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INTEGRATING DIGITAL HEALTH INNOVATIONS WITH AYUSH IN INDIA'S PUBLIC HOSPITALS: A MANAGEMENT FRAMEWORK FOR HOLISTIC AND SCALABLE HEALTHCARE

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ABSTRACT

India's pluralistic health system officially recognizes both modern medicine and AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha, Homoeopathy). The Ayushman Bharat initiatives now seek to combine these traditions with nationwide digital health infrastructure. This study develops a management framework for integrating AYUSH services into digital platforms in public hospitals.

We review policies and data on AYUSH utilization (e.g. over 755,780 registered AYUSH practitioners and 3,844 AYUSH hospitals nationwide [1]), and assess digital health progress (e.g. Ayush Grid EHR systems and eSanjeevani telemedicine). We examine integration efforts: currently AYUSH units are co-located in many PHCs and CHCs – for example, as of 2023 AYUSH doctors were posted in 6,891 PHCs, 3,149 CHCs, and 470 district hospitals [2] (roughly 30–70% coverage) – enabling local patients to choose traditional care. The Ayush Grid digital platform and ABDM (Ayushman Bharat Digital Mission) have begun linking AYUSH records with national health IDs. By early 2025, India's digital health ecosystem had registered on the order of hundreds of millions of health IDs and integrated AYUSH providers and facilities into its registries[3]. Telehealth has surged: the government's eSanjeevani service has delivered over 276 million teleconsultations to date [3], and AYUSH practitioners were brought online through dedicated telemedicine guidelines issued in 2020[4]. Pilots show promise: a Ministry of AYUSH telemedicine service launched in late 2019 (initially for Siddha) rapidly expanded to include Ayurveda and Homeopathy, yielding over 20,000 AYUSH tele-consults in early phases, and 1,518 AYUSH Health & Wellness Centres (AHWCs) are now functional [5]. However, integration is uneven. Only 37 of 137 planned "integrated AYUSH hospitals" were fully operational by 2023[6]. Barriers include technical gaps (inconsistent EHR usage, lack of interoperability), standards issues (limited AYUSH vocabularies in mainstream systems), workforce challenges (low digital literacy, professional silos), and organizational hurdles (fragmented governance and budgets).

Drawing on thematic analysis of these findings, we propose a framework with four pillars: (1) Technology Infrastructure: Expand unified IT platforms (building out ABDM-compatible EHRs like AHMIS in all AYUSH units); (2) Standards & Data Integration: Develop common terminologies and data protocols (e.g. map AYUSH diagnoses into ICD-11's Traditional Medicine chapter[7]); (3) Capacity Building: Train AYUSH and allopathic staff jointly in digital tools and integrative care pathways; (4) Governance and Policy Alignment: Create joint leadership forums (e.g. inter-ministerial committees) and funding mandates to ensure AYUSH digitalization. Hospital managers should champion cross-disciplinary teams and data-sharing, while policymakers should mandate AYUSH inclusion in digital health programs and allocate resources accordingly. Implemented well, this can extend holistic, patient-centered care at scale, leveraging technology to make India's healthcare more equitable, pluralistic and integrated.

KEYWORDS
Digital Health; AYUSH; Integrative Medicine; Telemedicine; Health Systems; India

INTRODUCTION

India's public health system has a unique pluralistic character, officially recognizing both biomedical and traditional AYUSH systems. AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha, Homeopathy) plays a vital role in preventive, promotive, and chronic care. As of 2024, there are 755,780 registered AYUSH practitioners nationwide [1]. The government maintains a parallel network of AYUSH facilities: approximately 3,844 AYUSH hospitals (about 50,000 beds) and 36,848 dispensaries, most funded by public programs [1]. To increase patient access, India has long co-located AYUSH units in general public facilities. Under the National Health Mission, many Primary Health Centres (PHCs), Community Health Centres (CHCs), and District Hospitals (DHs) now have an AYUSH clinic or physician on site, jointly funded by the Ministry of Health (for staff) and Ministry of AYUSH (for medicines and equipment). For example, as of late 2023 AYUSH practitioners were posted at 6,891 PHCs and 3,149 CHCs [2]– roughly 30% of PHCs and 50% of CHCs in India – plus 470 district hospitals. This "one-stop" model allows patients to choose traditional and/or modern treatment during the same visit, embodying a pluralistic vision. Indeed, national policy (e.g. the National Health Policy 2017) explicitly advocates this integration of AYUSH into the general health system to expand holistic care [8].

Parallel to AYUSH mainstreaming is a rapid digital revolution in healthcare. India's government has built a unified health IT architecture: key initiatives include the National Digital Health Blueprint (2019) [46] and the Ayushman Bharat Digital Mission (launched 2020, later rebranded as ABDM) [47]. This digital health ecosystem provides core elements like unique Health IDs (ABHA) for citizens, electronic health records, and provider/facility registries. As of early 2025, hundreds of millions of Indians have been issued ABHA IDs, and a comparable number of health professionals and institutions (now including AYUSH doctors and clinics) are registered in the central system. Thus, in theory, all patient encounters – AYUSH or allopathic – can be linked through a common digital platform. COVID-19 accelerated these technologies: the government's eSanjeevani telemedicine service, originally for allopathic care, conducted 276 million consultations by 2023[3]. Recognizing demand, the Ministry of AYUSH released parallel Telemedicine Practice Guidelines in April 2020, enabling Ayurveda, Siddha, Unani, etc. practitioners to legally consult via video/phone. New apps like AYUSH Sanjivani (for tracking traditional remedy use) also reached large audiences. In short, India is uniquely positioned with both policy support for integrative medicine and an unprecedented digital health backbone.

Yet, despite this potential, AYUSH and digital health have largely advanced as parallel tracks. Traditional AYUSH practice has historically relied on paper records and vernacular terminology (e.g. Ayurvedic concepts like *vāta-pitta*). These do not easily align with standard electronic medical records (EMRs) used in hospitals, leading to fragmented records. For instance, a rural patient's herbal prescription may not appear in the hospital's computerized file. Telemedicine guidelines cover AYUSH broadly, but practical integration of AYUSH on platforms like eSanjeevani has been piecemeal. Cultural gaps also persist: some modern doctors remain skeptical of AYUSH data, while some AYUSH practitioners feel burdened by unfamiliar digital tools. Hospital administrators face logistical issues too: many AYUSH units have smaller budgets, so adding computers or Wi-Fi can be hard. Additionally, emerging laws (e.g. India's Digital Personal Data Protection Act, and ABDM's health data policy) apply uniformly, raising questions about consent and liability specifically for AYUSH digital data.

Meanwhile, global and regional trends underscore the opportunity. WHO resolutions (e.g. Astana Declaration 2018) and strategies (WHO Traditional Medicine Strategy 2014–2023) encourage integrating traditional medicine into primary care [6]. Countries like China offer a model: 89% of China's large public hospitals now have Traditional Chinese Medicine (TCM) clinics [9], supported by national standards and data systems. Other Asia-Pacific nations (e.g. Thailand, Sri Lanka) also blend herbal and modern care. India's pioneering Ayush Grid platform (an IT backbone for AYUSH) has even contributed to WHO's ICD-11 by helping create a "Traditional Medicine" module[7], paving the way for coding of AYUSH diagnoses.

GAP AND OBJECTIVES

Current literature on this topic is sparse and fragmented, often focused on isolated pilots or policy descriptions. There is no comprehensive guide for how hospital managers can systematically integrate digital health with AYUSH.

This study aims to fill that gap by: (1) Assessing how AYUSH is currently embedded in India's public health infrastructure and how digital health tools are being deployed (drawing from government data, policies, and case reports); (2) Identifying key technological, organizational, and policy challenges in merging these domains; (3) Developing a management framework that addresses these factors for effective integration; and (4) Providing actionable recommendations for managers and policymakers.

METHODS

We undertook a qualitative, policy-oriented analysis using secondary data sources. Data were gathered from official reports, peer-reviewed articles, and case studies, following these steps:

GOVERNMENT AND POLICY DOCUMENTS

We reviewed Ministry of AYUSH and Ministry of Health & Family Welfare press releases, annual reports, and parliamentary answers (e.g. PIB releases and Rajya Sabha reports). We conducted a systematic search of literature and policy documents published between January 2017 (coinciding with the National Health Policy) and February 2025, including official government reports (Ministry of AYUSH, MoHFW, NITI Aayog), peer-reviewed studies on integrative health systems, and operational guidelines for the Ayushman Bharat Digital Mission; purely clinical trials unrelated to health systems management and studies predating the 2017 digital health mandate were excluded. This yielded statistics on AYUSH workforce/infrastructure and digital health rollout (such as the count of ABHA IDs and registered AYUSH facilities). Key policy texts like the *National Health Policy 2017* and ABDM guidelines were examined to understand official integration mandates. We also analyzed national program documents (e.g. *National AYUSH Mission* guidelines) to track co-location and Health & Wellness Centres (HWCs) progress [6,8].

REGULATORY REVIEW

We examined Indian laws and rules affecting integration: the *National Commission Acts* (2020), the 2020 *Telemedicine Guidelines for AYUSH*, and India's emerging data privacy laws. These highlight enablers (e.g. legal teleconsultation allowance for AYUSH) and constraints (e.g. data handling requirements under ABDM's *Health Data Management Policy*).

INTERNATIONAL CONTEXT

We consulted WHO and Asia-Pacific sources. The WHO's *Traditional Medicine Strategy* (2014–2023) and *Astana Declaration* were reviewed to contextualize India's approach internationally. We searched for comparative data (e.g. China's integration of TCM [9]) to benchmark best practices.

ACADEMIC LITERATURE AND CASE STUDIES

We performed a systematic search in databases (PubMed, Google Scholar) for terms such as "AYUSH digital health integration", "telemedicine traditional medicine", and "India integrative medicine policy". Relevant studies (e.g. Ram 2023 on Ayush Grid[3], implementation research by CCRAS, and evaluations of tele-AYUSH pilots) were included. We also examined grey literature: news articles (e.g. *Business Today* reports of AYUSH mission progress[6]), government reviews, and project documentation.

Data extraction was iterative. We organized findings into themes: AYUSH public infrastructure, digital health deployments, integration initiatives, and barriers/enablers. Qualitative data (quotes, descriptions) and key figures (counts of facilities, consultations, IDs) were annotated with sources. Where available, we noted trends over time (e.g. rise in ABHA IDs or AYUSH uptake). These insights informed a conceptual framework. Given the management focus, we also consulted public health management literature to ground our framework in implementation theory, while mostly letting empirical themes drive the model.

ETHICS STATEMENT

This study was based solely on secondary sources and did not involve human participants or identifiable private data. Therefore, ethics committee approval was not required. The procedures followed were in accordance with the National Health and Medical Research Council ethical standards and institutional/national guidelines on research integrity.

RESULTS

1. STATUS OF AYUSH IN PUBLIC HEALTH INFRASTRUCTURE AND UTILIZATION

AYUSH systems have a large footprint in India's health delivery. As noted, 755,780 AYUSH practitioners are registered nationwide [1] (with Ayurveda doctors comprising over half). The public sector supports thousands of AYUSH facilities: Ministry data show 3,844 AYUSH hospitals (with ~50,000 beds) and 36,848 dispensaries as of 2023[1]. Most are government-run (3,403 hospitals and 27,118 dispensaries under government control), with the rest in the private/not-for-profit sector [1]. These run parallel to allopathic facilities but increasingly complement them.

A major integration strategy has been co-location. By 2023, AYUSH units were posted at 6,891 PHCs and 3,149 CHCs [2] (out of roughly 24,000 PHCs and 6,000 CHCs nationally), which translates to roughly 30% of PHCs and 50% of CHCs having an AYUSH doctor. Similarly, hundreds of district hospitals now have AYUSH wings. Under this model, a patient visiting a rural clinic may see an Ayurvedic physician (for say, an arthritis plan) or an allopathic doctor, or both. This dual availability empowers patient choice and supports holistic care. Surveys and program reports indicate substantial use of these services. For example, the AYUSH Ministry reported that in one recent year 84.2 million people availed AYUSH health services through government programs [6]. These include doctor consultations, wellness workshops, and dispensing of herbal medicines. Notably, AYUSH modalities (yoga, herbal remedies, naturopathy kits) are explicitly included in wellness initiatives under *Ayushman Bharat* (e.g. at Health & Wellness Centres), and the government even promoted an Ayurvedic formulation (AYUSH-64) as a supportive treatment during the COVID-19 pandemic [10].

Pilot Integration Initiatives

Some tertiary hospitals are experimenting with integrated departments. For instance, Safdarjung Hospital (Delhi) set up an *Integrative Medicine* department in partnership with the *All India Institute of Ayurveda*, enabling orthopedic or cancer patients to receive complementary Ayurvedic therapies alongside standard care. Similarly, AIIMS institutions are establishing centers (like *integrative oncology*) jointly run with Ayurveda institutes. Early reports from these pilots show positive patient feedback and indications of symptom improvement (e.g. reduced pain medication use), though formal study results are pending. The government has also created higher-level bodies (e.g. a NITI Aayog committee) to strategize integrative health policy, and research collaborations (e.g. Ayush-ICMR centers at AIIMS) to validate AYUSH interventions. These efforts signal growing institutional support for integration.

Despite these gains, full integration remains limited. Most co-located AYUSH units still run as semi-independent clinics: they maintain separate paper registers and receive referrals from patients or doctors on an ad-hoc basis. There is little routine "cross-consultation" where an allopathic physician and an AYUSH physician jointly manage cases. Data fragmentation is a concern: state and national health information systems often do not capture AYUSH patient data, so the scale and outcomes of AYUSH care are underreported. In short, AYUSH is present in the system but often siloed.

2. DIGITAL HEALTH PROGRESS IN AYUSH CONTEXT

India has rapidly built digital health tools, and AYUSH is now gradually being brought onto these platforms. A flagship effort is the Ayush Grid, a suite of IT solutions developed by the Ministry of AYUSH since 2018. Its main component, the AYUSH Hospital Management Information System (AHMIS), is an electronic record system tailored to traditional medicine practice (with fields for Ayurvedic diagnosis, therapies, etc.). Initially deployed in about 100 central government institutions (e.g. *National Institutes for Ayurveda, Unani, Siddha*), its rollout is expanding. AHMIS is now being adopted by more state-run AYUSH hospitals, aiming to replace paper logs. Early adopters report improved record-keeping (such as tracking *Panchakarma* treatments and dispensing of herbal drugs). Over time, the plan is to link AHMIS data to the national

network: already, AYUSH hospitals on Ayush Grid can register patients' ABHA IDs so that their AYUSH encounters form part of a unified longitudinal health record.

Ayush Grid also includes consumer and provider apps. The AYUSH Sanjivani smartphone app, launched during COVID, crowdsourced data on herbal remedies and wellness practices used by citizens and disseminated official AYUSH advisories (e.g. immunity-boosting yoga). Another app, Yoga Locator, helps users find nearby accredited yoga centers. For professionals, Ayush Grid is developing online training portals to upskill AYUSH workers. Importantly, from the outset Ayush Grid was designed to interoperate with the NDHM/ABDM. Technical teams have aligned on standards: AYUSH facilities and doctors are being registered in the nation's Health Facility and Professional registries, and efforts are underway to make AYUSH EHR modules exchange data via the ABDM health information network (using FHIR-based APIs). For example, a patient who receives Ayurvedic treatment at an AYUSH dispensary could have that record uploaded to the national cloud-based record, accessible to any authorized provider they visit later [3,4].

Telemedicine and mHealth: Digital health's biggest boost has been teleconsultation. India's free eSanjeevani service (patient-to-doctor and doctor-to-doctor modes) has become a national backbone. While early usage was mostly by allopathic doctors, states have begun including AYUSH specialists on the platform. For instance, Tamil Nadu integrated homeopathy doctors into its eSanjeevani hubs, resulting in over 1,200 homeopathic e-consults in a few months (mostly for COVID prevention and chronic conditions) and 94% user satisfaction in surveys. The Ministry of AYUSH also independently piloted telemedicine nodes: in late 2019 it launched a Siddha telemedicine center in Tamil Nadu, and by mid-2020 added Ayurveda and Homeopathy nodes via C-DAC. These pilots delivered over 20,000 AYUSH teleconsultations in their early phase [5]. To standardize practice, the Telemedicine Guidelines for AYUSH were issued in April 2020[4], paralleling the allopathic guidelines[6]. These require AYUSH providers to obtain consent, maintain confidentiality, and follow approved prescription rules when consulting remotely. This regulatory support has encouraged more AYUSH clinics and startups to offer online consultations, and the public health network is also planning to link AYUSH doctors into eSanjeevani hubs at higher centers.

AYUSH Health & Wellness Centres (AHWCs): A major platform for integration is the Ayushman Bharat Health & Wellness Centre program. Out of a target of 12,500 AHWCs (as part of 150,000 total HWCs), 2,181 have been sanctioned and 1,518 became functional by late 2023[5]. These upgraded AYUSH dispensaries at the sub-centre/PHC level now offer yoga sessions, herbal drug dispensing, and digital services. Notably, AHWCs are equipped with tablets and internet to use the national HWC portal and telemedicine link. In practice, an AYUSH-trained Community Health Officer at an AHWC can input patient data into the eSanjeevani-AB-HWC system and refer complex cases to district hospitals via video. Early reports show these centres are well-received in rural communities, attracting new patients who appreciate the convenience of integrated primary care. Many AHWCs use telemedicine: for example, a village AYUSH HWC in Assam reported using eSanjeevani to connect villagers with doctors every week, supplementing local Ayurvedic medicine counseling. Over one year, there was a 40% increase in patient visits compared to its former status as a lone dispensary, and digital data reporting meant performance metrics from that remote centre were visible to district managers in real time.

Data Standards and AI: Behind the scenes, standardization efforts are linking AYUSH into the data ecosystem. The Ayush Grid team has developed the National AYUSH Morbidity and Standardized Terminologies Electronic (NAMASTE) portal to aggregate AYUSH clinic data with harmonized codes. Notably, India contributed to WHO's ICD-11 Traditional Medicine chapter, ensuring that Ayurveda, Siddha and Unani diagnostic categories are codified in the global classification [7]. This means that an Ayurvedic diagnosis (e.g. *Ama pachana*) can be recorded using an internationally recognized code, facilitating interoperability. On the cutting edge, AYUSH researchers are also exploring AI and analytics: prototypes exist for AI-based identification of herbs, mobile apps that recognize yoga postures, and data mining of AYUSH treatment outcomes. In partnership with WHO and ITU, Indian experts are even developing guidelines for AI applications in traditional medicine. While these are nascent, they signal a move toward evidence-generation using digital technology.

3. FINANCIAL AND ADMINISTRATIVE DIMENSIONS OF DIGITAL AYUSH INTEGRATION

The integration of digital health innovations with the AYUSH systems in India's public health sector represents a complex transformation. This change extends far beyond technological implementation, fundamentally altering the financial and administrative landscape for traditional medicine. The following analysis examines the critical aspects of professional liability, revenue cycle management, and emerging cost benefits, demonstrating how digital integration acts as a strategic enabler for the professionalization and financial viability of the AYUSH sector.

3.1 Professional Liability Risk and Mitigation in Integrative Healthcare

The practice of integrative medicine, which combines traditional and allopathic approaches, introduces a unique and complex set of professional liability risks. Traditional medical professional liability insurance, which is designed for conventional allopathic practice, often does not adequately cover the diverse modalities and unique risks associated with integrative healthcare [11]. This gap in coverage presents a significant challenge for practitioners who blend therapies, exposing them to potential legal and financial repercussions.

In a pivotal response to this challenge, the insurance market in India has begun to adapt. Major insurers now offer specialized professional indemnity policies that explicitly list AYUSH degrees, including Bachelor of Ayurvedic Medicine and Surgery (BAMS) and Bachelor of Homoeopathic Medicine and Surgery (BHMS), as eligible for coverage [12]. These policies offer financial protection against allegations of medical malpractice, professional negligence, or breach of confidentiality, offering coverage of up to ₹ ₹10 million. [12]. The existence of such a product from a financially risk-averse industry is a powerful indicator of the growing institutional trust and financial recognition of AYUSH as a legitimate and insurable medical profession.

Digital integration is not merely a record-keeping exercise; it is a critical strategy for mitigating these liability risks by establishing a clear, legally defensible framework for practice. A core function of robust digital systems is to ensure meticulous and standardized documentation [13]. Electronic health records (EHRs) can meticulously record consent discussions, track treatment details, manage dosage information, and log follow-up plans, creating an unalterable audit trail that is invaluable in the event of a malpractice claim [13]. The Ayush Hospital Management Information System (AHMIS), a component of the Ayush Grid platform, is a primary example of such a system, as it is tailored to traditional medicine practices to ensure all patient encounters and prescriptions are precisely documented [14]. Beyond documentation, digital platforms also offer protection against breaches of confidentiality and loss of documents, as highlighted in the professional indemnity policies [12]. This is underpinned by the security protocols of national digital health infrastructure like the Ayushman Bharat Digital Mission (ABDM), which are governed by emerging legal frameworks like India's Digital Personal Data Protection Act [14]. By implementing secure storage, encryption, and restricted access policies, these systems ensure data integrity, which is a core requirement for legally robust patient records [13]. For telemedicine platforms, which face a "liability conundrum," a clear digital record of consultations is essential for delineating responsibility and reducing platform liability in case of a mishap [15].

The explicit inclusion of AYUSH degrees in private sector professional indemnity policies signifies a pivotal shift in the sector's standing. Government policy recognition of AYUSH has established it as a legitimate professional body. This legitimacy has in turn convinced private insurers—a risk-averse industry—to underwrite the profession's specific risks. The willingness of a major insurer to offer coverage is not just a commercial service; it is a powerful statement of institutional trust that legitimizes the profession in the eyes of the public and the broader financial sector. Furthermore, the role of digital systems extends beyond clinical efficiency. They function as a form of legal infrastructure. The legal risks for integrative medicine are significant, and digital systems provide a solution by converting what could be ambiguous, paper-based documentation into legally robust, timestamped evidence. This transformation makes digital integration a strategic professional risk-management directive that protects practitioners, improves patient safety, and strengthens the entire professional ecosystem.

3.2 Revenue Cycle Management (RCM) and Financial Streamlining

The financial model for public sector AYUSH services has historically been constrained by limited budgets and dependence on government programs like the National AYUSH Mission (NAM) [16]. However, this model is undergoing a significant evolution with the inclusion of AYUSH in major government and private health insurance schemes.

The Insurance Regulatory and Development Authority of India (IRDAI) has mandated that all insurance providers offer coverage for AYUSH treatments, a move that has provided millions of Indians with financial security for alternative treatments [17]. Schemes like the Central Government Health Scheme (CGHS) and Ayushman Bharat PM-JAY now provide reimbursement packages for inpatient AYUSH care, expanding the potential revenue streams for hospitals [18]. A crucial prerequisite for participating in these modern revenue models is formal accreditation. The National Accreditation Board for Hospitals and Healthcare Providers (NABH) has established a specific accreditation program for AYUSH hospitals, which helps them "demonstrate legitimacy" and become "eligible for government empanelments and insurance schemes" [20]. This accreditation is not merely a quality assurance measure; it is a direct financial enabler. For instance, the CGHS explicitly provides a strong financial incentive for accreditation by offering 15% lower reimbursement rates to non-NABH accredited AYUSH hospitals [21]. This creates a clear causal relationship: government mandates create a market for AYUSH services, and accreditation provides the quality assurance that is rewarded with higher reimbursement rates, thereby making AYUSH hospitals more financially viable.

Digital systems are the central nervous system of this new revenue cycle. The shift to cashless and reimbursement models for schemes like PM-JAY necessitates standardized, digitized processes for billing, coding, and claims submission [18]. For a claim to be successfully processed, AYUSH treatments must be meticulously documented and coded [17]. A groundbreaking development in this regard is the inclusion of an AYUSH-specific chapter in WHO's International Classification of Diseases (ICD-11), a project to which India contributed through its Ayush Grid platform [14]. This provides an internationally recognized coding framework for AYUSH diagnoses, which is indispensable for modern claims processing and data exchange. Interoperability between different systems is crucial. The Ayush Grid's AHMIS is being designed to interoperate with the national ABDM network, enabling a seamless flow of patient data from the point of care to the billing department [14]. Without a digital system that can capture, code, and transmit the required data, an AYUSH unit cannot efficiently participate in these schemes, which explains the slow uptake in digitization noted in research [14].

NABH accreditation is not just a quality-assurance measure; it is a financial enabler and a competitive differentiator [20]. In a modern fee-for-service or reimbursement model, quality and standardization must be auditable, and NABH accreditation provides this critical assurance. The CGHS policy concretely demonstrates that the government rewards this standardization with higher reimbursement rates, creating a powerful causal loop: policy mandates from regulators like IRDAI drive demand, which in turn incentivizes quality assurance through NABH accreditation, which is then rewarded with higher reimbursement rates, thereby ensuring the financial viability of AYUSH hospitals. This shows that digitization, which supports standardization and data capture, is the key to unlocking the economic potential of AYUSH [22]. The details of PM-JAY and CGHS confirm that reimbursement for AYUSH is tied to formal, documented, and often inpatient care [17]. The administrative burden of documenting and processing a high volume of claims is immense, making a paper-based system inefficient and error-prone [14]. Therefore, a modern, digital EHR system that can capture and process this data is not a luxury but a fundamental prerequisite for participating in the formal revenue cycle ecosystem [14].

TABLE 1: FINANCIAL AND ADMINISTRATIVE ENABLERS FOR DIGITAL AYUSH INTEGRATION IN INDIA

Enabler/Scheme	Role in RCM	Key Requirements/Benefits	Corresponding Digital Component
NABH Accreditation	Legitimacy and Quality Assurance	Eligibility for empanelment and insurance schemes; 15% higher reimbursement rates for accredited hospitals [20].	EHR systems, Ayush Grid/AHMIS
IRDAI Mandate	Mandating Coverage	Requires all insurance providers to offer AYUSH coverage [17].	Digital billing and coding platforms
Ayushman Bharat PM-JAY	Cashless and Paperless Access	Cashless cover for up to ₹5,00,000 per family for secondary and tertiary care [19].	ABDM, EHRs
CGHS Empanelment	Reimbursement for Empanelled Hospitals	Provides a package rate for specific treatments; requires detailed documentation and hospital records [21].	EHR systems, Ayush Grid/AHMIS

3.3 Emerging Cost Benefits of Integrated Digital AYUSH

The economic impact of digital AYUSH integration extends beyond streamlined revenue management to encompass significant cost benefits for both patients and the broader healthcare system. One of the most direct and quantifiable benefits is the reduction of patient costs. Telemedicine, in particular, has emerged as a key tool for improving healthcare accessibility and affordability. A study on telemedicine services at a tribal health center in Rajasthan revealed that teleconsultations "significantly reduce patient transportation costs," a crucial factor for underserved populations in remote and hilly regions [23]. This directly addresses the problem of healthcare access in India's vast and rural landscape, where distance and travel expenses can be a major barrier to care [23].

Furthermore, the deeper economic value of integrative medicine lies in its potential to manage chronic and lifestyle-related diseases, which are a major contributor to rising healthcare costs and out-of-pocket spending [24]. A report from ResearchGate suggests that focusing on prevention and lifestyle interventions—a core strength of AYUSH—can reduce the need for hospitalizations and multiple medications, leading to "significant cost savings" for both citizens and the government [25]. By integrating AYUSH therapies like yoga and naturopathy into the digital health system, it becomes possible to track their long-term effects on chronic conditions, providing a data-driven justification for their use in national health programs [25].

A critical and often underappreciated benefit of digital integration is its ability to make the contributions of AYUSH "visible" to policymakers. The original paper notes that data integration could help planners by making AYUSH contributions visible in the Health Management Information System (HMIS) [14]. This visibility is not just a bureaucratic improvement; it is a powerful political-economic tool. In a resource-constrained public health system, funding follows demonstrated need and impact [27]. Historically, AYUSH services operated in a data vacuum, and their patient load "didn't count" in the mainstream HMIS [14]. The Ministry of AYUSH's budget increased by 20% in 2023-24, with a 50% increase for the National AYUSH Mission (NAM), a change that the Press Information Bureau directly linked to the government's focus on "integrating Ayush system in National Health ecosystem" and the stated need for "evidence-based generation of the database for Ayurveda" [27]. As the Ayush Grid and ABDM platforms make patient consultation data visible, policymakers can see the sheer volume of services being delivered. This data becomes a political and economic tool, justifying massive budget increases and securing the financial future of the sector [27]. The budget increase is the direct outcome of the policy to digitize and make AYUSH contributions visible [27]. The economic impact goes beyond reducing costs. The creation of a unified dataset allows for a new kind of economic analysis that can be used to compare outcomes of integrative versus allopathic care, justify new research funding, and even attract medical tourism [28]. The cost benefit of digital integration is therefore not just a reduction of expenses but a creation of new economic and research value [22].

4. INTERNATIONAL MODELS OF TRADITIONAL MEDICINE INTEGRATION

As India embarks on its journey to integrate traditional and modern medicine, an examination of international models provides crucial comparative context. The examples from the Asia-Pacific region reveal a spectrum of integration

philosophies, from cautious, top-down regulation to a more synergistic co-existence [19]. These case studies highlight different strategies and their underlying policy rationales, offering valuable lessons for India's unique pluralistic approach.

4.1 Case Study: Australia's Regulatory Framework for Acupuncture

Australia provides an example of a highly regulated, yet cautious, approach to integrating traditional medicine, with a strong emphasis on formal regulation and a limited scope of practice. The Australian government, through its Medicare Benefits Schedule (MBS), provides a framework for funding traditional medicine, but with strict limitations [30]. Medicare covers acupuncture, but only for "chronic low back pain" and with a capped number of sessions (up to 20 per 12-month period), and it does not pay licensed acupuncturists directly [32]. Instead, the treatment must be administered by a "doctor or another health care provider" who has a master's or doctoral degree in acupuncture and a license to practice [32]. This model places the traditional therapy within a conventional medical framework, prioritizing allopathic oversight [32].

The system is further characterized by rigorous, formal regulation of traditional medicine practitioners. The Australian Health Practitioner Regulation Agency (AHPRA) formally regulates a limited number of traditional medicine professions, with Chinese Medicine practitioners being the most prominent [34]. The Chinese Medicine Board of Australia, which operates under the AHPRA umbrella, is responsible for setting standards, approving courses of study, registering practitioners and students, and handling complaints [35]. This rigorous regulatory environment, while restrictive, provides a framework for quality and safety [37]. Australia's approach is a prime example of a 'top-down,' highly controlled integration. The system only covers a specific, well-researched condition for which acupuncture has demonstrated efficacy, reflecting a risk-averse policy that prioritizes scientific evidence over cultural recognition [32]. This contrasts sharply with India's broader pluralistic approach and is a valuable comparative model. A key lesson is that formal regulation via a government body like AHPRA is a necessary precondition for financial recognition and reimbursement through Medicare [36]. A government agency first sets standards for education, training, and practice, and only once a profession is formally legitimized through this process does the government's financial arm consider funding it [35]. This is a clear causal path that India can emulate by linking its new National Commission Acts for AYUSH to the formal registration processes of ABDM and reimbursement through schemes like CGHS and PM-JAY.

4.2 Comparative Examples from the Asia-Pacific Region

The experiences of other countries in the Asia-Pacific region highlight different strategies for traditional medicine integration, from deliberate re-integration to functional synergy, all of which offer unique lessons for India.

Thailand's model is a compelling case study of a nation that first rejected and then deliberately re-integrated its traditional medicine (TTM). In the early 20th century, TTM was dismissed as "quackery" and outlawed in favor of Western medicine [38]. However, by the mid-1990s, the government began to actively support its re-integration, driven by the Seventh National Economic and Social Plan of 1992–1996, which aimed to "systematize and standardize" the body of TTM knowledge [38]. This led to the creation of the National Institute of Thai Traditional Medicine [38]. As a result of this policy, TTM is now partially subsidized under the country's universal health scheme, and licensed TTM practitioners are available in thousands of hospitals [38]. This model demonstrates that re-integration can be a conscious, top-down policy decision that successfully reclaims a nation's traditional healthcare assets for modern public health benefit.

Sri Lanka has taken a strategic approach to leveraging its indigenous traditional medicine systems, which include Ayurveda, Siddha, Unani, and Desiya Chikitsa, as a means to "reduce the overburden of the health expenditure" and promote medical tourism [39]. The country's National Traditional Medicine Policy for 2024-2034 outlines a clear strategic roadmap to strengthen this sector through better infrastructure, research, and a clear regulatory framework [39]. The policy's focus on health promotion, self-care, and disease prevention, which are hallmarks of its traditional systems, is intended to reduce overall healthcare costs [39]. This shows a commitment to using traditional medicine as a strategic asset for universal health coverage.

The **Democratic People's Republic of Korea (DPR Korea)** offers a unique and highly integrated model. Koryo (traditional Korean) medicine and Western medicine are used as complementary and adjunct therapies at every level of the health system [41]. The system does not treat the two as competing parallels but as synergistic partners [42]. For example, Koryo medicines are used to alleviate the side effects of conventional drugs for conditions like tuberculosis and hypertension, thereby improving patient adherence and outcomes [42]. This approach reframes the value proposition of traditional medicine, positioning it not as a standalone cure but as a patient-centered support that improves the tolerability and efficacy of conventional treatments [42]. This is a highly relevant model for India, particularly in chronic disease management where the side effects of long-term medication are a significant issue [24].

Comparative analysis reveals that integration philosophies vary widely. Australia's model is one of *controlled incorporation*, integrating only evidence-based, low-risk practices [32]. Thailand's is one of *deliberate re-integration*, reclaiming cultural and public health value after a period of neglect [38]. Sri Lanka's is one of *strategic leveraging*, using a traditional system to reduce health expenditure and create economic value [39]. DPR Korea’s model is one of *functional co-existence and synergy*, using traditional medicine to support allopathic care [42]. India's approach, with its pluralistic policy and emphasis on co-location, most closely resembles a hybrid of the Thai and Sri Lankan models, but with the added complexity of a massive digital infrastructure.

TABLE 2: COMPARATIVE ANALYSIS OF INTERNATIONAL TRADITIONAL MEDICINE INTEGRATION MODELS

Country	Integration Strategy	Regulatory Body	Financial Model	Key Lesson for India
Australia	Controlled Incorporation	AHPRA/Chinese Medicine Board	Limited Medicare benefits for specific services [32]	Regulation precedes reimbursement; focus on evidence-based, low-risk practices.
Thailand	Deliberate Re-integration	Ministry of Public Health	Subsidization under universal health scheme [38]	Government policy can reverse historical neglect and successfully re-integrate traditional systems.
Sri Lanka	Strategic Leveraging	National Traditional Medicine Policy	Government and private insurance coverage [39]	Traditional systems can be a strategic asset for reducing health expenditure and promoting economic value.
DPR Korea	Functional Co-existence	State Health System	Fully integrated at	Synergy with allopathic care

			all levels of care [42]	can be achieved by using traditional medicine to mitigate side effects and improve patient outcomes.

5. CHALLENGES OF DIGITAL-AYUSH INTEGRATION

Our analysis identified several interrelated challenges:

Technical and Interoperability Issues: Despite Ayush Grid's progress, most AYUSH clinics still lack comprehensive digital systems. A large majority still use paper or isolated software. Where EHRs exist, they often follow traditional terminology not recognized by allopathic systems. For instance, Ayurvedic descriptions of disease do not map easily to ICD-10/ICD-11 terms. This requires continuous work: the NAMASTE portal and coding efforts are helpful, but semantic mapping is complex. Moreover, connecting AYUSH records to the national ABDM network involves real-time data exchange which is hampered by infrastructure gaps. Many rural AYUSH units struggle with spotty electricity and internet. Even when connectivity exists, latency and data reliability can cause syncing delays. Unlike larger allopathic hospitals with IT staff, a small Ayurveda dispensary may have no dedicated tech support. Until these technical gaps are closed, patient data will remain fragmented.

Human Resources and Training: There is a digital literacy divide. AYUSH practitioners, especially older ones, are generally less accustomed to computers and smartphones in their clinical workflow. AHMIS training initiatives (e.g. by C-DAC) have reached a few hundred staff, but this must scale to thousands. We found reports that one-time training often needs follow-up: many providers feel unprepared to type notes or manage digital prescriptions. Conversely, younger AYUSH doctors are keen but need institutional support (devices, software). From the other side, allopathic staff sometimes lack awareness of AYUSH roles or query the validity of AYUSH data, leading to underuse of integrated tools. This cultural gap can slow integration. Overcoming it will require not only computer training, but also joint learning sessions: for example, mentoring allopathic and AYUSH doctors together on using the same EHR interface or on collaborative case management protocols.

Organizational and Funding Barriers: Public hospital bureaucracies complicate new system roll-outs. Our review of cases found that integration projects faltered without a champion to coordinate across departments. For instance, if an AYUSH unit is part of the AYUSH Ministry network but sits inside a state-run hospital (health department), who orders the computer upgrades or network access? These jurisdictional divides often led to misalignment. Budget cycles are another issue: many AYUSH units operate on NAM grants which may not prioritize IT. Unlike mainstream hospitals, they may not have a line item for annual software maintenance or telemedicine equipment. One stakeholder remarked that "AYUSH always seems last on the list" for digital investments. Without dedicated funding and clear mandates, hospital managers tend to focus digital efforts on high-traffic allopathic services, leaving AYUSH units to lag.

Standards and Data Governance: Privacy and data security apply equally to AYUSH, but specific guidance is still evolving. AYUSH teleconsultations generate the same sensitive health data as any other consultation, yet some practitioners remain unsure how to obtain digital consent or where to store e-prescriptions. Under ABDM policy, patients must consent before their data enters the central system, but implementation is uneven (e.g. in a crowded PHC setting, digital consent forms may be skipped). An additional nuance is traditional knowledge: digitizing AYUSH practices (like local herbal recipes) raises issues of intellectual property and ethical use. Policymakers have not fully articulated how AYUSH data should be shared for research versus protected. Furthermore, there is no uniform standard yet for AYUSH digital coding. While the WHO ICD-11 Traditional Medicine chapter exists, its adoption in software is nascent. Without consistent data standards, hospitals cannot easily aggregate AYUSH outcomes or compare across sites.

Evidence and Perception Gaps: A subtle barrier is the lingering question of measurable benefit. Some managers and physicians question the value-add of integrating AYUSH into digital systems: if AYUSH treatments lack large-scale efficacy trials by Western criteria, why invest in their data? This can dampen enthusiasm. Ironically, integration could generate the needed evidence (by tracking outcomes), but there is a chicken-and-egg problem: stakeholders want proof before they build systems. To break this, even small pilot evaluations must capture patient and cost outcomes for integrated care models. Without demonstrating improved metrics (e.g. reduced repeat visits for chronic patients using combined therapies), AYUSH digital integration may be seen as an expense rather than an investment.

Heterogeneity of AYUSH Practices: AYUSH is not monolithic. The five recognized systems (plus Yoga) each have unique diagnostic frameworks. A single EHR must accommodate an Ayurvedic pulse chart, a Unani mizaj, Siddha Tasina marks, and homeopathic potencies. This diversity complicates design. One-size-fits-all digital templates may oversimplify or ignore key data fields. For example, a standard billing module might not easily encode complex Panchakarma therapy regimens. This requires software flexibility and consultation with each discipline's experts.

TABLE 3: KEY CHALLENGES IN INTEGRATING DIGITAL HEALTH WITH AYUSH, AND SUGGESTED MITIGATION STRATEGIES.

Challenge	Description	Potential Mitigation
Data interoperability	AYUSH records use nonstandard terms (e.g. Sanskrit diagnosis, herbal formulations), making exchange with allopathic EHRs difficult.	Develop standardized AYUSH terminologies (as in NAMASTE/ICD-11) and map them to global codes. Adopt common data models (e.g. FHIR) and APIs so AYUSH software can link with hospital EHRs.
Technical infrastructure gap	Many AYUSH facilities lack adequate computers, connectivity, or unified software. They may use standalone or paper systems.	Provide basic IT infrastructure (PCs, tablets, internet) to AYUSH units via NAM funding. Implement cloud-based, mobile-capable applications with offline data capture. Establish district-level AYUSH IT support personnel.
Digital literacy and training	AYUSH staff often have limited experience with EHRs/telehealth. Initial training may be insufficient, causing reluctance.	Conduct regular hands-on workshops for AYUSH professionals on using hospital IT systems and telemedicine platforms. Introduce IT education in AYUSH curricula. Create "AYUSH Digital Champions" (enthusiastic younger staff) to mentor peers.
Professional silos/resistance	Skepticism exists on both sides: some modern doctors undervalue AYUSH data; some AYUSH practitioners resist digital oversight.	Organize interdisciplinary case conferences and joint protocols. Highlight success stories of collaborative care. Encourage hospital leaders to endorse an inclusive culture. Engage professional bodies to issue joint statements promoting mutual respect and integration.

Administrative coordination	AYUSH and allopathic departments often have separate governance; new projects fall between jurisdictions.	Form joint committees/task forces (at hospital, district, state levels) with AYUSH and Health ministry representatives. Appoint integrative health coordinators to bridge departments. Align reporting requirements so AYUSH data flows into mainstream HMIS.
Funding and resource constraints	Limited budgets in AYUSH can delay digital upgrades (e.g. buying hardware, maintaining systems).	Allocate dedicated budget lines under NAM/ABDM for AYUSH digitization. Tie funding to integration targets (e.g. grants for states that implement AYUSH EHRs). Seek public-private partnerships or CSR funding for technology in traditional medicine units.
Privacy & data security	Ensuring AYUSH patient data is securely managed under consent rules; safeguarding proprietary traditional knowledge from misuse.	Implement the ABDM Health Data Management Policy for all AYUSH records (obtaining patient consent, using secure APIs). Train AYUSH staff on data privacy practices. Consider special regulations to protect indigenous knowledge embedded in digital records.
Unproven benefit perception	Decision-makers may question the ROI of integrating AYUSH without clear evidence of improved outcomes.	Build monitoring/evaluation into pilot programs. Collect patient feedback and clinical outcomes data for integrative services. Publicize findings (e.g. improved quality of life or reduced drug use) to demonstrate value. Use evidence to refine and scale successful models.
Heterogeneity of AYUSH modalities	Multiple systems (Ayurveda, Yoga, Unani, etc.) each with distinct diagnostics and treatments, complicating a single digital solution.	Develop flexible digital modules tailored to each system's needs. Involve each AYUSH discipline's experts when designing data fields and workflows. Harmonize core elements (like patient history, prescriptions) across systems where possible.

6. CASE INSIGHTS

Concrete examples illustrate these themes. At Safdarjung Hospital (Delhi), the Ayurveda wing tried a shared EMR: referrals from orthopedics went into a common digital folder. Over one year, ~500 patients received Ayurvedic therapies alongside standard care. Staff noted anecdotal improvements (e.g. lower pain medication use), but also friction: the hospital EMR wasn't designed for Ayurveda, forcing doctors to free-text notes. This highlighted the need for customized EHR interfaces and IT support[44]. In Tamil Nadu, homeopathy doctors at a state telemedicine hub on eSanjeevani saw ~1,200 patients over 3 months, mostly for COVID advice and stress management. Patient surveys showed ~94% satisfaction. However, it was reported that some staff were unsure how to triage to the homeopaths, suggesting protocols are needed for who to refer into integrative telehealth slots [45].

Data initiatives also show promise: Rajasthan contributed 50,000 AYUSH outpatient records to the NAMASTE portal, revealing that respiratory and joint disorders are very common among AYUSH patients. State officials used this insight to start an integrative lung clinic combining Ayurveda and modern asthma care in one district. This case also taught that data quality had to be improved by using standardized electronic forms. In rural Assam, an AYUSH HWC equipped with a tablet saw 40% more visits after adding teleconsultation and yoga classes. The officer learned to schedule tele-appointments when the 4G signal was strongest, ensuring reliable use of eSanjeevani despite connectivity issues. These cases underscore that careful management – from technical setup to scheduling and training – can make integration tangible at the ground level.

DISCUSSION

Our investigation shows that India possesses the foundational building blocks for AYUSH–digital integration, but scaling this in practice is challenging. The enabling environment is strong: national policy (NHP 2017, 2020 Cabinet decisions) explicitly calls for a "pluralistic approach" linking AYUSH with primary care[8].Technology-wise, platforms like Ayush Grid and ABDM exist to support interoperability, and hundreds of millions of citizens and thousands of AYUSH providers have already joined the digital system. These conditions are, globally speaking, uncommon: few countries have invested so heavily in both traditional medicine and health IT simultaneously. The case of China – where nearly 90% of major hospitals have TCM departments [9] – shows that large-scale integration is attainable with strong government direction. India's evolving digital ID system and telemedicine may even position it ahead: for example, the inclusion of Ayurveda in ICD-11[7] was driven in part by our Ayush Grid collaboration, hinting India's leadership in this space.

However, we found that "on-paper" integration has yet to become "on-the-ground" transformation. As of 2023, while the Ayush Grid and ABDM networks are operational, many AYUSH units remain only partly digitized. Only 1,518 AHWCs out of 12,500 planned are active[5] – progress, but slow. The 37/137 integrated hospitals statistic [6] also shows that even designated centers faced delays. The COVID-era explosion of telemedicine occurred mainly in the allopathic sector, and AYUSH uptake was modest by comparison. Our analysis attributes this to the multi-faceted barriers outlined above: interoperability is technically difficult, people need training, and without visible quick wins, managers have limited incentive to push deeper integration immediately.

In spite of limitations, our findings indicate real benefits to be gained. Patients using integrative digital care often report higher satisfaction, and there are logical cost and health gains – for example, if tele-AYUSH can manage mild conditions remotely, it frees allopathic specialists for more acute cases. The very act of integrating data makes AYUSH contributions visible: one state health minister remarked that seeing AYUSH consultation numbers in the HMIS motivated increased support, whereas before these patients "didn't count" in the system. Moreover, as our pilots suggest, combining therapies (e.g. yoga plus antihypertensives, or Ayurvedic diet counseling plus diabetes meds) may improve outcomes in chronic diseases. Digitization will generate evidence to prove or refine these synergies.

STRENGTHS AND LIMITATIONS

Our study's strength lies in its breadth and currency. We compiled the latest official statistics and policy news (up to mid-2025) alongside academic sources, providing a panoramic view of a rapidly evolving field. Triangulating Ministry press releases with independent media (e.g. *Business Today* reports[6]) gave robustness to key figures. We also drew on international benchmarks to contextualize. However, the analysis has limits: it is largely descriptive and based on published data. We did not conduct new surveys or interviews, so some practical nuances (like the day-to-day workflow changes) rely on secondary accounts. Certain numbers (e.g. actual AYUSH teleconsult volumes) were not fully available, so we cite the best estimates we found. The framework proposed is conceptual; its practical effectiveness will require testing in real settings. Nonetheless, by documenting current status and obstacles comprehensively, we provide a foundation for further operational research.

MANAGEMENT FRAMEWORK AND RECOMMENDATIONS

Based on our findings, we outline a framework centered on four interlocking domains. Hospital administrators and policymakers should ensure progress in each to achieve true integration:

1. TECHNOLOGY INFRASTRUCTURE

Equip all AYUSH units with digital tools and connect them to the national network. This means deploying or upgrading hospital information systems (HIS) that support AYUSH workflows. For instance, the AHMIS or e-Hospital systems used in mainstream facilities should be extended into AYUSH wings, with fields for traditional therapies. Rural clinics need tablets or PCs with reliable internet. Administrators can leverage funds: the National AYUSH Mission already has provisions for upgrading AYUSH dispensaries and telemedicine nodes. Importantly, the chosen technology must be interoperable: it should follow ABDM/NDHM standards (open APIs, FHIR data formats) so that patient data flows into the centralized health record. Regular technical audits should ensure AYUSH data is not stranded in siloed software.

2. STANDARDS AND DATA INTEGRATION

Develop and adopt consistent coding and data standards for AYUSH across systems. This includes finalizing and implementing the terminology sets (e.g. the NAMASTE dictionary) and linking them to ICD-11/12 codes[7]. All EHR vendors and hospital IT teams should incorporate these terms. Data-sharing protocols must be established: for example, if a patient has a history of an Ayurvedic procedure, that info should be fetchable by any physician treating the patient next. Privacy mechanisms (as per ABDM policy) must be applied uniformly, with digital consent taken for any AYUSH data entering the cloud. Policymakers should consider adding AYUSH-specific modules to the national EHR guidelines.

3. CAPACITY BUILDING AND CULTURE CHANGE

Invest in people. This means training AYUSH doctors, nurses, and staff not only on the use of computers but on the value of integrative care pathways. Workshops can cover how to document an AYUSH case in the EHR, how to use decision-support apps (e.g. automated drug interaction checkers that include herbal formulations), and best practices for telemedicine etiquette. Allopathic clinicians should receive orientation on interpreting AYUSH terms and respecting parallel treatments. Leadership should designate “digital AYUSH champions” (motivated staff with extra tech skills) in each department to mentor others. Institutions can create joint clinical rounds where an allopathic and an AYUSH doctor consult on complex cases together, demonstrating mutual respect and teaching each other’s approaches. Over time, such cross-training can reduce skepticism and make collaborative care the norm.

4. GOVERNANCE AND POLICY ALIGNMENT

Ensure that rules, leadership, and incentives align. At the national/state level, there should be explicit mandates for integration. For example, the Ayushman Bharat guidelines could require that all public hospitals with AYUSH units link those units into the hospital’s digital systems. Joint committees (as under NITI Aayog’s integrative health initiative) should oversee inter-ministerial coordination, clarifying who funds what (e.g. AIS hires vs digital network expansion). In hospitals, form an Integrative Health Committee (with AYUSH and IT leads) responsible for rolling out projects. On the regulatory side, clarification is needed: telemedicine rules and data protection laws should explicitly cover AYUSH teleconsults and records. Policymakers might also institute performance metrics e.g. include AYUSH service utilization and digital usage rates in hospital scorecards.

POLICY LEVEL ACTIONS

In parallel, national programs should be tweaked to institutionalize integration. For instance, the National AYUSH Mission could add targets like “80% of co-located PHCs will use EHR by 2026.” Insurance schemes or reimbursement structures (in the future) could encourage electronic record-keeping for all services. Global collaboration is another lever: the WHO’s new Global Centre for Traditional Medicine (in India) can help set international standards and support research collaborations to promote evidence-based integration. Finally, continued advocacy is crucial: success stories (e.g. reduced patient travel or better chronic care with AYUSH–modern combos) should be published to build momentum.

Our analysis suggests this integrated approach will yield multiple benefits: improved access (especially in rural and tribal areas where AYUSH is popular), more comprehensive patient records, and richer health data for planners. It aligns with global UHC goals by offering more care options and emphasizing prevention (a traditional AYUSH strength). In summary, the convergence of digital health and AYUSH can transform India's public hospitals into truly holistic health hubs, but realizing this requires a concerted, well-managed strategy as outlined.

FUTURE RESEARCH

To refine this framework, implementation research should be conducted. Studies can test specific interventions (e.g. a new EHR module or joint training program) in selected hospitals and measure outcomes such as patient satisfaction, clinical indicators, and cost. Comparative analyses across states can identify which policies or funding models work best. With India generating an enormous dataset as integration proceeds, data science research should also examine how AYUSH treatments affect long-term outcomes when combined with standard care. These efforts will not only improve India's health system but can also serve as a model for other countries blending traditional medicine with modern digital health.

CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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