalan | Deputy Chief Physician, AH & RC, Arya Vaidya Sala, Kottakkal - 676503 PH: 7907817512 rajagopalvarier@gmail.com |
| 6 | Dr. M M Sanil Kumar | Chief Physician, Aswini Ayurveda Hospital, Perambra. Kozhikkode - 673525 PH: 9946986421 drsanalind@yahoo.com |
| 7 | Dr. Sreeraj Kunnassery | Rajah Healthy Acres(P) ltd, Perumannur.p.o, Chalissery, Palakkad - 679536 PH: 9447499080 dr_sreeraj@yahoo.com |

| | | |
|----|--------------------|---|
| 8 | Dr. N V. Sreevaths | Ayurvedic Health Care Centre Nallepilly, Palakkad - 678553 PH: 8848726598, 8891855346 nvsreevaths@gmail.com |
| 9 | Dr. Rajmohan V | Associate Professor Dept. of Rasasastra and Bhaishajya- kalpana, Govt. Ayurveda College, Thiruvanan- thapuram PH:9048088428, 9496097857 drrajmohanv@gmail.com |
| 10 | Dr. Madhu K P | Associate Professor, Dept. of Dravyagunavijnanam, VPSV Ayurveda Colleg, Kottakkal, Malappuram - 676501 PH: 9745994515 madhusukrutham@gmail.com |
| 11 | Dr. Rahul R Nair | Associate Professor, Dept. of Roganidana, Ashtanga Ayurveda Chikitsalaya and Vidyapeedham, Koottanad PH: 9447226950 dr.rahulram@gmail.com |
| 12 | Dr. Radhesh M G | Principal, Dr. Padiar Memorial Homoeo Medical College, Chottanikkara, Ernakulam PH: 9447665571 drpadiarhmcc@gmail.com |

| | | |
|----|--------------------|---|
| 13 | Dr. Sanilkumar M C | Professor , Govt. Homoeo Medical College, Kozhikode PH: 9495101316 drsakumkumar@gmail.com |
| 14 | Dr. Satheesh G | Associate Professor, Govt. Homoeo Medical College, Thiruvananthapuram PH: 9447263693 drsatheeshg1967@gmail.com |
| 15 | Dr. Pradeepkumar K | Reader, Govt. Homoeo Medical College, Kozhikode PH: 9961229019 drkpradeepkumar@yahoo.co.in |
| 16 | Dr. Ramjyothis A B | Reader, ANSS Homoeo Medical College,, Kottayam PH: 9497053705 pharmakon07@gmail.com |

Terms of Reference

1. To outline special problems pertaining to the Ayush sector and to improve the functioning of the institutions in terms of human resource planning and sustainable infrastructure development plan.
2. To identify the gaps in research and development in Ayush sector and to suggest ways to overcome the issue with focus on the cultivation and utilisation of medicinal plants for purposes of R & D and production of medicine.
3. To suggest the mechanism for introducing treatment protocol in Ayush.
4. To examine the possibilities of preventive, curative and palliative care and of promotion of speciality clinics under Ayush.

5. To suggest ways to cater to the needs of persons belonging to scheduled castes and scheduled tribes, women, fishworkers, elderly, and persons with physical and mental disabilities for health care under Ayush.
6. To explore the possibilities of promotion of Ayush wellness medicine in connection with tourism.

Terms of Reference (General)

1. The non-official members (and invitees) of the Working Group will be entitled to travelling allowances as per existing government norms. The Class I Officers of GoI will be entitled to travelling allowances as per rules if reimbursement is not allowed from Departments.
2. The expenditure towards TA, DA and Honorarium will be met from the following Head of Account of the State Planning Board “3451-00-101-93”- Preparation of Plans and Conduct of Surveys and Studies.

Sd/-

**M e m b e r
Secretary**

To

The Members concerned

Copy to

PS to VC

PA to MS

CA to Member (Dr. P K Jameela, PH: 9447737579, drjameelabalan@gmail.com)

Sr. A.O, SPB

The Accountant General, Kerala

Finance Officer, SPB

Publication Officer, SPB

Sub Treasury, Vellayambalam

Accounts Section

File/Stock File

Forwarded / By Order
Chief (SS Division)
Dr. Bindu P Verghese

Annexure 3

Subgroups

Sub group 1

Indian Systems of Medicine

| Sl. No. | Name | |
|---------|---|----------|
| 1 | Dr. Rajmohan V Associate Professor Dept. of Rasasastra and Bhaishajyakalpana, Govt. Ayurveda College, Thiruvananthapuram PH:9048088428, 9496097857 drrajmohanv@gmail.com | Convener |
| 2 | Dr. K S Preeya, Director, Directorate of ISM, Puthenchantha, Thiruvananthapuram Ph: 8547102577 email: directorism@yahoo.com | Member |
| 3 | Dr. Harikrishnan Thirumangalath, Director, Directorate of Ayurveda Medical Education, Puthenchantha, Thiruvananthapuram PH: 6282882507 email: director.ame@kerala.gov.in | Member |

| | | |
|---|---|--------|
| 4 | <p>Dr.Sheela, Professor, KMCT Ayurveda Medical College, Kozhikode, PH: 9447126137, email. aleeshdr@gmail.com</p> | Member |
| 5 | <p>Dr. K Jyothilal, Professor (Rtd), Ayurveda Medical Education Dept., Sevasadanam, Parottukonam, Nalanchira PO, Tvm.-15 PH: 9387805568, email: jyothilaldr@gmail.com</p> | Member |
| 6 | <p>Dr. Viswanathan K G, Principal (Rtd), Vaidyaratnam Ayurveda College Olloor / Swasthi, Chiyaram, Trissur - 680026 PH: 9495926137, Email:viswanathankgdr@gmail.com</p> | Member |
| 7 | <p>Dr Saji PR, State Programme Officer (ISM), National Ayush Mission, Kerala PH:9447219750, email: drsajipr@gmail.com</p> | Member |
| 8 | <p>Dr. V G Udayakumar Medical superintendent, Dhanwanthari Vaidyashala, Chalappuram, Kozhikkode, 673002 PH: 8547720163 udayakumarvg@gmail.com</p> | Member |

| | | |
|----|--|--------|
| 9 | <p>Dr. Sadath Dinakar</p> <p>Ayurveda Medical Association of India,</p> <p>Ayurveda Bhavan,</p> <p>P.B. No. 93 Angamaly - 683572</p> <p>PH: 9895989586</p> <p>doctorsadath@gmail.com</p> | Member |
| 10 | <p>Dr. Rajesh Neelamana</p> <p>Senior Medical officer (ISM),</p> <p>Govt. Ayurveda Dispensary,</p> <p>Edachery, Vadakara, Kozhikkode - 673542</p> <p>PH: 9447541829, 9961991819</p> <p>rajeshndr@gmail.com</p> | Member |
| 11 | <p>Dr. P R Jaya</p> <p>Senior Medical officer (ISM),</p> <p>Govt. Ayurveda Hospital,</p> <p>Ayoor, Kollam - 691533</p> <p>PH: 9447397809</p> <p>drjayapr@gmail.com</p> | Member |
| 12 | <p>Dr. K V Rajagopalan</p> <p>Deputy Chief Physician,</p> <p>AH & RC,</p> <p>Arya Vaidya Sala, Kottakkal - 676503</p> <p>PH: 7907817512</p> <p>rajagopalvarier@gmail.com</p> | Member |

| | | |
|----|--|--------|
| 13 | Dr. M M Sanil Kumar Chief Physician, Aswini Ayurveda Hospital, Perambra. Kozhikkode - 673525 PH: 9946986421 drsanalind@yahoo.com | Member |
| 14 | Dr. Sreeraj Kunnassery Rajah Healthy Acres(P) ltd, Perumannur.p.o, Chalissery, Palakkad - 679536 PH: 9447499080 dr_sreeraj@yahoo.com | Member |
| 15 | Dr. N V. Sreevaths Ayurvedic Health Care Centre Nallepilly, Palakkad - 678553 PH: 8848726598, 8891855346, 9447182275 nvsreevaths@gmail.com | Member |
| 16 | Dr. Madhu K P Associate Professor, Dept. of Dravyagunavijnanam, VPSV Ayurveda Colleg, Kottakkal, Malappuram - 676501 PH: 9745994515 madhusukrutham@gmail.com | Member |

| | | |
|----|---|--------|
| 17 | <p>Dr. Rahul R Nair</p> <p>Associate Professor,</p> <p>Dept. of Roganidana,</p> <p>Ashtanga Ayurveda Chikitsalaya and Vidyapeedham, Koottanad</p> <p>PH: 9447226950 email: dr.rahul-ram@gmail.com</p> | Member |
|----|---|--------|

Sub group 2

Homoeopathy

| Sl. No. | Name | |
|---------|--|----------|
| 1 | <p>Dr. Satheesh G</p> <p>Associate Professor,</p> <p>Govt. Homoeo Medical College, Thiruvananthapuram</p> <p>Phone: 9447263693</p> <p>drsatheeshg1967@gmail.com</p> | Convener |
| 2 | <p>Dr. M N Vijayambika</p> <p>Director, Directorate of Homoeopathy, East Fort, Thiruvananthapuram</p> <p>Phone: 9447170342</p> <p>directorhomoeokerala@gmail.com</p> | Member |

| | | |
|---|---|--------|
| 3 | <p>Dr. Sunil Raj P</p> <p>Principal and Controlling Officer, Homoeopathic Medical Education Department, Iranimuttom, Manacaud P. O., Thiruvananthapuram</p> <p>Phone: 9447383745, 9207092739</p> <p>drsunilraj.94@gmail.com</p> | Member |
| 4 | <p>Dr. R. Santhosh Kumar</p> <p>Reader & HoD, Department of Anat- omy, Shree Vidhyadhiraja Homoeo- pathic Medical College, Nemom P.O. Thiruvananthapuram – 695020</p> <p>Phone: 9447051352</p> <p>email: santhoshraghav@rediffmail. com</p> | Member |
| 5 | <p>Dr. Radhesh MG</p> <p>Principal, Dr. Padiar Memorial Ho- moeo Medical College, Chottanikka- ra, Ernakulam</p> <p>Phone: 9447665571</p> <p>drpadiarhmcc@gmail.com</p> | Member |
| 6 | <p>Dr. Sanilkumar MC</p> <p>Professor, Govt. Homoeo Medical College, Kozhikode</p> <p>Phone: 9495101316</p> <p>drsakumkumar@gmail.com</p> | Member |
| 7 | <p>Dr. Pradeepkumar K</p> <p>Reader, Govt. Homoeo Medical College, Kozhikode</p> <p>Phone: 9961229019</p> <p>drkpradeepkumar@yahoo.co.in</p> | Member |

| | | |
|---|---|--------|
| 8 | Dr. Ramjyothis A B Reader, ANSS Homoeo Medical College,, Kottayam Phone: 9497053705 pharmakon07@gmail.com | Member |
|---|---|--------|

Annexure 4

Report Drafting Committee

| Sl. No. | Name | |
|---------|---|----------|
| 1 | Dr. Rajesh Neelamana Senior Medical officer (ISM), Govt. Ayurveda Dispensary, Edachery, Vadakara, Kozhikkode - 673542 PH: 9447541829, 9961991819 rajeshndr@gmail.com | Convener |
| 2 | Dr. Satheesh G Associate Professor, Govt. Homoeo Medical College, Thiruvananthapuram Phone: 9447263693 drsatheeshg1967@gmail.com | Member |
| 3 | Dr. V G Udayakumar Medical superintendent, Dhanwanthari Vaidyashala, Chalappuram, Kozhikkode, 673002 PH: 8547720163 udayakumarvg@gmail.com | Member |

| | | |
|---|--|--------|
| 4 | Dr. Sadath Dinakar Ayurveda Medical Association of India, Ayurveda Bhavan, P.B. No. 93 Angamaly - 683572 PH: 9895989586 doctorsadath@gmail.com | Member |
| 5 | Dr. M M Sanil Kumar Chief Physician, Aswini Ayurveda Hospital, Perambra. Kozhikkode - 673525 PH: 9946986421 drsanalind@yahoo.com | Member |
| 6 | Dr. Madhu K P Associate Professor, Dept. of Dravyagunavijnanam, VPSV Ayurveda Colleg, Kottakkal, Malappuram - 676501 PH: 9745994515 madhusukrutham@gmail.com | Member |

Annexure 5

Invitees to the Working Group

1. DR. Abhil Mohan
Medical Officer (Sidha)
Ayush Sidha PHC, Pothencode, Tvm

e-Mail: mohanabhil@gmail.com

PH: 9747597140

2. Dr. Abdul Nazir M T

Medical officer (Unani)

Govt. Unani Dispensary

Marakkara PO, Malappuram Dist.

e-mail: drnazirmt@gmail.com

PH: 9497345515

