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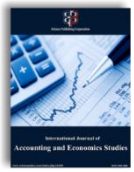

# A Study on Problems at Primary Health Centres in Coimbatore District

**B. Dharshinivishnupriya [1] *, Dr.R. Velmurugan [2]**

[1] *Ph.D. (Full-time) Research Scholar, Department of Commerce, Karpagam Academy of Higher Education, Coimbatore, India.*
[2] *Assistant Professor of Commerce, Karpagam Academy of Higher Education, Coimbatore, India.*
**Corresponding author E-mail: dvp1079@gmail.com*

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**Abstract**

Primary Health Centres (PHCs) act as the primary healthcare foundationwhich provides essential medical services at prices that people can afford to rural communities across India. The operational capabilities of Primary Health Centres face multiple important barriers that lead to decreased medical quality delivery and substandard patient health benefits. Patient experience data support that PHC faces primary difficulties from staffing issues and staff shortages, together with medical supply problems and financial deficits and facility limitations, and poor diagnostic methods. Special care needs of overcrowded conditions with long waiting queues, short clinics, and insufficient patient transfer systems, and dirty facilities, and lack of emergency medical treatment create a compound problem. The analysis discovered that healthcare delivery faces two types of issues: administrative hurdles coexist with interpersonal problems that include medical corruption and improper treatments, along with deficient healthcare education and communication problems. The patient reported challenges organized into three main dimensions through factor analysisprovided an acceptable explanation of their issues. The findings show that proper intervention programs need to merge solutions for multiple health problems with operational enhancements to produce better outcomes for marginalized patient populations. The discovery of new information functions as a foundation to launch pivotal public policy movements that benefit primary healthcare structures and additional academic research initiatives to identify system enhancement strategies. This investigation aims to fill some of the gaps identified above by analyzing the PHC system's operational inefficiencies from an economic perspective, focusing specifically on the cost of chronic PHC medicine shortages and the understaffing of primary health care centers. Such financial burdens exacerbate impoverished low-income households' health and economic welfare simultaneously.

***Keywords***: *Primary Health Centres (PHCs); Healthcare Accessibility; Patient Challenges; Operational Inefficiencies and Healthcare Quality.*

## 1. Introduction

The basic healthcare infrastructure that developing nations employ consists of Primary Health Centres (PHCs) to provide rural residents and underserved communities with accessible, quality healthcare at reasonable costs. Multiple severe barriers disable the essential purpose of Primary Health Centres to achieve proper healthcare delivery. Learning about patient problems at these facilities enables the advancement of healthcare delivery quality and achievements. Scientific investigatorstogether with global policy makers, emphasize that primary health systems serve as fundamental elements for universal healthcare implementation as defined by the WHO in 2018. Health outcomes and patient satisfaction levels decrease due to the sustained medical supply quality issues along with inadequate infrastructures and unskilled healthcare staff shortage in LMICs (Ghosh, 2020; Sharma et al., 2019). This research examines PHCs' patient challenges because they directly influence both community health and public wellness (Lomotey & Deters, 2013). Health gaps between social groups worsen beyond measure when people are denied medical services, which threatens disadvantaged populations with preventable illnesses (Patil & Ganesan, 2021). Research needs to focus on patient-driven problems involving waiting times and medical supply issues, as well as broken referral systems, because this information leads to operational gap solutions (Kumar et al., 2022). The research conditions serve essential needs for worldwide primary healthcare system development per the Alma-Ata Declaration that runs through the Astana Declaration (WHO &UNICEF, 2018; Jalali & Rezaie, 2016).

Research studies highlight that overcrowding conditions and insufficient diagnostic tools, and poor hygiene practices throughout PHCs lead to public healthcare confidence (Basu et al., 2021; Jain & Gupta, 2020). The solution development for these issues needs both patient expectation data combined with complete patient experience data (Adeshina et al., 2024). Research into healthcare access determinants composed of both socio-economic elements and cultural traditions produces superior insights into rural population health care barriers (Chandra et al., 2018). The patient challenge research method within this study creates established strategies that enhance Primary Health Center service quality (Nandy & Dubey, 2024). Primary healthcare systems advance through patient-centered reforms to improve global healthcare because primary healthcare development delivers an affordable solution to decrease disease burdens while maximizing healthresults according to (Rao & Singh, 2021). Primary Health Centers require patientchallenge analysis because it produces essential findings that boost operational efficiency, along with creating equal healthcare delivery practices. International research on PHC healthcare

difficulties generates knowledge to build flexible primary healthcare systems worldwide (Prasanth et al., 2024). This study goes further by assessing the effects of PHC shortfalls on patients economically, in addition to the health system's delivery function. To illustrate, patients delaying care due to long queues or absence of necessary equipment tend to result in patients abandoning their household healthcare roles to find more expensive alternatives, thus raising household health spending and negating cost effectiveness. Consequently, PHC difficulties not only hamper service delivery but also impose dire economic impacts on already fragile economies.

## 2. Review of Literature

The poor access to transportation, together with geographical distance, creates a barrier that inhibits rural populations from using their nearest Primary Health Centers(PHCs) based according to Ghosh (2020). Those people from less privileged areas face higher healthcare dangers since medical facilities exist in remote locations that they cannot reach through their transport systems. The health disparity intensifies along with the development of new medical conditions when a physiological blockade delays medical assistance. Remote residential locations establish a major obstacle in the way of patients receiving medical care, according to Basu et al. (2021). The usage of medical services decreases for individuals who live beyond the recommended distance from Primary Health Center locations and experience more severe health issues because they receive delayed medical treatment (Koohpaei&Khandan, 2015).

The research team of Sharma et al. (2019) found major personnel shortages at rural primary health centers because these facilities fell short of appropriate physicians and nurses, and auxiliary staff, as evidence shows. Healthcare providers deal with rising workloads, and patients face worsening access to care because there is an insufficient number of healthcare providers. Increased exposure to specialized patient care groups makes them experience the effects most strongly. According to Rao and Singh (2021), remote healthcare providers face two additional workforce challenges from difficult recruiting and maintenance of staff retention. Healthcare providers stay away from PHCs because they receive limited career prospects and small monetary bonuses, coupled with deficient work health standards existing in rural health areas.

The restricted working hours at PHC settings create fewer opportunities to serve both employed people and acute medical patients, according to Jain & Gupta (2020). According to research, most Primary Health Centers maintain operating hours only during the day, making medical facilities inaccessible to individuals who need to work outside normal business hours. Kumar et al. (2022) showed that PHC facilitieswhich increased their service hours from daytimes to running 24/7 conditions, led to improved health outcomes alongside patient traffic growth. The research results confirmed that flexible working hours increase accessibility of medical care to patients while strengthening emergency medical response teams.

Patients require expensive medications from private pharmacies since PHC facilities encounter continuous medicine shortages based on (Patil & Ganesan, 2021). The substantial expenses required for medicine purchases by poor families prevent them from following medical treatment plans since they cannot afford these medications. WHO (2018) attributes essential medicine shortages to weak supply chain management and poor forecasting, and unaccountable procurement systems, which resulted in more healthcare disparities in rural areas.

Basic diagnostic procedures at Primary Health Centers force patients to visit higher facilities for tests, thus extending medical service delivery time, as noted by Chandra et al. (2018). Healthcare failures produce big problems in dealing with chronic disease management and block the early identification of illnesses. The situation with substandard diagnostic tools diminishes disease management outcomes, thus leading to elevated mortality rates and greater disease transmission throughout rural areas, according to Ghosh (2020).

Multiple obstacles affect the healthcare delivery system at PHCs because health facilities require maintenance, along with unstable basic utilities such as electricity and water, according to Basu et al. (2021). Research findings indicate that inadequate medical facilities create barriers to patient care, contributing to job dissatisfaction among healthcare personnel. Multiple PHCs operate without operational equipment (Jain & Gupta, 2020), thus negatively affecting patient care services with limited acceptable treatment options at these facilities.

The lack of funding identified by (Rao & Singh, 2021) weakens Cooperation since it restricts both staff hiring and essential medical supplies acquisition and facility maintenance. The paper emphasizes that durable healthcare systems need increased government backing to thrive. WHO (2018) stated that primary healthcare systems require sufficient funding as a basic condition to achieve universal care benefits while distributing health outcomes equally.

Patil & Ganesan (2021) established that inadequate healthcare worker numbers at PHC facilities result in prolonged patient waiting times and subsequent patient distress. According to the survey findings, this problem exists in areas with insufficient healthcare institutions. Sharma et al. (2019) discovered that when PHCs have dense patient populations, the wait time stretches too long, and patients react by avoiding medical care establishments.

Most Primary Health Care facilities lack essential emergency care facilities per Chandra et al. (2018), thus placing seriously ill patients at risk. Research findings confirmed that primary health centers should contain their basic emergency equipment as well as properly trained medical personnel. Emergency care facilities, according to WHO (2018), should integrate into PHC networks because this approach helps to reduce the number of preventable medical deaths.

Jain & Gupta (2020) established that poor PHC environmental cleanliness with inadequate waste disposal practices and absent water sources and insufficient sanitation, creates patient avoidance and infection possibilities. Basu et al. (2021)showed that unsanitary facility procedures create disease spread that adds further strain on overwhelmed medical systems.

Medical tests conducted by Ghosh (2020) showed that poor patient referral techniques result in delayed treatments and inferior healthcare outcomes for most patients. The authors of (Patil & Ganesan, 2021) emphasize that better communication between Primary Health Centers must exist with advanced healthcare institutions to achieve efficient patient referrals and fast medical assistance.

Chandra et al. (2018) demonstrated that Primary Health Centers commonly fail to provide health education, thus preventing communities from comprehending health safety measures and service operations. Service enhancement at Primary Health Care facilities becomes possible through health education implementation, enabling community members to learn improved health measures according to (Rao& Singh, 2021).

The findings of (Sharma et al., 2019) show that different instruction frameworks combined with supervision techniques lead to unreliable health service quality in primary health care centers. WHO (2018) explained that standard protocols establish essential conditions for distributing services effectively alongside enhancing patient trust.

Patient healthcare compliance rates decrease together with satisfaction levels when medical staff provide care without shared linguistic skills, as reported (Basu et al., 2021). Health organizations should establish multilingual staff who will overcome communication obstacles in healthcare settings, according to the authors.

The public trust in PHCs weakens due to both financial corruption and the absence of staff members during work hours, according to Jain & Gupta (2020) and Ghosh (2020). Healthcare systems require strong governance structures alongside accountability systems to fix

administrative challenges, thus improving patient care services.

## 3. Research Gap

The current scholarly research about Primary Health Centre (PHC) patient challenges provides an insufficient understanding of complete health service delivery problems in primary healthcare. Literature analyzes staffing deficiencies and budget deficits and service availability issues, while preventing the analysis of patient recovery status alongside public healthcare confidence levels. Academic establishments conduct minimal investigation regarding the combined effects of public health system structures alongside staff availability and patient appointment limits. Examination of telemedicine and digital health technology solutions that reduce barriers to medical care distribution remains insufficiently explored. Technical studies about healthcare show limited assessment of patient participation and service satisfaction responses that relate to social and cultural elements. The current policies lack sufficient assessment of their effectiveness since research-based evaluation methods fail to demonstrate how funding growth combines with employee development alongside mixed-sector partnerships operate. Current research on healthcare systems between different regions remains limited because authentic comparison studies reveal adaptable solutions to enhance service quality. Solving these gaps remains vital to developing long-lasting healthcare strategies that ensure accessible, high-quality healthcare service delivery.

## 4. Statement of the Problem

Primary Health Centres (PHCs) operate as the essential units of healthcare access throughout different territories, yet they serve primarily rural communitiesalong with underserved populations. The facilities serve the general population by offering affordable vital healthcare through direct access (World Health Organization,2018). The central role of PHC facilities in healthcare promotion experiences limitations through various obstacles, resulting in reduced capabilities to deliver patient-focused care (Ghosh, 2020). The accessibility requirements of PHCcare encounter sustained obstacles between inadequate transportation systems that separate patients from care settings (Basu et al., 2021). Patients encounter more difficulties in getting necessary healthcare during urgent needs because staff shortages affect organization operations, and limited service hours coexist with inadequate urgent care infrastructure (Sharma et al., 2019; Rao & Singh, 2021). Patients deal with delayed medical treatment while paying higher expenses because medical equipment and diagnostic supplies usually stay out of reach (Patil & Ganesan, 2021; WHO, 2018).

Medical facilities lose patients because their physical infrastructure inadequacy combines with heavy patient volumes to create delayed service delivery and substandard patient care (Jain & Gupta, 2020). The operational efficiencytogether with trust levels at these facilities, decreases because of unclean conditionsalongside malfunctioning referral networks and inadequate health training (Chandra et al., 2018; Basu et al., 2021). Several difficulties emerge from health ambiguity and unclear communication systems, as well as concerning corruption cases that reduce accountability standards and public trust (Sharma et al., 2019; Ghosh,2020). Patients at PHCs face a severe clinical crisis that demands a complete evaluation of the current problems. The basis for universal healthcare targets depends on identifying and resolving healthcare system problems that will improve primary healthcare delivery quality, combined with equitable service distribution (Rao &Singh, 2021; WHO, 2018).

## 5. Objective of the Study

- To ascertain major problems at Primary Health Centres.

## 6. Scope of the Study

The study environment includes all Primary Health Centres that span the Coimbatore district. This study evaluates socioeconomic information about patients along with service access constraints encountered at these facilities.

## 7. Research Methodology

### 7.1 Data

The data required for this study are primarily of a primary nature and have been collected using an interview schedule.

### 7.2 Sampling

By employing judgement sampling, patients who make use of primary healthcentres, data have been from 373 patients.

### 7.3 Framework of Analysis

The collected data have been analyzed by employing simple percentage and factor analysis.

## 8. Significance of the Study

Research suggests several key challenges stop people from receiving basic medical services in rural and underprivileged geographic areas. The functional capability of Primary Health Centers faces significant limitations because of their weak construction quality and insufficient personnel, and minimal diagnostic capabilities shortage of drug supplies. The assessment of system gaps requires detailed knowledge of healthcare delivery challenges to build exact solutions for service improvement. The study demonstrates essential details about patients' seeking healthcare actions and their satisfaction patterns, which stem from their employment conditions combined with educational attainments and job types. This research addresses two main healthcare problems to enhance Public Health Care efficiency, build public trust in

health services, and generate equal healthcare systems that deliver superior results for marginalized patient populations. These research results strengthen universal health coverage objectives by allowing policymakers to direct healthcare resources and create suitable healthcare reforms.

# 9. Limitations of the Study

The use of primary data represents a major disadvantage because possible biases can enter the process. Strict precaution measures should protect research results from invalidation when using general findings in actual practice.

# 10. Findings

Primary Health Centres assist healthcare providers to observe patient demographics combined with economic data to improve targeted care delivered to different population groups. Medical center usage behaviors together with medical decisions become evident through financial and social aspects, which include earnings and gender-specific information, educational level, and occupational type. The analysis of characteristics enables healthcare policymakers, together with providers, to develop customized, inclusive health strategies that improve resource allocation for equitable delivery of care. Organizations utilize profiling services to monitor PHC program outcomes and analyze client care behavior adjustments, and establish service appropriateness through social demographic assessments of the local community.

**Table 1:** Socio-Economic Profile

| Particulars | Numbers | Percentage (%) |
|---|---|---|
| **Gender** | | |
| Male | 210 | 56.3% |
| Female | 163 | 43.7% |
| **Age** | | |
| Below 20 | 50 | 13.4% |
| 21-40 | 140 | 37.53% |
| 41-60 | 120 | 32.17% |
| Above 60 | 63 | 16.89% |
| **Educational Qualification** | | |
| Illiterate | 30 | 8.04% |
| Primary | 90 | 24.13% |
| Secondary | 150 | 40.21% |
| Higher Education | 103 | 27.61% |
| **Occupation** | | |
| Unemployed | 60 | 16.09% |
| Agriculture | 80 | 21.45% |
| Labor | 70 | 18.77% |
| Service | 90 | 24.13% |
| Business | 73 | 19.57% |
| **Monthly Income (Rs.)** | | |
| Below 5000 | 80 | 21.45% |
| 5001-10000 | 100 | 26.81% |
| 10001-20000 | 120 | 32.17% |
| Above 20000 | 73 | 19.57% |
| **Family Income (Rs.)** | | |
| Below 10000 | 70 | 18.77% |
| 10001-20000 | 110 | 29.49% |
| 20001-30000 | 100 | 26.81% |
| Above 30000 | 93 | 24.93% |
| **Family Expenditure (Rs.)** | | |
| Below 5000 | 60 | 16.09% |
| 5001-10000 | 120 | 32.17% |
| 10001-20000 | 110 | 29.49% |
| Above 20000 | 83 | 22.25% |
| **Type of Family** | | |
| Nuclear | 230 | 61.66% |
| Joint | 143 | 38.34% |

## 10.1 Gender

Patients visiting PHCs consist of 56.3% male patients, who number 210 people, yet female patients form 43.7% of the total, with 163 individuals. Many more male PHC patients may visit because of their exposure to occupational health risks and possible distinct gender differences in healthcare practices.

### 10.1.1 Age

The 21-year-old to 40-year-old demographic consists of the largest patient group that visits PHCs, representing 37.53% while the 41-year-old to 60-year-old group follows closely at 32.17%. Patients from age groups above 60 years, along with those under 20 years, make up a comparatively small segment of PHC users that reflects the facility's primary service area towards working-age patients.

### 10.2 Educational Qualification

The patient population shows a dominant proportion of patients with secondary education at 40.21% yet they are followed by 27.61% who pursued higher education. Patients who only received primary education represent 24.13% while those who are illiterate total 8.04%. Most PHC users possess basic reading skills since a notable percentage of them have received education beyond the primary level.

### 10.3 Occupation

A service sector occupation exists among 24.13% of patients, and agricultural work and labor positions follow with 21.45% and 18.77% respectively. Business employment rates stand at 19.57% while unemployment affects 16.09% of patients since both groups access healthcare at primary health centers.

### 10.4 Monthly Income

Many patients fall under the income group ranging from ₹10,001-₹20,000 (32.17%), while ₹5,001-₹10,000 (26.81%) stands as the next highest category. The distribution shows that 21.45% of patients receive incomes under ₹5,000, while 19.57% earn more than ₹20,000. Population data demonstrates that Primary Health Care centers mainly serve residents with lower-middle-class backgrounds as they provide accessible medical services.

### 10.5 Family Income

Thirty-four percent of families report monetary earnings between ₹10,001 and ₹20,000 in the same period, while 26.81 percent exist within the ₹20,001 to ₹30,000 earning range. Financial incomes below ₹10,000 affect 18.77 percent of the respondents, and 24.93 percent earn above ₹30,000 per month. The evidence shows that PHC medical facilities provide health services mainly to individuals belonging to lower and middle-income socioeconomic groups.

### 10.6 Family Expenditure

Family expenses within the range of ₹5,001-₹10,000 represent 32.17% of the total, while ₹10,001-₹20,000 fall at 29.49%. Family expenses fall under two categories, with 16.09% spending less than ₹5,000, but 22.25% spending more than ₹20,000. The healthcare expenses appear heavy for some families; therefore, PHCs function as essential medical facilities that provide affordable treatments.

### 10.7 Type of Family

Most patients who attend PHCs stem from nuclear families, which account for 61.66%. Joint family members represent 38.34% of those seeking healthcare services. The transformation of family sizes into smaller units will affect both the choices patients make regarding their healthcare and their ability to access different services.

The Health Care facilities primarily treat people within the working years and low-middle income groups, whose patient base includes more males than females. Most people attending medical facilities possess a secondary education qualification and live in traditional family settings. The study demonstrates why primary healthcare facilities remain essential for delivering affordable medical care to low-income populations, thus proving why governments must invest in primary health infrastructure.

### 10.8 Problems at Primary Health Centres

Factor analysis served to determine the main difficulties patients experience while visiting primary health centres. The study began with a pre-analysis of factor analysis suitability through the evaluation of the Kaiser-Meyer-Olkin (KMO) measure alongsideBartlett's Test of Sphericity. The KMO value exceeded 0.70 while Bartlett's Test produced a high chi-square value of 2158.751 at 105 degrees of freedom (Sig =0.000). The established KMO value and significant Bartlett's Test results show that the data are proper for factor analysis with a sufficient participant sample.

**Table 2:** KMO and Bartlett's Test

| **Kaiser-Meyer-Olkin Measure of Sampling Adequacy.** | | **.885** |
|---|---|---|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 2158.751 |
| | df | 105 |
| | Sig. | .000 |

Factor analysis revealed three main factors because the Eigenvalues exceeded one value. For analysis purposes, we included components that demonstrated a minimum loading value of 0.5. The rotated component analysis showed these problems to occur among primary health centres (PHCs):

The initial factor encompassing 43.687% of variations stems from insufficient staff numbers combined with poor healthcare availability and limited medication supply, subpar diagnostic systems, together with insufficient funding and inadequate systems. The deficiencies, along with resource limitations, affect PHC operations negatively as they are basic structural and funding issues.

Service delivery problems consisting of overcrowding and extended waiting periods, inadequate emergency care service offerings, healthcare facility uncleanliness, insufficient hours of operation, and insufficient medical facility transfer systems contribute 14.108% to the variance explained. The present issues demonstrate operational flaws that prevent patients from receiving prompt and quality health care.

The third factor defines suboptimal health education together with inconsistent quality care and corruption, as well as language barriers and a lack of accountability, explains 7.230% of the overall variance. Integrity patterns combined with educational and administrative obstacles, as well as interpersonal issues, impact patient trust and healthcare satisfaction and delivery results.

A combined analysis of these three variables explains 65.025% of the total variance present in the problems affecting PHCs, which demonstrates their crucial influence on patient experiences as well as primary healthcare service effectiveness. These three factors collectively

explain 65.025% of the problems faced by PHCs, so they require targeted interventions to boost the functioning and impact of these facilities.

**Table 3:** Problems at Primary Health Centres

| Problems | 1 | 2 | 3 |
|---|---|---|---|
| Inadequate staffing | .813 | | |
| Lack of accessibility | .782 | | |
| Shortage of medicines | .775 | | |
| Inadequate diagnostic facilities | .758 | | |
| Insufficient funding | .603 | | |
| Poor infrastructure | .545 | | |
| Overcrowding and long waiting times | | .796 | |
| Lack of emergency care services | | .785 | |
| Unhygienic conditions | | .740 | |
| Limited working hours | | .730 | |
| Poor referral systems to higher-level facilities | | .721 | |
| Ineffective health education and awareness | | | .857 |
| Inconsistent quality of care | | | .764 |
| Corruption and lack of accountability | | | .759 |
| Language and communication barriers | | | .707 |
| Eigen Values | 6.553 | 2.116 | 1.084 |
| % of Variance | 43.687 | 14.108 | 7.230 |
| Cumulative % of Variance | 43.687 | 57.795 | 65.025 |

### 10.9 Economic Impact of PHC Inefficiencies:

The study reveals that resource shortcomings at PHCs, such as medicine shortages and limited diagnostics, heavily burden patients financially. Approximately 32.17% of the patients surveyed earned between ₹10,001 and ₹20,000, and a considerable number of them procured necessary medications from private pharmacies due to unavailability at PHCs. Moreover, the opportunity cost associated with long wait times during checkups and the necessity of attending multiple appointments, especially among wage-dependent employees, further exacerbate economic vulnerability. This highlights the urgent demand for targeted, effective, low-cost fiscal interventions and budgetary allocations aimed at improving the infrastructure of PHCs.

## 11. Suggestions

Based on the findings of the study, the following suggestions have been put forth.

### 11.1 Inadequate Staffing

Healthcare authorities must work together with government bodies to recruit medical staff who will fill vacant positions throughout underpopulated areas in the country. Healthcare providers maintain their clinical staff through a combination of good pay rates from employers and professional development access, as well as rural practice benefits. Current staff member performance reaches its optimum state by implementing both continuous training and fresh capacity-building programs. The
implementation of telemedicine enables program integration through establishing systems that join specialist doctors with patients through advanced medicine knowledge delivery for a massive consumer reach.

### 11.2 Lack of Accessibility

The core medical infrastructure requirement allows health care services to establish connections between Primary Health Care facilities and distant patient groups through reliable transportation networks. Public healthcare institutions need to construct both permanent medical facilities and mobile healthcare centers that provide medical care for communities that are outside major towns. Digital health technology, together with telehealth, allows medical organizations to create pathways reaching communities that lack medical services.

### 11.3 Shortage of Medicines

Stable supply chain management systems should be developed by organizations to maintain quick, essential drug acquisition and delivery processes. Medical emergencies can be prevented through buffer stocks maintained at primary health centers. Independent scheduled checks, which operate together with continuous checkscreate better supply chain accountability and minimize operational inefficiencies.

### 11.4 Cost-Effectiveness Strategies

There needs to be a rigorous cost-benefit analysis for the investment in PHCs made so far, like for the staffing improvement and 24x7 service availability alongside the in-house diagnostics. About the economic sustainability of PHC operations, the tools of public financing, like inclusion of PHC in health insurance, conditional funding based on pre-defined performance metrics, and block grants, may be considered.

#### 11.4.1 Inadequate Diagnostic Facilities

Disease management effectiveness requires primary health centers to obtain essential medical equipment for their operations. Diagnostic facilities at healthcare laboratories enable providers to offer testing services to their patients at lower prices. Medical technologies' effectiveness in healthcare settings depends on the proper training of healthcare workers who maintain and use diagnostic equipment correctly to extend their operational time.

#### 11.4.2 Insufficient Funding

Primary healthcare experiences ongoing financial shortages, which require the government to allocate more budget for sufficient funding. The government started public-private partnerships to establish better resources that enhance service delivery. Appropriate financial strategies should provide direction to existing fund attachments since they minimize avoidable expenses.

#### 11.4.3 Poor Infrastructure

Current Primary Health Care facilities require modern transformation to provide proper protective environments for patients and healthcare providers. All healthcare facilities require continuous electrical power and access to clean water services, along with suitable sanitary installation facilities. Service efficiency enables healthcare management to use digital record-keeping through information technology infrastructure.

#### 11.4.4 Overcrowding and Long Waiting Times

Hospital overcrowding prevention needs two main solutions involving both on-demand staffing adjustments and advanced appointment scheduling and distribution programs. Healthcare facility booking optimization becomes more effective because online appointment management systems create scheduling control systems. The establishment of longer appointment periods in unused slots helps reduce medical waiting times for patients.

#### 11.4.5 Lack of Emergency Care Services

The delivery of efficient services at PHCs depends both on having the necessary emergency medical equipment and on training staff members for emergencies. Healthcare centers that place emergency services adjacent to their buildings improve the prompt treatment of emergency patients. Healthcare institutions should link with hospitals to develop prompt medical transport networks to bridge the service gap.

### 11.5 Unhygienic Conditions

Health facilities need to schedule regular cleaning operations supported by waste management systems, which synchronize with their water supply and sanitation infrastructure to build suitable hygiene conditions. Medical settings operate at defined hygiene standards through training their staff about protocols and evaluation from team members who check protocol execution. Health education programs stop patients and all members of their surroundings from performing unclean activities.

#### 11.5.1 Limited Working Hours

Operational scheduling modifications at Primary Health Centers (PHCs) will build flexible schedules while increasing daily service function durations to enhance working hours. PHCs implement temporary employee shifts that expand their operational time to provide uninterrupted medical services during evenings and weekends. Telehealth enables medical support to reach patients by offering extended operating hours.

#### 11.5.2 Poor Referral Systems to Higher-Level Facilities

PHA facilities need to create reliable referral guidelines that establish communication links to higher-level care institutions for enhancing patient transfer systems. Better patient tracking systems come with advanced features that help optimize referral communication to deliver fast patient referral processes. Better medical outcomes for patients occur when healthcare personnel finish their training on referral procedures.

#### 11.5.3 Ineffective Health Education and Awareness

The transmission of superior healthcare data needs to remain vital for reinforcing animal health education. Each Primary Health Care facility must conduct persistent outreach activities to expand health camps from workshops that deliver medical prevention and healthcare advantage information to patients. Online healthcare programs enhance health education results by offering extensive educational content to students.

#### 11.5.4 Inconsistent Quality of Care

Healthcare service quality reaches higher standards because standardized protocols combine successfully with nurse education programs. Healthcare providers obtain methods to improve their care delivery through combining feedback systems from patients with official performance evaluation systems. The Primary Health Care facilities establish benchmark quality standards to ensure that all their locations deliver consistent standard care requirements and achieve similar service quality levels.

#### 11.5.4 Corruption and Lack of Accountability

The prevention of corruption depends on open governance practices and audits, and supplementary reduction measures to eradicate corruption. Any organization uses the biometric attendance system to minimize worker absences through its critical role as a crucial tool that reduces staff absence. The implementation of efficient patient grievance processes within public health centers enhances both patient trust and the ability to hold health facilities accountable.

### 11.6 Language and Communication Barriers

Staff members at PHCs use their language skills, plus interpreter help, to solve communication issues and maintain proper patient care methods. Healthcare providers develop culturally appropriate communication methods that enable them to build positive patient-provider

relationships. Healthcare staff can employ pictures together with digital communication tools to support patients who have reading disabilities during patient dialogues.

## 12. Conclusion

The research confirms the vital importance of Primary Health Centres (PHCs) in offering basic healthcare to different community members, especially those working during the day. Male patients outnumber female patients at these facilities because of workplace health threats and dissimilarities between male and female healthcare behaviour patterns. A part of the population who receives healthcare treatment continues to struggle with literacy despite diversified educational levels, because it makes it harder to grasp medical instructions and health information. Such healthcare situations require healthcare providers to deliver information that is both accessible and easy to understand by patients.

The medical users operating within Primary Health Care services consist of service-sector workers and agricultural employees, as well as laborers and business professionals. PHCs need to maintain their presence as primary institutions that provide healthcare services to people whose work involves physical labour and reside within low-income brackets. The income data demonstrates how primary health centers provide their essential healthcare services mostly to lower-class and middle-class families who need a cost-effective medical solution. While some families face financial obstacles to obtaining advanced medical care, the government needs to keep supporting affordability through healthcare subsidies.

PHC services experience performance difficulties which result from both healthcare structural elements and operational systems, and socioeconomic aspects. Strained healthcare delivery becomes difficult because of staffing problems and insufficient medical materials, along with overcrowded facilities, combined with poor service operations. Patient trust and satisfaction decrease due to problems with inconsistent health care standards and inefficient medical administration, as well as system corruption. Raising funding levels alongside implementing better management strategies and enacting policy changes will create the basis for strengthened Primary Health Care centers. The role of PHCs in public health improvement remains dominant as they develop their infrastructure and maintain smooth service delivery to reach all people regardless of their background. Future research and dissemination of the publication should concentrate on platforms dealing with the policies and delivery mechanisms of healthcare systems, specifically targeting LMICs (Low- and Middle-Income Countries) to aid in tangible policy discussions and international development initiatives.

## 13. Scope for Further Research

Research development requires the assessment findings produced by Primary Health entrées (PHCs). Clinical research needs to develop several integrated solutions that resolve workforce shortages, together with funding problems in outdated healthcare facilities. The research investigation of telemedicine systems with digital health platforms creates essential operational data about accessibility, along with workflow enhancement. Designers working on patient-centered health solutions for service enhancement require behavioral and social research about healthcare utilization patterns. Healthcare updates generate critical results that both satisfy patients and improve medical outcomes to assist decision-making among policymakers. Efforts must focus on conducting research that will guide deficit management through combined action between public organizations and private corporations to enhance hospital quality standards. A research effort into sustainable sanitation structures within Health Care facilities will drive essential knowledge needed for stronger

Health Care patient relationships. Different regions across multiple countries allow scientific groups to discover successful Primary Health Care approaches with operational solutions for patient challenges.

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