

**FITM**Forum on Indian  
Traditional Medicine**FITM POLICY BRIEF**

# AYUSH Systems and COVID-19 Epidemic

## Introduction

The novel Corona Virus Disease, generally known as COVID 19, has thrown up an unprecedented challenge to healthcare systems all over the world. The speed and size of its spread make most healthcare models crack and policy makers are made to frequently change strategies to contain the pandemic to adjust to daily realities. In the absence of any known vaccines and medicines in modern medicine system for COVID-19, containment appears to be the only way. Most countries, accordingly, follow the model of isolation and social distancing to contain the spread. For various reasons this has not been much of a success in Western Europe and the United States of America so far, as the numbers of persons affected and mortalities continue to rise rather exponentially.

India is one of the few countries, which have taken comparatively early steps to introduce isolation and social distancing. This was quite necessary and the right strategy given the size and density of the population and the comparatively low-income levels of the majority who eke out their living on a day-to-day basis. Even still, the disease is spreading. The first case was reported on 30 January 2020 and since then the number has grown and now. This places a daunting task before Indian healthcare policy makers and professionals.

## Challenges of Indian Health Care System During the Current Epidemic

India's health care is already confronted with a number of issues including huge disease burden, lack of adequate health infrastructure and manpower. In comparison to most high-income countries, India

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has to do much catching up in these areas. As per the latest data available on World Development Indicator (WDI) database of World Bank, India has only 0.7 hospital beds per 1000 population compared with 2.9 in the US and 3.4 in Italy. Similarly, if we compare the health sector workforce, as of 2017, India had only 2.1 nurses per 1000 population, whereas Italy had 5.9 and US had 8.55.<sup>1</sup> India has around 50 million people living with diabetes and 54 million suffer from Cardiovascular Diseases (CVD).<sup>2</sup> India also has the largest number of people living with Tuberculosis, which is around 2.8 million (*ibid*). The morbidity profile of the country as well the lack of healthcare infrastructure and resources to meet the needs of even normal times, makes COVID 19 a serious challenge for India. Therefore, India has to make optimal use of all available resources for handling the current crisis. This applies to health infrastructure, human resources and medical equipments and immune boosting medicines and food supplements.

## AYUSH as a Readily Exploitable Resource

One major resource with India is its AYUSH sector, comprising of traditional medicine systems of Ayurveda, Siddha, Unani, Yoga and Sowa-Rigpa and the modern system of Homeopathy. In crisis situations like the present one, this sector is an advantage for

India over the countries of the West. Its infrastructure, human resources and even medicines and life style prescriptions come handy for the country for handling epidemics. Table 1 presents in detail the AYUSH healthcare infrastructure and human resources in India.

As of March 2020, India had 3,986 AYUSH hospitals and 27,199 registered AYUSH dispensaries. Ayurveda is the most popular system of Traditional Medicine (TM) in India, with 3186 hospitals and 17,102 dispensaries. These entire facilities, which are spread over the country, can be used for isolation and quarantine facilities under proper supervision, which is what current treatment protocol prescribes. Similar is the case with human resources. There are around 1.4 million registered AYUSH practitioners spread throughout India.<sup>3</sup> A good many of these personnel, nearly 6 lakh, have undergone a regular five and a half year undergraduate and many of whom have also three year Masters course in formal AYUSH medical colleges and universities. As per the 2018-19 annual report of the Ministry, there are 401 Ayurveda, 11 Siddha and 53 Unani colleges affiliated with 59 universities in the country.<sup>4</sup> As many as 155 of these institutions offer post-graduate courses in Indian Systems of Medicine (ISMs). As per the Ministry's dashboard, the capacity of these institutions is 46,835 in undergraduate and 5,885 in post-graduate courses. Those who studied and got trained in modern syllabi of

**Table 1: AYUSH Infrastructure in India**

| Indicator                         | Ayurveda | Unani | Siddha | Yoga | Naturopathy | Homoeopathy | Sowa-Rigpa | Total  |
|-----------------------------------|----------|-------|--------|------|-------------|-------------|------------|--------|
| Hospitals                         | 3186     | 259   | 291    | 8    | 17          | 225         | 0          | 3986   |
| Dispensaries                      | 17102    | 1621  | 848    | 235  | 101         | 7259        | 33         | 27199  |
| Registered Practitioner(IQ & NIQ) | 443704   | 51110 | 9125   | 0    | 2485        | 293455      | 0          | 799879 |

Source: Ministry of AYUSH, Dashboard.

these systems in formal institutions can easily handle normal health protocols especially where there is no Allopathy drug application, which, in any case, is not there for COVID patients, except where they suffer from other ailments or bronchial problems, which could aggravate during COVID-19. This is certainly better than leaving patients for self care at home.

Indian Systems of Medicine like Ayurveda are give very high stress to immunity development. A large number of medicines in these systems are already marketed as food and nutrition supplements, particularly in countries where the systems are not recognised as medical systems. They, like Chywanprash, are targeted on body's immunity. These are products with less side effects, though ought to be taken under supervision of qualified health practitioners. They are ideal to be taken in the case of contagious diseases, which affect immune systems as preventive medicine. There are 8,964 AYUSH manufacturing units that can produce adequate supply, if permitted to do so. The systems also lay emphasis on individual's diet (*pathya*) and lifestyles (*jeevancharya*), since the effectiveness of the medicines is dependent on the same. These are all part of preventive medicine and contribute to immunity development. Modern health experts also advise healthy diet and anti-stress activities. Ayurveda and Yoga seem like an ideal combination for both.

An advantage with the AYUSH systems is accessibility to most of the products, particularly in the rural areas. Indian Systems of Medicine talk about definite beneficial effects of Indian spices in augmenting immunity. Many AYUSH immunomodulators use ingredients that can be found in majority of Indian households such as Turmeric, Tulsi, Ginger, Mustard oil, etc. Using these ingredients, the households can prepare immunoboosters such as *Kashayam* for daily consumption. This

would serve dual purpose because people need not move out of households to prepare them, thus honouring the lockdown, plus this would help build their immunity. Care must be taken that these formulations are prescribed only as precautionary measures and not as a cure, until scientifically proved otherwise, so that all the other preventive measures such as washing hands regularly are not ignored. There is ample evidence that shows that Yoga helps in stress and anxiety management and can improve mental health. Like home made Ayurvedic formulations, Yoga also has a home advantage, if promoted through mass media. Using these measures Indian population can prepare against the virus at a very low cost with absolutely no side effects.

Perhaps, these preventive measures would only decrease the probability of forming serious symptoms when infected by new corona virus. Although most of the COVID 19 cases are asymptotic or show only mild symptoms, there is still the possibility of large sections of population would eventually develop serious symptoms after getting infected. If and when that happens, it is absolutely necessary that the established AYUSH infrastructure and healthcare personnel are well prepared to take care for those patients, along with the Allopathic doctors and modern healthcare infrastructure.

For this to happen, government must start utilising AYUSH resources before the community spread so that they are prepared for what is to come. It is important to build trust and faith in the systems.

It is also necessary to spread awareness through mass media, social media and print media. At the same time, the Ministry of AYUSH must be very cautious to dismantle any false claims that may arise during this time as they hamper the validity of the system. Such false claims and fake cures will cause serious harm to the system

## Policy Initiatives and Interventions

The Ministry of AYUSH started preparing for COVID 19 in India, even before the country witnessed its first case. While the first COVID 19 case in India was reported on 30<sup>th</sup> January, 2020, already on 29<sup>th</sup> January, 2020, the Ministry of AYUSH, had issued an advisory for Corona Virus. In the advisory, the Ministry prescribed Immunomodulatory Ayurvedic drugs as a preventive measure against COVID-19 disease. The Ministry also prescribed Unani Medicines that could prove useful in symptomatic management of Corona Virus infection. The advisory clearly mentioned that it was for information only and should be adopted in consultation with a registered AYUSH practitioner.<sup>5</sup> The Ministry also made it very clear that they don't claim these drugs to act as a cure for COVID-19 but rather as time-tested preventive measures that have been used against respiratory diseases. The advisory also mentioned lifestyle related advocacies such as washing hands regularly and consumption of light and easily digested meals.

Even the Ministry of Health and Family Welfare (MoHFW, India), in its advisories have taken AYUSH systems and AYUSH Practitioners into consideration. In its March, 18<sup>th</sup> press release, MoHFW has issued guidelines for COVID 19 affected patients by public and private institutions and health practitioners. Both allopathic as well as AYUSH practitioners can notify the Ministry regarding possible COVID 19 affected patient.<sup>6</sup>

The Government of India issued a 21 days mandatory lockdown throughout India on 25<sup>th</sup> March, 2020, in order to curb the spread of the viral infection. In order to manage the lockdown effectively at individual levels, the Ministry of AYUSH acted swiftly and started Yoga at home campaign. In this campaign, they released a Yoga Posture of the day every

day to counter stress and promote physical and mental well being during lockdown.

On 28 March 2020, Prime Minister Shri Narendra Modi met with representatives of the AYUSH sector to discuss the Covid-19 outbreak. PM underlined the importance of countering and fact checking unsubstantiated claims of AYUSH having a cure for the disease. He said scientists from AYUSH, the Indian Council of Medical Research (ICMR), the Council of Scientific and Industrial Research (CSIR), and other research organisations must come together for evidence-based research. PM urged AYUSH stakeholders to utilize the platform of telemedicine to reach out to public and generate constant awareness.<sup>7</sup> What is required is an integrative approach that recognise the importance of both AYUSH and allopathic systems of medicine.

As a follow-up of that meeting, the Ministry of AYUSH started a COVID19 input portal on its website. On this portal, any registered AYUSH practitioner can submit a suggestion, concept or proposal in relation with the infection. The suggestions received so far from eminent *vaidyas* across the country have been made public as advisory from Ministry of AYUSH. The advisory now needs to be broadcast and advertised through popular channels such as mass media and social media. The Home Secretary, Government of India vide his letter dated 2 April 2020 clarified that AYUSH hospitals, dispensaries, individual clinics, distribution of drugs, manufacturing units and drug packaging units come under exemptions to the lockdown and continue to serve the people.

## Task Ahead

Even though the measures taken so far are welcome, there is still a long way to go in order to effectively use AYUSH systems of medicine against COVID 19. Time tested

AYUSH medicines that have proven impact on respiratory diseases and have zero to little side effects must be employed on COVID 19 patients. AYUSH Ministry has nearly 1.4 million registered practitioners and a staff of 80,000 people. This manpower must be utilised to generate awareness about preventive and precautionary measures against the disease. It is also very important that efficacy data of allopathic, AYUSH treatments and a combination of both is collected for all, if not at least a large number of, COVID 19 cases in India. There is a need to ensure proper scientific and evidence based inquiry using all arsenal at hand.

Also, as stated above, quarantine centres may be set up at AYUSH hospitals, universities and colleges. Registered Practitioners and qualified students must be allowed to take care of the patients after getting briefed adequately by doctors having experience of quarantine patient management as a pilot project. This will prepare the AYUSH team of doctors and medical students to take care of the patients in case of sudden spike in infections. This is also an opportunity to initiate some measures, which will bring long-term benefits to AYUSH sector and Indian health care.

One of the concerns of healthcare administrators and policy makers is absence of clinical trial validation of AYUSH systems' medicines. Since Indian Systems of Medicine follow a different disease management protocol, (i.e, *nidanapanchaka*), the Allopathic clinical trial protocol may not be desirable. At the same time, since they are time tested ones, where the Allopathic system does not have any medicine, as in the present juncture, the effectiveness of AYUSH medicines, if any, as a preventive medicine can be tried and documented in a scientific way, if the medicine people are sanguine about the same. Such random trials should be done in controlled environment and with the approval of the authorities concerned.

Second is augmenting the research in these areas. Apart from the health and education infrastructure, the Ministry of AYUSH has five world-class central research councils at its disposal. There are currently 822 research projects, including 203 clinical research and 24 clinical trials being undertaken by/under these Councils. Specific research projects using AYUSH systems targeting on new epidemics like COVID-19 can be initiated under the aegis of these Councils or Universities.

Third, India should also explore the possibility of developing international policy and programme for use of traditional systems of medicine for appropriate interventions for management and treatment of COVID-19 and similar epidemics. Toward this, the cooperation of other countries like China with strong traditional medicine systems could be sought. The relevant protocols will have to be got approved by the World Health Organisation. That would require considerable diplomatic effort and documentation. The protocol that India develops in this area will come handy for that.

Fourth, this should be an opportunity for AYUSH systems to accept and use modern medical equipments for diagnostic and also treatment purposes, wherever appropriate. There is also need for technical and scientific personnel with background of AYUSH systems undertaking research and development in this area. Technology cannot be wished away in the 21<sup>st</sup> century and if the systems are to survive, they will have to use the same without losing the ethos of the systems.

Anyway, a large number of medical equipments and diagnostic tools like stethoscope or a blood pressure monitor are medicine system neutral and many AYUSH practitioners are already making use of them. The AYUSH industry can also play a major role in this.

Fifth, it is necessary to ensure adequate supply of raw herbs and plants. Medicinal plant cultivation will have to be taken up on priority basis to ensure uninterrupted supply of AYUSH drugs when demands increase. Specific schemes, apart from the existing ones will have to be launched for this. It will also help in the revival of Indian economy once the epidemic passes. It will be a means to effect immediate transfer of funds to the rural areas.

Sixth, to revive the AYUSH pharmaceutical industry, most of which are in the Micro, Small and Medium Sector, it will be necessary to create certain common facilities such as solvents, testing laboratories and so on.

## Endnotes

- <sup>1</sup> Data for US is for the year 2015, See: <https://data.worldbank.org/indicator/>
- <sup>2</sup> <https://www.foreignaffairs.com/articles/india/2020-03-25/coronavirus-threatens-catastrophe-india>.
- <sup>3</sup> Ministry of AYUSH Dashboard at <https://health.ncog.gov.in> accessed on 4 April, 2020.
- <sup>4</sup> Ministry of AYUSH (2019). Annual Report 2018-19. P.7.
- <sup>5</sup> Press Information Bureau of India: <https://pib.gov.in/PressReleasePage.aspx?PRID=1600895>.
- <sup>6</sup> Ministry of Health and Family Welfare. Guidelines for notifying COVID-19 affected persons at: <https://www.mohfw.gov.in/pdf/GuidelinesfornotifyingCOVID-19affectedpersonsbyPrivateInstitutions.pdf>. Accessed on 4 April 2020.
- <sup>7</sup> Press Information Bureau, online at: <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1608774>.

**About FITM:** The FITM has been established in the RIS with the participation of the Ministry of AYUSH as a common platform for all actors and stakeholders to contribute to pragmatic policy-making in the area of Traditional Medicine (TM) and Traditional Knowledge and to develop pro-active policies and strategies. The broad objectives of the FITM are to: undertake/ commission studies on various issues pertaining to Indian TMs, IPRs and regulatory frameworks for traditional medicinal knowledge; examine trade policy with reference to TMs; prepare cogent and coherent policy and strategy responses on emerging national and global developments; provide critical inputs such as policy briefs, briefings and reports to the Government of India in a continued and sustained way; and to facilitate interactions with experts and stakeholders and policy-makers from India and abroad. It would also provide Fellowships and Scholarships for studies in the area of TMs, arrange invited talks by national and international experts, and organize periodic consultations.



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