

AYUSH: Modi's Innovation in Indian Health Systems

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Abstract

Background and Objective: This study was conducted as the first attempt of reviewing Prime Minister Narendra Modi's almost four year-old ministry as an innovative health policy. Modi's administration has employed innovative strategies such as the embracement of indigenous transformation of health system side by side with the strengthening of modern medical technology and practices. This facilitated the birth of the Ministry of AYUSH. This paper analyzed the processes involving the development and implementation of Modi's innovations in India's health sector.

Methodology: Through contextual analysis, data were generated from various online sources including reports and modules available in the Ministry of Ayush and other government offices' websites.

Results: It showed that the set of trends identified by Cavalcante and Camoes was present in the ministry as a public management innovation in health care in India. These are the improvement of transparency mechanisms, open government and accountability; promotion of e-government; ease access and citizen participation in public administration; new public policies that encourage more active role of citizens in the creation of political capital; networks and partnerships of state actors, social and private enterprises; and expansion of information technology to increase the quality and efficiency in the delivery of public services.

Conclusion: The establishment of the Ministry of Ayush and the policy on Indian System of Medicine and Homoeopathy is another example of indigenous transformation in public management in Asia which brings synergy between the traditional wisdom of AYUSH and modern diagnostic tools and technology.

Keywords: *Innovation, India, Health, Traditional System*

Introduction

India's health system has been perennially problematic since colonial times. The rise of population also added to the pressures to the government in improving health services to billions of people through the years [1]. Several governments, since India's beginning as nation state, have adopted several mechanisms on how to address this issue. Many of these mechanisms, in fairness, have worked well to enhance partially the hapless conditions of constituents.

Despite the modernization of equipment, facilities, and even professional staff coupled with the establishment of various reputable medical institutions, both public and private, health sector requires further improvement. Given this situation, Prime Minister Narendra Modi and his administration has employed innovative strategies such as the embracement of indigenous transformation of health system side by side with the strengthening of modern medical

technology and practices. Thus, the Ministry of AYUSH (stands for Ayurveda, Yoga and Naturopathy, Unani (Islamic Medicine), Siddha (traditional Tamil Medicine) and Homeopathy) (MoA thereafter) was born. In Sanskrit, the term 'Ayush' literally means "long life" [2]. In 2017, Sowa Rigpa was added to the existing family of AYUSH systems [3]. The details of such development will be discussed in the latter section of this paper.

What is worthy to note at this juncture, however, is that the health policy being implemented by Modi's administration recently fits to the definition provided by Matei and Bujac on innovation. For them, innovation is a dynamic process that changes the overall architecture of government, identify issues, challenges, develop new processes, creative, and selection and implementation of new solutions. These features are seen to coincide largely with the reform process and are essential to increase public sector efficiency and for delivering quality and competitive public services [4]. Furthermore,

Fariborz and others have also pointed out that any innovation in the public sector may be related to improvements in organizational processes, implementation of new products, procedures, services, policies or systems [5].

On the basis of these definitions, one can say that Modi's recent appreciation and emphasis in integrating Indian traditional system of health and homoeopathy as part of his administration's innovative and reform policies in the health sector aptly falls within innovation as essential element of public management in India. The establishment of the MoA at the onset perfectly fits to the change in the overall architecture of the government with two bodies in charged for the health sector. The first body that was established in 1976 is the Ministry of Health and Family Welfare and is charged with health policy and is responsible for all government programs relating to family planning in India [6]. The concerns of the AYUSH are previously handled by this ministry until the MoA was established in 2014 as a separate ministry. AYUSH as a system is also seen by the Indian government as a means to improve the delivery of public health services to all sectors of the society given its accessibility, affordability, and comparative low cost among others [7]. The MoA, on the other hand, as an institution is expected to produce new products and services that will cater not only Indians' consumption but also of the world - be it as potential source of economic value or as tool of soft diplomacy.

To guide this paper in closely examining the public management style applied to the recent Indian health system, the set of trends identified by Cavalcante and Camoes will be accordingly adopted. These scholars had enlisted a set of trends (principles and/or tools) management that has served as guiding framework of innovations in public administration for the last two decades [8]. These are: improvement of mechanisms of transparency, open government and accountability; promotion of e-government as an expansion strategy; ease access and citizen participation in public administration; new public policies that encourage more active role of citizens in the creation of political capital; networks and partnerships of state actors, social and private enterprises; and expansion of information technology to increase the quality and efficiency in the delivery of public services.

Methodology

This paper analyzed the processes involving the development and implementation of Modi's innovations in India's health sector. Through contextual analysis, data

were generated from various online sources including reports and modules available primarily in the website of the MoA. Other than that, this paper has also employed the reports done by the Ministry of External Affairs, Indian Pharmaceutical companies, National Medicinal Plants Board, and even news features of reputable media outlets in the country. To supplement the above-mentioned sources, this study also utilized the articles published in journals dedicated to Ayurveda and integrative medicine. Lastly, it is worthy to note here that this paper was the first attempt of reviewing Modi's almost four year-old ministry as an innovative health policy.

Results and Discussion

Nature and Motivations

The MoA was established on 9 November 2014 to ensure the optimal development and propagation of AYUSH systems of health care. Earlier, it was known as the Department of Indian System of Medicine and Homeopathy (ISMH) which was created in March 1995 and renamed as Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy in November 2003, with focused primarily for the development of Education and Research in Ayurveda, Yoga and Naturopathy, Unani, Siddha, Homoeopathy [9] and lately Sowa Rigpa.

The objectives of the ministry include the upgrading of the educational standards of ISMH colleges in the country; strengthening of existing research institutions and to ensure a time-bound research program on identified diseases for which these systems have an effective treatment; drawing up schemes for promotion, cultivation and regeneration of medicinal plants used in these systems; and evolving of Pharmacopoeial standards for ISMH drugs [10].

This development is triggered by the fact that India, as one of the ancient and greatest civilizations of the world, possesses an unmatched heritage represented by its ancient systems of medicine that are considered a treasure house of knowledge for both preventive and curative healthcare. Similar with China, India lately has given prominence to its ISMH. Such appreciation is brought about by the prominent features of the ISMH such as diversity and flexibility; accessibility; affordability; a broad acceptance by a section of the general public; comparatively low cost; a low level of

technological input and growing economic value among others [11]. Thus, in 2014, the administration of Prime Minister (PM) Narendra Damodardas Modi has created the MoA to ensure the optimal development and propagation of Indian systems of health care [12]. This realization came more than three decades after since the national health policy was crafted in 1983. Lamenting on the under-utilization of vast infrastructure in the ISMH, the policy has suggested to initiate measures in enabling a more meaningful phased integration of ISMH with the modern medicines.

The Indian government considered the MoA as representation of a pluralistic and integrative scheme of health services. It is further believed that AYUSH can play an important role in realizing the dream of 'New India' through the provision of quality healthcare and medical care for its citizens. At present, many reforms in administration, research strategies, nature of practice and education are already underway at the MoA [13].

The Ministry has 3,277 hospitals, 62,649 beds, 24,289 dispensaries, 785,185 registered practitioners, 495 Undergraduate (UG) colleges, 106 Post-graduate (PG) colleges, and 8,644 manufacturing units to fulfill its mandate [14]. Lately, Prime Minister Modi has also inaugurated the first All India Institute of Ayurveda (AIIA) in New Delhi. His government was working to establish an Ayurveda hospital in every district. It should be noted that India has 707 districts. Other than that, his government has developed more than 65 AYUSH hospitals in the last three years. AIIA has been set up along the lines of the All India Institute of Medical Sciences (AIIMS), with a total campus area of 10.015 acres and a budget of Rs157 crore. AIIA, under the AYUSH ministry, is aimed at bringing synergy between the traditional wisdom of Ayurveda and modern diagnostic tools and technology. The PM has also released the "Ayurvedic Standard Treatment Guidelines" developed by the AYUSH ministry. The Pharmacopoeia Commission of Indian Medicine and Homoeopathy is also working for the standardization of traditional Indian medicines [15].

AYUSH as Innovation

The making of AYUSH as a matter of national policy coupled with the establishment of a ministry devoted for this purpose is a clear manifestation of the indigenous transformation of India's health system. Such

innovation rooted on India's heritage is vividly highlighted in one of the speeches of PM Modi. He lamented that Indians forgot their heritage for a long time, but now, they have started remembering it again. The PM also reminded his countrymen that no country can progress by forgetting its heritage and that a country cannot move forward if it is not proud of its culture and heritage. He further said that the identity of the countries comes to an end if they move beyond their legacies" [16].

The move itself to integrate the 'fragmented' policy of medical pluralism is a manifestation of the innovative action of the Modi administration in recent times. It should be noted that seven systems – Allopathy, Ayurveda, Yoga, Naturopathy, Unani, Siddha, Sowa Rigpa and Homoeopathy function in silos are under different Ministries, Departments, and Councils both under the Central and State Governments. Consequently, different medical councils for various recognized systems of healthcare without any synergy or common regulatory arrangements are prevalent. Hence, creating a ministry to supervise these systems under one roof is indeed an innovative and transformative move of the Indian government [17].

Such innovative and indigenous transformation of national health policy is best examined using the five trends previously identified by Cavalcante and Camoes such as transparency, open government and accountability; promotion of e-government; new arrangements to public policy (active role of the citizen); networks and partnerships; and use of information technology.

Transparency, open government and accountability

The MoA has also observed an open, transparent and accountable governance in its operation. In fact, its own website has a module for tenders and vacancies containing annual reports from 2010-2017; tenders to include the call for the procurement of t-shirt and printing of brochures; communications received from other ministries for the information of officers under the MoA; circulars such as the All India AYUSH post graduate test; news and events; and publications containing the essential information of AYUSH. The Ministry also invites comments from the citizenry on Indian Medicine and Homeopathy Pharmacy Central Council Bill 2016, and on Draft Accreditation Standards for Ayurvedic Hospitals [18].

In order to facilitate transparency, the Central government has reforming fiscal transfers from the Center to states for better health outcomes. The Ministry has also established a grievance cell to pay attention to complaints and render citizen services to all constituents. Similar to other ministries, the MoA also utilized the Centralized Public Grievance Redress and Monitoring System to enable submission of grievances by the aggrieved citizens anytime and anywhere basis (19). In greater appreciation of the tasks under this cell, the Deputy Secretary has been designated to head this office [20].

To promote transparency, the MoA is also providing information in electronic form available to interested citizens such as the annual report covering the performance budget, detailed demands for grants, infrastructure facilities- statewide, as well as funds released to state under centrally sponsored schemes (21). It is also interesting to note that the MoA has asked all attached colleges and hospitals, both in the private and public sectors, to install Aadhaar-based GPS Biometric attendance system, in a move aimed to check the faculty attendance, keep out ghost teachers and make the process transparent [22].

Further on transparency, the Quality Council of India has been engaged for voluntary certification of quality of Ayurveda, Siddha, and Unani (ASU) products. Through this scheme, drug manufacturers are awarded quality seal to the products on the basis of third party evaluation of the quality subject to fulfillment of the regulatory requirements. AYUSH Standard and AYUSH Premium Marks are awarded for products moving both in domestic and international markets. 146 ASU products are reported to have been awarded AYUSH Premium Mark while 97 products are given AYUSH Standard Mark respectively [23].

Promotion of e-government

The MoA has created a portal for citizens who would like to acquire important information about the Ministry which are categorically presented in various modules. Interested individuals can access modules about the systems, drugs and pharmaceuticals, infrastructure, acts, rules and notifications, education, research, schemes, as well as international cooperation. There are e-books such as Charakasamhita (ancient textbook on Ayurveda), Suchrutasamhita (ancient textbook on surgery) as well as

information about the international day of yoga for 2017 that are available in <http://ayush.gov.in/ebook>. Citizens can also access tenders and vacancies under the ministry. Moreover, to reach out to wider audience, the ministry has a research portal to disseminate information related to the AYUSH and the current research updates purely meant for academic purpose. Users can search AYUSH terminology, research articles, journals etc. Information about Ayurveda, yoga, naturopathy, Unani, Siddha, Homeopathy, as well as clinical research, pre-clinical research, drug research and fundamental research are also featured in the site [24].

New public policy for active role of the citizens

The concept of putting people's health into their own hands is based on a bottom-up approach, according to which policy-making is not the sole preserve of a central organization, but the local community is also given an opportunity to take part in the decision-making process. This approach is given great emphasis in the implementation of the National Rural Health Mission (NRHM) and consequently, the AYUSH system, as this system has been mainstreamed under the NRHM. Moreover, people take relatively greater interest in the indigenous systems of medicine as they are deeply rooted in their cultural beliefs. Considering this, it can be argued that people would take part in decision-making about their health if they are given a choice of AYUSH system. This sort of model has been tried and tested by integrating health with Panchayati Raj (local government) institutions. In many states local bodies have enormous role in providing health services [25].

Furthermore, the government has put value on inter-sectoral coordination where various departments such as education, women and child development, water and sanitation, food and civil supplies, and local government need to work with the health department to improve the public health system in the country [26].

The government through the Ministries of Ayush and Agriculture is involving as many stakeholders in the national health policy including farmers. The ministries are mandated to guide farmers in sowing medicinal plants in their fields. The program is also designed to help farmers boost their income in line with the governments plan to double their income by 2022, when India attains 75 years of independence [27].

In order to raise the participation of wider public, the MoA has also raised the levels of the AYUSH education. The Ministry has implemented a country-wide collective of AYUSH students which will serve as a platform for students who wish to organize various activities. The MoA has also decided to implement the National Eligibility Entrance Test (NEET) for all AYUSH Educational Institutions for admission of undergraduate and post graduate courses through designated Authority. Similar test will also be conducted to all individuals who will be appointed as teachers in AYUSH institutions and a unique verification code shall be allotted by the Council of Indian Medicine/Central Council of Homoeopathy before their appointment. The attendance of teaching staffs shall be through geo-location based system which shall be made accessible by the relevant council as well as the Ministry [28].

Lately, the Ministry has attempted to increase the strength of doctors in rural India. India has nearly 800,000 AYUSH practitioners and over 1,300 of them are largely Ayurveda, homoeopathy and unani practitioners working in the government health centers [29].

In order to promote better AYUSH and will be actively participated by the citizens, Modi's administration broke the convention of appointing bureaucrats as secretary by designating an Ayurveda expert to MoA. Vaidya Rajesh Kotecha, has been designated MoA secretary for a three year term. Mr. Kotecha was the former vice-chancellor of Gujarat Ayurveda University (30). Kotecha's appointment is considered as the first instance of a lateral entry into a secretary-level position from outside the civil service (31). This is a clear indication of another innovation introduced by the Modi's administration not only for MoA and for the entire bureaucratic machineries in the history of India's public management.

Networks and partnerships

Inter-sectoral coordination is an important component of the universal health care and in the success of the MoA. Various departments, such as education, women and child development, water and sanitation, food and civil supplies, and local government, need to work with the health department to improve the public health system in the country. The involvement of AYUSH doctors brings all departments into service of people and thus paves the path for integrative planning. AYUSH doctors also work as coordinators for many programs, for

which they use their understanding of public health and the indigenous knowledge system [32].

For global promotion/ propagation of the AYUSH systems of medicine, since past few year the Department, has adopted strategy for signing of Country to Country Memorandum of Understanding on cooperation in Traditional Medicine; setting up of AYUSH Academic chairs in Foreign Universities / Institutes and opening of AYUSH Information Cell in the premises of India Missions / Indian Council for Cultural relations Cultural Centre to disseminate authentic information about AYUSH [33]. In a bid to encourage people towards Yoga and Ayurveda, private sector are also expected to contribute towards development of Yoga and Ayurveda through their Corporate Social Responsibility (CSR) funds [34].

Moreover, the MoA in collaboration with the Department of Commerce, Ministry of Commerce and Industry, Federation of Indian Chambers of Commerce and Industry and Pharmexcil have organized the International AROGYA 2017. The event was attended by international Ayurveda experts, academicians, scientists, regulators, and manufacturers. This activity facilitates the discussion on standardization and quality control, enhancing the export potential of AYUSH and business opportunities, as well as integrative healthcare among others [35].

To further international cooperation, the Indian government has inked an agreement with the World Health Organization (WHO) to develop benchmarks for Yoga, Ayurveda, Unani, and Panchkarma. Five AYUSH information cells have been set up in Israel, Tajikistan, Peru, Russia, and Tanzania. Furthermore, the government is also offering incentives to AYUSH industry for international cooperation and encouraging certification of AYUSH products to facilitate exports. The AYUSH Premium Mark is part of a new, voluntary quality certification scheme to ensure the efficacy of Indian herbal products [36]. The initiatives and activities undertaken by India within the country align with the WHO Traditional Medicine Strategy 2014-2023. This development made India a unique example for adopting a pluralistic health care delivery system that allows every recognized medical system to develop and be practiced with a view to provide integrated and holistic healthcare services [37].

Use of information technology

Modi's government has harnessed the strength of information technology as the backbone of AYUSH systems in the country. The facility is designed to provide a platform to collate information on various indigenous treatment methods that will help create a database for future research [38].

For example, the MoA has employed the e-charak, an e-channel for herbs, aromatic, raw material and knowledge, as platform to enable information exchange between various stakeholders involved in the medicinal plants sector. This platform has been jointly developed by the National Medicinal Plants Board and the Centre for Development of Advanced Computing [39]. It has online applications to sell and buy herbal items and has an updated monthly market price for herbal extracts, medicinal plants and planting materials for medicinal plants ranging from bulbs, cuttings, saplings, seeds, as well as tubers. It has a module for knowledge resources covering information on medicinal plants, agro-techniques, schemes/voluntary certification scheme for medicinal plant produce and directory of medicinal plants. The information provided are available in 7 languages including English [40].

Another innovation made by MoA is the adoption of a mobile application that is designed to organize the activity 'Celebrating Yoga' for 2017. Although this is not directly implemented by the MoA, the intention, purpose, and mandate are under the realm of the ministry. The mobile application has been developed by the Ministry of Science and Technology with the aim of popularizing yoga and most importantly encouraging people to scientifically healthy living. The said application will help in capturing mass yoga events being organized in public places, schools and office complexes across the country [41]. Moreover, the MoA has also employed social media application such as twitter and facebook (@moayush) to reach out to more people and disseminate the information widely as soon as possible.

Conclusion

The implementation of AYUSH and the establishment of a ministry in mainstreaming traditional Indian health systems has encountered several opportunities and challenges. Doubts cast the viability and legitimacy of AYUSH against the efficacy of modern/scientific medical goods as well as on the practitioners

supporting it. Despite these downturns, the innovation introduced by Modi in health sector has started to widely reach millions of Indians even those in the far flung areas. Such innovation has also reached people behind India and gained more prominence in the international arena. This is manifested by sponsoring several activities in many countries including International Yoga Day and have received positive responses from the citizens of the host countries. Thus, AYUSH became India's soft power strategy and the MoA as its main apparatus.

It is also interesting to note that Modi's innovation through AYUSH is not only confined in the health sector but also has expanded to higher education and tourism sectors as well. The government of India, in its attempt to make AYUSH a sustainable and far-reaching medical solution to the world, is also introducing higher education in the sector. Efforts such as establishing two post graduate institutes of yoga and Naturopathy Education and Research with 200 bedded hospitals at Jhajjar, Haryana, and Nagmangala, Karnataka are part of the program [42].

The presence of MoA is indeed a manifestation of the serious innovative move of Modi's administration regarding the indigenous transformation of traditional system of health in India. Such policy, despite criticisms, will enable the government and its apparatuses to reach out to wider constituents who are longing for years of efficient and competitive public services. As discussed earlier, the MoA has complemented the works already done by the Ministry of Health and Family Welfare. To some extent, policies implemented by MoA will benefit majority of the population given the nature of AYUSH as accessible; affordable; comparatively low cost; a low level of technological input; as well as having broad acceptance by a section of the general public. It is worthy to note that AYUSH in recent times has gained supporters even outside India and has growing economic value through the years. In fact, the ministry has designated its own pharmaceutical company, Indian Medicines Pharmaceutical Corporation Limited, to produce products for domestic consumption and for export [43].

In the end, the establishment of the MoA and the policy on ISMH is considered an innovation in the field of public management. This kind of innovation in public management in India is another example of indigenous transformation in public management in Asia. The developments and subsequent projects that were implemented by Modi's administration in the last three years are present in the trends that were identified by Cavalcante and Camoes. Needless to say, these developments are manifestations of the innovation introduced by Modi through indigenous transformation of health system of India by bringing synergy between the traditional wisdom of AYUSH and

modern diagnostic tools and technology. Indeed, Bhushan Patwardhan is correct when he envisioned in 2014 that AYUSH (and the ministry established for this purpose) is an historic prospect for India of a new, innovative, and integrative strategy for its health sector [44].

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