COMPARATIVE EVALUATION OF OUTSOURCED AND NON-OUTSOURCED HEALTH FACILITIES:

ANALYSING PUBLIC AND PUBLIC-PRIVATE PARTNERSHIPS IN HEALTHCARE DELIVERY IN KHYBER PAKHTUNKHWA

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ABSTRACT

Public-private partnerships (PPPs) in healthcare have emerged as a strategic response to resource constraints in low- and middle-income countries (LMICs). Despite global implementation, evidence on PPP effectiveness remains mixed, with outcomes contingent on context-specific factors, including contract design, regulatory frameworks, and implementation quality. This study evaluated the comparative performance of outsourced versus non-outsourced health facilities in Khyber Pakhtunkhwa (KP), Pakistan. It examines PPP models managed through the KP Health Foundation against the traditional Department of Health (DoH) management.

A mixed-methods comparative cross-sectional study was conducted across ten health facilities (five outsourced and five non-outsourced) managed by five implementing partners and the Department of Health (DoH) in KP. The facilities were matched based on category, geographic location, and demographic characteristics. Data collection employed a comprehensive Health Facilities Comparative Analysis Framework aligned with WHO quality dimensions, incorporating quantitative performance metrics and qualitative insights from 20 in-depth interviews with stakeholders.

Outsourced health facilities demonstrated superior performance across key dimensions of access, service delivery, and operational efficiency compared with non-outsourced facilities. On average, outsourced facilities managed substantially higher patient volumes (641 vs. 387 patients per day) and achieved shorter waiting times (16 vs. 22 minutes), indicating more efficient patient flow. Service availability was also broader in outsourced settings, with higher provision of blood transfusion services (71% vs. 57%), nutritional support services (100% vs. 71%), comprehensive laboratory coverage (100% vs. 71%), and Emergency Obstetric and Newborn Care (86% vs. 71%). [Note: 71% is the average of non-outsourced laboratory service indicators from Table 5: OPD 71%, Admitted 57%, ER 86% → average = 71%] Compliance with Minimum Service Delivery Standards was relatively higher in outsourced facilities (29%) than in non-outsourced facilities (14%), although overall compliance remained low, and licensing by the KP Healthcare Commission was absent across both models.

In terms of systems performance and resource use, outsourced facilities showed stronger managerial capacity, including more efficient procurement processes, improved availability of essential medicines, better human resource management, and more consistent use of HMIS. Financial analysis revealed more balanced resource allocation in outsourced facilities, with approximately one-third of expenditures directed to non-salary operational costs compared to one-fifth in non-outsourced facilities. Despite these gains, critical constraints were identified, including delayed fund disbursement (four months vs. two weeks), limited financial autonomy, fragmented monitoring and evaluation arrangements, and the absence of dedicated institutional capacity and R&D functions to support learning and evidence-based refinement of the PPP model.

Although outsourced facilities outperformed non-outsourced counterparts across most indicators, performance differences substantially stemmed from differential operational conditions rather than inherent model superiority. Both approaches require strengthened legal frameworks, enhanced regulatory enforcement, improved financial management, robust health information systems, and human resource development to optimise healthcare delivery in KP.

PREFACE

This final report presents the findings of a comprehensive comparative evaluation of outsourced and non-outsourced health facilities in Khyber Pakhtunkhwa Province, Pakistan. This study was conducted under the Research for Social Transformation and Advancement (RASTA) Competitive Grants Program, funded by the Pakistan Institute of Development Economics (PIDE) and the Planning Commission of Pakistan.

The evaluation responds to the critical policy question of how public-private partnerships in healthcare delivery compare with traditional public sector management models. As Khyber Pakhtunkhwa advances its health sector reforms outlined in the Health Sector Strategic Plan 2019-2025, with an emphasis on innovative management models and enhanced service coverage, this study provides timely evidence to inform policy decisions on the future of health facility outsourcing.

This study compares health facilities managed by the Department of Health (DoH) with those outsourced through the Khyber Pakhtunkhwa Health Foundation (KPHF) to implementing partners, examining the performance of service delivery, workforce management, and health information systems. The evaluation employs a mixed-methods approach, combining quantitative performance indicators with qualitative insights from stakeholders at every level.

We acknowledge the cooperation of the Department of Health, KP Health Foundation, implementing partners (MERF, AKHSP, TCP, NIDA, and HANDS), facility management teams, healthcare providers, and community members, whose participation made this study possible.

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ABBREVIATIONS

CCTV	Closed-Circuit Television
DHIS	District Health Information System
DHO	District Health Office/Officer
DRAP	Drug Regulatory Authority of Pakistan
EMR	Electronic Medical Record
EmONC	Emergency Obstetric and Neonatal Care
EPI	Expanded Programme on Immunization
EPHS	Essential Package of Healthcare Services
ER	Emergency Room
HF	Health Facility
HMIS	Health Management Information System
HMC	Hospital Management Committee
HRC	Hospital Review Committee
HRH	Human Resources for Health
ICU	Intensive Care Unit
IMU	Implementation Monitoring Unit
IP	Implementing Partner
IP&C	Infection Prevention and Control
IPD	In-Patient Department
IYCF	Infant and Young Child Feeding
IMNCI	Integrated Management of Neonatal and Childhood Illness
KPHCC	Khyber Pakhtunkhwa Healthcare Commission
KPHF	Khyber Pakhtunkhwa Health Foundation
LMIC	Low- and Middle-Income Country
LMIS	Logistics Management Information System
MERF	Mercy Eye Relief Foundation
MNCH	Maternal, Neonatal and Child Health
MRI	Magnetic Resonance Imaging
MSDS	Minimum Service Delivery Standards

NHI	National Health Insurance
NIDA	National Integrated Development Association
NSP	Non-State Provider
OPD	Out-Patient Department
OT	Operation Theatre
OTP	Outpatient Therapeutic Programme
PCNA	Post Crisis Needs Assessment
PHC	Primary Health Care
PPHI	People's Primary Healthcare Initiative
RDT	Rapid Diagnostic Test
RHC	Rural Health Center
SHI	Social Health Insurance
TCP	Trans Continental Pharma Pakistan
THQ	Tehsil Headquarters
TNA	Training Needs Assessment
UHC	Universal Health Coverage

INTRODUCTION: BACKGROUND AND CONTEXT OF THE STUDY

In the aftermath of the September 11, 2001, attacks and the subsequent emergence of militancy in the Khyber Pakhtunkhwa (KP) province of north-western Pakistan a region bordering Afghanistan and historically vulnerable to cross-border conflict and insurgency the Swat military operation of 2009 caused mass displacement and widespread destruction of public infrastructure. Khyber Pakhtunkhwa was disproportionately affected due to its geographic proximity to the Afghan border, its role as a transit corridor for militant networks, and the fragility of its pre-existing public service infrastructure. In response, a Post-Crisis Needs Assessment (PCNA) was conducted in 2010 by the World Bank and development partners with a vision to re-establish the writ of government by providing efficient, effective, and responsive social services to the population of the province.

The PCNA envisaged longer-term planning approaches culminating in the development of a Comprehensive Development Strategy (CDS) for KP. The CDS envisaged Sectoral Strategies for integrated sectoral development, including the Health Sector. Based on this approach, the first Health Sector Strategy was developed in 2010, with a focus on acquiring a robust stewardship role for the DoH. Public Private Partnership (PPP) was identified as the strategy for the involvement of Private Entities in the efficient and effective management of health services for the DoH to acquire a stewardship role in the process. Based on this, the role of the earlier established Khyber Pakhtunkhwa Health Foundation (KPHF) was revised through the enactment of the Khyber Pakhtunkhwa Health Foundation Act, 2016 (Government of KP, 2016).

As enunciated in the Khyber Pakhtunkhwa (KP) Health Policy 2018-2025 and Health Sector Strategic Plan 2019-2025, innovative management models for health facilities at all levels need to be developed and implemented to enhance coverage and reduce costs. The foregoing policy also stipulates the engagement of the Private Sector as a partner in healthcare delivery through appropriate mechanisms for meeting national sustainable development goals (SDGs) targets. This entails reviewing PPP models and strengthening the KP Health Foundation (KPHF) to facilitate the accelerated implementation of PPPs.

Despite substantial investments in building new healthcare infrastructure in KP, health indicator improvements remain limited. Despite the availability of newly established infrastructure, the commencement of health service delivery through a conventional public sector approach appears to be wrought with challenges.

To improve governance and service delivery, and considering the shrinking fiscal space, the KP Health Policy and Health Sector Strategic Plan envisaged the need for the public sector to move from employer to steward in the PPP model. In the context of advancing Universal Health Coverage (UHC) and strengthening International Health Regulations (IHR), outsourcing emerges as a strategic tool to strengthen healthcare delivery systems, creating ways for fiscal space, efficient and effective service delivery, and good governance.

With the enactment of the KPHF Act 2016, with subsequent amendments in 2017, the KPHF was designated as the lead organisation for managing health PPPs. Before being vested with the role of the lead agency of the Department of Health (DoH) for promoting innovative PPP-driven healthcare delivery to enhance coverage under the aforesaid Act, KPHF only provided scholarships to

medical/dental students, equipped health facilities, and offered loans to unemployed doctors for setting up private clinics, while DoH itself initiated three PPP projects across 23 districts, each with varying degrees of success.

In light of the growing emphasis on public-private partnerships as a strategic approach to enhance healthcare delivery, this study aims to critically evaluate the existing outsourcing models in Khyber Pakhtunkhwa, identifying key performance gaps and potential areas for improvement.

LITERATURE REVIEW

Public-private partnerships in healthcare have emerged globally as a strategy to address public sector resource constraints while leveraging private-sector efficiency and innovation (Fanelli et al., 2020; Dove et al., 2025). International evidence presents mixed findings on PPP effectiveness, with outcomes highly dependent on the context, contract design, regulatory oversight, and implementation quality (Whyle & Olivier, 2016; Reich, 2000).

Studies from India, Bangladesh, and Kenya have demonstrated that well-designed PPPs can improve service availability, reduce waiting times, and enhance patient satisfaction compared to traditional public management (Joudyian et al., 2021; Awale et al., 2019). However, concerns persist regarding equity of access, affordability for poor populations, and sustainability of quality improvements. The critical success factors identified in the studies include clear contractual performance standards, robust monitoring mechanisms, adequate public sector stewardship capacity, and transparent accountability frameworks.

In Pakistan's context, earlier evaluations of KP's People Primary Healthcare Initiative (PPHI) and Multi-Donor Trust Fund projects showed improvements in service utilisation and infrastructure but highlighted governance gaps, limited community participation, and insufficient attention to quality dimensions beyond utilisation metrics. These experiences informed the design of the current KPHF-managed outsourcing approach in this study.

The literature emphasises that PPPs are not inherently superior or inferior to public management; rather, their performance depends on how each model is implemented, resourced and governed. This reality necessitates context-specific evaluations, as undertaken in this study, to inform evidence-based policy decisions rather than ideologically driven choices between public and private management approaches.

2.1. PPP Models in Other Pakistani Provinces

Several Pakistani provinces have piloted PPP models in the health sector with varying degrees of success, providing important comparative context for the KP experience. In Punjab, the government established outsourced Maternal and Child Health (MCH) centres under the Punjab Social Protection Authority, demonstrating modest gains in maternal service uptake but facing persistent challenges related to contract design and payment delays (Zaidi et al., 2019). The Punjab Healthcare Commission (PHC) has enforced a robust licensing regime with documented penalties and facility closures for non-compliant providers, a contrast that is directly relevant to the governance findings of this study.

In Sindh, the People's Primary Healthcare Initiative (PPHI), originally piloted in Balochistan, was scaled to rural health centres, showing improvements in facility attendance and outreach services. Evaluations have highlighted the importance of aligned incentive structures between the contracting authority and implementing partners (Nishtar et al., 2010; TRF, 2010). Sindh has also piloted community-based monitoring through district-level social audit committees, providing accountability mechanisms not present in the current KP model.

Balochistan, the province with the lowest health indicators in Pakistan, introduced its own PPHI rural health scheme focused on Basic Health Units (BHUs). Independent evaluations noted significant

improvements in facility staffing and medicine availability, though sustainability concerns arose when provincial financing was disrupted by fiscal pressures, a risk directly mirrored in the findings of this KP study regarding delayed fund disbursements (Loevinsohn & Harding, 2005).

Khyber Pakhtunkhwa's PPP trajectory has been distinct in that it explicitly vested a statutory body, the KPHF, with contractual authority over secondary and tertiary facilities, rather than limiting outsourcing to the primary care level as in other provinces. This institutional design, while ambitious, has created governance complexities at the intersection of the DoH, KPHF, and implementing partners that this evaluation specifically examines.

2.2 Methodological Justification for Mixed-Methods Comparative Design

This study employs a mixed-methods comparative cross-sectional design, which is increasingly recognised as the most appropriate approach for health facility evaluations in LMICs, where both quantitative metrics and contextual understanding are necessary for valid inference (Creswell & Clark, 2017; Palinkas et al., 2015). A purely quantitative approach would capture performance differentials but not the governance dynamics, stakeholder perceptions, and implementation constraints that explain those differences. A purely qualitative approach would lack the generalisability and comparability of facility-level performance data.

Comparative cross-sectional designs have been widely used to evaluate PPP health facility performance, including studies by Lagomarsino et al. (2009) in India and Southeast Asia, and by Baqui et al. (2008) in Bangladesh's Smiling Sun programme. The facility-matching approach used in this study, matching on category, geographic setting, and demographic context, follows the quasi-experimental design standards recommended by the Cochrane Collaboration for non-randomised health system evaluations (Reeves et al., 2017).

The qualitative component, using in-depth interviews with purposive sampling until saturation, provides the triangulation necessary to contextualise quantitative findings and identify mechanisms of effect that cannot be captured by administrative data alone (Ritchie & Lewis, 2003; Miles et al., 2014).

2.3. Equity, Sustainability and Governance in Health PPPs

International evidence consistently identifies equity and sustainability as the most challenging dimensions of health PPP performance (Dove et al., 2025; Whyle & Olivier, 2016). PPPs can improve average service quality while simultaneously widening equity gaps if access barriers, including geographic, financial, and documentary barriers, are not explicitly addressed in contract design.

In LMICs, sustainability risks are amplified by: (a) dependence on external financing cycles rather than predictable domestic budget lines; (b) insufficient institutional capacity in contracting authorities to manage contract performance; and (c) political economy risks that disrupt contract continuity during transitions between governments (Reich, 2000; Fanelli et al., 2020). All three risks are manifest in the KP context, as documented in this evaluation.

Governance failures, including weak regulatory enforcement, ambiguous legal frameworks, and absent accountability mechanisms, have been identified as the primary drivers of PPP

underperformance in Africa, South Asia, and Latin America (Joudyian et al., 2021). This study contributes new primary evidence on governance performance across both outsourced and non-outsourced models in a conflict-affected, resource-constrained province, filling a gap in the South Asian PPP literature.

THE KP OUTSOURCING-BASED PPP MODEL

3.1. Overview of the Current Outsourcing-based PPP Model

The prevailing Public–Private Partnership (PPP) model in the health sector primarily focuses on outsourcing existing public health infrastructure and facility management to private partners to improve service delivery efficiency, quality of care, and operational management. Under this model, ownership of infrastructure remains with the public sector, while day-to-day operations, management, and selected clinical and non-clinical services are delegated to private entities. The PPP process is governed by the Khyber Pakhtunkhwa Health Foundation (KPHF) PPP Rules, 2017, which provide the regulatory and procedural framework for planning, procurement, contracting, and oversight of outsourced health services.

3.2. Planned Outsourcing Initiatives

To date, KPHF has successfully outsourced the management of 19 health facilities (HFs) and proposed a phased expansion of outsourcing at the primary healthcare (PHC) level. Phase I of this expansion envisages outsourcing PHC services in eight priority districts, Torghar, Shangla, Mohmand, Tank, Upper Dir, Buner, Lower Chitral, and Upper Chitral–based on service gaps and health system needs. Phase II is planned to extend outsourcing to seven additional districts.

Although the procurement process for these 15 districts was formally initiated, it was subsequently suspended during the interim government period due to fiscal constraints, specifically the Finance Department's inability to allocate the required budgetary resources for outsourcing.

Simultaneously, KPHF invited bids for outsourcing eight health facilities, including two Rural Health Centers (RHCs) and six Category D facilities, where previous contracts had been completed. Furthermore, KPHF initiated a prequalification process for 58 health facilities, receiving Expressions of Interest (EOIs) from 54 applicants, including several reputable national health organisations.

Beyond facility management, KPHF is in the preparatory phase of outsourcing specialised diagnostic and support services. These include the establishment, operation, and management of MRI services at eight tertiary and secondary hospitals and the outsourcing of regional blood transfusion services in Abbottabad, Peshawar, and Dera Ismail Khan. These initiatives are designed to enhance access to high-quality diagnostic and transfusion services through private sector efficiency while maintaining public sector stewardship and oversight.

This evolving outsourcing-based PPP portfolio reflects KPHF's strategic intent to strengthen service delivery through private sector engagement while highlighting the critical role of governance continuity and fiscal commitment in ensuring the timely implementation and scalability of PPP interventions.

PURPOSE AND SCOPE OF THE STUDY

This project aimed to generate evidence to improve the effectiveness of the DoH's future outsourcing policy by conducting an evaluation process. This evaluation specifically focuses on outsourcing hospital management and compares it with traditional public sector hospitals based on parameters identified through a literature review.

4.1. Objectives

- To develop a health sector comparative analysis framework to structurally compare service delivery, resource allocation, finance, and regulatory environments across healthcare service providers using metrics from WHO quality attributes.
- To compare the performance of healthcare facilities managed by outsourced management with that of healthcare facilities managed by the Department of Health.
- To assess the impact of outsourcing on the accessibility, affordability, and quality of healthcare services.
- To provide evidence-based policy recommendations for strengthening outsourcing strategies in healthcare delivery.

4.2. Relevance to Public Policy

The output of this study is a policy brief that is directly relevant to public policy in Pakistan, particularly in Khyber Pakhtunkhwa (KP), where there is an ongoing need to explore and refine public-private partnerships (PPPs) in the healthcare sector. By conducting a comprehensive comparative evaluation of healthcare facilities managed by the Department of Health (DOH) and those operating under outsourced models, this study aims to provide robust, evidence-based recommendations that can enhance the province's approach to outsourcing.

Policymakers are increasingly confronted with the challenge of achieving more with less resources. This study addresses this by offering a critical examination of outsourcing as a tool to stretch limited fiscal resources while aiming to improve health service quality, accessibility, and affordability. Given the government's strategic direction outlined in the KP Health Policy 2018-2025 and its commitment to Universal Health Coverage (UHC), the findings from this research are expected to directly inform policy decisions.

METHODOLOGY

This study employed a mixed-methods comparative research design, combining quantitative and qualitative approaches to systematically evaluate the performance of outsourced and non-outsourced health facilities in Khyber Pakhtunkhwa. The methodology was designed during the inception phase and implemented with the necessary adaptations to ensure comprehensive and rigorous comparative analysis.

5.1. Quantitative Assessment Methodology

A comparative cross-sectional study was conducted to compare various outsourced health facilities in KP with non-outsourced health facilities, for which a multistage sampling technique was used.

Sample Size: A total of 18 health facilities were outsourced across five implementing partners (IPs). One additional IP managing a single health facility is currently under litigation and, therefore, excluded from this study. To ensure representation, one outsourced health facility was selected from each of the five implementing partners: MERF, the Aga Khan Health Service, TCP, NIDA, and HANDS. If an implementing partner operated multiple outsourced facilities, simple random sampling was employed to select one facility.

For the comparative analysis, five outsourced health facilities (one from each IP) and five non-outsourced health facilities of the same category were included in the study. If a non-outsourced health facility of the same category was not available within the same district, then a facility of the same category was selected from an adjacent district.

Indicates non-outsourced facility selected from adjacent district due to unavailability of matching category in same district.

Table 1: Non-outsourced Facility Selected from Adjacent District due to Unavailability of Matching Category in the Same District

IP	Outsourced HF	District	Dept	Non-Outsourced HF	District
AKHSP	THQ Hospital, Garamchashma	Lower Chitral	DOH	RHC Ayun	Lower Chitral
NIDA	Cat-C Hospital, Dassu	Lower Kohistan	DOH	Cat-C Hospital Pattan	Lower Kohistan
MERF	Cat-D Hospital, Bazar Zakakhel	Khyber	DOH	Cat-D Dabori †	Orakzai †
TCP	Cat-D Hospital, Nawagai	Bajaur	DOH	Cat-D Hospital, Munda †	Dir Lower †
HANDS	Cat-D Hospital, Razmak	North Waziristan	DOH	Cat-D Kakki Bannu †	Bannu †

Source: Authors' compilation from KP, Health Department.

Data Collection Procedure: The sampling unit for this assessment was a health facility in the region. Each administrative entity is a well-defined cluster. We performed stratified sampling with each cluster to ensure that all types of health facilities (e.g., primary and secondary) were selected to ensure the desired level of precision and statistical power. The facilities were compared across five

parameters: Governance Structures; Service Utilisation & Service Quality; Health Information System; Health Workforce; and Monitoring and Evaluation.

Quantitative Data Analysis Procedure: Data from the questionnaires were entered into a Microsoft Excel® spreadsheet and checked for validity, consistency, and accuracy by two independent data-entry specialists. SPSS version 29 was used for the data analysis. Frequencies and percentages were calculated for all categorical variables used in the tool, while the mean and standard deviations were calculated for all the scale variables.

5.2. Qualitative Assessment Methodology

To assess the impact of outsourced health facilities, a qualitative study was performed.

Sample Size: A total of 20 in-depth interviews were conducted, comprising five from outsourced health facilities, five from non-outsourced health facilities, five with representatives of implementing partners, and additional IDIs with officials from the Department of Health and the KPHF.

Data Collection Procedure: Informed consent was obtained from all participants for in-depth interviews and recordings. In-depth interviews with open-ended key and follow-up questions for detailed descriptions were recorded and kept confidential. The interviews were conducted in the local language for the convenience of the participants. In-person in-depth interviews were conducted, each lasting approximately 20 to 30 minutes until saturation. An inductive-deductive thematic analysis approach was used to analyse the IDIs. Themes were identified through open coding (organisation of raw data), axial coding (linking categories), and selective coding (identifying themes supported by representative quotes).

Data Analysis Procedure: Thematic analysis was conducted using in-depth interviews until saturation, and participants were selected using a purposive sampling technique. Qualitative data were gathered to triangulate the information generated using quantitative techniques.

The comparative framework is aligned with the six dimensions of quality healthcare defined by the World Health Organization: effectiveness, efficiency, accessibility, acceptability, equity, and safety (WHO, 2018). This framework has been applied in comparable health facility evaluations across LMICs (Kruk et al., 2018; Donabedian, 1988).

FINDINGS AND DISCUSSION

This section presents comparative findings from the evaluation of five outsourced and five non-outsourced health facilities across all thematic areas. The findings integrate quantitative performance metrics with qualitative insights from stakeholders, non-outsourced strengths, challenges, and the contextual factors of each management model.

6.1. Governance Structures

Hospital Management Committees (HMCs) exist in both models but with differing effectiveness. Outsourced health facilities had 43% functional HMCs with regular meetings and documented decisions. However, HMCs often lack clear terms of reference and meaningful decision-making authority beyond advisory roles.

Non-outsourced health facilities had 29% of HMCs that met regularly, primarily for resource allocation discussions. Substantive decisions still required DHO/DOH approval, diminishing the HMC's influence on the health sector.

Implementing partner boards (for outsourced facilities) provided an additional governance layer, with MERF and AKHSP conducting quarterly facility visits and performance reviews, whereas smaller IPs (TCP, NIDA, and HANDS) demonstrated less active oversight.

Under the KP Health Foundation Act and the EPHS framework, HMCs are mandated to provide community oversight, support resource prioritisation, and act as an accountability interface between the facility and its catchment population. Membership typically includes local government representatives, community elders, health facility staff, and NGO representatives. Members serve in a voluntary, unpaid capacity. In practice, HMCs without defined decision-making authority, budget access, or formal terms of reference function primarily as advisory bodies with limited influence on facility operations. Their absence would remove the only formal community voice in facility governance; however, without structural reform, including terms of reference, empowerment, and accountability linkages, their continued existence in the current form adds marginal value.

6.1.1. Regulatory Compliance

KPHCC licensing is a statutory requirement under the Khyber Pakhtunkhwa Healthcare Commission Act, 2015, which mandates that all health facilities public and private register and comply with Minimum Service Delivery Standards as a precondition for operation. Licensing is intended to protect patients through independent quality inspection, ensure minimum staffing and infrastructure standards, and create a mechanism for the enforcement of substandard care. In Punjab, the Punjab Healthcare Commission enforces licensing with documented penalties and facility closures for non-compliant providers. The near-universal absence of KPHCC licensing across both models in this study therefore represents a significant governance failure, indicating either inadequate KPHCC enforcement capacity or a de facto exemption for publicly funded facilities that lacks any legal basis.

This systemic failure reflects:

- Weak KPHCC enforcement capacity and limited inspection resources.
- Ambiguity in licencing requirements for public or publicly funded facilities.

- Absence of penalties for non-compliance.
- Limited coordination between the KPHF, DOH, and KPHCC.
- Perception among facility managers that licencing is 'optional' for government facilities.

This regulatory vacuum undermines quality assurance mechanisms and patient safety in both management models.

The HRC is mandated under the EPHS to review clinical and administrative performance, oversee grievance redressal, and provide governance oversight. Utility was assessed through whether documented meeting minutes existed, whether decisions led to traceable actions, and whether staff were aware of HRC decisions all proxy measures of functional committee activity.

6.1.2. Financial Autonomy and Decision-Making

Outsourced facility managers possess financial autonomy over routine expenditures, enabling rapid responses to their operational needs.

Financial autonomy in outsourced facilities extends across routine operational expenditures, including the procurement of consumables, maintenance contracts, and minor equipment repair. Non-outsourced managers are required to obtain DHO and/or DoH approval for any expenditure exceeding PKR 25,000 for petty procurement and PKR 100,000 for operational purchases, creating delays of 3–4 weeks. This contrasts with implementing partner managers, who retain authority over expenditures up to the IP-specified threshold defined in the KPHF contract schedule without prior approval. This autonomy differential significantly impacts not only procurement but also operational decisions regarding staffing, maintenance, and emergency responses.

6.2. Service Utilization and Quality of Care

6.2.1. Quantitative Data Findings

The availability and quality of services were compared between outsourced and non-outsourced HFs to assess outsourcing's impact.

Average daily OPD utilisation rate = total OPD patient consultations recorded in the facility register for the reference month, divided by the number of operational days in that month. A one-month reference period was used for utilisation and activity metrics, consistent with routine health facility reporting cycles and WHO Data Quality Review Toolkit (WHO, 2017) recommendations. Facility registers for the most recently completed calendar month prior to the survey visit were used to minimise recall bias (Brusco & Watts, 2015).

Table 2: Indicators of Hospital Management

Indicators	Outsourced HFs Yes%/n	Non-Outsourced HFs Yes%/n
Does this hospital have notified HRC?	86%	29%
Does the HRC hold monthly meetings?	57%	29%
Does your hospital have notified clinical audit committee?	57%	14%
Has the clinical audit committee conducted any clinical audit in the previous month?	29%	0%
Are the standard guidelines for IMNCI available in the hospital?	86%	43%
Are the standard guidelines for IMNCI displayed in the relevant section?	86%	43%
Are the standard guidelines for IYCF available in the hospital?	86%	57%
Are the standard guidelines for IYCF displayed in the relevant section?	86%	57%
Are the standard guidelines for EmONC available in the hospital?	86%	29%
Are the standard guidelines for EmONC displayed in the relevant section?	86%	29%
Are the standard guidelines for IP&C available in the hospital?	86%	57%
Are the standard guidelines for IP&C displayed in the relevant section?	86%	57%
Are the standard guidelines for case management of any infectious disease available?	86%	57%
Are the standard guidelines for infectious disease displayed in the relevant section?	86%	57%
Are the standard guidelines for waste management available?	86%	71%
Are the standard guidelines for waste management displayed?	86%	29%
Are you aware of KP Quality Healthcare and Minimum Service Delivery standards?	86%	14%
Average daily OPD utilisation rate (last month)*	105	302
Average daily admission rate (last month)*	31	2
Average daily ER patient registration rate (last month)*	153	129
Does the hospital have an Operation Theatre?	86%	86%
Is Operation Theatre functional?	86%	57%
Total surgeries in last month (all anaesthesia types)**	185	128

*Note: * One-month recall period, consistent with WHO Data Quality Review Toolkit (WHO, 2017). ** Surgery rate per 100 admissions should also be calculated: total surgeries / total monthly admissions × 100 (see Comment 16 note below).*

Source: Authors' compilation from primary survey and facility records.

Given that 86% of outsourced HFs had functional OTs versus 57% of non-outsourced HFs, the absolute surgery count difference is partly a function of capacity availability rather than management quality. A surgery rate per 100 admissions (= total surgeries / total monthly admissions × 100) should be reported to provide a more meaningful comparison. For outsourced HFs: 185 surgeries / 31 admissions/day × 30 days = 185/930 × 100 ≈ 19.9 per 100 admissions. For non-outsourced: 128/2 admissions/day × 30 days = 128/60 × 100 ≈ 213 per 100 admissions. These normalized rates should replace or supplement absolute counts in the final version.

Outsourced HFs performed better in most hospital management parameters. For most indicators, outsourced HFs achieved performance levels exceeding 80%, whereas non-outsourced HFs mostly fell below 60%. Clinical audits were almost non-existent in non-outsourced HFs, while 29% of outsourced HFs reported undergoing a clinical audit in the previous month.

Table 3:Indicators of Laboratory Services

Indicators	Outsourced HFs Yes%/n	Non-Outsourced HFs Yes%/n
Does the hospital offer in-house laboratory services?	100%	100%
Is the laboratory functional?	100%	100%
Does the facility provide lab services to OPD patients per EPHS?	100%	71%
Tests performed in hospital laboratory (last month)*	6,101	6,777
Does the facility provide lab services to admitted patients per EPHS?	100%	57%
Does the Hospital provide lab services to ER patients per EPHS?	100%	86%
Does the lab have capacity for 100% of test types per EPHS?	57%	57%
Does the hospital provide Radiology services per category?	86%	57%
Does the Hospital provide radiology services to OPD patients per EPHS?	86%	57%
Does the Hospital provide radiology services to admitted patients per EPHS?	71%	43%
Does the Hospital provide Radiology services to ER patients per EPHS?	86%	57%

Source: *Authors' compilation from primary survey and facility records*.

Provision of laboratory services in accordance with the Essential Package of Healthcare Services (EPHS) is a contractual obligation for outsourced implementing partners under KPHF contract schedules and a policy standard for DoH facilities under the KP Health Policy 2018–2025. It does not carry the force of independent statute but constitutes a binding operational standard under the respective governance arrangements.

Nearly 100% of outsourced HFs provided laboratory services in accordance with EPHS standards for both admitted and emergency room (ER) patients. In contrast, the percentages were lower for non-outsourced HFs, at 57% for admitted patients and 86% for ER patients. The average laboratory service coverage for non-outsourced HFs across the three patient categories (OPD 71%, admitted 57%, ER 86%) was 71% consistent with the abstract revision.

Table 4: Availability of EmONC Services

Indicators	Outsourced HFs Yes%/n	Non-Outsourced HFs Yes%/n
Does this hospital offer EmONC services?	86%	71%
Capacity to administer parenteral antibiotics?	86%	71%
Capacity to administer Parenteral Uterotonics?	86%	43%
Capacity to administer Parenteral Anticonvulsants (magnesium sulphate)?	86%	43%
Staff trained to manually remove the placenta?	86%	86%
Capacity to remove retained products of conception?	86%	86%
Staff trained on assisted vaginal delivery?	86%	71%
Staff trained to perform basic neonatal resuscitation?	86%	86%
Hospital offers C-section services for emergent cases?	57%	14%
Hospital offers blood transfusion for EmONC patients?	71%	14%
Hospital has labour room for SVD?	86%	86%
Hospital has capacity for C-Section?	57%	29%
SVDs carried out in labour room (last month)*	75	33
C-sections performed (last month)*	7.3	3.3

** One-month recall period. SVD = spontaneous vaginal delivery.*
Source: Authors' compilation from primary survey and facility records.

Most EmONC indicators (9 out of 12) showed response rates above 80% for outsourced HFs, whereas only four indicators exceeded 80% in non-outsourced HFs.

Table 5: Blood Transfusion, Preventative, and Other Services

Indicators	Outsourced HFs Yes%/n	Non-Outsourced HFs Yes%/n
Does the hospital offer blood transfusion services?	71%	57%
Blood transfusion centre with Blood Bank available?	71%	14%
Is the blood bank functional?	57%	14%
Pints of blood donated in blood bank (last month)*†	8.6	5
Blood transfusion procedures carried out (last month)*†	9.1	5
Does this hospital have ER available?	100%	100%
Does the ER operate 24/7?	100%	100%
Are disease/population-specific national health programmes‡ available?	86%	100%
Does the hospital offer EPI services (Routine Immunisation)?	86%	100%

Indicators	Outsourced HFs Yes%/n	Non-Outsourced HFs Yes%/n
Children fully immunised (last year) [see note §]	467	1,144
Hospital offers nutrition services to malnourished children/mothers?	100%	71%
Hospital offers MNCH preventive services?	100%	71%
Pregnant women provided antenatal care (last 3 months)*	588	348
Pregnant women provided postnatal care (last 3 months)*	72	30
Pregnant women referred by LHWs (last 3 months)*	5	3
Hospital has High Dependency Unit (HDU)?	43%	0%
Is the HDU functional?	43%	0%
Hospital has ICU?	29%	29%
Is ICU functional?	14%	14%
Functional referral mechanism?	100%	100%
Patients referred out (last month)*	14	43
Referral forms/slips provided to referred patients?	100%	71%
Referral forms available in all departments?	100%	71%
MOU with Rescue 1122 for ambulance services?	71%	57%
Hospital-owned ambulance service?	29%	29%
Ambulance visits for referred patients (last month)*	6.4	7.1
Children <5 with acute malnutrition at OTP sites (last month)*	224	38
Diarrhoeal cases (<5) admitted (last month)*	111	147
Pneumonia cases (<5) admitted (last month)*	64	47
EPI counselling sessions by health education staff (last month)*	12	21
Family planning counselling sessions (last month)*||	1	16
Complaint management systems in place?	86%	86%
Complaint boxes at prominent places?	86%	43%
Notified complaint management committee?	86%	57%
Complaints registered (last month)*	57%	29%
Complaints resolved to complainant satisfaction (% of total)	[X]%	[X]%

** One-month recall period (blood bank data: most recently completed calendar month prior to survey visit).*
Source: Authors' compilation from primary survey and facility records.

Blood bank footnote: Blood bank and transfusion data refer to the most recently completed calendar month prior to the facility survey visit.

Vertical/Disease: 'Vertical programmes' refers to disease- and population-specific national health programmes including: Expanded Programme on Immunisation (EPI), Lady Health Workers (LHW) Programme, National TB Programme, Malaria Control Programme, and MNCH Programme.

EPI immunisation note: The higher absolute number of fully immunised children in non-outsourced HFs (1,144 vs. 467) likely reflects differences in catchment population size, proximity to population centres with higher EPI demand, and near-universal EPI service availability (100% vs. 86%). When normalised by estimated catchment population or OPD volume, the immunisation coverage differential may narrow. This underscores that outsourced HFs do not outperform non-outsourced facilities across all service domains, particularly for established vertical programmes with dedicated government staffing and supply chains.

Family planning note: Non-outsourced HFs reported significantly higher family planning counselling activity (16 vs. 1 session/month). This may reflect dedicated MNCH staff or Lady Health Supervisors in non-outsourced facilities accountable to DoH vertical programmes. Outsourced facilities may deprioritise family planning counselling relative to curative service delivery under IP management incentive structures. This warrants further investigation.

Complaints resolution: Raw absolute average (2 vs. 1.4) replaced with % of complaints resolved to complainant satisfaction out of total complaints lodged. [Recalculate from raw data and insert X%. Note: fractional averages such as 1.4 are an artefact of averaging across facilities and should not be reported as a count.

LHW REFERRAL NOTE: The low number of LHW referrals to hospital facilities (5 per outsourced HF over 3 months) may reflect the primary role of LHWs in community-level preventive care and their typical referral pathway to BHUs/RHCs rather than hospitals, rather than indicating weak referral linkages.

Table 6: Indicators of Waste Management

Indicators	Outsourced HFs Yes%/n	Non-Outsourced HFs Yes%/n
Do waste transportation vehicles have logbooks?*	71%	29%
Are the logbooks for waste transportation vehicles updated?*	57%	29%
Does this hospital have an incinerator for final disposal?	43%	43%
Is the incinerator functional at time of visit?	29%	43%
Are IP&C and Waste management manuals/guidelines available?	71%	29%
Are Waste management manuals/guidelines available?	71%	43%
Does this hospital have a notified IP&C committee?	86%	14%
Is autoclave of adequate capacity available?	100%	71%
Is the autoclave functional at time of visit?	100%	57%
Are colour-coded bins installed at all relevant sites?	100%	57%
Is pit hole available for dumping/burning of non-infectious waste?	100%	86%

*Note: * Logbook update frequency (Comment 28): Among facilities with updated logbooks, updates were recorded on a per-trip or daily basis (verify from data). Logbook update frequency is an indicator of operational regularity in waste transport management.*
Source: Authors' compilation from primary survey and facility records.

Waste management services were more organised, documented, and properly implemented in outsourced HFs. Only 14% of non-outsourced HFs had established an IP&C committee, compared to 86% of outsourced HFs.

Table 7: Indicators of Health Regulations

Indicators	Outsourced HFs Yes%	Non-Outsourced HFs Yes%
Compliance with MSDS notified by KPHCC	29%	14%
Hospital equipped as per specialties?	86%	29%
Lab and Diagnostic Services per EPHS?	100%	43%
PNRA approval (for ionising radiation equipment)*	86%	57%
DRAP/Pharmacy Council approval (pharmacy operations)**	86%	43%
Standard Policy for Informed Consent	86%	57%
Standard Form for Informed Consent	86%	57%
Complaints properly heard and disposed of (findings of clinical/admin inquiries)***	71%	71%

Indicators	Outsourced HFs Yes%	Non-Outsourced HFs Yes%
Findings of inquiries used as QI tool***	71%	71%
Formal written contractual arrangement for local purchases†	71%	43%
Centrally procured items supplied within time?	71%	71%
Available HR duly qualified‡	100%	71%
Standard HR Recruitment Process in place§	86%	86%
Verification of Credentials in place	86%	71%

Source: *Authors' compilation from primary survey and facility records*.

*** PNRA approval:** Required for facilities operating ionising radiation equipment, including X-ray machines and fluoroscopy units.

**** DRAP/Pharmacy Council approval:** Applies to facilities dispensing medicines, certifying that pharmacy operations meet drug storage, dispensing, and record-keeping standards.

***** Inquiries specification:** 'Findings of inquiries' refers specifically to findings of clinical incident reviews, patient complaint investigations, and routine monitoring visits used as inputs for quality improvement planning.

† Local purchases: A formal written contractual arrangement is in place with approved local vendors for routine procurement of consumables, medicines, and supplies outside the central procurement system.

‡ HR qualification: 'Duly qualified' is assessed against minimum academic and professional registration requirements: MBBS or equivalent for medical officers, registered nursing qualification for nurses, and relevant technical diplomas for paramedical staff, with current PMDC-equivalent registration where applicable.

§ Standard HR recruitment: The standard HR recruitment process is defined in the KPHF PPP Rules 2017 for outsourced facilities and the KP Establishment Code for non-outsourced DoH facilities. It includes advertised vacancy announcement, documented shortlisting, structured interview, credential verification, and reference checks prior to appointment.

Compliance with standards was relatively better in outsourced HFs. Most outsourced HFs were well equipped with specialised departments, laboratories, and diagnostic services.

6.2.2. Qualitative Data Findings

IDIs were conducted with communities in outsourced and non-outsourced settings to assess their perceptions of service availability and quality. The community's perceptions were categorised into themes such as patient care, access, infrastructure, governance, and finance.

> *"We are very much satisfied with this health facility. We don't take our patients to private hospitals, but here, to the government hospital, because the health facilities provided here are much better. (IDI-002-line 9 to 11)"*

Participants praised the staff's dedication and commitment to patients' health and appreciated the availability of necessary treatments. However, the availability of services varied depending on the HF category. The community expressed concern over the lack of certain services, particularly specialised ones, and issues with drug availability.

> *"The specialist doctors do not prefer working in remote areas like this. They do not have any proper facilities, such as proper places to live. (IDI-007-Line 39 to 43)"*

From the community's perspective, receiving basic primary care from nearby facilities is highly important. While the community understands that referrals for certain specialised treatments may be necessary, they still value the availability of nearby services that are affordable and of high quality.

SEHAT SAHULAT CARD CONTEXT: Pakistan's Sehat Sahulat Programme (SSP) is a government-funded health insurance scheme providing cashless inpatient care coverage of up to PKR 1,000,000 per family per year at enrolled public and private facilities. In KP, the scheme is a key financial protection mechanism, particularly for low-income households accessing secondary and tertiary care. Community respondents noted that SSP coverage was contingent on possession of a valid Computerised National Identity Card (CNIC), creating a significant access barrier for households without documentation:

> *"Patients having their ID Cards, their medicines are adjusted in the Sehat Card. But those who don't have their ID Cards with them cannot be provided medicine in the Sehat Card Scheme; he/she spends around 3–4 thousand rupees, including medicines, transport, etc. (IDI 004-line 27 to 29)"*

Discussion: The overall performance of outsourced HFs was significantly better in terms of service availability, utilisation, standards, and regulations. However, non-outsourced HFs outperformed in certain preventive programmes such as immunisation and family planning. Qualitative feedback from the community ranged from satisfaction to concerns about lack of specialised services. Community assessments are influenced by experiential factors such as waiting times, infrastructure, and staff attitudes rather than objective service quality measures.

6.3. Health Workforce

6.3.1. Quantitative Data Findings

Table 8: Health Workforce Quantitative Evaluation

Questions	Outsourced HF %/Number	Non-Outsourced HF %/Number
Percentage of health workforce retention	88%	67%
Number of new positions created annually	21	0
Number of recruitment cycles completed annually	14	1
Percentage of staff marking attendance per duty roster	93%	78%
Number of biometric attendance machines installed	12	5
Number of Training Needs Assessment (TNA) activities annually	22	14
Number of training plans prepared based on TNAs	11	0
Number of training sessions conducted per approved plan (annually)	9	0
Number of dedicated training halls available and well maintained	7	3
Number of hands-on training workshops conducted annually	5	3
Staff attending professional courses facilitated by hospital admin	0	0
Total number of staff hired	865	1,051
Staff hired by IPs in HF	451	0
Staff hired by the DoH	414	1,051
Number of staff not required in the HF	7	0
Training conducted by DoH	2	13
Training conducted by HF	10	2
Training conducted by other bodies	13	2

Source: Authors' compilation from primary survey and facility records.

Data analysis showed that outsourced HFs had a higher workforce retention rate (88%) than non-outsourced HFs (67%). Outsourced HFs demonstrate proactive human resource practices, with 21 new positions created annually and 14 recruitment cycles completed, compared to no new positions and only one recruitment cycle in non-outsourced HFs. Attendance compliance was stronger in outsourced HFs (93%) than in non-outsourced HFs (78%).

6.3.2. Qualitative Data Findings (Thematic Analysis)

6.3.2.1. Effective Workforce Retention and Management

The health workforce thematic analysis revealed that 92% of health facility staff positions were filled, leaving 8% vacant. Despite this, many positions remain practically unfilled due to various factors, such as staff leaves, deputations, and resignations.

> *"About 92% of the staff in all health facilities are filled, while the remaining 8% are vacant. (IDI-001-line 19-20)"*
>
> *"Some positions remain vacant because we have been unable to find suitable specialists because of competitive salaries. (IDI-002-line-14-15)"*

6.3.2.2. Employee Growth and Capacity Building

Employee training is critical, with HFs providing regular sessions on various systems such as DHIS and EMR, along with vertical programmes such as EPI and TB.

> *"We periodically provide training; for instance, we recently held a training session on disaster risk management. (IDI-HW-003-Line 83 to 85)"*

6.3.2.3. Performance Optimisation and Accountability

A robust patient feedback mechanism is in place in outsourced HFs, where dedicated staff collect post-treatment feedback to evaluate service quality. Attendance is monitored through biometrics, and penalties are imposed for noncompliance.

> *"Most of the outsourced health facilities employed a biometric system, though many non-outsourced still maintain a manual system. (IDI-HW-003 Line 55)"*

6.3.2.4. Financial and Budgetary Considerations

Financial constraints hinder the implementation of necessary solutions, such as biometric systems and solar panels, across health facilities.

> *"The department currently lacks the funds to implement these solutions (biometric, solar panels, UPS provisions) across all non-outsourced health facilities. (IDI-HW-003-Line 71 to 72)"*

Discussion: Outsourced HFs exhibit a higher workforce retention rate (88%) vs. non-outsourced HFs (67%), reflecting more effective human resource management. Training activities are more prevalent in outsourced HFs, with 22 TNAs conducted annually versus 14 in non-outsourced HFs. Financial constraints in non-outsourced HFs limit implementation of necessary solutions, highlighting the benefits of flexible budgeting in outsourced facilities, despite challenges such as delayed fund releases.

6.4. Hospital Management Information System

6.4.1. Quantitative Data Findings

Table 9: HMIS Quantitative Evaluation

Questions	Outsourced HFs %/Number	Non-Outsourced HF %/Number
Availability of EMR for central patient registration	71%	14%
% of patients registered digitally on EMR at first contact	71%	14%
% of Laboratory Information Management System in place	85%	28%
Monthly laboratory management system reports complete (number)	71%	71%
Training sessions for lab staff on LMIS usage (number)	14	2
% of Pharmacy Management System in place	71%	28%
System-generated pharmacy consumption reports shared (number/month)	8	9
Monthly HMIS/EMR reports prepared and submitted on time	71%	57%
Monthly HMIS/EMR reports complete in all respects	71%	57%
Data validation exercises by statistical office (last quarter)	15	5
Staff trained on standardised data recording and reporting tools	85%	57%
Queue management system installed	57%	28%
Queue management system functional at time of visit	57%	14%
HR management system available at the health facility	100%	57%
All HR enlisted in HR management system	100%	57%
Staff vacancy status retrievable with one click	100%	57%
Vacancy status report submitted to competent authority monthly	100%	71%
Monthly DHIS/HMIS reporting rate for current annum	100%	58%
Monthly data review meetings (reporting quarter)	71%	29%
Monthly reports complete in all respects (number)	25	18
Data validation exercises by statistical officer (last quarter)	28	8
Monthly reports prepared and submitted on time (number)	14	9
Time in/time out reports generated daily for HF in-charge review	4	2
Staff marking attendance per duty roster (%)	80%	87%
CCTV monitoring control room established	7	3
CCTV cameras installed at relevant sites (number)	168	118
CCTV control room staff trained on surveillance protocols	6	3
CCTV control room staff trained on recording/reporting incidents	6	3

Source: Authors' compilation from primary survey and facility records.

Outsourced HFs demonstrate significantly stronger health information system capabilities. 71% had EMR systems vs. 14% of non-outsourced HFs. LMIS were present in 85% of outsourced HFs vs. 28%. Outsourced HFs conducted 14 training sessions for lab staff on LMIS vs. 2 in non-outsourced HFs.

6.4.2. Qualitative Data Findings (Thematic Analysis of HMIS IDIs)

6.4.2.1. HMIS Implementation Strategy and Infrastructure

The HMIS is a comprehensive tool encompassing HR, logistics, finance, and outpatient services, centralising hospital management. Despite initial challenges, the system has significantly improved operations in both model types.

PAPER-BASED EXPLANATION: Non-outsourced HFs continue to rely on manual, paper-based reporting primarily due to the absence of IP-funded IT infrastructure, limited capital budgets for hardware procurement, unreliable electricity supply in remote locations, and insufficient HMIS training provided to DoH-employed staff. Unlike outsourced facilities where implementing partners fund and manage digital systems as part of their operational mandate, non-outsourced facilities depend on central DoH ICT procurement cycles, which have been slow and inconsistently resourced.

> *"A specialised HMIS and Biometric Attendance System is installed in all outsourced HFs, managed by the IPs. (IDI-HMIS-002-line-67 to 68)"*
>
> *"The LMIS has significantly improved operations, particularly in managing medicine inventory, expiry dates, and stock levels in outsourced HFs. (IDI-HMIS-003-line 24 to 26)"*

6.4.2.2. Operational Efficiency

HMIS integrates hospital departments, ensuring seamless data sharing across laboratories, pharmacies, and other departments once a patient registers in the OPD.

6.4.2.3. Human Resources and Capacity Building

HMIS implementation includes organised staff training and transitioning from manual to computerised systems.

> *"We have to train someone on reception for OPD, diagnosis, patient registry, patient booking — so we have to make sure that we remove the manual book/register. (IDI-001-HMIS-Line 56 to 59)"*

Discussion: Outsourced HFs have 71% and 85% EMR and LMIS implementation respectively, compared to just 14% and 28% in non-outsourced HFs. Outsourced HFs also demonstrate superior HRM with 100% having operational HR management systems.

6.5. Monitoring and Evaluation

6.5.1. Quantitative and Qualitative Data Findings

The Monitoring, Evaluation, and Learning (MEL) system within the tripartite arrangement is complex, requiring a clear understanding of roles and responsibilities. HFs, especially outsourced

ones, have well-organised data capture and reporting mechanisms. However, the main weakness lies in data use and consequent evidence-based incremental improvements.

Although KPHF is proficient in managing and tracking contracts, there is room for improvement in evaluating broader outcomes. The reactive approach to monitoring outsourced HFs, combined with involvement of the DoH and IMU, indicates stakeholders can conduct thorough evaluations when necessary. However, their current role remains limited to monitoring contract KPIs.

> *"Our system does a good job of keeping track of contracts, making sure they are being followed properly. However, when it comes to broader evaluations, such as assessing the overall impact of our efforts, we are somewhat limited. (IDI – KPHF)"*

DUAL SYSTEM EFFICIENCY: While the dual approach of using both EMR systems and manual methods provides operational resilience in environments with unreliable connectivity, it introduces risks of data inconsistency, double-entry burden, and version control errors. It is not the most efficient long-term solution; rather, it represents a pragmatic adaptation to infrastructural constraints. A phased transition plan with clear timelines for fully digital operations, contingent on improved electricity reliability and internet connectivity, would be more appropriate than indefinitely maintaining parallel systems.

The regular use of data from HF to the strategic level remains a challenge, limiting the effectiveness of data collection efforts. There is a significant shortage of M&E personnel to support strategic goals at the DoH, KPHF, and IP levels.

> *"Yes, there are challenges at multiple levels. Electricity is an issue. Internet access is also a challenge, making it difficult to use tools such as the HMIS. (IDI – implementing partner)"*

Financial constraints pose a serious challenge, limiting stakeholders' ability to build and implement an effective M&E system.

CONCLUSION

This comparative evaluation demonstrates that outsourced health facilities in Khyber Pakhtunkhwa generally outperform non-outsourced facilities in terms of financial management, service delivery, workforce retention, and digital health adoption. These performance advantages suggest that the public-private partnership model, when properly implemented through the KPHF, can deliver improved healthcare access and quality, particularly in rural and underserved areas.

However, the findings also reveal that performance differences stem substantially from differential operational conditions rather than the inherent superiority of private management over public management. Non-outsourced facilities operate under severe constraints — such as delayed fund releases averaging 4 months, lack of hiring autonomy, centralised procurement bottlenecks, and limited management authority — which would challenge any management model. The question is not simply 'which model is better' but rather 'under what conditions does each model perform optimally.'

Both models share critical governance deficits, including zero regulatory compliance with KPHCC licencing, ambiguous legal frameworks, weak accountability mechanisms, and insufficient quality assurance oversight. These systemic weaknesses undermine the potential of both approaches and represent priority areas for policy reform.

MERF and AKHSP demonstrated superior governance and outcomes compared to smaller implementing partners, suggesting that IP capacity and experience significantly influence the success of PPPs.

Sustainability of improved PPP performance requires stronger legal frameworks, enhanced KPHF oversight capacity, meaningful regulatory enforcement by KPHCC, and equitable operational conditions for public facilities. Without these systemic reforms, observed performance differences may narrow as constraints accumulate.

POLICY RECOMMENDATIONS

Based on the comparative evaluation findings, the following evidence-based recommendations aim to strengthen both outsourced and non-outsourced health facility management in Khyber Pakhtunkhwa:

8.1. Strengthen Legal and Governance Frameworks

- Amend the KPHF Act 2016 to clarify the definition of 'outsourcing', establish clear authority over HR management, define performance standards, and create binding accountability mechanisms.
- Develop a DOH operational autonomy policy granting facility managers defined decision-making authority for routine expenditures, local hiring, and operational management.
- Establish a unified health facility governance coordination body to harmonise KPHF, DOH, and KPHCC oversight roles.
- Standardise terms of reference for Hospital Management Committees to have meaningful decision-making authority and community representation.
- Implement transparent, performance-based contract renewal processes with clear KPIs and evaluation procedures.

8.2. Enhance Regulatory Compliance and Quality Assurance

- Mandate KPHCC licencing for all facilities (outsourced and non-outsourced) with an 18-month compliance timeline and technical support. An 18-month compliance timeline is proposed to allow facilities adequate time to: (1) conduct gap assessments against MSDS requirements (months 1–3); (2) implement structural and process improvements with KPHCC technical support (months 4–12); and (3) undergo formal KPHCC inspection and licensing (months 13–18). This phased approach is consistent with health facility quality improvement timelines used in comparable LMIC contexts (IFC Health in Africa; USAID ASSIST Programme). A shorter timeline risks superficial compliance; a longer timeline delays patient safety protections.
- Strengthen KPHCC capacity through dedicated budget allocations for facility inspections, quality assessments, and enforcement actions.
- Establish penalties for non-compliance applicable to both the DOH and implementing partners.
- Create a quality assurance framework with biannual third-party assessments measuring WHO quality dimensions.
- Implement accessible patient grievance redressal mechanisms at facility and provincial levels.
- Develop a facility accreditation system that recognises excellence and incentivises quality improvement.

8.3. Improve Financial Management and Accountability

- Guarantee timely quarterly fund releases to both outsourced and non-outsourced facilities through a dedicated budget line. Root causes of delays: Delays in fund disbursement — averaging four months for outsourced facilities vs. two weeks for DoH releases — stem from multi-stage government approval processes involving the Finance Department, KPHF,

and the DoH budget release cycle, compounded by non-integrated accounting systems and the absence of pre-authorised operational reserves. Addressing delays requires procedural reform, dedicated budget line items, and pre-approved quarterly disbursement schedules agreed at the start of each financial year.

- Grant non-outsourced facility managers financial autonomy of up to PKR 500,000 for routine operational expenditures. The PKR 500,000 threshold is proposed based on: (1) the average monthly operational budget of comparable-category non-outsourced facilities; (2) the value of procurement decisions causing operational disruption when delayed (maintenance, consumables, minor equipment repair); and (3) benchmarking against existing DoH procurement rules where the current limit is substantially lower and creates disproportionate delays. This threshold should be reviewed and formally established in consultation with the Finance Department and adjusted for inflation periodically.
- Implement real-time financial monitoring dashboards accessible to KPHF, DOH, and the Finance Department.
- Conduct annual independent audits of implementing partners with public disclosure of findings.
- Establish a means-tested exemption policy for indigent households, with the exemption threshold and quota determined through a participatory poverty assessment and aligned with the Sehat Sahulat Programme eligibility criteria. The arbitrary 30% figure is removed as it lacks empirical basis in this study's data.
- Create operational reserve funds accessible during emergencies to prevent service disruption.
- Develop performance-based financing components that reward quality and equitable outcomes.

8.4. Strengthen Health Management Information Systems

Rather than introducing new parallel systems, prioritise the full utilisation and standardisation of existing DHIS2 infrastructure across all facilities. Invest in data quality improvement, staff training, and analytical capacity within the existing HMIS framework. Any expansion of digital systems should be evaluated against the existing infrastructure landscape and implemented through an integration-first approach to avoid further fragmentation.

Given documented challenges — electricity instability, limited connectivity, and insufficient trained personnel — a phased, infrastructure-first approach to EMR expansion is recommended. Phase 1 (months 1–12): ensure all facilities have reliable power supply (solar backup), internet connectivity, and trained HMIS focal persons. Phase 2 (months 13–24): pilot EMR at Category C and above facilities based on lessons learned. Phase 3 (months 25–36): scale to Category D facilities contingent on Phase 2 evaluation.

- Provide comprehensive HMIS training for facility staff (40 hours initial + 8 hours annual refresher).
- Assign dedicated HMIS focal persons to each facility with protected time.
- Invest in IT infrastructure: reliable internet connectivity, computers, backup power, and cyber security.
- Conduct quarterly data quality audits with feedback and corrective actions.

- Develop HMIS performance dashboards for management decision-making.

8.5. Address Human Resource Challenges

- Conduct a formal salary benchmarking exercise comparing public sector health worker remuneration against private sector equivalents in KP to quantify the retention gap. Use the results to negotiate revised public sector pay scales, prioritising specialties with documented high vacancy rates. The target differential should be evidence-based; benchmarking studies from comparable LMIC settings suggest that differentials exceeding 30–40% significantly increase attrition risk. The arbitrary 10% figure is removed as it lacks empirical justification from this study's data.
- Accelerated career progression for public facility staff based on performance and continuing education.
- Provide housing, security, and hardship allowances for remote location postings.
- Create a continuing professional development fund for specialised training and conference participation.
- Implement rotation policies allowing exposure to both outsourced and non-outsourced facility experiences.
- Offer government-funded specialty training scholarships (bond requirement: three years of service in KP).
- Develop HR management autonomy for facility managers in both models for rapid vacancy filling.

8.6. Enhance Value for Money and Sustainability

- Conduct annual cost-effectiveness analyses comparing the models using quality-adjusted metrics. To be conducted by an independent health economics unit, commissioned jointly by the KPHF and the DoH Planning Cell, with support from academic institutions or international technical partners. Findings should be publicly disclosed and used to inform PPP contract renegotiation cycles.
- Implement activity-based costing systems to identify opportunities for efficiency improvement.
- Pilot results-based financing that rewards quality outcomes, patient satisfaction, and equity.
- Develop sustainable funding through provincial health insurance expansion and strategic purchasing.
- Create tiered incentive structures for implementing partners to achieve excellence benchmarks.
- Pilot community health insurance schemes to reduce out-of-pocket expenses. Any community health insurance pilot must explicitly address the CNIC documentation barrier identified in the community IDIs. Households without valid CNICs — disproportionately affecting refugee populations, women, and rural poor — are currently excluded from the Sehat Sahulat Programme. Enrolment mechanisms should allow alternative forms of local identification (e.g., UC-issued residency certificates, biometric registration) to ensure insurance coverage reaches the most vulnerable populations.
- Establish social audit mechanisms with community participation to ensure accountability.

STUDY LIMITATIONS

While providing robust comparative evidence, this study has some limitations:

- Cross-Sectional Design: Snapshot assessments limit understanding of trends and long-term sustainability.
- Sample Size: Although expanded to 10 facilities, findings may not be fully generalisable to all facilities, particularly those in extremely remote areas.
- Geographic Concentration: Accessible facilities were overrepresented, and extremely remote facilities were underrepresented.
- Matching Limitations: While facilities were matched on category, district, and demographics, unobserved confounding factors may have influenced performance differences.
- Self-Reported Data: Some metrics relied on facility records and self-reporting, potentially containing inaccuracies.
- Patient Perspectives: Time constraints limit the depth of community perception studies and patient outcome tracking.
- Dynamic Context: Findings reflect 2024–2025 conditions which may shift with policy changes.
- External Patient Costs: Medicines purchased outside facilities and transport costs were not comprehensively captured.
- Implementing Partner Variations: Performance averaged across IPs may mask important differences; MERF and AKHSP outperform smaller partners.
- Political Economy: Studies focused on operational performance; political, institutional, and stakeholder dynamics affecting sustainability received limited analysis.

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ANNEXURE

Table 10: Outsourced Health Facilities

S.No	DHIS Code	Outsourced Hospital	District	Implementing Partner
1	801041	Cat-D Hospital, Mamund	Bajaur	TRANS Continental Pharma Pakistan (TCP)
2	801007	Cat-D Hospital, Nawagai	Bajaur	TRANS Continental Pharma Pakistan (TCP)
3	807019	Cat-D Hospital, Pashat	Bajaur	TRANS Continental Pharma Pakistan (TCP)
4	812001	Cat-D Hospital, Darazinda	FR DI Khan	TRANS Continental Pharma Pakistan (TCP)
5	804044	Cat-D Hospital, Alizai	Kurram	TRANS Continental Pharma Pakistan (TCP)
6	807136	Cat-D Hospital, Sholam	South Waziristan	TRANS Continental Pharma Pakistan (TCP)
7	807053	Cat-D Hospital, Toi Khula	South Waziristan	TRANS Continental Pharma Pakistan (TCP)
8	803063	Cat-D Hospital, Bazar Zakakhel	Khyber	Medical Emergency Resilience Foundation Pakistan (MERF)
9	804068	Cat-D Hospital, Dogar	Kurram	Medical Emergency Resilience Foundation Pakistan (MERF)
10	802045	Cat-D Hospital, Mamad Gat	Mohmand	Medical Emergency Resilience Foundation Pakistan (MERF)
11	805067	DHQ Hospital, Misthi Mela	Orakzai	Medical Emergency Resilience Foundation Pakistan (MERF)
12	805038	Cat-D Hospital, Ghiljo	Orakzai	Medical Emergency Resilience Foundation Pakistan (MERF)
13	807133	Cat-D Hospital, Mola Khan Serai	South Waziristan	Medical Emergency Resilience Foundation Pakistan (MERF)
14	807001	DHQ Hospital, Wana	South Waziristan	Medical Emergency Resilience Foundation Pakistan (MERF)
15	323001	DHQ Hospital, Dassu	Kohistan	NATIONAL INTEGRATED DEVELOPMENT ASSOCIATION (NIDA)
16	343033	RHC Mastuj	Upper Chitral	Agha Khan Health Services
17	343057	THQ Hospital, Garamchashma	Lower Chitral	Agha Khan Health Services
18	806053	Cat-D Hospital, Razmak	North Waziristan	HANDS

Source: Authors' compilations from KP Health Foundation.