

Special Article

Report on the status of Indian medicine and folk healing-with a focus on the benefits that the systems have given the public

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Editor's Remarks

In May 2010, the Health Ministry (MOHFW) commissioned a former Union Secretary, Shailaja Chandra, to give a status report on Indian medicine and folk healing. Part I of the report was submitted to the Government in September 2011. The present communication is a brief summary of the report. This is a praiseworthy effort and has resulted in a valuable document aimed at improving the status of Indian medicine. AYU being an international research journal meant for the propagation and upgradation of Ayurveda is privileged to publish the report. The abstract reviews the major recommendations followed by a comprehensive chapter-wise review of the report.

Abstract

The 300-page report covers the achievements of the public and private sectors in developing and propagating Ayurveda, Unani, and Siddha medicine. Over 60 major recommendations are backed by researched data and consultations with more than 200 stakeholders from the government and private sectors. The outcomes of research on education, practice, medicinal plants, and drugs have been covered at length, with the advancements and shortcomings that permeate each segment.

Research: Rapid surveys undertaken as part of the research study give a clear picture of what the consumer wants and what he is getting. The aspirations and frustrations faced by manufacturers of Indian medicine and the history and reality of how classical medicine has been pushed out of the market to make way for the more modern and less practitioner-oriented marketing of drugs, is described. The situation portends profits for the manufacturer, but is a nemesis of holistic medicine in the long term. The contributions of flagship scientific organizations of the government show several achievements, but equally that many disappointments. The report recommends a change of track for the research councils of Ayurveda and Unani medicine, which seem to have achieved little by way of the products, patents or publications; nonetheless they have provided specialized treatment with consistently good remission outcomes. The report describes how the Council's doctors and other practitioners have been providing much sought after treatment for arthritis, bronchial asthma, psoriasis, liver disorders, and the irritable bowel syndrome, among others, and the recommendation is that the experience and documentation must be utilized to provide specialty treatment under the aegis of the National Institutes located at Jaipur, Bengaluru, and Chennai – something that is well within the capability of

MOHFW, which administers these institutions directly from Delhi. Data shows that the outpatient and inpatient load and the range of treatment offered, includes specialties like mental diseases, diabetes, retinal degeneration, facial palsy, infertility, and liver disorders, by using a variety of methods, including special drugs, procedures like leeching, Panchakarma, and the Marma therapy. The report brings out how the public is accessing such therapeutic treatment and benefiting.

When questionnaires were issued to over 200 Ayurveda, Yoga and Naturopathy, Unani, Siddha, Homoeopathy (AYUSH) colleges throughout the country, the responses showed that nearly 80% of the respondents were emphatic that when the public demands that Ayurveda practitioners prescribe allopathic medicines, the practitioner has necessarily to accede to public demand. Several state governments like Maharashtra, Punjab, Tamilnadu, Assam, and Himachal Pradesh, among others, have explicitly permitted the Ayurveda, Siddha, and Unani (ASU) practitioner to prescribe allopathic drugs and conduct interventions undertaken in hospital settings. The report describes these ground realities, but goes on to highlight how this is detracting from the standing and intrinsic value of traditional medicine.

Practice: The report also describes ground realities relating to practice, public expectations, and current policy prescriptions. It makes a case for prescribing and proscribing what the AYUSH practitioner can and cannot do. Also to make a district and state wise Directory of practitioners with a disclaimer but letting people know at least about institutionally qualified practitioners actually conducting practice of ASU.

Education: The recommendations focus on the goals and objectives of ASU education, curriculum design, and the need for fitting AYUSH practitioners into the overall health delivery in a direct and upfront manner, as the current situation of haziness is not in the public interest. The Report goes into the curriculum and brings out the need to differentiate the learning objectives for which so much modern medicine content has been included.

Medicinal plants: This sector is covered in depth. Major recommendations include establishment of an Institute for Trade in Medicinal Plants, along the lines of the Indian Institute of Foreign Trade (IIFT), to offer PG diploma and MBA qualifications for ASU graduates as well as those with a background in botany and agricultural sciences, to provide regulatory and marketing services. It has been proposed that the Institute can also offer certificate courses on sorting, grading, storage, and certification.

Drugs: The drugs sector has been covered in considerable technical detail with a focus on increasing public receptivity, by making testing for impurities and heavy metal content mandatory for drugs sold in distributive trade. The laboratory equipment needed, with costs, has been described.

Epilogue: The Epilogue is compressed into two pages and enters the realm of globalization of Ayurveda for the first time. It openly describes where Indian policy has gone wrong and what is needed to seize back what was once India's position of pre-eminence. Two major suggestions are for the government to set up a Commission on the lines of the LM Singhvi Commission, which had addressed issues related to non-resident Indians (NRIs) and persons of Indian origin (PIOs), and to position the Panchakarma like the Chinese have positioned Acupuncture.

Focus of the Report

This Report has six chapters and an Epilogue. The genesis of each chapter and important features that stand out are summarized below. The Report describes the status of Ayurveda, Siddha, and Unani (ASU) systems of medicine, with reference to areas that impact directly on the public. Consequently, aspects of work that go on elsewhere in the traditional medicine sector, but do not directly touch peoples' lives, have not been included here. As the thrust is on the Indian public, the globalization aspects of ASU are also not included, except briefly in the Epilogue.

Chapter 1: Historical perspective

The historical developments that have impacted this sector have been described in the first chapter and also in the introduction to the chapters on Education and Drugs. This has been done because the history of Indian medicine is generally available to policy makers in the form of summaries. These do not give an idea of events and policies that have influenced the world of ASU. Most generalist administrators assume office as Secretaries and Directors of the Indian Systems of Medicine (ISM) in the Ministry of Health or in the States, without any exposure to the historical evolution of the policy. This often leads to understanding priorities as presented by one or more protagonist groups in which the consideration of public benefit often takes second place.

The whole debate between purists and modernists in fact started in the nineteenth century, but the issues are alive even today and remain unresolved. That dichotomy has been carried through, and is reflected in the structure of the college curricula, medical practice, the manufacture of drugs, and their packaging and marketing. All this, even as the formulation of drugs by hand and traditional practice of medicine continue side by side. Given this background, it is only by reading the critiques published by those who have no stake in the power-play of knowledge or commerce that it is possible to understand factors that have driven and continue to influence the sector.

The first chapter describes the history from 1912 onwards, along with the responses of the *Vaidyas* and *Hakims* to the advent of Western medicine, and their efforts to re-position traditional medicine. After independence there was growing support for Indian medicine, but almost every Committee set up by the Government recommended that the systems re-prove

themselves by meeting the benchmarks for scientific research, as prescribed for modern medicine. The move to integrate the systems with modern medicine through the vehicle of education resulted in a backlash. Although the integrated course was discontinued, subsequent developments caused by market developments and the aspirations of the ASU practitioners, who sought parity with the modern medicine sector, led to the re-introduction of a heavy component of modern medicine in the curricula of ASU professional colleges.

Political support for ASU has not been lacking either at the Center or many states. The history of the creation of an independent department, the change in the name of the department from Indian Systems of Medicine (ISM) to AYUSH and the efforts to spread awareness about the systems in other countries have been described, which are the results of the efforts of protagonists of traditional medicine, devoid of the vestiges of modern medicine.

Chapter 2: Research

From the 1960s onward, investments have been made in pursuing traditional medicine research. In the government sector this was initially done by the Indian Council of Medical Research (ICMR), and a while later by the Council of Scientific and Industrial Research (CSIR), the Department of Biotechnology (DBT), and the Department of Science and Technology (DST). In the 1970s, autonomous research councils were established for pursuing research in ASU medicine. The chapter attempts to collate at one place specific outcomes of research that directly benefit the public.

In summary, some of the work of the CSIR, related to a few drugs that have reached the market, the superb execution of the traditional knowledge digital library, and the efforts made toward drug standardization stand out.

In the case of the ICMR, despite a promising start, proven research findings published by the Council have not been translated into products, even when all the rigors of biomedical research have been adhered to, as in the case of *Vijaysar* for diabetes.

The outcomes reported by DBT give hope for the future, when seen as initiatives that can protect, preserve, and conserve specific medicinal plants; but the dimension of the impact has to be seen against the extent of shortage of medicinal plants and the gaps that biotechnological interventions can hope to fill.

An enumeration of numerous projects awarded by DST exhibit the thrust areas of those who have been pursuing research with funding support. All the projects continue to be in progress, in some cases, for several years. According to DST it is too early to talk of the outcomes. On another plane, the advice of the Secretary of the DST on how future clinical research should be undertaken provides a simple roadmap for the future, which carries conviction. The approach has been corroborated by several experts engaged in traditional medicine research and has been described fully.

On the basis of responses received from the Central Councils engaged in conducting research in Ayurveda, Siddha, and Unani medicine, two facts stand out: first that in-house clinical research undertaken by the councils has not yielded positive outcomes, either by way of a published study or by way of grant of patents.

Despite that, thousands of people are reported to have benefited from the utilization of formulations prepared by the two councils and the demand for treatment offered at various centers is extensive. A change of track has been recommended in the report along with a new mantle to be donned by the research councils, wherein the study done for more than three decades can at least now benefit a wider public.

The chapter on research also gives a bird's eye view of the canvas on which academic research in the ASU sector is undertaken in universities and colleges, along with the impact factor of the research undertaken by such bodies.

Chapter 3: Education

In this chapter, after recounting the broad status of how college education for the traditional systems of medicine was first introduced in the early nineteenth century, the current status has been described, with special reference to the curriculum and syllabus prescribed for undergraduate and postgraduate medical educational courses. The chapter is based on the outcome of extensive consultations held with the faculties of universities and leading ASU colleges, with written responses received to detailed questionnaires sent online and through post. The findings indicate a host of shortcomings that exist from the point of view of a majority of stakeholders. Based on their opinions and suggestions, recommendations have been made on various aspects of the curriculum and syllabus.

More importantly, the case has been made to view professional education in the traditional medicine sector as a means to build competence and skills in the practitioner, which would be beneficial for the delivery of health services, but more specifically to treat patients seeking authentic ASU treatment.

The debate between inclusion and exclusion of modern medicine has been addressed presenting the views expressed by the Courts, the ground realities, and well-known arguments on both sides. The recommendations made are based on the views of state governments and individual faculty members, which have contributed to a series of discussions in response to the questionnaires.

In particular, the orientation of the curriculum, the need for involvement of professional bodies in the curriculum design, a discussion on bed strength and availability of inpatient load, the sequencing of training, the need for paramedical and non-teaching staff, suggestions relating to the teaching of Sanskrit and Urdu, improvement in the availability of text books and journals, and teachers' qualifications and aptitude have been reflected, based on comments received. Other aspects like the need for early exposure to good clinical practice to satisfy the students' curiosity, improving computer literacy, the need to encourage intra-ASU system interaction, and the possibility of introducing a bridge course for modern medicine doctors, have also been discussed.

The chapter discusses the need for using information technology to be able to teach the practical component of the curriculum, by establishing a Virtual Resource Center and by providing downloadable modules, so that students, regardless of their institution, receive the opportunity for meaningful self-study.

Chapter 4: Practice

This chapter is descriptive of the actual practice as conducted in the government set-up and in private establishments. Different levels at which clinical care is offered, whether through a single practitioner or through multi-speciality hospitals, are described. This is intended to be a quick cross-sectional view, to give an idea of the kind of cases that are being treated, the clientele that seem to be accessing the services, and the general atmosphere in which patient care services are provided. There is minimal written description and the effort is to present a series of photographs that speak for themselves.

The need for public edification has been discussed, particularly as few people are aware of the existence of such a practice; also the need for agreed standards on Panchakarma procedures, which are increasingly being presented only as a form of relaxation massage. Several unique practices go on in a highly localized context, but they seem to have the potential for addressing not only chronic diseases, but also alleviating the pain and discomfort caused by modern-day lifestyles. The illustrated chapter presents a picture of the reality of ASU practice. The picture is uneven, but the outreach is substantial.

Several recommendations have been made for building greater awareness about the availability of specific treatment and for creating more avenues to access reputed ASU treatment.

Chapter 5: Medicinal plants

This chapter has three sub-chapters dealing with:

- The Uniqueness of Traditional and Folk Medicine
- The Raw drug trade — Interaction with dealers
- Demand and supply of raw drugs

The first sub-chapter is an attempt at exploring whether the usage of certain medicinal plants used by tribal and folk practitioners, reported in the monographs prepared by the Research Councils (which do not find place in the codified ASU texts), are unique when compared with their reported usage in published scientific literature. The findings cannot form the basis for any assumption, but it does show that the use of medicinal plants by tribal and folk healers is unique, at least in the few cases taken up for study in this report. This points to the need to go beyond mere documentation to foster further enquiry into the findings.

The second sub-chapter deals with the main conduit through which medicinal plants are procured and purchased by the raw drug dealers. The traders are important because they have a virtual monopoly on the supply of medicinal plants to the industry, but little has been done to upgrade their practices, either through training, incentives for modernization or through regulation. This is one of the most important links in the chain of drug processing and manufacture and determines the quality of inputs that go into the making of ASU drugs. Therefore, it is important to understand what the traders have to say.

The chapter shows that they are willing to move to better practices, but as it invariably happens, whenever there is a move to change the status quo, there is a tendency to shift the responsibility to the government. The chapter gives an understanding of how far it may be possible to reorient practices involving the collection and supply of medicinal plants.

The third sub-chapter deals with the demand and supply of

medicinal plants and tries to show the enormous opportunity that lies ahead for India to become a strong and sustainable supplier of raw and processed drugs, after meeting its own needs. The measures that would have to be adopted, based on the advice of those who regulate drug manufacture in the government and professionals in charge of quality control and regulatory affairs in the ASU drug industry, have been recounted. A roadmap, for utilizing the existing structures temporarily, and eventually setting up new organizations has been described.

In the long term, there is a suggestion to set up a professional institute for managing trade in medicinal plants, with a division for tribal and folk medicine, and using the extensive surveys undertaken by the 22 centers under the ASU research councils. The suggestion is to set up a consortium of all the similar institutions that are working in this area to run professional courses, which would develop the regulatory and marketing competencies needed to manage the many facets of the medicinal plant sector, to help it run productively. It is also suggested that the result of the painstaking study conducted imaginatively on tribal and folk medicine be used, so that the oral tradition remains alive.

On improving the availability of medicinal plants after describing the supply chain, there is a suggestion to set up a federation that can work through a cooperative network, to encourage the collection, grading, and certification of medicinal plants, by using lateral linkages that are already available. The role of the National Medicinal Plants Board has also been dwelt upon, not to recount what is already known, but to indicate a wider role that the *National Medicinal Plants Board* (NMPB) must be encouraged to play.

Chapter 6: Drugs

In this chapter the history of ASU drug manufacture and the move for mechanization and regulation has been described, going back to the colonial period and the enactment of specific laws governing this sector in the 1960s and 1970s. The introduction is followed by three sub-chapters:

- Manufacture of ASU drugs and quality assurance.
- Dipstick Survey of consumer preference for ASU products.
- Dipstick Survey of industries manufacturing ASU products.

In the first sub-chapter, which is related to quality assurance, the current status, the legal provisions, and the manner in which ASU drugs are presently marketed have been described. The need for insistence on Good Manufacturing Practices (GMP) juxtaposed with the fact that two-fifths of the manufacturing units do not possess this mandatory requirement has been discussed; the continuance of the traditional manufacturing processes and the need also for sustaining them as a part of tradition and history, but not through organized retail trade, have been debated on the basis of ground realities. A roadmap for dealing with this situation, by setting up a new category of traditional processors that can supply their products to practitioners, but cannot market the produce in retail, has been deliberated upon, elaborating the risks of maintaining the status quo.

The need for quality control and certification to ensure consumer safety has been highlighted, describing ways to move to a more sophisticated manner of conducting tests, to

guard against substitution and adulteration; as also to allay public apprehensions about the addition of non-permissible substances or the presence of heavy metals beyond permissible limits. Specific scientific tests that can build confidence have been referred to, with the suggestion that there must be a focus on the wholesale upgradation of testing requirements for both impurities and metal-based preparations in the Twelfth Five Year Plan.

Contentious issues like the branding of classical medicine, which is presently disallowed, systematizing the licensing procedure, introducing simpler quality-control certification for consumer guidance, incentivizing the use of cultivated raw material, and upgrading the pharmacopoeia standards to international levels has been discussed, and several suggestions made.

The need for laying standards for new categories of ASU drugs', such as beauty products, so that the consumer knows the proportion of the essential ingredients used by reading the label, has been discussed.

Similarly, it has been suggested that a new category called, 'the ASU knowledge-based drugs' be introduced on the lines of what is being done in some other countries, which would enhance the credibility of the systems and garner investment for Research and Development (R and D).

The need for addressing claims that are made on the labels of ASU products, which are legally not permissible, and also for ending the display of advertisements that are misleading and are not allowed has been highlighted, indicating how this must be taken into consideration in a decentralized manner.

Finally, the need for widening the scope of the Traditional Knowledge Digital Library (TKDL) to be used, not only to guard against patents, but also for wider public use, has been touched upon. The potential of this knowledge base is enormous and putting it to positive use, while safeguarding against exploitation needs to be balanced. The recommendation is for holding wider policy consultation instead of freezing TKDL only as a means to ward off patents. Imaginative and innovative uses can be made of this database, while currently there appears to be little thought beyond maintaining the status quo.

In the second sub-chapter, the result of a dipstick (a rapid survey) on consumer preferences of ASU drugs and the conditions to which they are being accessed have been given. Although it is just a ready reckoner of consumer preferences, the similarity of responses from different cities shows that the findings on consumer knowledge and preferences are fairly reliable.

In the third sub-chapter the responses to a questionnaire sent to a large group of manufacturers and the views expressed by many of them have been captured. The conditions for which people access drugs appear to tally on the whole, according to the responses received through the consumer survey.

Opinions and suggestions of manufacturers about the National Medicinal Plants Board, suggestions about improving the quality control, and building awareness about the effectiveness and safety of ASU products have also been recounted.

Epilogue

The epilogue, as the name suggests, is an addition to the Report. It is the first time that there is a futuristic vision of the impact that can be made through the propagation and globalization of Ayurveda. The conclusions point toward the need for high level co-ordination, as Indian medicine has spin-offs for a wide range of beneficiaries, but Indian players have to work in unison to grasp those benefits.

Comparisons with China's focus on gaining recognition for acupuncture and the need to position high quality Panchakarma, to demonstrate its effectiveness abroad, has been justified. The need for a paradigm shift from approaches that

have been pursued and have yielded insignificant results so far has been underscored. As the Twelfth Five Year Plan is on the anvil the time to act, it concludes, is now.

Note: The full report is available on following links:

1. <http://over2shailaja.wordpress.com/2011/10/13/status-of-indian-medicine-and-folk-healing/>
2. <http://reporttraditionalindianmedicine.blogspot.com/2011/10/status-of-indian-medicine-and-folk.html>

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