

# ESTABLISHMENT OF AYUSHMAN BHARAT HEALTH AND WELLNESS CENTERS IN INDIA: A SYSTEMATIC REVIEW USING THE ANTECEDENTS, DECISIONS AND OUTCOMES (ADO) FRAMEWORK

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## ABSTRACT

Access to quality healthcare is a fundamental human right and a cornerstone of Sustainable Development Goal (SDG) 3- Good Health and Well-being. As the global focus on Universal Health Coverage (UHC) Intensifies, India faces significant challenges in ensuring equitable health access. In response, India launched Ayushman Bharat Health and Wellness Centres (AB-HWCs) to strengthen primary healthcare, expand coverage and accelerate the progress towards UHC.

However, while considerable research has examined AB-HWCs, a comprehensive synthesis of their implementation challenges, service delivery outcomes, and system readiness is still needed. This study systematically reviews existing research on AB-HWCs to assess their impact on healthcare accessibility, disease prevention, barriers, and the development of these centres. Using a structured literature search across Scopus and Google Scholar, 37 relevant studies were analysed through the Antecedents, Decisions, and Outcomes (ADO) framework, following the PRISMA guidelines.

Findings reveal gaps in healthcare infrastructure, lack of trained healthcare workforce and disparities in delivery. The study highlights the need for policy refinements, enhanced resource allocation, micro level impact assessments and better integration of technology.

## KEYWORDS

ayushman bharat, health and wellness centre, India, literature review, systematic, universal health coverage

## BACKGROUND

Health is the underpinning and the inevitable input in the social sector of an economy. United Nations Sustainable Development Goals serve as the guideline for the development activities of the world and Goal 3 among them focuses on "ensuring healthy lives and promoting the well-being for all at all ages"[1]. Globally, the objective of Universal Health Coverage (UHC) is to ensure that all people have access to basic healthcare without incurring financial adversity. It aims

to address the deficiencies related to health equity, bridge the vertical and horizontal disparities. In Kenya, an integrated non-communicable disease (NCD) model, along with self-management devices and a digital health wallet (M-TIBA) for co-payment, was implemented [2]. Ghana executed a national health insurance scheme in 2005, and Rwanda integrated community-based health insurance (CBHI) in the national plan in 2015 [3]. Philippines has launched the 'sin tax' on alcohol and tobacco to gather more funds [3]. In Ethiopia, the Health Extension Program employed over 35,000 village-level community health workers to teach people healthy lifestyle habits and offer basic medical care [4]. A robust primary healthcare network can serve first point of contact and well integrate with the micro settings [5].

India continues to face a rising disease burden despite global health goals, with Non-Communicable diseases (NCDs) accounting for 74% of the total disease load [6]. Additionally, a significant number of households remain vulnerable to financial distress due to health care expenses, as over 60% of Catastrophic health expenditure (CHE) are met through out-of-pocket payments, primarily for diagnostics [7]. In line with worldwide recommendations, the Government of India introduced the National Health Policy(2017) and the Ayushman Bharat Mission (ABM) in 2018 to ensure comprehensive healthcare [8]. The ABM stands on two main pillars: (i) Pradhan Mantri Jan Arogya Yojana (ii)the upgradation of the existing sub-centres (SCs) and primary health centres (PHCs) into health and wellness centres (HWCs) under the scheme.

The National Health Policy envisioned the establishment of 1,50,000 Health and Wellness Centres (HWCs) to provide comprehensive primary healthcare services, a critical step toward achieving UHC. Sub-centres are planned to serve a population of 5,000 individuals (3,000 in difficult-to-reach areas), while primary health centres (PHCs) in both urban and rural settings will cater to populations of up to 30,000.

The upgraded HWCs will offer an expanded range of essential services, including family planning, communicable disease management, screening, prevention, control, and treatment of non-communicable diseases, mental health support, counselling, and oral healthcare. This study aims to provide a systematic and comprehensive review of the existing facilities and cover studies relating to the Ayushman Bharat-Health and Wellness Centres (ABHWCs) while synthesizing the perspectives of both the demand and supply sides.

The World Health Organisation's six building blocks are: leadership and governance, health financing, service delivery, health workforce, medical products, vaccines, technology, and health information systems. The upgradation to health and wellness centres involves strengthening of the WHO building blocks by employing community health officers and providing multiple packages of services. This includes the management of non-communicable diseases, screening of cancers, mental health counselling and so on. The location of the centres in proximity to the community and free of cost provision of treatment ensures the mitigation of unmet health demand. These aspects boost service delivery.

To fully understand the potential impact of this flagship intervention, it is essential to analyze it not merely as a standalone policy but as a dynamic process shaped by specific contexts and strategic choices. The Antecedents, Decisions, and Outcomes (ADO) framework provides a robust analytical structure for this purpose. The antecedents shape the factors that led to the creation of AB-HWCs. Decision help in understanding the design of the program and the outcomes encompass provider experiences and community responses. The HWC initiative was implemented in lie to the antecedent of growing burden of non-communicable diseases and dearth of expert health professional in rural and remote area. The decision to include a mid-level health provider and the use of technology in medicines is a strategic and critical. The aim is to engage in early detection of non-communicable diseases, mental health issues and develop a two linkage between the primary centres and the secondary and tertiary care.

Therefore, the primary objective is to systematically synthesize and evaluate the available peer-reviewed literature on the implementation, services, and outcomes of Ayushman Bharat Health and Wellness Centres in India. This review includes literature from both demand and supply side. The secondary aim is to understand the enablers, barriers to the sound working of HWCs and gauge the scope of future research.

## METHODS

This study employs a systematic review approach using the lens of ADO to analyze the existing research on AB-HWCs, focusing on their implementation, effectiveness, challenges, and potential to strengthen primary healthcare in India. The inclusion of multi-faceted studies on utilization, quality of care, health providers' knowledge, availability of facilities, and community perspectives widened the scope of review. This is important for a large scale healthcare intervention.

### SEARCH TERMS

A comprehensive literature search was conducted in January 2025 using Scopus, the world's largest database(9), and Google Scholar, a widely used search engine for academic studies. The search terms employed were: "Ayushman Bharat Health and Wellness Centre" OR "ABHWC" OR "Health and Wellness Centre". The search was restricted to title, abstract, and keywords, yielding a total of 209 documents, of which 87 were retrieved from Scopus and 122 from Google Scholar.

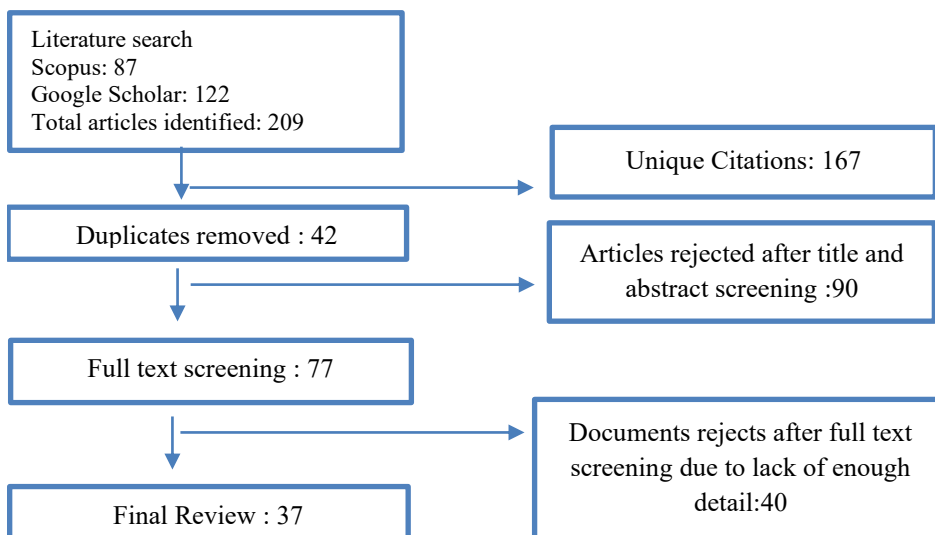
### STUDY SELECTION

A multi-step screening process (refer to Figure 1) was applied following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines(10). Amongst the 209 documents gathered from the two databases, 42 records were identified and eliminated, leaving 167 unique studies. These studies underwent a preliminary screening of title and abstract based on relevance to the study objectives. 90 studies were excluded as they did not align with the research focus, reducing the dataset to 77 articles. A final review was conducted based on the following criteria:

**Inclusion Criteria:** Studies published between 2018 and 2025 (as AB-HWCs were introduced in 2018) and those addressing key themes relevant to primary healthcare implementation in India.

**Exclusion Criteria:** Studies lacking focus on the core components of the AB-HWCs. 40 studies were excluded at this stage due to the absence of a clearly defined underlying theme. 37 studies were selected for in-depth analysis.

**FIGURE.1 PRISMA(PREFERRED REPORTING ITEMS FOR SYSTEMATIC REVIEWS AND META-ANALYSES) FLOW DIAGRAM FOR ABHWCS**

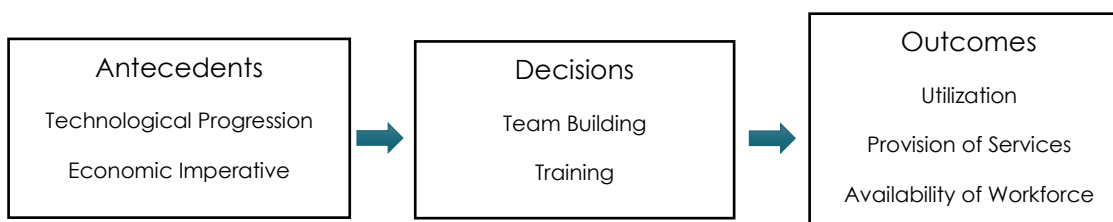


### ANALYTICAL FRAMEWORK

The study examines the implementation of Ayushman Bharat-Health and Wellness centres through the lens of the Antecedents, Decisions and Outcomes (ADO) framework(10).The antecedents ('A' of ADO) refer to the foundational factors that determine the success or failure of the AB-HWCs implementation. These include institutional readiness, policy frameworks, funding mechanisms, and socio-economic determinants that shape the trajectory of upgradation efforts. The decisions (D' of ADO) encompasses the strategic actions undertaken to facilitate successful implementation. This includes financial allocations, policy interventions, adoption of standardized protocols, capacity-building initiatives, and

innovative health care delivery models. Notably, such studies have highlighted key measures such as training programs and technological advancements that have played crucial role in enhancing service delivery within these upgraded health centres. The outcomes (O' of ADO) capture the impact of these decisions on both demand and supply side of healthcare services.

**FIG. 2 ANTECEDENTS, DECISIONS, AND OUTCOMES (ADO) FRAMEWORK**



## RESULTS

### ANTECEDENTS

The antecedents of AB-HWCs serve as key drivers influencing the establishment and subsequent impact of healthcare accessibility and outcomes.

### ECONOMIC IMPERATIVES

Economic factors are among the most significant drivers for upgrading sub-centres and primary health centres (PHCs) into AB-HWCs. In India, Out-of-pocket expenses (OOPE) remain the predominant mode of healthcare financing, constituting 59% of the total health expenditure [11]. This financial burden often results in catastrophic health expenditures, pushing an estimated 60 to 80 million individuals into poverty annually (8). The National Health Policy (NHP), 2017 sought to address these challenges by prioritizing primary healthcare, allocating two-thirds of the healthcare budget to this sector. Further, the 15<sup>th</sup> Finance Commission allocated ₹70,051 crores over five years (until 2026) to strengthen the HWC infrastructure and diagnostic facilities [12]. These financial provisions are intended to expand healthcare coverage and reduce economic disparities in healthcare access.

### TECHNOLOGICAL ADVANCEMENT IN PUBLIC HEALTH

Technological innovations are pivotal in strengthening public health infrastructure and service delivery under AB-HWCs. Given India's vast and diverse population, digital transformation in healthcare is essential for improving healthcare accessibility and efficiency. The Ayushman Bharat Digital Mission (ABDM), launched in 2020, aims to establish a unified digital health ecosystem by creating health IDs for citizens and integrating them with existing health programs [12]. Interoperable digital health records, telemedicine platforms, and AI-driven analytics can facilitate real-time patient monitoring and improve disease surveillance [13]. Moreover, primary healthcare providers at HWCs act as critical facilitators in implementing digital health solutions, bridging the gap between remote populations and specialised medical care.

Telemedicine is a particularly transformative intervention, enabling virtual consultations with expert physicians, expediting diagnosis, and ensuring timely medical interventions. Community health officers (CHOs) stationed at HWCs leverage telemedicine platforms to provide specialised care in remote and under-resourced regions (14). This integration of technology significantly enhances the efficiency, equity, and reach of healthcare services in India's rural and semi-urban landscapes.

### GOVERNANCE AND POLICY FRAMEWORK

The governance dimension of AB-HWCs revolves around the provision of comprehensive primary healthcare, which is a fundamental expectation from public health policy. The establishment of a robust network of public healthcare facilities is a prerequisite for universal health coverage (UHC) [15].

The adoption of digital health technologies and improved financial allocation models are essential governance strategies for successful execution of the AB-HWC model. The integration of telemedicine services under this framework further reinforces healthcare accessibility, allowing individuals, particularly in rural areas, to seek remote medical consultations, and preventive screenings[14,16].

## **SOCIAL DETERMINANTS OF HEALTH AND COMMUNITY ENGAGEMENT**

The social drivers influencing the AB-HWCs implementation emphasize the need for expanding the primary healthcare network, particularly in underserved and marginalized communities. Infrastructure expansion, workforce development, and service delivery enhancement are critical components in ensuring that primary healthcare systems meet the growing demands of the population[17].

Currently, the primary health centres and sub-centres serve only 20% of the healthcare needs, primarily focusing on Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCH+A) services(13). The transition to AB-HWCs is designed to broaden the scope of primary healthcare services, incorporating NCDs management, hypertension and diabetes screening, oral care, Ear-Nose-Throat (ENT) related treatment, mental health services and comprehensive diagnostic support(13). This expansion is critical in addressing the epidemiological shift towards chronic diseases, which pose an increasing burden on India's health system. While financial investments and digital interventions have strengthened primary healthcare services, challenges remain in ensuring seamless integration, equitable access, data management and workforce upskilling.

## **DECISIONS**

In this study, the decisions are the structural constructs of the upgrade process of AB-HWCs. These decisions are linked to the antecedents and the subsequent outcomes, shaping operational efficiency and strategic direction.

### **BUILDING A PRIMARY HEALTHCARE TEAM:**

Each SC-HWC is staffed with a Mid-Level Health Provider (MLHP), also known as a Community Health Officer (CHO), along with one male Multi-Purpose Worker (MPW), two female MPWs, and Accredited Social Health Activists (ASHAs) per 1,000 population[13]. Similarly, each PHC-HWC includes a Medical Officer in Charge (MoIC), a staff nurse, a lab technician, a pharmacist, and a Lady Health Visitor(Bajpai& Wadhwa,2019). The institutionalization of the CHO/MLHP strategy has been reinforced by its inclusion in the National Medical Commission (NMC) Act of 2019, which provides restricted prescribing permissions [15]. Since prescription-writing authority is exclusive to registered medical practitioners, the nurses serving as CHOs are not authorized to prescribe medications[18].

### **TRAINING OF FRONTLINE WORKERS**

To overcome the shortage of skilled human resources, the Government of India introduced the 'Certificate in Community Health' bridge course to for the nurses to qualify nurses as MHP/CHO [19]. The Bridge Programme on Certificate in Community Health for Nurses (BPCCHN) enhances professional competence through structured training and assessment. A study at a medical College in Loni, Maharashtra, found that 110 CHOs who underwent training improved their test scores from 60% to 96%, demonstrating the program's effectiveness[20].

### **STREAMLINING WORKFLOWS**

Few studies have examined the best innovative practices at AB-HWCs. One of the studies found that the implementation of the E-Sanjeevani teleconsultation platform allowed the CHOs to virtually consult specialists, improving diagnostic accuracy and treatment decisions in the Bhandara District, Maharashtra [21]. Another good practice was the systematic scheduling of the weekly outreach activities such as immunization, family planning, NCD screening, and NCD confirmation which enhanced service efficiency.

## **OUTCOMES**

The outcomes are the consequences of the inputs and the mediators.

## PROVISION OF HEALTH SERVICES

A study of five SC-HWCs and PHC-HWCs found that screening for NCDs such as cervical, oral, and breast cancer was inadequate [22]. An assessment of 404 HWCs in Chhattisgarh revealed that the monthly average Outpatient department (OPD) visits were 358, which included 128 NCD patients. As a consequence, HWCs met 31% of the outpatient care needs, including 26% of hypertension management and 21% of diabetes care [23]. However, services for chronic respiratory diseases and mental health conditions were significantly lacking [23].

In the Rajgarh district, Madhya Pradesh, 90% of the health providers had not received any training in mental health services, and the HWCs lacked connections with psychiatric specialists and counsellors [24]. On the contrary, another study pointed that 35 rural primary health centers (PHCs) and 8 urban PHCs in western Odisha were well staffed with nurses, lab technicians, drugs and essential IT infrastructure [25]. Furthermore, a cross-sectional assessment of health and wellness centers (HWCs) in Punjab showed that the diagnostic screenings and OPD visits had increased from 2019 to 2021 reflecting on the success and contribution of these centres [26].

The decentralization of India Hypertension Control Initiative (IHCI) in Pune resulted in 3,94,038 hypertension registrations in 2018, with 69% of patients under ongoing care by 2022. Around 50% of these patients received care from the HWCs. In Punjab and Maharashtra, BP control rates rose from 20% in 2019 to 58% in 2022, while missed visits decreased from 61% to 26% in 2022 [27].

## AVAILABILITY OF WORKFORCE

Studies indicate a shortage of 19% in Sub-Centres, 22% in PHCs and 30% CHCs [13]. With approximately 63,250 doctors graduating annually in India, only one-third pursue post-graduate training [19]. Additionally, 7,504 Auxiliary Nurse Midwives (ANMs), 75,907 male MPWs and 1,58,417 counselors are needed to meet the demand [28]. A survey in Bihar, Jharkhand, Chhattisgarh, Rajasthan and Himachal Pradesh revealed that HWCs exhibited lower absenteeism and better staffing levels than conventional sub-centres, though overall transformation remains inconsistent across states [29].

## UTILIZATION AND RELATED FACTORS

A survey of 400 participants in Odisha revealed that only 31% respondents utilized HWCs and also revealed that low education, proximity (within 2 km) of HWCs, and general health status influenced the utilization rates [30]. In Arunachal Pradesh, 7,003 individuals underwent NCD screenings between April 2018 and September 2019; with oral cancer screenings being most common at 2,875 [31]. However, some tribal women in Maharashtra avoided screenings for NCDs and cancers due to concerns about social stigmas related to being unwell [32]. Due to cultural influence, patients preferred visiting a Bhagat (faith healer) as they had more trust in him.

Community-based study in Chhattisgarh highlighted the need for improved hypertension and diabetes management while identifying persistent challenges in oral care, mental health and injuries [33]. Moreover, the referrals from HWCs were observed to be scanty, the patients found the processes cumbersome and preferred using the public primary healthcare system only if it was functional and well equipped [33].

## TIME MANAGEMENT

A survey of 197 HWCs in Mizoram disclosed that CHOs spent about 5 hours per week on the treatment of general illness and communicable diseases, 4.9 hours per week on childbirth and pregnancy, and about 4.5 hours per week on emergency cases. Additionally, 4 hours per week were allocated to NCD screening and vital testing such as blood pressure and blood sugar monitoring [34]. A time-motion study conducted in Punjab exhibited that CHOs worked an average 5.7 hours per day, with 57% of this time dedicated to service delivery [35]. Similarly, ANMs spent 4.9 hours per day, with 62% of their time being productive. CHOs allocated approximately 40% of their time to NCD management, while ANMs dedicated 51% of their time to maternal, neonatal, infant and adolescent care [35]. To optimize time utilization, government expenditure could be integrated with other health programs such as Rashtriya Bal Swasthya Karyakram, Rashtriya Kishore Swasthya Karyakram, National Programme For Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke (NPCDCS), Shaala Siddhi and Mid-Day Meal program [13].

## KNOWLEDGE AND SKILLS OF THE HEALTHCARE WORKERS

Skill gaps in healthcare delivery have been observed across the states of Karnataka, Maharashtra, Tamil Nadu, Kerala, Andhra Pradesh, Madhya Pradesh, and Uttar Pradesh. Addressing these gaps requires strengthening nursing schools, increasing the number of trained nurses, expanding hands-on training, widening the syllabi, and curricula [17].

A study in Dahanu Taluka, Palghar District displayed significant awareness of NCDs among ASHAs which attributed to targeted NCD training [32]. However, only one of the four CHOs interviewed had received training in oral cancer screening. While most CHOs maintained cancer patient records in registers or digital formats, there was variability in training levels. Similarly, in Medinipur District, West Bengal, 68.8% CHOs exhibited adequate knowledge of palliative care while 31.2% had inadequate knowledge [36]. The study also found that CHO with previous experience and better education had better knowledge. CHOs in Chhattisgarh demonstrated strong acquaintance in diabetes, hypertension, and malaria but lower proficiency in conditions such as diarrhea, vulvo-vaginal candidiasis, and pre-eclampsia [37].

**Infrastructure:** An assessment of 32 SC-HWCs in Raipur, Chhattisgarh, revealed critical deficiencies in physical infrastructure, diagnostic services and healthcare workforce availability (38). Furthermore, challenges relating to low connectivity and inadequate training continue to hinder the effective implementation of e-sanjeevani or teleconsultation (39). A study in Palghar, Maharashtra identified a lack of access to basic amenities such as potable drinking water and reliable power supply in some sub-centres [32]. Additionally, shortages of essential medications, such as antihypertensive and antidiabetic drugs, were reported in certain HWCs. Although both digital and manual sphygmomanometers were generally available, the inadequate supply of haemoglobinometers, glucometers, and the essential test strips needed for NCD screening posed further challenge [32].

Biomedical Waste Management is another important vertical. A study assessing nine AB-HWCs in Chikballapur District reported significant gaps in biomedical waste disposal knowledge, infrastructure, and transport facilities [40].

**Cohesion in working :** Out of the 670 CHOs surveyed in Madhya Pradesh, 40% believed that the service delivery at their HWC is below optimum levels due to inadequate cooperation from ANMs, ASHAs or other staff (Kumar, 2021). A study suggests reinterpreting the roles of medical personnel at various levels to enhance teamwork [42]. Additionally, tensions between ANMs and CHOs have emerged following the transition of sub-centres into HWCs, with ANMs now reporting to CHOs, which may impact collaboration [43]. Further, Ayush-qualified CHOs reportedly receive higher OPD footfall, which could affect team morale [43]. A study in Dahod, Gujarat, also identified interpersonal challenges, with CHOs experiencing excessive workloads and inadequate support from team members, leading to suboptimal service delivery [44].

Further, a study assessing the performance of 670 CHOs in Madhya Pradesh revealed that 66.6% of respondents were compelled to undertake additional administrative tasks imposed by district and block authorities, thereby impacting their productivity and core service delivery at HWCs (Kumar, 2021). Effective healthcare delivery necessitates both horizontal and vertical collaboration among personnel [7]. However, the CHOs are limited to dispensing medications prescribed by physicians, which may erode trust within the community, as conditions manageable at the primary care level must still be referred to higher centers, prolonging patient acceptance of CHOs as competent medical professionals [7].

## TELEMEDICINE

Teleconsultation services were also running in 88% of urban HWCs and 60% of rural HWCs [25]. However, frontline healthcare workers are not traditionally accustomed to using digital technology in healthcare settings, adapting to telemedicine a gradual process [16]. Despite its growing presence, E-Sanjeevani is currently accessible to only 50% of the Indian population. Despite the availability of teleconsultation devices in the wellness centres across the districts of Himachal Pradesh, their utilization remains suboptimal [22].

Studies highlight several challenges associated with E-Sanjeevani, including inadequate continuity of care, resource constraints affecting sustainability, concerns over patient confidentiality, a persistent digital divide, and legal ambiguities

surrounding telemedicine practices [45]. Strengthening the Digital Information Security in Healthcare Act (DISHA) could provide a more robust framework for ensuring secure telemedicine implementation, ultimately alleviating stress on the healthcare system[45].

In the context of screening, the Community-based Assessment Checklist (CBAC) forms, essential for screening purposes, were found to be filled inconsistently at HWCs in the hilly areas of Himachal Pradesh [22]. Given the importance of documentation as a performance metric, such deficiencies can hinder data-driven decision-making [22]. Furthermore, telemedicine platforms like E- Sanjeevani could be enhanced with digital health record repositories such as e-Manas, facilitating expert consultation and long-term patient care management [45].

## COSTING OF HEALTH SERVICES

The financial viability of ABHWCs is crucial for long-term sustainability. A costing study conducted across 93 SHCs and 38 PHCs used bootstrapping methods to estimate the mean per capita cost of comprehensive primary health care services, which stood at ₹333 in SHCs and ₹253 in PHCs [46]. At full utilization (100% occupancy), the per capita cost could rise to ₹390. Similarly, an analysis of eight HWCs in Gujarat showed that while the cost of service delivery increased following infrastructure upgrades, outpatient footfalls also rose significantly, resulting in a net decrease in the cost per Outpatient visit[47]. In Balva SC, the cost per OPD consultation declined by 45%, while in Daliya SC, it fell by 62%[47].

## DISCUSSIONS

The findings of this study suggest that despite AB-HWCs facing certain operational challenges, they are a promising trajectory for providing comprehensive care. Infrastructure installations and resources such as beds, drugs, injectables, and the availability of manpower is important for community trust. Steadily opening the centre for more hours, especially for pregnant women, could be an important binding factor. The effectiveness and efficiency of the centres are contingent on critical factors such as workforce training sessions, need-based protocols, and strategic implementation.

A study in Punjab, highlighted the model of HWCs which incorporated weekly team learning sessions, demonstrated a significant increase in monthly NCD screenings from 63 to 328 [26]. This suggests that structured capacity-building initiatives can substantially enhance service delivery compared to non-model HWCs. A critical strategy for management of screening involves equipping frontline health workers, ASHAs, with diagnostic tools, such as spirometers to facilitate early detection and intervention at HWCs [48].

Telemedicine has emerged as a transformative tool for improving healthcare access particularly benefitting women who may face mobility and socio-cultural constraints. However, significant challenges persist, including high rates of over-referrals, limited digital literacy, and inadequate digital infrastructure in rural regions. By strengthening the operational framework of HWCs and fostering data-driven decision-making, India can move closer to building an inclusive and resilient primary health care system.

Our finding that drug availability, diagnostics and skilled workforce remains a critical barrier directly impacts the service delivery in WHO's building blocks model. It tends to suppress demand even when services are nominally free. This also reflects the long-standing challenges of public health system in India. This comprehensive review showcases that while the foundational blocks are being laid, the success of health and wellness centres depends on two pillars. It requires the supply side robustness as well as an understanding of the pre-disposing and enabling characteristics of communities.

## IMPLICATIONS FOR POLICY & PRACTICE

For a robust and sustainable primary healthcare system, two critical elements are: continuous monitoring and systematic mentoring. There is potential for longitudinal region-specific studies utilizing mixed-methods studies. Integrating quality metrics across all HWCs will be essential to ensuring standardised service delivery and improving patient outcomes.

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