

# Civil Society

## AYURVEDA'S TIME IS NOW

### Four big moves India must make



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# AYURVEDA'S TIME IS NOW

## Four big moves India must make

BY DARSHAN SHANKAR



AT the age of 31, Dr Dhruv Vyas was the head of new product initiatives and operations of a natural foods company. He was robust and worked long hours. His health was the last thing on his mind. All of a sudden, he was laid low by the prolapse of a lumbar disc. Such was the neurological damage to his spine that he found it difficult to stand up. Specialists did an MRI and advised immediate surgery. Since Vyas had done a PhD on the use of traditional plants for cardiovascular health, he decided instead to seek out an alternative therapy. He went to the I-AIM Healthcare Centre of the Trans-

Disciplinary University (TDU) in Bengaluru, which offers specialised Ayurveda treatment. He recovered fully without surgery and ended up as the chief operating officer of the I-AIM centre.

Integrative healthcare is the mantra of the 21st century. Studies show that, like Vyas, around 60 per cent of all patients worldwide seek out natural remedies and alternative lines of treatment. An increasingly technologically world has found liberation in the connections between mind and body. Yoga and meditation often deliver what modern allopathic drugs cannot. For neurological problems, metabolic disorders, palliative care, old-age illnesses and so on, many answers lie in the holistic approach of traditional systems of medicine originating in India and China. It has, in fact, become obsolete now to think in terms of a single system for healthcare.

India, as the home of Ayurveda and with its rich biodiversity, has the opportunity to play the role of a global leader in integrative healthcare. But for that to happen Ayurveda should in India be given the status it deserves as a science and system of medicine. Its capacity to take Western medicine forward needs to be recognised.

A 10-year road map is needed to strengthen the four pillars of Ayurveda: formal health services, education, research and manufacture of Ayurvedic medicines. As a first step, the Union government should adopt a National Integrative Health Policy, which

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will give Ayurveda a defined role in the public health system.

In their everyday lives, vast numbers of Indians turn to Ayurveda for their basic health needs. They either go to village-based community healers or to physician-scholars. Pharmaceutical companies selling Ayurvedic medicines in modern packaging and dosages do brisk business. The Union government has a department for traditional systems of medicine. It is called AYUSH — an acronym for Ayurveda, Yoga, Unani, Sidha, Swa-rigpa and Homeopathy.

But there is simultaneous neglect of Ayurveda as a result of the public health system's focus on Western medicine. Little has been done to let a rich repository of knowledge renew itself. Ayurveda is a generic term meaning the 'knowledge of life'. It has been dynamic and evolving for over two millennia. The 'knowledge of life' has acquired over the centuries different specialisations and sub-cultures. There is Yoga, Siddha, Unani, and Tibetan medicine. Hundreds of local health traditions exist that are specific to ecosystems and ethnic communities.

The challenge before policy-makers is to restore this process of discovery and adoption, recognise community knowledge and give to Ayurveda the status of an evolved medical science.

From the first Five-Year Plan in 1947 to the recent Draft Health Policy of 2015, abundant lip service has been paid to Ayurveda. But policy-makers have had a poor understanding of its depth and potential. Spending on healthcare on the whole is less than one per cent of the GDP of which just three per cent goes towards traditional medicine. China, by comparison, allocates 20 to 30 per cent of its health budget to traditional healthcare.

The sub-critically funded health services of Ayurveda in the public sector are located outside the main public health system as a small parallel stream. An estimated 24,000 community dispensaries around 3,000

primary and secondary hospitals are supported across the country. The health services of these institutions are not aligned to the national health goals and therefore their performance does not matter to policy-makers. The innovations, quality and reach of their services have never been measured.

The education system boasts of around 300 undergraduate and 50 plus postgraduate colleges and has churned out an impressive 700,000 licensed physicians. These colleges follow a rigid 19th century curriculum, classroom teaching and evaluation methods regulated by corrupt medical councils. In the early 1970s, the University Grants Commission introduced autonomous colleges in university education. Ayurveda education, however, remains shackled by unrealistic regulations and a uniformity that permits zero innovation.

Ayurveda research programmes funded by public funds are largely 'intra-mural' which means that they are conceived and implemented by the state and national research institutes established by the government. Actual expenditure by the government on research by non-government institutions is negligible. Government sector research outputs over the last 40 years or so have impacted neither domestic nor international healthcare.

Manufacturing of Ayurvedic drugs is largely in the private sector. It receives no government support. It is the healthiest aspect of Ayurveda, with a real consumer base and an estimated turnover of ₹15,000 crore per year.

A quality assurance system led by the Quality Council of India has since 2008-9 been commissioned by the Union Government to develop standards for health services. A handful of hospitals has been accredited so far. It's a good beginning. However no standards for measurement have so far been implemented for the other three pillars — education, research and manufacturing.

So here are the four big moves that India can make to build on its many strengths in Ayurveda.



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## 1 HEALTH SERVICES

Two key innovations suggest themselves in the health services sector. First, India should introduce, like China did several decades ago, integrative healthcare at all the primary, secondary and tertiary levels of the public health system. This was indeed the intent of the National Rural Health Mission but it is yet to become a reality. It should be a serious exercise involving dozens of adequately funded and well-designed pilot projects for which the best health institutes in both the non-government and government sector should collaborate. It should be an action-based research agenda over 10 years.

What would these pilot projects be like? There are several examples, born out of voluntary effort, that already exist. For instance, the Swami Vivekananda Youth Movement ([www.svym.org](http://www.svym.org)) was started by a group of medicos of Mysore Medical College in 1984. They set out to influence policy and make it relevant to the needs of people at the grassroots through action in health, education, socio-economic empowerment, training, research and advocacy.

SVYM has had three decades of experience in delivering healthcare to the most needy, including displaced and dispossessed indigenous tribes, with its 80-bed multi-specialty hospital, Vivekananda Memorial Hospital at Saragur, in HD Kote taluk in Mysore district in Karnataka. A distinctive feature of this healthcare delivery model has been the functional integration of allopathy and Ayurveda.

SVYM has experienced over the past seven years how allopathy and Ayurveda can complement each other in treating liver diseases, gastritis, neurological disorders, musculoskeletal diseases like spondylitis and specific illnesses like psoriasis, HIV, TB and diabetes.

The founding doctors — all specialists in allopathy — say, "Working amongst the indigenous tribal groups since 1987 opened our eyes to the wealth of traditional knowledge and practices. Indeed, it helped us understand that medical pluralism is an accepted practice and an integral part of people's lifestyles, be they tribal or non-tribal."

A second innovation in health services is for India to add a fourth non-institutional tier to the public health system by giving accreditation to folk-healers to serve as community health-providers. Folk-healers can take care of the primary healthcare needs of 50 per cent of the population with no recurring costs.

Folk-healers' practices could be standardised through education modules



India is rich in biodiversity: The *Ensete Superba* is found in both the Western Ghats and the Northeast

LAKSHMAN ANAND

based on the revalidation of low-cost herbal remedies and medical practices. The revalidation can be done by a large network of science and technology institutes, colleges and universities. Herbal remedies can be disseminated efficiently using the best of ICTs and social media.

There are hundreds of examples of the remarkable knowledge that communities have. The plant *brahmi* (*centella asiatica* and *bacopa monnieri*) is widely grown all over India. It has traditionally been used for memory enhancement. Both children and old people consume the plant. In Dakshin Karnataka, *centella asiatica* is made into tasty chutney by the Saraswat Brahmins and they are considered to be sharp. Recent experimental studies conducted by TIFR-NCBS Bengaluru by Prof. Shona Chatterjee show that consumption of *brahmi* brings about molecular and structural changes in the hippocampus region of the brain where short-term memory resides.

The use of copper vessels for storing drinking water is an outstanding example of the soundness of folk knowledge. Scientific studies conducted at TDU reveal that it is an inexpensive way of eradicating all pathogenic microbes, including rotovirus. Recent field trials, by TDU under a Canadian Grand Challenges Award in villages of Ramnagara district and in one urban and rural

location in Kenya confirmed the results of lab studies.

In India knowledge of wholesome living has resided for millennia both in ordinary folk and in scholars making it perhaps the world's oldest unbroken, evolving health tradition. In villages health traditions are verbally communicated in ecosystem-rooted communities. Every community traditionally uses local plants (more than 6,500 species and 200,000 herbal formulations across India), seasonal ethnic foods, physical postures, customs and rituals to keep humans, livestock and agriculture healthy. Millions of households and around one million village-based folk-healers comprise the very large army of community-based health-providers.

## 2 MEDICAL EDUCATION

On the medical education front, innovation and pluralism are needed. This is the writing on the wall evident from trends all over the world. Medical schools in the US introduced modules on integrative healthcare about a decade ago. The future direction in medical education is therefore clearly towards integrative healthcare. For this purpose the first bold step, which

will invite huge resistance, should be to set up a National Council for Health Education and Regulation and create sections for different knowledge traditions in it. It is an extremely complex task that will have to be executed by experts in mission mode. Begin now and it could take all of 10 years.

### 3 RESEARCH

A research strategy for integrative healthcare is exciting and extremely critical to the success of both integrative health services and education because it is research that can provide conviction to proceed on the path of promoting medical pluralism with vigour. The requirement should be to focus on strategic, high-impact areas of healthcare and necessarily explore an interface of Ayurveda and modern science in an epistemologically informed manner.

Institutes of the class of the Indian Institute of Technology and the Indian Institute of Science should be set up by building upon existing institutes and universities that have track records of innovation and achievement.

The emphasis should be on merit so that institutions that aren't run by government are also eligible. To give integrative biology the status it deserves as a discipline, it would be a good idea to have chairs in universities and colleges. Committees led by visionary scientists, physicians and Sanskrit scholars should be constituted to select institutes to engage in path-breaking research.

It is not only drugs and therapies that traditional knowledge can provide but even sophisticated systemic perspectives, concepts and theories that can advance the world of science, which is incredibly advanced at the molecular level but limited by its structural and reductionist conception and outlook on nature.

The recent work of Bhushan Patwardhan, Visiting Professor at TDU and Mitali Mukerji, Professor at the Institute of Genomics and Integrative Biology, CSIR, New Delhi, is a pointer in this direction. Scientific papers published by them have shown the crucial role of the Ayurvedic phenotypes in mapping genome variation and susceptibility to diseases. This has advanced the emerging field of pharmacogenomics (personalised medicine) by at least a decade.

### 4 AN AMUL FOR HERBALS

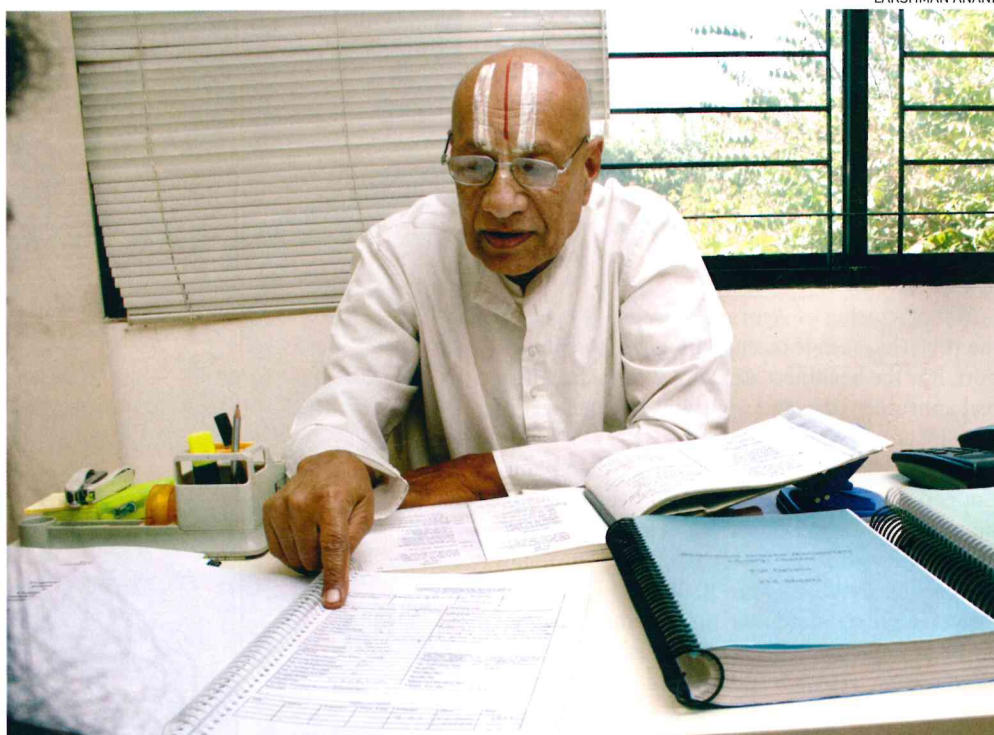
To grow the manufacturing space, a start-up culture is needed. We would do well to create incubation centres to support innovative entrepreneurs on the lines of the successful Department of Biotechnology's (DBT) BIRAC programme — perhaps managed by the same institutions that lead the DBT programme because they have already created an ecosystem for start-ups. Industry-academia links need to be supported on the lines of best global practices.

The Indian herbal industry needs to be incentivised to invest in R&D to enter global markets. The supply chain for medicinal plants needs to be professionally managed and bodies like the National Medicinal Plants Board strengthened for the purpose.

A strategic programme, similar to Amul in the dairy industry, can promote community-owned herbal enterprises. These enterprises could employ tens of thousands of women. They would grow and process medicinal plants and manufacture scientifically validated and standardised herbal products. SEWA in Ahmedabad could be the anchor for such an initiative with its vast experience in creating enterprises and livelihoods for women. SEWA could be backed up by reputed institutions which have knowledge of Ayurveda product development.

The success of an action plan to promote and strengthen Ayurveda will depend on competence and speed. In this journey of change it is important that governments allow civil society initiatives the space they need to deliver results. Governments are best suited to be catalysts and enablers. Policy and legislation should come from them. Innovation in services, education, research and manufacturing should be led by non-government and not-for-profit institutions and where appropriate by cooperatives and the private sector. These efforts should receive the same level of funding that is poured into inefficient government institutions.

It is important to appreciate that, as the 'knowledge of life', Ayurveda has been evolving for over two millennia and has acquired different specialisations and



Professor Lakshmi Thattachar, a scholar with knowledge of ancient texts, and (below) the poster-splattered cabin of a present-day physician at the Arya Vaidya Pharmacy outlet in Delhi



sub-cultures. There is yoga (focused on mental health in ways far beyond the frontiers of neurobiology), Siddha (the brilliant and intuitive elaboration by Tamil saints of the Saivaitic cult), Swa-rigpa (the in-depth Tibetan expression, translated in Pali by great Buddhist monk-scholars), Jain treatises on Ayurveda by meditative wandering monks, Unani (the integrated version with Islamic medicine).

But in modern India, Ayurveda has experienced marginalisation. Its evolution and depth have been forgotten. Policy-makers, lay persons and even practitioners tend to hold a static perception of Ayurveda.

One reason for the marginalisation of Ayurveda is confusion in the Indian mind about the primary source of modernity. The confusion stems from the myth that modernity as a process is divorced from tradition when the historical and sociological reality is just the opposite. Just as the present is inevitably derived only from the past, in an exactly similar manner modernity cannot derive from anything other than an 'evolving' tradition.

A colonial mindset in India has looked only to the West even in domains like healthcare where our own roots are deep and potent. It has been the colonised mind that has disregarded Ayurveda as a source of modernising health sciences, biology and India's public health system in the 21st century. ■