

Effective Integration of Indian Systems of Medicine in Health Care Delivery: People's Participation, Access and Choice in a Pluralistic Democracy

Overview of the Indian Systems of Medicine

INDIA HAS A RICH AND LIVING TRADITION OF HEALING. AS EARLY AS CIRCA 4000 BC, Sushrut, the father of surgery, stressed the need to integrate theory and practice. 'What is observed and demonstrated directly in practice and what is intuited by Shastra have to be mutually and judiciously integrated for the growth of knowledge.'¹ India's strength has been this attitude of continuous creative assimilation of practical knowledge.

Vision of Health: Bharatiya Ayurvedya

For millennia, as per the Indian ethos, the major concerns and activities of life are four purusharthas-dharma, artha, kama and moksha, in that order.² Dharma implies living ethically each day, fulfilling one's responsibilities and having faith. Artha implies wealth, in the true sense of prosperity and not mere money or currency notes. Karma covers fulfilment of desires, within the framework of dharma. Moksha implies freedom that transcends consciousness, the cramping identification with mere name-form.³ Knowledge that liberates the individual is called vidya. Vidya has two categories: apara and para, the knowledge essential for work, wealth and wishes on the one hand and wisdom and faith, leading to enlightenment and liberation, on the other. In a way, Ayurveda was a bridge between these two domains of knowledge.

Ayurveda was defined uniquely by Charaka:⁴

'Wherein the beneficial and adverse influences leading, respectively, to happiness and misery and to life healthy or ill are described, besides the respective helpful and harmful measures are described and quantified that system is called Ayurveda.' It is an integral vision that , retains fidelity to the fundamental principles of gunas, doshas, dhatus and malas.⁵

The evidence-based practices and products of other Indian systems of medicine (ISM)-Siddha, Unani, Yoga, Homeopathy, etc.-also offer unique opportunities to fulfil unmet medical needs. The Unani system of medicine has been active in India for hundreds of years. Handbooks of simple Unani remedies for common ailments have been published by the Council and can easily be referred to for integrative medicine. Yoga in daily life offers advantages of health, equanimity and longevity, which are tangible, safe and economically viable.

Global and Local Attitudes to Indian Systems of Medicine

The spectrum of global attitudes to ISM varies from derisive ridicule to unconditional reverence.⁶ At one extreme, there is an organized tirade against Ayurveda as comprising toxic metal therapy⁷ and, at the other, a fundamentalism raising Ayurveda to a religious dogma, capable of solving all health problems. Instead of these fixed stances, we need a balanced, scientifically open and curiosity-driven mindset.⁸

Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH): Current Status

The current official status of ISM needs a quantum jump in terms of (i) the quality of professionals, (ii) academic excellence in teaching, (iii) path-breaking research, and (iv) development of high performance in clinical services.

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Several reports exist on the manpower, number of colleges, hospitals and dispensaries, specializations, etc. in Ayurveda, Siddha, etc. As per the provisional State-wise distribution provided by the Department of ISM and H,⁹ there are more practitioners of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy (AYUSH) than of allopathy in India. This widespread resource needs to be strengthened, retrained and effectively utilized in the national health care delivery system.

Table 1 shows the profile of Ayurveda, Unani, Siddha, Yoga, Naturopathy and Homeopathy as per the Department of AYUSH Annual Report (2003-04).

The number of practitioners of Ayurveda and Homeopathy are far more than those of Unani, Siddha and Naturopathy. This is obviously due to a much smaller number of educational facilities for these three ISM (Figs 1 and 2). It is recommended that a task force be urgently commissioned to establish more educational institutions for the Naturopathy, Unani and Siddha systems, with appropriate learning modules of integrative medicine (IM) useful for primary health care (PHC), including emergency obstetrics.

Table 1

Manpower and institutional profile of AYUSH in India

Facilities	Ayurveda	Unani	Siddha	Yoga	Naturopathy	Homeopathy
Registered medical practitioners	432,625	42,833	17,550	0	532	201,484
Dispensaries	13,925	881	399	70	52	5,398
Hospitals	2,253	255	276	8	17	290
Bed strength	43,803	5,031	2,386	115	922	14,087
Teaching institutions (undergraduate)	209	36	6	-	8	180
Upgraded postgraduate departments	59	8	2	-	-	27
Specialization/ postgraduation	16	7	6	-	-	3

Fig 1

Registered medical practitioners of AYUSH in India (number)

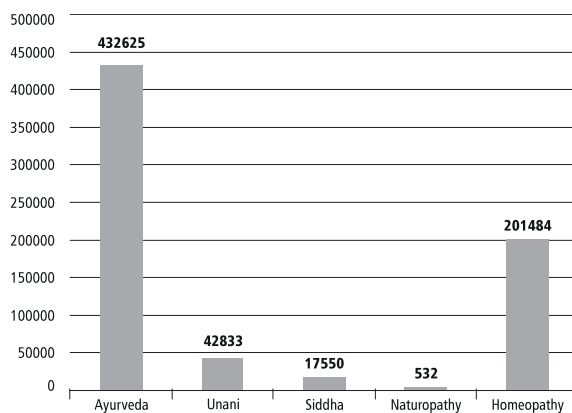
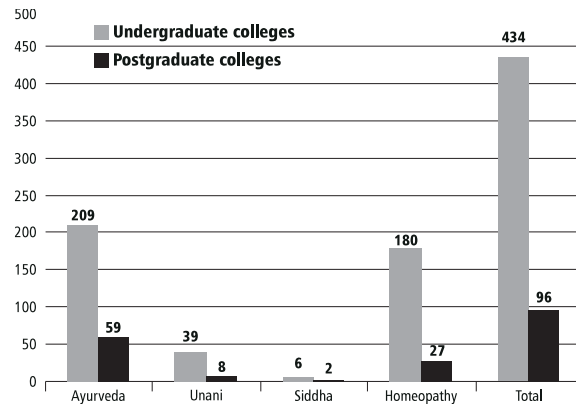


Fig 2

Fig. 2. Medical education facilities for ISM in India (number)



Currently, ISM incorporate several diagnostic and other modalities of modern medicine (MM), a practice that needs to be encouraged. Ayurveda teaching hospitals must have excellent diagnostic facilities, including imaging and endoscopy. Operation theatres and obstetric units must be well equipped and functional. All ISM practitioners need in-depth training in emergency obstetrics and first-aid care, as well as in cardiopulmonary resuscitation. Life-saving drugs, of any system, must be understood and their rational usage taught to all practitioners.

Strategy, Role and Knowledge Skills for Integration

Integrative medicine: Definition and scope

A suggestion gaining ground is for medical courses to include Yoga and the ISM so that students are able to get the best of all aspects of medical knowledge. Another proposal before the Government is to have a medical facility combining western medicine and ISM to provide comprehensive medical treatment as it is not possible to open hospitals having facilities for only traditional medicine (TM).¹⁰ Similarly, the World Health Organization (WHO) has been emphasizing that inclusion of TM in health care would have a positive impact. It would be particularly so if the practitioners of TM are also trained in certain key elements of allopathy and vice versa.

IM is a new paradigm in health care that focuses on the synergy and deployment of the best aspects of diverse systems of medicine, in the best interest of the patients and the community. Attention to clinical evidence, long-term usage

and safety, accessibility, economic considerations and culture compatibility constitute the key elements of IM. Fulder stated that the line separating TM and MM has become fuzzy. The blending of TM-MM is more active.¹¹

The scope of IM in the promotion of health and prevention of diseases is immense. Particularly for chronic and degenerative diseases, ISM have much to offer to MM. At all levels of health care—the home, school, community, dispensaries, nursing homes and hospitals—the integrative elements of ISM have to be identified, procured and deployed. Table 2 lists some of the common conditions wherein ISM can play a significant role.¹² This list is by no means complete. There is an urgent need to carry out Ayurvedic pharmacoepidemiological studies to identify drug and non-drug modalities widely used in the field.¹³ Studies have been initiated for diabetes mellitus¹⁴ and arthritis.¹⁵

Table 2**Scope of Indian systems of medicine**

Acute	Subacute	Chronic
Wounds and burns	Eczema	Diabetes
Sprains/swellings	Indigestion	Arthritis
Pyrexia	Menorrhagia	Asthma
Colds and influenza	Sinusitis	Cancer
Diarrhoea	Constipation	Parkinson disease
Conjunctivitis syndrome	Herpes	Irritable bowel
Malaria	Splenomegaly	Acid peptic disease
Urticaria	Urinary infection	Memory-cognition
Dysmenorrhoea	Leucorrhoea	Chronic fatigue

Horizons and Deliverables: Programmes and Performance

The process of integration of ISM in national health care can be strategically perceived at three horizons:

Table 3**Deliverables as per horizons**

Horizon I	Horizon II	Horizon III
<ul style="list-style-type: none"> ● Knowledge, attitudes, practices survey: PHC/ISM ● PHC learning internship ● Survey of facilities at PHC and needs ● Current number of ISM personnel ● CME for PHC/ISM ● Panchayat participation ● Health needs and ISM ● ISM in medical colleges ● Complementarity ● Records and documentation 	<ul style="list-style-type: none"> ● Local self-government health officials: ISM ● Ambulant ISM care in private-public domains ● Resources for ISM: Central, State and local levels ● Linkages with PHCs: Aushadhis ● Computers and Ayusoft (C-DAC) ● Mobiles and tele-ISM ● Communications/education ● Panchakarma units ● Management synergy ● ISM dispensaries 	<ul style="list-style-type: none"> ● Centres of excellence and model spread ● Ordinance of IT-80 G and ISM ● Private-public enterprises, ISM priority ● Bridges with ISM hospitals ● CME workshops for ISM ● Panchakarma units ● Rehabilitation ISM ● Computer networks ● Specialty integration ● Research and education

CME: continuing medical education; PHC: primary health care; ISM: Indian systems of medicine; C-DAC: Centre for Development of Advanced Computing

Horizon I: Ayurvedic/Unani (ISM) physicians have to be incorporated into all PHC teams, with adequate therapeutic resources at their disposal. They should be trained in basic PHC skills and emergency obstetrics (Desai, Sadhana, FOGSI, 2005). [Au? Pls provide the complete ref]

Horizon II: All municipal and district-level hospitals would have full-fledged ISM outpatient departments (OPDs) and wards, panchakarma and dispensaries with adequate resources. The hospital management should be sensitized and trained to give due importance to ISM in patient care.

Horizon III: Tertiary medical centres should have advanced ISM centres, incorporating education, research and sophisticated services. Private-public partnerships will have to be encouraged. IT-80 G and charitable status will be granted to hospitals depending on the size of the infrastructure and usage of ISM, defined on a case-by-case basis, such as general hospitals, specialty hospitals, etc.

The deliverables for each horizon will have to be congruent with the goals envisaged. Table 3 lists the deliverables under each horizon.

The programmes for the integration of ISM in health care will have to be drawn up at the grassroots level based on a model and then worked upwards. People's participation is vital for the process of integration to succeed. Health being a State subject, there is an urgent need to appoint a Director of Integrative Medicine (DIM) in each State, empowered with resources, personnel and reporting relationships (directly to the Chief Minister [CM]). As statewide needs are different and will have to be differentiated even further at the district levels, the DIM will have a Board of IM (BIM) to draw up the programme, with projects according to horizon priorities. Budgetary needs and resource-raising have to be the responsibility of the BIM, with a sizeable but accountable allocation from the Central Government. The current allocation of Rs 150 crore to the Department of AYUSH is miniscule and has to be raised at least ten-fold, as soon as possible, to assist the DIM. States will also have to evolve public-private resources.

The performance of the State DIM and BIM, based on targets and deliverables as per the time schedule, will be accountable both to the public as well as to the Central Director General of IM (directly reporting to the Prime Minister [PM]). Total transparency and right to information of citizens should be ensured. The State DIMs will have websites displaying the progress, problems of and solutions to the programmes. Networking with State health services has to be harmonious. The existing State health infrastructure has to be strengthened in a phased manner, at both district and local levels.

Paradigm Shift in Health Care: Emphasis on Prevention

The promotion of health and prevention of diseases, as stressed by ISM, are currently considered to be of great importance—genomics and proteomics help predict a propensity for specific diseases, years or decades before they manifest. ISM can play a vital role in this changing scene of global health wisdom. Ayurgenomics and prakriti genomics can play a major role in the integration of ISM for long-term health-promotive and disease-preventive management.^{16,17}

ISM have modalities in ahara, vihar and aushadhi, which can effectively fulfil the need for promotion of health and prevention of diseases. These need to be integrated even in school health programmes and in all community health projects at the grassroots level. Table 4 gives a list of certain non-drug modalities of ISM that deserve attention. Experts in the system will have to evolve incremental modules for schools and appropriate programmes for communities. There is thus a need to call a meeting of experts to prioritize ISM non-drug modalities.

Table 4

Non-drug modalities of therapy in ISM

ISM	Modality	Indications
Yoga	Asana-pranayama	Stress, anxiety, asthma
Ayurveda	Pragnya-vivek	Pragnya-aparadha
	Panchakarma	Dosha homeostasis
Naturopathy	Fasting Water therapy	Sama Srotavarodha
Unani	Mizaz	Aggravation or relief
Siddha	Kalpas	Ageing problems
Homeopathy	Avoidance of precipitation	Migraine, allergy, etc.

Health and longevity

Ritucharya, Dinacharya and Swasthavritta have to be developed in health care. Knowledge and suggestions for healthy ageing and a long life are available in ISM and must be adopted. Table 5 lists some Ayurvedic recommendations and other aspects of healthy ageing.

Table 5

Recommendations for health and longevity

Government	Community	Individuals
Sanitation	Hygiene	Personal cleanliness
Safe water	Guard the supply	Purifiers
Clean air	Gardens and parks	Fresh air
Adequate food	Supply free	Pathya miatahar
Health education	Health centres	Health diary
Encourage Ayurveda	Community vaidya	Griha Ayurveda
Avoid pollution	Activist groups	Home/work milieu
Sports and games	Group events	Walking/yoga
Production: rasayanas	Ensure supply	Individualize intake
Respect for prevention	Obesity clinics	Family weight control
Respect for seniors	Award longevity	Revere the aged
Monitor health care	Health indices	Commitment to health

General and specific prevention of the disease burden in India

Certain general conditions that are widespread in India can be addressed by the integration of ISM with MM. Iron deficiency is highly prevalent in India, both in the rural and the urban populations. It is proposed that ISM practitioners initially focus on the iron deficiency problem at the PHC level. The baseline survey, haemoglobin values and the response to Ayurvedic iron preparations, e.g. varitara loha bhasma or punarnava mandoor, will help gain community support for practitioners of ISM. Quantitative methods will also sensitize practitioners of ISM to other major endemic problems. A national task force will evolve the approaches, treatment modalities, etc. The programme would be evolved with appropriate software, data management and evaluation, with advice from the Centre for Development of Advanced Computing (C-DAC).

Diarrhoea in children being a major disease burden, practitioners of ISM and MM should jointly work on preventive measures—pure water supply and precautions, and link these with laja manda of ISM and WHO—oral rehydration therapy (ORT) recommendations. Baseline prevalence and improvement due to interactions should be monitored to assess the performance of the team. Educational programmes in schools and for mothers should be integrated with diarrhoea prevention programmes.

In the Gadchiroli district of Maharashtra, laypersons have been trained in health and basic elements of ISM, to be practised at home. This can go a long way in preventing infections, diseases, nutritional deficiencies and allergy in children. Emphasis has to be on: (i) intestinal helminths, (ii) vitamin A/D deficiencies, (iii) tuberculosis, (iv) malaria, (v) upper and lower respiratory tract infections, (vi) otitis media, (vii) poliomyelitis, (viii) whooping cough, (ix) malnutrition, etc.

Women's infections and sexually transmitted diseases, including AIDS, can also benefit from inputs from ISM. In a project sponsored by the Department of AYUSH, panchavalkal has been shown to be safe and effective in leucorrhoea. The

Mahatma Gandhi Institute of Medical Sciences (MGIMS), Sevagram can be developed as a centre for evolving models for the extension of ISM to the rural areas.

ISM modalities for the management of the identified diseases

Almost 25 years back, a meeting was held by the Indian Council of Medical Research (ICMR) to consider appropriate technology for PHC. 19 At that time, a large number of medicinal plants were included in the Indian Pharmacopoeia (IP). These were later dropped. Now the IP is reconsidering the inclusion of selected Indian plants. But for integration of ISM at the PHC level, the Ayurvedic Pharmacopoeia and the Herbal Pharmacopoeia (IDMA-RRL) can also be utilized.

Monitoring of the quality of integrated health care has to be transparent. A drug-utilization survey of Ayurvedic teaching hospitals and practising vaidyas would help to assess the usage frequency of Ayurvedic drugs. Prescribing habits in Ayurveda vary significantly according to the geographical location, vaidya's background, pharmaceutical advertisements, etc. Hence, the BIM has to play a pivotal role in each State.

Primary health care and ISM services and products

The family and village communities should be the targets for and active participants in absorption of ISM in health care. The Gram Panchayat must have a Gram swasthya rakshak (GSR) as one of its members. The GSR must be trained as a basic primary health worker with additional training in basic ISM, first aid, core nursing and mother-child care. The GSR and Sarpanch should provide regular reports to the District Medical Officer (DMO) on the prevalence of diseases, unusual cases, epidemics, health statistics, health education activities, ISM data, hygiene, sanitation, problems of integration, etc. The office of the DMO will enter the data on a village-wise basis. The consolidated data analysis will be provided regularly to the State DIM, who will consolidate State data for the Central DGIM. A precise but simplified format will be evolved at each level, with help from C-DAC and the University of Pune.

Gram aushadhi vatika (GAV)

All village communities should preserve and enhance already existing groves. The Gram Panchayat and social forestry will harmonize efforts to create new groves and GAV, for a village or a group of villages. The list of herb plants and trees to be grown should be as per the climatic zone, water supply, soil and local medicinal requirements. The National Medicinal Plants Board (NMPB), Ayurvedic and agricultural institutes and universities should facilitate the process by providing seeds, planting materials, advice for cultivation and post-harvest practices, etc. Local religious, social, political and business leaders must be sensitized to the need for GAV. They have to be the champions of the cause. A database of existing medicinal plant nurseries, farms and large cultivated tracts must be created both state-wise and on a national basis.

The Botanical Survey of India (BSI) and National Botanical Research Institute (NBRI) can coordinate this effort. These data should be available on the Internet. A record of the list of GAVs and their status have to be kept at every district medical centre as well. Wherever villages are close to forests, special projects can be initiated for socioeconomic growth through medicinal plants. Ethnobotanical studies also have to be encouraged. Tribal belts must receive sizeable funds and expertise to conserve healing plants and preserve knowledge. Cooperative medicinal plant farms have to be established on the Amul Cooperative Model.

Gram aushadhi nirmana (GAN)

Villages with a population of more than 5000 persons must evolve a rural pharmacy of ISM remedies. The raw materials of the GAV as well as from other sources have to be properly stored and used. The GAN has to have minimal pharmaceutical facilities, viz. capsule-filling, granulation and tablet making, quath preparation, and ointments and creams. The village 'pharmacist' should be trained in simple manufacturing with periodic inspections for hygiene, operations, etc. Pharmacy colleges also need to be involved in ISM efforts for GAVs at the district level.

Gram swasthya samvad (GSS)

The health of women, children and the elderly is often neglected. Gram Panchayats must hold quarterly GSS to review problems, obstacles and solutions for IM. The report of each GSS must be sent quarterly to the DMO. Referrals of serious cases and feedback on management must be reviewed. The village can invite practitioners of ISM from outside to conduct a camp along with the GSS. The Panchayat should take advantage of the expertise of those who have moved out of the village by informing them about the GSS. Their assistance-financial, technical and professional-should enhance ISM integration at the village level. ISM health education mobile vans should be commissioned at the district level for audio-visual and other modes of learning.

Bridge model for secondary and tertiary care

Bhavan's SPARC and the Nandigram Trust have evolved a novel rural health programme-top medical experts and vaidyas from the city visit the rural centres (primary health centres). Those who need secondary and tertiary health care are referred to cities close by or a metropolis such as Mumbai to identified and empathetic specialists. ISM health care mobile vans can serve the important purpose of such bridge models. ISM colleges also have to be involved in this effort.

Quality of health care delivery in ISM

Historically, ISM were based on patient-physician relationships and trust. Hence, hardly any effort was made in the field of research in health care delivery. Even in ISM educa-

tion, there is little emphasis on how to assess the quality of health care delivery. A task force needs to be established to evolve a module for the quality of care in ISM. Experts in ISM, health administrators and community medicine specialists have to identify criteria and health indices, which would be impacted by good ISM practices (GISMP). Each component of ISM has to evolve a set of guidelines for Good Clinical Service Practices (GCSP). For example, for diabetes mellitus, the New Millennium Indian Technology Leadership Initiative (NMITLI) national group has evolved GCSP guidelines. Such efforts would assist the process of effective integration of ISM for health care delivery.

Dynamic Learning Model and Deployment

ISM Education and Relevant Life Sciences

The International Association recently held an Intellectual Conclave for the Study of Traditional Asian Medicine (IAS-TAM) at Pune. Vaidya Vilas Nanal²⁰ presented the results his survey of Ayurvedic students. These are as follows:

- A revamping of the syllabus of ISM education is urgently needed.
- Allopathy metamorphosed into MM because the basic sciences of chemistry, physics, biology, etc. were incorporated.
- There was resistance from the protagonists of shuddha Ayurveda against any change. However, without compromising on the fundamental principles of Ayurveda, modern life sciences should be introduced in ISM education at the earliest.
- Further, following subjects also need to be considered for incorporation: (i) immunology, (ii) clinical biochemistry, (iii) genetics and molecular biology, (iv) pathological physiology and (v) obstetrics and gynaecology.
- These changes would facilitate the integration of ISM in health care delivery.
- ISM undergraduate training must include the needs of essential rural medical practice.

Pluralistic Health Care: India's Leadership Role

India is the only nation in the world with officially recognized multiple systems of medicine.¹⁹ But the absence of functional bridges across the systems is a major lacuna of our pluralistic health care. With the integration of ISM, this lacuna will be filled. Then India will offer truly global leadership in IM. This will depend on how efficiently and effectively ISM can be integrated into national health care.

Some recommendations to enrich our pluralistic health care system by ISM are:

1. Sanitation, hygiene, clean water and nutrition should receive maximal attention to minimize infectious disease. Positive ISM practices of personal hygiene should be ingrained.
2. Family, schools, workplaces and communities must be actively involved in following the healthy lifestyles recommended by ISM.

3. Monitoring mechanisms and accountability should be introduced at the district, State and Central levels via data transparency, performance appraisals and quality assurance.
4. Private ISM practitioners should be encouraged to assist the integration process by financial, professional and social inducements.
5. Intersystem case presentation fora must be encouraged to enhance the quality of pluralism and emphasize the need for integrative care.

Pharmacoepidemiology and Reverse Pharmacology in ISM

A major drawback of the practice of ISM is the paucity of documentation of clinical records. The clinical notes are poor in quality or non-existent. Also, ISM education does not cultivate the habit of detailed clinical records. It will be some time before these habits can be rectified. Hence, to start with, Ayurvedic pharmacoepidemiology can be initiated at the PHC level. The major emphasis should be on drug utilization, prevalence of diseases and safety of drugs. Special training should be provided in epidemiology even to allopathic doctors.¹³

Reverse pharmacology or observational therapeutics, emerging at the interface of MM and ISM has to be actively encouraged with utilization projects and centres for excellence and research at all tiers of health care. This approach may convince the world too about the evidence-based nature of ISM. Many leads for drugs have been obtained by astute clinical observations in the field. Table 6 lists the drugs obtained by the reverse pharmacology path, which could be an economical and effective drug development path among diverse R&D paths for natural products (Fig. 3).

Table 6

Drugs obtained by the reverse pharmacology path

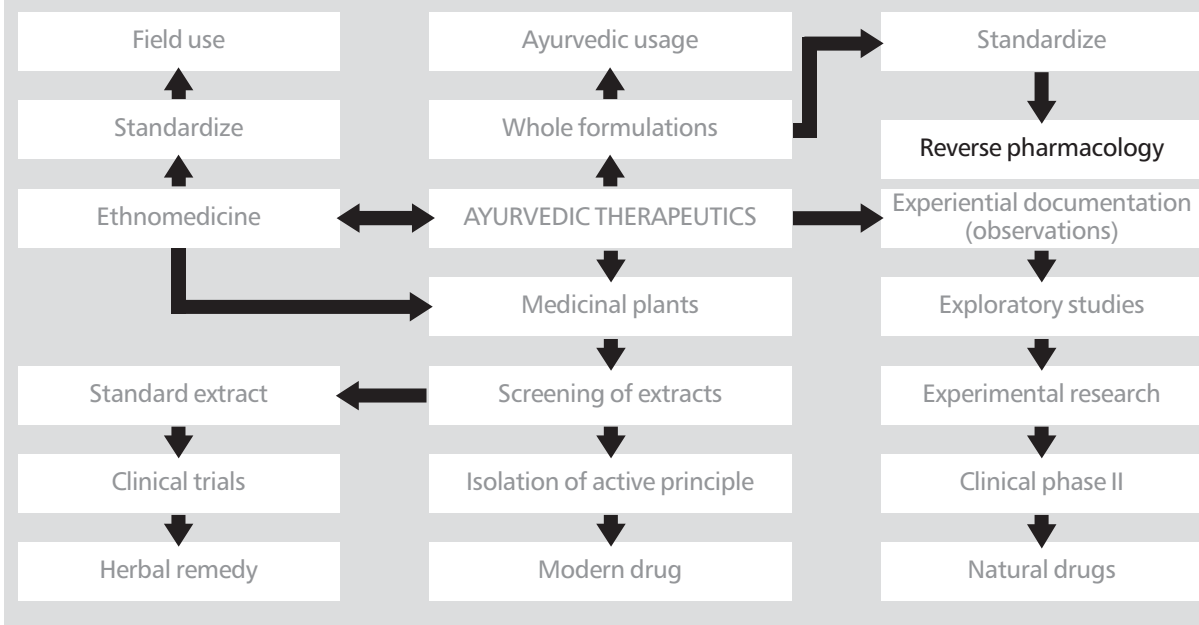
Indian		Other	
Medicinal plant	Disease	Medicinal plant	Disease
Rauwolfia serpentina	Hypertension	Catharanthus roseus	Cancer
Commiphora wightii	Hyperlipidaemia	Cinchona officinalis	Malaria
Mucuna pruriens	Parkinson disease	Digitalis purpurea	Heart failure
Picrorrhiza kurroa	Hepatitis	Salix alba	Fever
Curcuma longa	Oral cancer	Ephedra sinensis	Asthma

Evidence-based IM and ISM

The age-old experiential healing wisdom of ISM constitutes a different kind of evidence from randomized controlled trials of drugs. ISM even have different conceptualization of pathogenesis based on prakruti, ahar, vihar, ritu, pragnya-paradh, etc. These cannot be lightly brushed aside due to the dominant paradigms of MM. Only massive clinical data, col-

Fig. 3

R&D paths for natural products



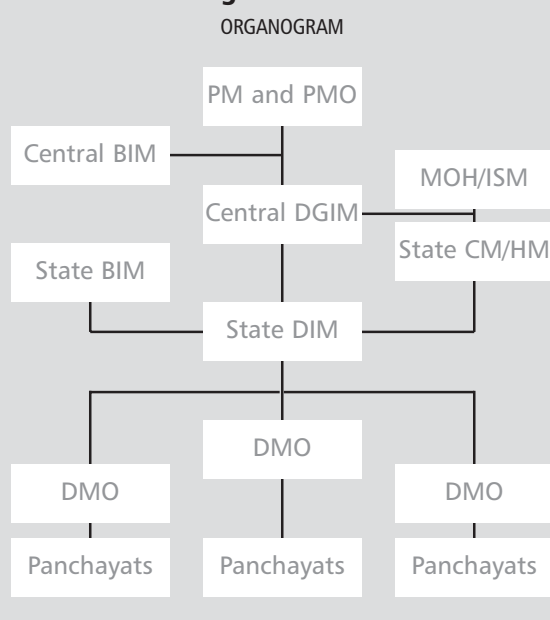
lected from multiple locations, can provide evidence on the safety, efficacy and quality of ISM. Information technology and telecommunications must be efficiently utilized to create massive databases from thousands of villages. The diseases responsible for high morbidity and mortality should receive priority. Such data, when analysed and interpreted, will expedite the growth of IM for health care.

Evidence-based ISM requires strong support for research at all levels of biological organization, in a nationwide R&D network such as the New Millennium Indian Technology Leadership Initiative (NMITLI) project. There is an urgent need to build into ISM education and service strong elements of clinical pharmacology and research methods. The vital elements are: pharmacovigilance, rational drug therapy, adverse drug reporting (ADR), experimental design and epidemiology. ISM practitioners trained in this manner would enhance the process of ISM-MM harmonization. Later, specialization with dominant ISM or MM categories could be undertaken for postgraduate courses. Integration of ISM would be automatic if such a change in medical education takes place.

The new model of integrative health care that India can evolve would need to be: (i) pluralistic and patient need-based; (ii) accessible and economically viable; (iii) evidence-based, in a broad sense, with experiential data; (iv) learning and dynamic in terms of emergent diseases; (v) environment-friendly, with the growth and use of plants; (vi) people-driven at the grassroots levels of democracy; (vii) research and education-oriented for national needs; and (viii) transparent and accountable. **Figures 4a and b** outline the proposed new model and priorities of integrative health care for India.

Fig. 4a

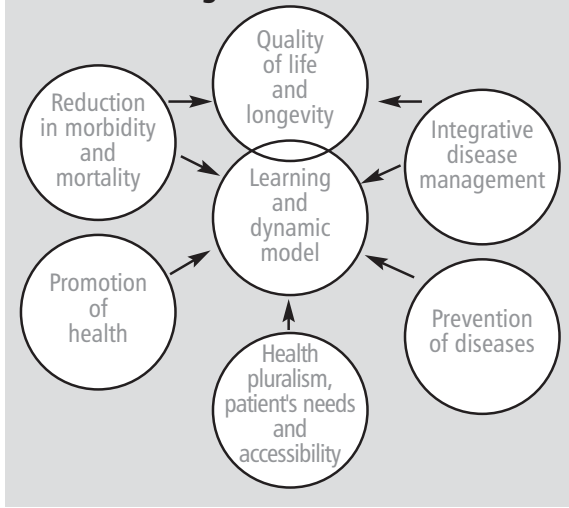
New model of integrative medicine



Summary and conclusions

In this paper an attempt has been made to think in an out-of-the-box manner and suggest radical ideas to revamp health care by a three-horizon strategic approach for ISM integration. This will involve identifiable deliverables and grassroots-

Fig. 4b

Priorities of integration of ISM

and State-level 'empowered' DIM. The approach has to be from bottom-up and not top-down. Certain proposals such as a village-level ISM herbal garden, pharmacy and health meetings, if well implemented, would make India a global leader in health matters. The emphasis has to be on the promotion of health and prevention of diseases by synergy of ISM-MM. The use of information technology, telecommunication and computers in IM is proposed at the PHC level. The ICMR-ISSR document of 1981 has recommendations that are still very relevant.

Certain precise and prompt actions need to be taken to emphasize the seriousness of the resolve for IM. The following are summarized for programmes in education, service and research:

1. ISM modules in the fundamentals of Ayurveda and common non-drug/drug modalities of health care must be included in all medical colleges within a year. Similarly, ISM students must be trained in rural health practice as per MM and in essential drugs of MM.
2. ISM and MM practitioners should be deployed for health care delivery, on an equal footing, in States with the poorest health statistics. They have to undergo training in rural health practice (cf Sri Lanka)
3. The list of drug and non-drug modalities of ISM suggested by consensus has to be widely circulated and a for-

mulary published as soon as possible (within 6 months). A composite medicine kit needs to be evolved for villages to address common household ailments. Ayurvedic pharmacoepidemiology and reverse pharmacology centres must be established in each State to identify currently used, safe, effective and quality ISM remedies.

4. Gram aushadhi udyan cooperative farms and Gram aushadhi nirmana must be developed in at least 10,000 villages already being served by competent NGOs. Village healers have to be identified, and their skills assessed, enhanced and utilized in the integrative model. The FRHLT can be a catalytic agency.
5. Ayusoft and computer-friendly case-record forms must be deployed in these 10,000 villages (C-DAC has already initiated a project). An interactive website needs to be created for inputs and suggestions in the process of integration of ISM.
6. The Central Directorate of Integrative Medicine (CDIM) must be created within six months to steer the course.
7. Targets, transparency, accountability for ISM/IM performance, etc. have to be in the public domain and monitored by local citizens' groups for quality and deliverables. The infrastructure and adequacy of supplies of AYUSH drugs have to be actively ensured. Modern management techniques are to be used.
8. The community must be involved for maximum support to the local IM personnel and infrastructure. Financial inputs have to be at the Panchayat/PHC level, need-based and accountable. Health education at school level must include ISM lifestyles and disease-prevention modalities.

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