

# The Path towards a Unified Health System in India: From Fragmentation to Integration: A Narrative Review

SHUBHAM BOBADE<sup>1</sup>, SHEETAL ASUTKAR<sup>2</sup>

## ABSTRACT

India's healthcare system is a complex structure divided into public and private sectors. The public sector, funded and managed by the government, aims to offer accessible and affordable healthcare to the citizens. It includes a network of primary health centres, district hospitals, and specialised medical institutions like the All India Institute of Medical Sciences (AIIMS). In contrast, the private sector, comprising of the small clinics and large hospitals offering a wide range of services often at a higher cost. This dual structure reflects the challenges of ensuring equitable access to quality healthcare across the country, highlighting the need for integrated strategies to bridge the gap between these sectors. This review discusses a patient-centric model, rather than a pathy-centric one, which can offer a more effective healthcare solution. Patient-centric models offer various health services at a single point of contact, allowing patients to benefit from the strengths of different systems of medicine in one place. Achieving this model requires a multilevel approach, with systems of medicine functioning alongside each other as complementary services. Key areas for integration include clinical practice, medical education, and research, all aimed at fostering a patient-centric approach. The benefits of such an integrated system include holistic health approaches, improved accessibility, and enhanced research opportunities. However, significant hurdles must be addressed, including cultural biases, regulatory fragmentation, and the need for evidence-based practices. Strategies for overcoming these challenges include the development of supportive national health policies, educational reforms, and community engagement initiatives. This review article explores the concept of "One Nation, One Health System", which proposes the integration of traditional and modern health practices into a unified framework to enhance healthcare delivery.

**Keywords:** Ayurveda, Education, Healthcare, History, Integrative medicine

## INTRODUCTION

India, with its profound historical legacy and cultural diversity, presents a unique landscape for the evolution of its healthcare systems. The Indian healthcare sector has been shaped by a rich tapestry of medical traditions and innovations spanning thousands of years [1]. Currently, India faces a complex healthcare environment characterised by a mix of ancient practices and modern medical advancements, yet it grapples with persistent challenges related to accessibility, affordability, and the quality of care [2].

The Coronavirus Disease-2019 (COVID-19) pandemic has amplified these challenges, exposing systemic weaknesses and igniting discussions on how to reform the Indian healthcare system to be more inclusive and effective [3]. In this context, the concept of "One Nation, One Health System" has emerged as a visionary approach to integrate diverse medical traditions into a cohesive framework [4]. This model advocates for a shift from a "pathy-centric" approach, where treatment is limited by the practitioner's specialisation, to a "patient-centric" model that prioritises the most effective therapies based on individual needs and scientific evidence [Table/Fig-1] [5].

Historical examination reveals that ancient Indian system of medicine like Ayurveda, Unani, and Siddha have long co-existed with modern Allopathic medicine introduced during the British colonial period [6]. "AYUSH", standing for Ayurveda, Yoga and Naturopathy, Unani, Siddha, Sowa-Rigpa, and Homeopathy, encompasses the traditional systems of medicine officially recognised by the Government of India [7].

Literally, Ayurveda means the knowledge of life, derived from the Sanskrit words "Ayu" (life) and "Veda" (knowledge or science) [8]. It is one of the oldest medical systems, globally recognised for its holistic approach and therapeutic formulations derived from herbal, mineral, and animal sources [9]. While the Unani system of medicine

S. No.	Aspect	Patient-centric system	Pathy-centric system
1	Focus	Focuses on the individual patient's needs, preferences, and overall wellbeing.	Focuses on specific pathies (e.g., Allopathy, Ayurveda) and their protocols.
2	Approach	Holistic approach considering physical, emotional, and social factors.	Primarily follows the principles and treatments of a specific pathy.
3	Interdisciplinary care	Encourages collaboration between various systems of medicine to provide comprehensive care.	Primarily relies on a single pathy with minimal integration of other systems.
4	Outcome measurement	Success is measured by patient satisfaction and overall health improvement.	Success is measured by adherence to the pathy's guidelines and protocols.
5	Flexibility	Flexible and adaptable to changes in patient conditions and needs.	Rigid adherence to pathy-specific practices, with less flexibility.
6	Continuity of care	Emphasises long-term care and follow-up across multiple health systems.	Focuses on treatment within the confines of the pathy, with limited continuity if multiple pathies are needed.
7	Patient-provider relationship	Builds strong, trust-based relationships between patients and healthcare providers.	Relationship is often more formal, with an emphasis on the authority of the pathy over the patient's preferences.

[Table/Fig-1]: Patient-centric system vs. pathy-centric system.

explains that the human body is composed of four elements- earth, air, water, and fire- each with distinct temperaments: cold, hot, wet, and dry. Health is maintained by balancing the four humours- blood, phlegm, black bile, and yellow bile- while disease occurs when this balance is disturbed, focusing on treating the whole person

rather than just the disease [10]. The Siddha system of medicine, primarily practiced in Tamil Nadu with some parts of South India. Deeply connected to Tamil civilisation, the term 'Siddha' derives from 'Siddhi', meaning achievement. A key feature of Siddha Materia medica is the extensive use of mineral and metal-based preparations, more so than plant-based remedies [11].

Another Indian traditional medicine Sowa-Rigpa, practiced mainly in the Himalayan region by tribal and Bhot communities, translates to "science of healing" in Bodh-Kyi. The practitioners of this system are referred to as Amchi [12]. Yoga is a form of system of medicine that involves non pharmacological lifestyle interventions, including asanas (physical postures), pranayama (controlled breathing), and meditation. It is a spiritual practice originated in India known for its positive impact on health and wellbeing [13]. Naturopathy is a drug-free approach that harnesses the body's natural healing abilities, using practices like diet therapy, hydrotherapy, massage, and acupuncture [14]. Homeopathy, originating in Europe, was established as a therapeutic system by Dr. Samuel Hahnemann in 1796, using highly diluted medicines [15].

The proposed integrated health system envisions leveraging the strengths of these diverse practices to create a unified, comprehensive healthcare framework [16]. AYUSH medicines offer a holistic approach to health, emphasising preventive care, natural remedies, and a deep understanding of individual constitution, while modern medicine excels in evidence-based practices, technological advancements, and emergency care management. By synthesising these strengths, an integrated health system could provide a more balanced and patient-centric approach to healthcare, addressing both chronic and acute conditions with greater effectiveness [17].

A fragmented healthcare system may not adequately meet the diverse health needs of India's population. As the nation continues to confront challenges in accessibility, affordability, and quality of care, there is an urgent necessity to explore and evaluate the potential of an integrated health system. The aim of this study was to review the scope of integrating traditional and modern medical practices into a unified framework, and its implications for patients, to contribute to the ongoing discourse on creating a more inclusive and effective healthcare system in India.

## LITERATURE SEARCH

The literature search was conducted using a range of relevant keywords including "Indian healthcare system", "integration of medical systems", "Ayurveda and Allopathy", "traditional medicine", "integrative health practices", "challenges in Indian healthcare", and "patient-centric health models".

The inclusion criteria for the search focused on articles published in English that specifically addressed the integration of different systems of medicine, explored the historical evolution of Indian medicine, and examined modern healthcare challenges. Only studies published from 2019 onwards were considered. A total of 18 articles were included and comprehensively reviewed. The exclusion criteria eliminated non English language publications, studies not related to the integration of medical systems or Indian healthcare, and articles that focused solely on a single medical system without offering a comparative or integrative perspective. Thirteen articles were excluded as they did not meet the inclusion criteria.

## DISCUSSION

### Historical Context of Indian Healthcare Systems

India's healthcare landscape is a unique blend of traditional and modern practices. Ancient traditional system of medicine such as Ayurveda, Unani, Siddha, and Homeopathy have been integral to the Indian healthcare system for centuries [18]. Ayurveda, one of the oldest medical sciences, emphasises a holistic approach to health and wellness through natural therapies [19]. Unani medicine,

introduced by Persian scholars, focuses on balancing bodily humours and using herbal remedies [20]. Siddha medicine, practiced primarily in Tamil Nadu, combines ancient Tamil medical knowledge with spiritual and physical health practices [21]. Homeopathy, a more recent addition, offers remedies based on the principle of "like cures like" [22].

The British colonial era introduced Allopathy, which became the dominant system of medicine in India due to its standardised and scientifically based practices [23]. This era marked the beginning of a bifurcated medical system where traditional practices were often marginalised in favour of Western medicine.

### Global and Indian Strategies during the COVID-19 Pandemic

Globally, the COVID-19 pandemic prompted a range of strategies to mitigate the virus's spread and impact, including social distancing, vaccination campaigns, and public health guidelines. Collaborative international efforts focused on vaccine development, research sharing, and enhancing healthcare infrastructure [24]. In India, the response to COVID-19 was multifaceted, combining traditional and modern healthcare approaches. The Ministry of AYUSH significantly contributed by promoting and researching AYUSH-64, an Ayurvedic formulation, which showed potential in supporting COVID-19 treatment [25]. Research conducted by the Ministry further demonstrated that AYUSH-64 significantly improved outcomes for 70% of patients with mild to moderate COVID-19 cases [26]. Following positive results from AYUSH studies on COVID-19, an interdisciplinary committee suggested incorporating Ayurveda and Yoga into the national COVID-19 treatment protocol. As a result, the Ministry of AYUSH released the "National Clinical Management Protocol based on Ayurveda and Yoga for COVID-19". This protocol was developed with input from NITI Aayog and Indian Council of Medical Research (ICMR) to ensure standardised clinical management across the country [27]. During the COVID-19 period, the Ministry of AYUSH launched several campaigns and mobile applications to support public health and integrate traditional medicine into the national response. Notable apps included the Ayush Sanjivani app, which was developed to gather data on the effectiveness of AYUSH interventions, and the mYoga app, created with World Health Organisation (WHO) assistance to promote yoga practices globally. Additionally, the Ministry implemented and maintained the National Ayush Morbidity and Standardised Electronic (NAMASTE) portal to enhance health monitoring and research [28].

### The Concept of 'One Nation, One Health System'

The idea of a unified health system is predicated on integrating diverse medical traditions into a cohesive framework that offers comprehensive, evidence-based care [29]. This approach envisions a healthcare system where Ayurveda, Allopathy, Unani, Siddha, Homeopathy, and Naturopathy are harmonised to provide tailored treatments for patients [30]. The core objective of this concept is to shift from a "pathy-centric" approach, where treatment options are limited by the practitioner's specialty, to a "patient-centric" model that considers the most effective treatments based on individual needs and scientific evidence. A pathy-centric approach in healthcare focuses only on treatment within a single system of medicine, often excluding complementary methods. This model restricts treatment options, potentially overlooking beneficial alternative approaches and leading to fragmented care. As a result, it can reduce patient outcomes and limit the personalisation of treatment. Additionally, a pathy-centric model may hinder the integration of innovative or traditional practices, thereby limiting comprehensive healthcare solutions [31].

In contrast, a patient-centric model, which is an integrated or unified system of medicine that also refers to the "One Nation, One Health System," can deliver personalised, holistic care by

combining multiple medical approaches to meet individual patient needs. Examples can be given as follows: A study published in 2020 found that integrating traditional medicine with conventional care reduced recovery time for COVID-19 patients by an average of 25% compared to conventional treatment alone [32]. Another meta-analysis of 18 randomised controlled trials showed that patients receiving integrative treatments combining Ayurveda and modern medicine experienced a 30% greater improvement in chronic disease symptoms, particularly in conditions like diabetes and arthritis [33]. The WHO has recognised the role of traditional medicine in achieving Universal Health Coverage (UHC), noting that 88% of countries surveyed have policies to integrate traditional and complementary medicine into their national health systems [34].

Hence, unifying various systems of medicine, including Allopathy, Ayurveda, Yoga, Naturopathy, Unani, Siddha, and Homeopathy (AYUSH), can be termed “One Nation, One Health System” which can successfully and seamlessly provide comprehensive and equitable healthcare to all citizens. The COVID-19 pandemic had shown India’s health system needs an integrated approach.

### Benefits of Integrated or Unified Health System

**1. Holistic health approaches:** An integrated health system could harness the strengths of different medical traditions to offer a more comprehensive approach to healthcare. For instance, Ayurveda’s focus on preventive health and wellness through dietary recommendations, lifestyle changes, and herbal medicines complements Allopathy’s strength in treating acute and infectious diseases [35]. Studies have demonstrated that integrating Ayurvedic practices with conventional treatments can enhance patient outcomes. For example, Ayurveda’s use of herbal medicines and Yoga has been linked to improved immune responses and reduce COVID-19 mortality rates [36]. A clinical trial involving 500 patients found that Yoga and meditation, when used alongside conventional treatment, led to a 40% reduction in stress levels and improved overall immune function [37]. Additionally, Yoga and Naturopathy interventions, such as breathing exercises, dietary modifications, and steam inhalation, significantly reduced anxiety and depression levels among COVID-19 patients [38,39]. Homeopathic medicine *Arsenicum album 30C* was linked to a decrease in the incidence of COVID-19 and offered some protection compared to no treatment [40]. The Ministry of AYUSH also recommends *Arsenicum album 30C* for prophylactic use against COVID-19 [41].

**2. Improved accessibility and equity:** One of the primary advantages of a unified health system is the potential for improved accessibility to healthcare services, especially in underserved rural and remote areas. Integrating various systems could facilitate the establishment of healthcare facilities that offer a range of treatments, addressing gaps in service availability [42]. Pengpid S and Peltzer K show that community-based traditional medicine practitioners can significantly contribute to healthcare delivery in rural regions where allopathic facilities are sparse [43].

**3. Enhanced research and development:** A national health system that integrates multiple medical practices provides a fertile ground for collaborative research. By encouraging interdisciplinary studies, the system can foster innovations and advancements in medical science. For example, research into traditional medicine practices can be complemented by modern clinical trials to validate their efficacy and safety [44]. An integrated approach encourages a more holistic exploration of medical therapies, leading to new discoveries and improvements in healthcare [45].

### Challenges in Achieving Integration or One Nation, One Health System

**1. Cultural and Institutional Barriers:** One of the major challenges in integrating multiple medical systems is overcoming entrenched cultural and institutional biases. Traditional and modern medical

practices often operate in separate spheres, with limited interaction and mutual respect [46]. Addressing these biases requires a shift in medical education and policy to promote collaboration and understanding among practitioners of different systems [47]. Developing joint training programs and interdisciplinary workshops can facilitate mutual learning and respect among different medical traditions [48].

**2. Regulatory and legislative hurdles:** The regulatory framework for healthcare in India is currently fragmented, with separate regulations for different systems of medicine. Integrating these systems into a unified framework requires comprehensive legislative reforms to create a cohesive regulatory environment [49]. This includes establishing guidelines for the practice of integrative medicine, ensuring that all treatments are evidence-based and safe for patients [50]. Legislation must also address issues of accreditation and standardisation to maintain high standards of care across different medical practices [51].

**3. Ensuring evidence-based practices:** A critical challenge for the integration of diverse medical systems is ensuring that all practices are based on rigorous scientific evidence. Traditional medicine practices must be evaluated using modern research methodologies to establish their efficacy and safety [52]. This involves designing and conducting high-quality clinical trials and systematic reviews to support evidence-based practice [53]. Collaboration between researchers from different medical fields is essential for generating credible evidence and bridging gaps between traditional and modern medicine [54].

### Strategies for Successful Integration or One Nation, One Health System

To achieve the vision of “One Nation, One Health System”, comprehensive national health policies must be developed. These policies should support the integration of diverse medical systems and promote a patient-centric approach to healthcare [55]. Policies should also encourage the establishment of frameworks for evidence-based practice and interdisciplinary collaboration [56]. Reforming medical education is crucial for preparing future healthcare professionals to work within an integrative health system. Medical curricula should include training on various medical traditions, focusing on both their historical significance and contemporary applications [57]. Interdisciplinary education can foster a deeper understanding of different medical practices and promote a culture of collaboration among future practitioners [58].

Engaging communities in the development and implementation of the integrated health system is vital for its success. Public awareness campaigns can educate people about the benefits of integrative medicine and encourage community participation [59]. Community involvement in decision-making processes ensures that the system meets the needs of diverse populations and gains public support [60]. To achieve the goals of an integrated health system, collaborative research focusing on intersectoral coordination is essential. This involves the combined efforts of healthcare providers, researchers, policymakers, and community organisations to address complex health issues from multiple angles. Intersectoral coordination can enhance the development of evidence-based practices by integrating insights from various fields, such as traditional medicine, public health, and clinical research [61]. As India progresses towards a unified health system, the integration of digital healthcare technologies will become increasingly vital. The COVID-19 pandemic acted as a catalyst, accelerating the adoption of telemedicine and digital health solutions. Telemedicine platforms emerged as essential tools for providing remote consultations, diagnoses, and treatments, thus reducing the need for physical visits and minimising the risk of virus transmission. This shift not only ensured continuity of care during the pandemic but also highlighted the potential for digital health solutions to bridge gaps in healthcare delivery [62].

Also, the introduction of the National Digital Health Mission (NDHM) represents a landmark effort to establish a cohesive digital health infrastructure. NDHM aims to create a comprehensive ecosystem that includes a digital health Identification (ID) and integrated health information systems, facilitating seamless access to healthcare services and improving the efficiency of healthcare management. This initiative aligns with the broader goal of integrating various medical systems and practices into a unified framework [63]. The National Health Mission (NHM) has been instrumental in advancing India's healthcare system by focusing on accessible, affordable, and quality care. NHM initiatives include enhancing primary healthcare services, bolstering healthcare infrastructure, and integrating traditional medicine systems like AYUSH with modern practices. This integration is crucial for creating a holistic health system that leverages the strengths of both traditional and contemporary approaches [64]. Ayushman Bharat is a flagship healthcare initiative by the Government of India aimed at providing UHC. It comprises two major components: the Pradhan Mantri Jan Arogya Yojana (PM-JAY), which offers financial protection for secondary and tertiary healthcare, and the establishment of Health and Wellness Centres (HWCs) to provide comprehensive primary care. This initiative seeks to make healthcare more accessible and affordable for millions of Indians, particularly the underprivileged [65].

## CONCLUSION(S)

The concept of "One Nation, One Health System" represents a transformative vision for Indian healthcare. By integrating traditional and modern medical practices, this approach seeks to address longstanding issues of accessibility, affordability, and quality of care. While there are significant challenges to overcome, including cultural biases, regulatory fragmentation, and the need for evidence-based practices, the potential benefits of a unified health system are substantial. With the development of supportive national policies, educational reforms, and community engagement strategies, India has the opportunity to create a more inclusive and effective healthcare system that serves the needs of its diverse population.

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#### PARTICULARS OF CONTRIBUTORS:

1. Junior Resident, Department of Shalyatantra, Mahatma Gandhi Ayurved College Hospital and Research Centre, Salod (H), Wardha, Maharashtra, India.
2. Professor and Head, Department of Shalyatantra, Mahatma Gandhi Ayurved College Hospital and Research Centre, Salod (H), Wardha, Maharashtra, India.

#### NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Shubham Bobade,  
Junior Resident, Department of Shalyatantra, Mahatma Gandhi Ayurved College Hospital and Research Centre, Salod (H), Wardha-442001, Maharashtra, India.  
E-mail: drbobade9@gmail.com

#### PLAGIARISM CHECKING METHODS: [Jain H et al.]

- Plagiarism X-checker: Jul 11, 2024
- Manual Googling: Aug 17, 2024
- iThenticate Software: Aug 20, 2024 (11%)

#### ETYMOLOGY: Author Origin

EMENDATIONS: 5

#### AUTHOR DECLARATION:

- Financial or Other Competing Interests: None
- Was informed consent obtained from the subjects involved in the study? No
- For any images presented appropriate consent has been obtained from the subjects. No

Date of Submission: **Jul 10, 2024**  
Date of Peer Review: **Aug 08, 2024**  
Date of Acceptance: **Aug 22, 2024**  
Date of Publishing: **Dec 01, 2024**