

Perspectives in innovation in the AYUSH sector

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INTRODUCTION

Ever since the Government of India established the “National Knowledge Commission” under the chairmanship of Pitroda^[1] to promote awareness of the significance of the growth of knowledge in developing a knowledge-based society, continued efforts have been made to generate new ideas and innovations in different sectors of knowledge. Establishment of a National Innovation Council was a first step. Now a number of Sectorial Innovation Councils have been constituted. The latest in the series is the AYUSH Sector Innovation Council constituted by the Govt. of India under the chairmanship of the author. It warrants a national dialogue and debate on the perspectives and priorities of innovative activities in traditional knowledge practice in general, and AYUSH in particular. The objective of this communication is to draw the attention of the core AYUSH fraternity and allied sectors of the knowledge-base to deliberate and direct young talents in the field to promote innovation in areas with the greatest potential for success. There is also a need to develop strategies to promote this movement through identifying innovation opportunities and by creating ‘Innovation Ecosystems’ with the ultimate goal of bridging gaps in our knowledge, and converting knowledge into service of the people for better life and health. Here the author is communicating some of his own ideas on the terms of reference of the Sectorial Innovation Council and inviting more vision and input.

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Received: 05-June-2011

Revised: 10-June-2011

Accepted: 17-June-2011

Access this article online

Quick Response Code:



Website:

www.jaim.in

DOI:

10.4103/0975-9476.82516

MAPPING OPPORTUNITIES FOR INNOVATION IN AYUSH SECTOR

Innovation and innovation-opportunities in a Traditional Knowledge sector, such as AYUSH, should be conceived from a very different perspective from that of the conventional science/technology sector. In the Traditional Knowledge sector, there are richer possibilities of success through retrospective and inward exploration than in a normal prospective/outward innovation exercise. The new Council could deliberate on the relevant issues related to “New Innovation” versus “New Exploration” in the area of untapped classical traditional knowledge base. A few topics of special consideration could be:

1. To innovate tools for appropriate application of conventional science and technology to understand, decode, expand and further develop traditional knowledge for contemporary use in the public interest. This will warrant development of newer R&D methodology evolved through the relevant interface of traditional knowledge with today’s science.^[2-4]
2. Innovations and new ideas aiming to bridge the gaps between traditional AYUSH knowledge systems, and the contemporary conventional knowledge practice, which is essential to promote integration and mainstreaming of AYUSH systems in national health care programs, which have long been visualized to be the sole way forward, but have not yet succeeded.
3. Innovations to bridge the gap between AYUSH knowledge practice and the people of the country, disseminating information and generating awareness among the masses. It cannot be overemphasized that, in spite of claims that AYUSH is the people’s health care system in India, and that it has the necessary credentials for such a role, AYUSH has not yet itself been accepted as mainstream, nor does it yet hold the status of first choice of treatment even in rural areas. In contrast, Traditional Chinese Medicine, which as a system has the same features, has already become the first choice treatment in the People’s Republic of China.
4. Targets of action would be (i) Education, (ii) Research, (iii) Professional Services in the Rural/Urban health care, and (iv) Industry in the AYUSH sector, jointly leading to develop Innovation-Ecosystems.

5. The Council could identify individuals and institutions in this sector to play leadership roles besides addressing other stakeholders.

MEASURES TO CREATE INNOVATION ECOSYSTEMS

Major financial and management policy inputs are needed to strengthen the Education–Research–Service–Industry components individually and severally, to see that all four components develop hand-in-hand into a continuum that prove complementary to each other. This will require disrupting the existing top–down bureaucratic rigidity and conservatism that promotes research and service as a component of education, regarding industry as a proactive partner. There is a greater need to change people’s attitudes than merely depend on strategic interventions.

MEASURES TO ENCOURAGE YOUNG TALENTS AND LOCAL INSTITUTIONS

India has over 500 AYUSH educational institutions, including over 300 Ayurvedic colleges and 4 full-fledged AYUSH Universities producing about 25,000 AYUSH graduates every year. In addition, some 700,000 registered practitioners on one hand and over 8,000 licensed pharmacies on the other, produce and prescribe a very wide range of AYUSH products. This huge infrastructure and technical manpower is largely underutilized. Because of organizational and material facility weakness, these institutions have failed to produce quality products, both human and material. This infrastructure needs immediate strengthening, financially, socially, and technically. Also, policies and plans are needed to make it useable, and to utilize the same in the public interest. AYUSH should be rapidly mainstreamed into the National Health Care Program.

One of the important means of attempting to strengthen the system should be to identify existing young talents in local educational and R&D institutions, and to encourage and reward them for good work with incentives, such as innovation fellowships, development funds, centralized training programs, and CMEs.

MEASURES TO CREATE, IDENTIFY, AND REWARD TALENT IN INNOVATION AND DISSEMINATE SUCCESS STORIES

The general feeling among policy makers and administrators, is that the AYUSH sector has such a dearth of talent that when head-hunting for high positions in certain AYUSH institutions, many times capable persons are sought outside the sector. This is not always true. However, because of the prevailing situation there has

been a lack of quality manpower within the sector and often those who are very talented remain unidentified and ignored. Strategies should be developed to identify such talents from areas of Education, Service, and Industry in order to encourage them to take up responsibilities and work toward further development of the sector. It cannot be overemphasized that no sector can really grow and flourish spontaneously and naturally without leadership from inside.

Such identifications could be made possible through “talent hunt” programs, such as organizing brainstorming sessions on AYUSH Innovation topics where professionals from the field share their new ideas and innovative thinking with others, and a panel of experts watch these talents to identify some of them to develop further. The recent initiative conducting Vaidya Scientist Fellowships with intensive training for young faculty of Ayurvedic colleges at IAIM is praiseworthy.^[5] Additional efforts should be made to disseminate the success stories of different individuals and institutions through public enterprises. Encouragement and recognition of work are the best rewards for a talented innovator. There is not always a need for material reward.

SEMINARS, LECTURES, WORKSHOPS ON INNOVATION

The AYUSH Innovation Council has been set up to redefine innovations that offer novel solutions leading to inclusive growth, and prepare a sectorial roadmap for innovations in AYUSH. However, the common man in the AYUSH sector may not really have an innovation perspective and will need to grasp the concept of developing new ideas, and then placing the same in work settings. This requires proactive efforts to create this awareness among members of the sector both through educational and service programs. This can be done by organizing seminars and workshops in regional institutions, and special lectures by reputed innovation strategy experts. Such events should be sponsored by the Department of AYUSH, Government of India, with the help of some identified talents in their respective institutions, not necessarily through institution principals and directors. All such activities will need inbuilt mechanisms of frequent impact assessment by the organizers and sponsors, paying special attention to the younger generation.

MEASURES TO CREATE AND PROVIDE SUPPORT TO PROMOTE INNOVATION

The budget allocation to AYUSH sector by the Government of India should be adequately raised to increase investment in programs and activities that promote innovation. Such an investment could be in the form of sponsoring R&D

projects based on innovative ideas, sponsoring fellowships for identified talents in the field to encourage them to pursue their work, and further create linkages with the allied fields of Education, Service, and Industry. Such an exercise could be assisted by the advice of selected mentors in the field of Traditional Knowledge and Practice.

MEASURES TO CREATE AND ENCOURAGE INNOVATIONS IN PUBLIC SERVICE DELIVERY

The AYUSH sector is directly involved in public service delivery largely to the underprivileged segment of the society. There is always a need for the public service delivery agent not to remain repetitive, rather he tries to develop new paths of helping the people in required areas. It is advisable for AYUSH practitioners to innovate appropriate new promotive, preventative, and curative methods, which are safe and cost-effective in specified areas of health hazards, including new diseases of the time. One example of this kind of innovative public health care is the community Herbal garden program teaching underprivileged households to grow medicinal herbs in their backyards, and promote a culture of self-healing. Similarly, AYUSH professionals should be encouraged to disseminate AYUSH wisdom among the masses at grassroots level for self-help. Besides, there is also a need for service delivery agents to think about developing workable therapeutic packages for special health conditions, for which conventional modern medicine has not much to offer, such as treatment of intractable diseases, managing immuno-compromised states, nutritional problems prevalent in rural areas, including anemia, antenatal care, chronic degenerative diseases, geriatric health care, adjunct palliative care, and many others.

SUGGESTING INNOVATIONS REQUIRED TO DEVELOP NEW PRODUCTS, NEW SERVICES, MARKETS, REDUCE COSTS, BETTER EFFICIENCY, PRODUCTIVITY, PERFORMANCE, AND QUALITY

AYUSH professionals in the field should come forward and suggest experience-based innovations for such specific areas. Obviously the development of new products will require intensive drug research picking up the baselines of experience-based information to be supported with new scientific evidence. New product development in the AYUSH sector need not follow the usual vertical strategies of new drug development, rather it should follow fast-track research in practice setting, reverse pharmacology, observational studies, and case records, ensuring basic safety and maximum therapeutic efficacy and cost-effectiveness. There has to be a clear R&D policy for product development in the AYUSH sector,

which will definitely make it stand out as different than the conventional approach.

The market strategies including cost reduction and quality performance will have to be evolved through alternative models of the health care system. It has to be acknowledged that the AYUSH Health Care system is essentially pro-nature and holistic, as it includes lifestyle modification, dietary care, and fewer drug interventions. If this kind of health care strategy is promoted, costs of treatment may be significantly reduced, and safety of medication will automatically improve. The issues of safety and cost are more the concern of the conventional, modern medical health care system, not so much of traditional medical practice, which is already very safe and low-cost. The only support needed is to promote the alternative model among the people, so that they utilize it and only go for conventional care when it is specifically needed. The high cost of modern medical treatment is well known to consist largely of the cost of medicines, tests and investigations, surgical procedures and the high professional fees of its practitioners. If these problems are solved with the help of the alternative model of health care, health care delivery will automatically become safer and more economic.

The overall strategy for development of the AYUSH sector was also projected in a *J-AIM* editorial drawing special attention to mainstreaming, conceptual clarity, multidisciplinary support, international cooperation, development of appropriate research methodology, integrated clinical protocols, documentation, regulatory mechanism reforms, leadership roles, developing Ayurveda for All.^[6] The same warrants action now. Renewed efforts to create an innovative approach identifying innovation opportunities creating productive innovation ecosystems will help inclusive growth and better life and good health for the people.

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Source of Support: Nil, Conflict of Interest: None declared.