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"Value-Based Healthcare in Palestine: Strategic Assessment, Challenges and Recommendations"

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Dissertation Approval

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Declaration

I hereby confirm that this dissertation, submitted in pursuit of a PhD degree, represents my original research work, except that it was acknowledged otherwise. I also declare that it has not been submitted to any other university or institution to obtain a higher qualification.

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Dedication

In the name of Allah, the Most Merciful, the Most Gracious.

To my esteemed teacher, Prophet Mohammed.

To my homeland, Palestine, a beacon of resilience and hope, and to Jerusalem, the eternal heart of my dreams.

To the martyrs and prisoners whose sacrifices inspire generations.

To my beloved parents, whose unconditional love, endless prayers, and unwavering belief in me have shaped every step of this journey.

To my family, whose support and encouragement have been my anchor.

To every mentor, teacher, and friend who nurtured my curiosity and empowered my ambitions.

To all those who dream boldly and strive tirelessly to turn aspirations into achievements.

This dissertation is dedicated to the pursuit of knowledge, the courage to dream, and the power of perseverance.

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To my siblings, who have always been my greatest supporters and brought light to even the darkest days, your belief in me and your laughter has been invaluable.
To my friends and colleagues, who have shared the highs and lows of this process: thank you for your camaraderie, motivation, and the moments of levity that made this journey so memorable.

Finally, to my beloved parents, your love and sacrifices have been the foundation of my achievements. Dad, your faith in me and constant encouragement kept me going through challenges. Mom, your care, wisdom, and values have guided me throughout. You've shown me resilience, dedication, and unconditional love. This work is a tribute to your boundless support.

With deepest gratitude,

Many thanks, Baraah Ahmad Hasan Samara

Abstract

Background: This study aims to evaluate the implementation of Value-Based Healthcare (VBHC) in Meso-level hospitals in Palestine, focusing on its potential to improve patient outcomes while optimizing healthcare costs. VBHC emphasizes integrated care, outcome measurement, and patient-centered approaches, making it particularly relevant in addressing the unique challenges of the Palestinian healthcare system, which is marked by political instability, resource constraints, and fragmented governance.

Methodology: A mixed-methods approach was employed, combining quantitative surveys and qualitative interviews with healthcare professionals and policymakers. The collected data were analyzed to assess the extent of VBHC adoption. The study focused on six key VBHC components: Integrated Practice Units (IPUs), outcome and cost tracking, bundled payment models, multi-site integration, geographic expansion, and IT platform utilization.

Result: The study reveals significant deficiencies in implementing Value-Based Healthcare (VBHC) in Palestinian hospitals, with a low overall mean score of 2.46. All VBHC constructs scored poorly (2.12–2.8), highlighting inadequate governance frameworks, insufficient IT infrastructure, and cultural resistance as major barriers. While some progress has been made in tracking outcomes and cost efficiency, the lack of integrated care delivery systems and bundled payment mechanisms hinders full adoption. Regional disparities in healthcare quality and access further complicate VBHC integration. Recommendations include enhancing governance, fostering collaboration, and investing in IT infrastructure to support data transparency and tailored reforms for Palestine.

Conclusion: This research demonstrates the potential of VBHC to transform healthcare delivery in Palestine by addressing inefficiencies and improving patient-centered outcomes. However, realizing this potential requires overcoming systemic, cultural, and infrastructural challenges. The study's recommendations provide actionable insights for policymakers and healthcare providers, contributing to a global discourse on the feasibility of VBHC in conflict-affected and resource-limited settings.

Keywords: Value-Based Healthcare, Integrated Practice Units, Palestinian Healthcare System, Patient-Centered Care, Healthcare Governance, Outcome Measurement, Healthcare Reform.

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List of Abbreviations

No.	Abbreviation	Meaning
1.	WHO	World Health Organization
2.	GDP	Gross Domestic Product
3.	MENA	Middle East and North Africa
4.	VBHC	Value-Based Healthcare
5.	IPU	Integrated Practice Unit
6.	IT	Information Technology
7.	UNRWA	United Nations Relief and Works Agency
8.	MoH	Ministry of Health
9.	NGOs	Non-Governmental Organizations
10.	EHRs	Electronic health records
11.	PCBS	Palestinian Central Bureau of Statistics
12.	PROMs	Patient-Reported Outcome Measures
13.	PREMs	Patient-Reported Experience Measures
14.	TDABC	Time-Driven Activity-Based Costing
15.	VBP	Value-Based Payment
16.	MDT	Multidisciplinary Team
17.	DSU	Day Surgery Unit
18.	PROs	Patient-Reported Outcomes
19.	TKA	Total Knee Arthroplasty
20.	ERAS	Enhanced Recovery After Surgery
21.	CHOP	Children's Hospital of Philadelphia
22.	APN	Advanced Practice Nursing
23.	CRC	Colorectal Cancer
24.	PSDMA	Patient Surgery Decision-Making Aides
25.	COPD	Chronic Obstructive Pulmonary Disease
26.	PERTs	Pulmonary Embolism Response Teams
27.	PE	Pulmonary Embolism
28.	DALYs	Disability-Adjusted Life Year
29.	HWAR	Health Workforce Accreditation and Regulation
30.	ePROs	Electronic Patient-Reported Outcomes
31.	HRQoL	Health-Related Quality of Life
32.	HM	Healthcare Monitor
33.	SCORE	Stroke Cohort Outcomes of Rehabilitation
34.	QoL	Quality of Life
35.	EQ-VAS	EuroQol-Visual Analogue Scales
36.	OHS	Occupational Health and Safety
37.	TS	Turner Syndrome
38.	ICHOM	International Consortium for Health Outcomes Measurement

39.	IBD	Inflammatory Bowel Disease
40.	NHS	National Health Service
41.	OPCS-4	Office of Population Censuses and Surveys
42.	ICD-10	International Classification of Diseases
43.	ICM	Integrated Care Model
44.	TDABC	Time-Driven Activity-Based Costing
45.	ABC	Activity-Based Costing
46.	CDVC	Care Delivery Value Chain
47.	HR	Human Resource
48.	APPs	Advanced Practice Providers
49.	PACU	Post-Anesthesia Care Unit
50.	CDA	Congenital Dyserythropoietic Anemia
51.	VFC	Virtual Fracture Clinic
52.	TFC	Traditional Fracture Clinic
53.	DES	Discrete Event Simulation
54.	UVMMC	University of Vermont Medical Center
55.	TAVR	Transcatheter Aortic Valve Replacement
56.	SAVR	Standard Aortic Valve Replacement
57.	CTR	Carpal Tunnel Release
58.	HDUs	High-Dependency Units
59.	QALYs	Quality Adjusted Life Years
60.	FFS	Fee-for-Service
61.	APMs	Alternative Payment Models
62.	CHIP	Children's Health Insurance Program
63.	AGA	American Gastroenterological Association
64.	ACG	American College of Gastroenterology
65.	ASGE	American Society for Gastrointestinal Endoscopy
66.	BPCI	Bundled Payments for Care Improvement Initiative
67.	ACO	Accountable Care Organizations
68.	NSQIP	National Surgical Quality Improvement Program
69.	PHN	Primary Health Networks
70.	PIP	Practice Incentives Program
71.	CON	Certificate of Need
72.	DRG	Diagnosis-Related Group
73.	PAC	Post-Acute Care
74.	PF	Physical Function
75.	IRFs	Inpatient Rehabilitation Facilities
76.	JHM	Johns Hopkins Medicine
77.	ASCs	Ambulatory Surgical Centers
78.	MCACO	Morehouse Choice Accountable Care Organization
79.	MCACO-ES	Morehouse Choice Accountable Care Organization and Education System

80.	CINs	Clinically Integrated Networks
81.	AECs	Ambulatory Endoscopy Centers
82.	SES	Surgical Endocrinology Service
83.	TQIP	Trauma Quality Improvement Program
84.	HTC	Hamad Trauma Center
85.	COE	Center of Excellence
86.	MDACN	MD Anderson Cancer Network
87.	CM	Community-Based
88.	MDACC	MD Anderson Cancer Center
89.	DHIs	Digital Health Interventions
90.	IoT	Internet of Things
91.	AI/PA	Artificial Intelligence, and Predictive Analytics
92.	ML	Machine Learning
93.	TKA	Total Knee Arthroplasty
94.	THA	Total Hip Arthroplasty
95.	ODI	Oswestry Disability Index
96.	CFUA	Cancer Follow-Up Application
97.	VAS	Visual Analog Scale
98.	IBD	Inflammatory Bowel Disease
99.	SMH	Specialty Medical Home
100.	GDPR	General Data Protection Regulation
101.	HIPAA	Health Insurance Portability and Accountability Act
102.	HIT	Health Information Technology
103.	CEO	Chief Executive Officer
104.	CFO	Chief Financial Officer
105.	CTO	Chief Technology Officer
106.	CMOs	Chief Medical Officers
107.	SD	Standard Deviation
108.	Q	Question
109.	ICU	Intensive Care Unit
110.	NCDs	Non-Communicable Diseases
111.	LMICs	Low- and Middle-Income Countries
112.	NHN	Netherlands Heart Network

Chapter One
Introduction

1.1 Background

Health is among the central pillars of any society, ensuring the well-being of its population (World Health Organization., 2007). The global healthcare system has dramatically evolved, and the core approach has become a patient-centered paradigm. Chronologically, health systems were organized to grant access to adequate care(Al Muammar et al., 2018). One of the historic moments concerning global health came about when the World Health Organization (WHO) developed a framework that defined six main building blocks for the excellent functioning of healthcare systems (De Savigny & Adam, 2009). These building blocks- service deliveries, health workforce, information systems, access to essential medicines, financing, and governance- are mutually reinforcing and represent the secret to sustained, effective healthcare (WHO., 2007) . This has been further reinforced by the increased demand for healthcare services, driven by rising populations and an aging demographic, which has further emphasized the importance of these pillars (Economist Intelligence Unit, 2016) .

The global healthcare sector grapples with complex adaptive challenges and poorly defined boundaries. Common issues include service delivery inefficiencies, care coordination problems, and rising healthcare costs, all of which contribute to poor outcomes (Harrison et al., 2021). These challenges are exacerbated by rising demand for healthcare services driven by an aging population, increasing chronic diseases, evolving lifestyles, fragmented healthcare systems (Economist Intelligence Unit, 2016), defensive medical practices, rapid technological advancements, and misaligned incentives that increase costs (Bozic, 2013). Further, Divergent objectives, values, and motivations among stakeholders challenge the healthcare sector. Hospitals seek to maximize revenue, health plans aim to reduce expenses, and physicians focus on increasing earnings. This emphasis on volume-based, rather than value-based, reimbursement models prioritize quantity over quality (Economist Intelligence Unit, 2016; Porter & Teisberg, 2007) The COVID-19 pandemic has intensified these pressures, revealing the lack of adequate strategies and resources to address these problems effectively (Nojszewska & Sielska, 2022). As a result, healthcare spending has surged in many countries, with several advanced economies dedicating more than 10% of their Gross Domestic Product (GDP) to healthcare (Economist Intelligence Unit, 2016) .

In the Middle East and North Africa (MENA) region, healthcare systems face challenges in promoting well-being and coordinating care delivery. However, their unique politics, policies, and socioeconomic factors lead to localized issues like inconsistencies in care quality, unequal care, and workforce shortages (Romaniuk et al., 2022; Saleh & Fouad, 2022). Jordan, Lebanon, and Egypt have invested significantly in their healthcare systems and infrastructure. Jordan has been recognized as the region's leading destination for medical tourism. However, each country still faces systemic challenges. Jordan's health system is strained due to the large influx of refugees, while Lebanon's healthcare sector has been severely affected by economic crises and political instability. In Egypt, despite the implementation of health reforms, there are constraints related to resources and fragmentation of health services (Asbu et al., 2017; Romaniuk et al., 2022). Conflicts, especially within countries like Yemen and Syria, make the general state of conflict one of the more significant challenges of the broader MENA region, where healthcare infrastructure has been so devastated that governments cannot deal with public health needs effectively. The COVID-19 pandemic underlined the fragility of health systems, particularly among conflict-affected states where the absence of cohesive infrastructure and clear policies hindered sufficient responses against the crisis.(El-Jardali et al., 2023; Saleh & Fouad, 2022).

The Palestinian case is thus highly unique in this regional context. The general Israeli-Palestinian conflict predominates the healthcare system within Palestine. It has significantly impacted access to healthcare and its quality from a socio-political point of view Keelan (2016). The West Bank and Gaza Palestinians encounter issues with limited mobility, resource limitation, and political instability. For instance, the blockade in Gaza, besides generalized poverty, has significantly affected the health delivery system (WHO, 2018). All these factors increased public health risks and reduced development opportunities (WHO, 2017) .

Value-based healthcare (VBHC) as a strategic response came because of inefficiency in the global health systems in how healthcare was organized, financed, and managed. Stemming from Porter's strategic management theory in the late 1980s (Porter, 1989), VBHC gained prominence in the early 2000s when Porter and Teisberg emphasized shifting from cost-based competition to a value-driven approach, where the primary focus is patient outcomes rather than cost control (Porter & Teisberg, 2006). Central to VBHC is a framework tailored to different countries' healthcare contexts, promoting patient-centered care by tracking outcomes and expenditures while shifting from fee-for-service to fee-for-value (Porter & Guth, 2012).

VBHC aims to improve healthcare efficiency by focusing on medical conditions, reducing waste in support services, enhancing patient outcomes by redesigning care pathways

(Cossio-Gil et al., 2022), and optimizing human and material resources (Lansdaal et al., 2022). In this model, "value" is defined by the health outcomes achieved relative to the cost of care (Porter & Guth, 2012) and integrates principles from evidence-based medicine, patient-centered care, and cost-effectiveness but distinctively prioritizes value as the critical metric for healthcare success, placing the patient's perception of successful outcomes at the core (Porter et al., 2012). It promotes equitable health outcomes and encourages greater social involvement (Nojszewska & Sielska, 2022).

For VBHC to succeed, all stakeholders—patients, providers, insurers, and government bodies—must agree on a shared definition of health outcomes (E. Teisberg et al., 2020a). The recent shift towards collaborative efforts among stakeholders aims to improve healthcare quality, reduce costs, and enhance transparency, promoting reforms in payment and delivery systems that incentivize better outcomes (Bozic, 2013). Finally, organizations must cultivate a positive culture and hire the right talent to thrive in a value-driven healthcare environment (Douglas et al., 2016).

The Economist Intelligence Unit conducted a 2016 report analyzing the alignment with Value-Based Healthcare (VBHC) components across 25 countries, focusing on four domains: policy and institutions, outcomes and cost measurement, patient-centered care, and outcome-based payment systems. Most countries were in the early stages of VBHC adoption. Sweden and the UK showed high alignment, while half of the countries had low alignment. Wealthier nations adopted VBHC to address rising costs, whereas countries like Nigeria prioritized access. Developed nations showed moderate alignment, while high-income countries like Chile and Russia had low alignment due to a lack of national VBHC policies. Middle-income countries, except Colombia, also showed low alignment. Healthcare has shifted from volume-driven to value-driven models to improve sustainability and quality (Economist Intelligence Unit, 2016; Tsevat & Moriates, 2018). As of right now, VBHC is acknowledged as one of the approaches to overcoming these obstacles that is most frequently used (Berwick et al., 2008; Porter & Teisberg, 2006).

This study focuses on assessing the implementation of Value-Based Health Care (VBHC) in Palestine, particularly within conflict-affected and resource-limited settings (AlKhaldi, Alkaiyat, et al., 2018a). It aims to explore how VBHC can address the unique challenges of Palestine's healthcare system, which is hindered by overreliance on international aid, fragmented governance, and restrictions imposed by the Israeli occupation (Giacaman et al., 2009; Khatib et al., 2009). This research seeks to inspire reforms that could improve care

quality and efficiency in the Palestinian healthcare system by providing strategic insights for practitioners and policymakers.

1.2 Study Significance and Justification

The research asses the implementation of Value-Based Healthcare (VBHC) in Meso-level hospitals in Palestine is significant from both a theoretical and practical perspective. This study will enrich the global state of knowledge related to healthcare reform in conflict-affected areas, and it touches on very particular challenges relating to the specific conditions of the Palestinian healthcare system.

Theoretically, this research contributes to the theory of VBHC in conflict-affected areas. It has been well explored within stable and developed countries; however, scant research has been conducted concerning its application in politically unstable regions with fragmented health contexts like Palestine(Economist Intelligence Unit, 2016; Giacaman et al., 2009). Investigating VBHC principles such as Integrated Practice Units, bundled payment models, and integrated IT systems within such a framework(Porter & Lee, 2013b). Within this context, expand the VBHC umbrella into settings with continuous political and economic instability, contributing to local and global healthcare reform by showing ways VBHC can be adapted to very complex environments.

Additionally, Healthcare in Palestine is markedly fragmented and poorly coordinated among the various entities(AlKhaldi, Alkaiyat, et al., 2018a; Giacaman et al., 2009; Khatib et al., 2009). This paper embeds the theoretical understanding that VBHC can address systemic inefficiencies through improved coordination of care; it also contributes to the literature regarding how multisite care delivery systems allow collaboration in decentralized healthcare systems to achieve reform in similarly affected regions (Porter & Lee, 2013b).

The research also examines governance issues within the conflict-affected healthcare systems. AlKhaldi et al. (2018) indicated that the fragmented governance due to the political instability in Palestine leads to more explicit roles of health authorities and weak national health strategies. Since VBHC is linked to governance reform, the study contributes to theoretical discussions on how systematic reforms can enhance governance and management of resources within a conflict zone.

From a practical perspective, the study's evaluation of VBHC components, such as patient outcome tracking and cost management, is highly relevant for Palestinian healthcare providers aiming to improve efficiency and patient outcomes in resource-limited settings. By linking care outcomes to financial rewards, VBHC offers the potential to address inefficiencies

from administrative mismanagement in Palestine (Giacaman et al., 2009; Khatib et al., 2009). It also shows evidence-based indications of their current use in hospitals and provides several practical recommendations for enhancing the quality of patient care with better financial sustainability.

This research asses the bundled payment systems and IPUs in Palestinian hospitals that aim to structure financial incentives to be patient-centered (Porter & Lee, 2013b). It details actionable insights for decision-makers, practitioners, and policymakers to institute reforms that decrease reliance on foreign aid and better align with national health priorities (AlKhaldi, Alkaiyat, et al., 2018a)The involvement of local stakeholders in such reforms will empower them to achieve better performance ownership and result in long-term sustainability.

The study's most significant contribution is its attention to geographic expansion and multi-site care integration at a time when barriers to movement and access to resources have been a considerable challenge in Israeli-occupied territories (Giacaman et al., 2009). It explains how hospitals can apply VBHC to achieve access in geographic isolation and guarantee equitable health access to conflict-affected populations.

The research also focuses on positioning integrated IT platforms within the scope of an outcome-based decision-making process and enhancing data transparency and interoperability toward more informed clinical and administrative decisions-especially for application to the highly fragmented system in Palestine (El Jabari et al., 2020). It shall guide the usage of IT systems in ways that move toward VBHC, better health reforms, and improved outcomes.

Finally, the study identifies the general political and economic context, providing solutions that are matched against the political determinants of healthcare, such as the Israeli occupation, which is disrupting the Palestinian health system (Giacaman et al., 2009).Such considerations ensure that reforms occur within the context of those realities, ensuring that improved healthcare is durable and resistant to political and economic disturbances.

This research responds to such needs by extending the theoretical understanding of VBHC in conflict-affected regions. It puts forward actionable recommendations that may enhance healthcare efficiency, patient outcomes, and modes of care delivery within Palestine. Integrating VBHC principles within the Palestinian healthcare system provides valued contributions to local healthcare reform and the global discourse on healthcare transformation in fragile settings. Its recommendations guide stakeholders in re-establishing healthcare in politically and economically unstable conditions with long-term, sustainable reforms.

1.3 Problem Statement and Defining the Research Gap

The Palestinian healthcare system is profoundly challenged by continuous political instability, Israeli occupation, and internal inefficiencies (Giacaman et al., 2009). These issues are compounded by a fragmented structure, where the Palestinian Ministry of Health (MoH), NGOs, the United Nations Relief and Works Agency (UNRWA), and the private sector contribute to service provision. However, the inability to coordinate between these entities results in a significant waste of resources and the existing burden on the system (AlKhaldi, Alkaiyat, et al., 2018a). The volume-based payment model confines resource management in the Palestinian healthcare system in that the focus is on the volume of care provided and not the value of the service given to the patient, that has led to, which has led to inefficiencies and higher costs (AlKhaldi, Alkaiyat, et al., 2018a) .It is also linked to poor patient flow management, increased treatment costs, and poor patient outcomes (Khatib et al., 2009) .

Fragmentation within the Palestine health care system goes beyond service delivery to even significant areas of information management. Electronic health records (EHRs) implemented in many Palestinian hospitals do not fit for purposes at international standards, further complicating healthcare coordination and quality (El Jabari et al., 2020). Furthermore, governance and workforce issues compound the Palestinian healthcare system's challenges. A more explicit governance framework and a more substantial political commitment are urgently needed to address the systemic problems that impede the Ministry of Health's ability to prioritize health research and develop competencies (AlKhaldi, Alkaiyat, et al., 2018a). However, small remunerations and delays, along with poor workplace conditions, have created dissatisfaction among workers, and strikes, along with migrations of skillful professionals, further weaken the infrastructure of healthcare (WHO, 2017, 2018)

The Palestinian healthcare system is facing a growing challenge of chronic health conditions, especially among the elderly population. This issue is a significant cause of mortality and morbidity (PCBS, 2023) and requires comprehensive case management strategies (WHO, 2017). The situation has also resulted in high levels of psychological stress in the region, which often leads to physical health problems (Keelan, 2016a). Physical and psychological health burdens significantly strain the already overburdened healthcare system.

With about 10.4% of its GDP allocated to health, Palestine spent approximately $383.9 per capita in 2021(World Bank, 2023a). However, the debt charge of the Palestinian Authority on healthcare is hefty at about $575 million and hence severely undermines the sustainability and effectiveness of health services (World Bank, 2023a). Further compounding this financial strain on the system is insufficient medical supplies and heavy reliance on external medical

referrals (World Bank, 2016). Many Palestinians face delays in accessing medical services and rely on humanitarian aid and referrals to facilities outside their area of residence due to the lack of comprehensive health insurance (Giacaman et al., 2009). Overall, fiscal constraints and inefficiencies have resulted in a health system that cannot respond to the needs of the rapidly growing population.

Value-based healthcare (VBHC), focusing on enhancing patient outcomes while properly managing costs, has emerged as a promising approach within the healthcare sector. Moreover, in recent years, this model has received heightened interest at the international level (Porter & Teisberg, 2006). However, there is a notable absence of studies examining the adoption, application, and challenges of VBHC in conflict-affected regions, particularly in Palestine. Beginning with the political instability, fragmentation in the health systems, and incoherent nature of donor-driven models, which, as a principle, tend to be short-sighted towards relief rather than systemic, long-term solutions, these factors present obstacles toward healthcare reform efforts in general and VBHC in particular (Giacaman et al., 2003; Khatib et al., 2009). These conditions significantly hamper the realization of VBHC since they tend to undermine the foundations on which VBHC would successfully base its operational pillars, such as coordinated care and sustained focus on patient outcomes (Khatib et al., 2009).

Therefore, the suitability and effectiveness of VBHC in those conflict areas have not yet been experienced or tested. Applying VBHC in Palestine will probably result in more sustainable care, with efficiency in the available resources and quality.

1.4 Conceptual Model

This research conceptual model is structured around the Value-Based Healthcare (VBHC) framework proposed by Porter & Lee (2013), As illustrated in Figure “1”. VBHC is built on six interdependent components that form the basis for evaluating and assessing healthcare systems: organizing care around medical conditions, measuring outcomes and costs for each patient, implementing bundled payment for the care cycle, coordinating care across facilities, expanding geographical reach, and utilizing advanced IT systems (Porter & Lee, 2013b). This framework underscores that healthcare delivery is not an end but a means to achieve sustainable health outcomes, prioritizing patient welfare over cost considerations (Porter & Guth, 2012). The synergy among these components fosters a comprehensive system to enhance patient outcomes while maintaining cost control (Kaplan & Porter, 2011).

Successful operationalization of VBHC requires a paradigm shift in the roles of patients, employers, and governments, in concert with team coordination at the point of care

from multidisciplinary teams supported by integrated IT systems (Lansdaal et al., 2022; Porter & Guth, 2012). Unlike the more process-compliance-oriented traditional healthcare models, the VBHC model strongly emphasizes the driver for improving patient outcomes (E. Teisberg et al., 2020a). Therefore, the model's sustainability will require continuous innovation and enhancement in data quality to meet the evolved market demands (Douglas et al., 2016).

Achieving success in VBHC requires embedding patient-centered values within organizational culture, ensuring timely access to comprehensive data, and preventing the risk of the framework from being reduced to a transient management trend (Bozic, 2013; Ramos, 2020). However, many healthcare organizations have yet to fully integrate VBHC into their strategic agenda, highlighting ongoing challenges in its broader implementation (Daniels et al., 2022). The incomplete adoption of VBHC presents a critical opportunity for healthcare systems to advance by embracing its full potential (Gunawan et al., 2022).

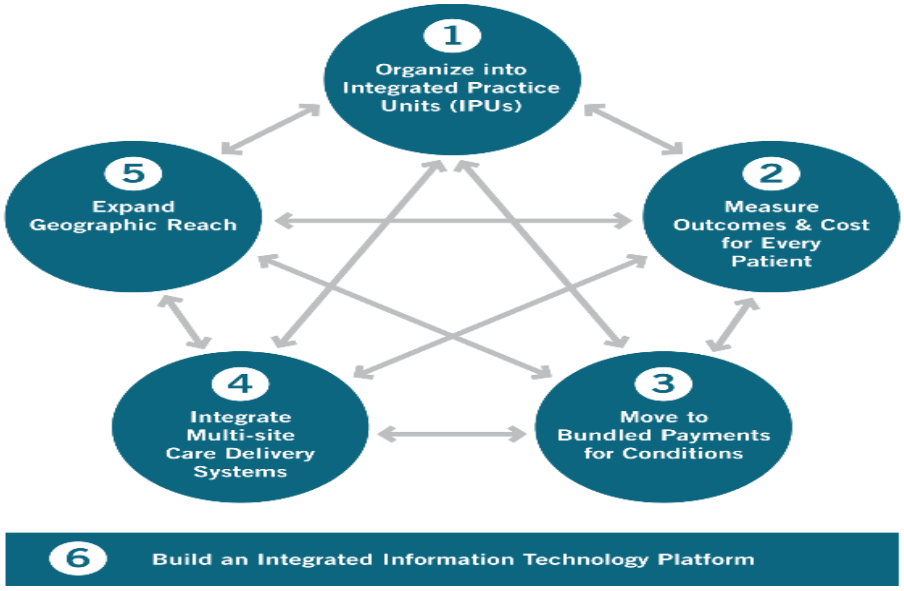

Figure "1": Value-driven healthcare delivery system components (Porter & Lee, 2013b)

1.4.1 VBHC Framework

1.4.1.1 Integrated Practice Unit (IPU)

The fragmented nature of traditional healthcare systems often results in medical specialties failing to meet patients' comprehensive needs (Abdulla et al., 2012). A shift towards Integrated Practice Units (IPUs) has been proposed as a solution, where clinical and non-clinical professionals collaborate throughout the entire care cycle, improving outcomes while reducing costs (Porter & Lee, 2013b). IPUs hold both quality and cost accountability, fostering competition that drives efficiency and better performance at lower costs (Ramos, 2020). These units coordinate care under shared management, facilitating access to all necessary services

(Porter & Guth, 2012). Multidisciplinary teams within IPUs enhance efficiency by minimizing resource use and integrating advanced treatments through regular collaboration (Abdulla et al., 2012; Porter & Lee, 2013b). Adherence to evidence-based practices further accelerates treatment, leading to superior patient outcomes and positioning IPUs for a competitive advantage (Porter & Lee, 2013b). However, integrating IPUs presents challenges, requiring significant financial management and accountability shifts, which can be difficult for hospitals to navigate (Mjåset et al., 2020).

1.4.1.2 Measure Outcomes and Costs for Every Patient

Outcome Measurement: Standardized outcome measurement is essential for advancing value-based healthcare (VBHC), enhancing efficiency, reducing costs, and fostering innovation, yet inconsistent implementation at the provider level hinders these benefits (Porter & Guth, 2012; Ramos, 2020). Although there is widespread recognition of the need for comprehensive metrics, current outcome assessments often rely on limited indicators, restricting the development of a holistic care framework that addresses the full patient experience (Porter & Guth, 2012). To achieve meaningful improvements in patient value and professional expertise, effective standardization must span the entire care cycle, encompassing physical, psychosocial, and mental health factors (Ramos, 2020) while simultaneously overcoming national and regional challenges in VBHC implementation (Ramos, 2020; Rutherford et al., 2021). Patient-Reported Outcome Measures (PROMs) and Patient-Reported Experience Measures (PREMs) have become vital for enhancing patient-clinician interactions and capturing essential patient feedback, yet their integration into healthcare systems faces obstacles such as clinician training, data management, and proper interpretation (Rutherford et al., 2021). Initiatives like the International Consortium for Health Outcomes Measurement (ICHOM) have contributed to global standardization. However, accurate stratification and risk adjustment are crucial to ensure unbiased outcome measurement and avoid artificially skewed results (Porter & Guth, 2012) Furthermore, public reporting of outcomes can stimulate competition and innovation in healthcare, driving improvements in patient care. However, resistance from clinicians toward management-led programs may impede the adoption of such initiatives (Baggaley, 2020; Roski & McClellan, 2011).

Cost Measurement: Measuring health care costs has traditionally been a process full of inconsistencies, generally seeming arbitrary given the impossibility of efficiently tracking input prices and various efficiencies that naturally complicate financial decision-making (Kaplan, 2014). Kaplan & Porter (2011) argue that the most critical factor is inaccurate cost

measurement rather than the political or insurance factors. This is further exacerbated in the resource-limited setting where improper incentives strain financial resources (Niñerola et al., 2021). Traditional cost accounting methods are based on a single cost driver, often not representative of the intricacies of healthcare delivery or indirect patient care costs (Kaplan, 2014).On the other hand, Time-Driven Activity-Based Costing (TDABC) is considered the "gold standard" for healthcare cost estimation, as it incorporates the nuances of activity-based costing with process mapping to track costs across the whole continuum of care (Etges et al., 2020; Kaplan, 2014).

This model of time-driven activity-based costing enhances efficiency by using the consumption of time as the sole cost driver, identifies the actual times of processes, and thus indicates opportunities where resources can be optimized to achieve savings (Niñerola et al., 2021). The ability of TDABC to illustrate the patient journey allows healthcare providers to spot inefficiencies at an early stage, which would affect their ability to allocate resources for improved outcomes at lower costs (Kaplan, 2014). However, at a time when TDABC significantly pioneered value-based care by linking reimbursement to quality improvement, the challenges in the alignment of cost estimates at the process level remained, especially when resource-level data was dominant (Keelan, 2016a). Despite such limitations, TDABC is instrumental in closing the gap between cost accuracy and quality in health care and thus facilitates movement toward more efficient outcome-focused care (Etges et al., 2020).

1.4.1.3 Move to Bundle Payment for Conditions

This innovation, from volume to value, including bundled payments, seeks to improve clinical quality and patient outcomes while reducing healthcare expenditures (Conrad et al., 2016). In this respect, bundled payments are essential for transferring financial risk from payers to providers by relying on universal measurement, risk adjustment, and outcome reporting (Porter & Guth, 2012).

This model encourages providers to maximize value through higher patient volumes while ensuring they meet predetermined quality targets, thus qualifying for additional (Mjåset et al., 2020). Integrating multidisciplinary teams and simplified reimbursement bundles can enhance efficiency and patient satisfaction, with bundled payments acting as a cost ceiling (Porter & Lee, 2013a). To be successful, reimbursement must reflect patient risk or complexity, incentivizing innovation and cost reduction without sacrificing care quality (Kaplan & Porter, 2011). While stakeholder interests and collaboration impact the success of value-based

payment (VBP) reforms, setbacks are common; nevertheless, successful implementations offer insights for future reform efforts (Conrad et al., 2016).

1.4.1.4 Integrate Multi-Sites Care Delivery Systems

Effective regional system integration ensures patients receive care from the right provider at the appropriate location while eliminating low-value service lines (Porter & Lee, 2013a). Multisite systems must streamline service offerings, sometimes requiring community providers to discontinue complex services or collaborate in resource-limited areas. Although this approach may seem unconventional, it supports transitioning to value-based care (Porter & Lee, 2013b). Integration fosters coordinated, multidisciplinary care through strategies like appointing a physician leader and using standardized scheduling, which enhances efficiency and reduces costs (Porter & Lee, 2013b). High patient volume in specialized care centers improves outcomes, as providers with more experience in specific conditions achieve better results at lower costs (Porter & Lee, 2013). Relocating fewer complex procedures to lower-cost facilities while aligning with staff skills and resources enhances cost-effectiveness and productivity. Such integration is further supported by shared electronic health records and unified scheduling systems, ensuring timely communication and optimal care (Mjåset et al., 2020).

1.4.1.5 Expand Geographic Reach

IPUs enhance healthcare provider capacity and patient reach through two primary models: the hub-and-spoke model and clinical affiliation. In the hub-and-spoke model, satellite facilities refer complex cases to a central hub for specialized care, streamlining patient management and improving care quality (Porter & Lee, 2013) Clinical affiliation, on the other hand, involves collaborations with local providers to expand services without constructing new facilities, requiring standardized practices and quality monitoring (Porter & Lee, 2013). Value-based healthcare (VBHC) supports these models by establishing centers of excellence for complex cases and improving operational efficiency in smaller hospitals (Mjåset et al., 2020).

1.4.1.6 Build an Integrated Information Technology (IT) Platform

Integrating an advanced IT platform is critical for enhancing the components of Value-Based Healthcare (VBHC), addressing limitations in traditional healthcare IT systems, which are often sold by department, location, and data type, impeding multidisciplinary care (Porter & Lee, 2013). A robust VBHC IT platform centralizes patient data across care services,

standardizes data definitions, and ensures accessibility for patients and providers, facilitating precise outcome measurements and fostering interoperability (Fürstenau et al., 2021; Mjåset et al., 2020). Such platforms enable real-time data extraction for patient-specific outcomes and cost measures, which is crucial for decision-making, clinical reporting, and aligning care delivery with patient-centered goals (Ramos, 2020). Patient-centric IT systems enhance coordination and ownership of medical records, fostering transparency and active participation (Porter & Lee, 2013). Furthermore, condition-specific templates and expert systems improve adherence to best practices and risk management while supporting cost-effectiveness and outcome visibility (Porter & Lee, 2013; Ramos, 2020). Enhanced interoperability through electronic health records (EHRs) and national health databases promotes more effective patient management and communication, driving the value agenda in healthcare (Abdulla et al., 2012; Jørgensen et al., 2018). Successful integration of such systems leads to improved patient volumes, care outcomes, and economic sustainability, particularly in environments with constrained resources and flat reimbursement rates (Gunawan et al., 2022; Porter & Lee, 2013).

1.4.2 Roadmap to Value-Based Healthcare

The preliminary findings concern the weaknesses in the Palestinian healthcare system and the insufficient application of the VBHC strategy components. Therefore, recommendations and suggestions will be developed through a structured roadmap to enable the implementation of successful VBHC practices at a national level. The required roadmap will systematically change healthcare delivery by integrating four critical phases to improve patient outcomes and optimize resources.

The transformation begins with institutional readiness, where leadership engagement, stakeholder collaboration, and data infrastructure development create a strong foundation for change (Cossio-Gil et al., 2022; Heijsters et al., 2022). During this phase, motivation, resource availability, and other contextual factors are assessed to ensure organizational commitment and reduce resistance to change, fostering a more receptive environment for future efforts (Weiner, 2009). Building on this, the design phase focuses on integrating patient-centered care by developing clinical pathways through multidisciplinary teams, including experts in Patient-Reported Outcome Measures (PROM), ensuring that care delivery meets patient needs while remaining standardized across practices (Heijsters et al., 2022). The development of robust data and IT infrastructure is essential at this stage, as it supports the continuous collection and analysis of both clinical and patient data, directly informing care improvements (Cossio-Gil et al., 2022). After that, these building blocks are translated into practice on the implementation

side by placing the outcome sets in routine care and ensuring shared decision-making is clinically aligned best with the principles defined by Lansdaal et al. (2022) and Heijsters et al. (2022). Lastly, continuous improvement is enacted according to the PDCA cycle to continue checking and refining such processes over long-term feasibility within VBHC: the core issue of patient outcomes in healthcare delivery, as conducted by Cossio-Gil et al. (2022) and Heijsters et al. (2022). The system adapts and changes through these diverse linkages of phases to deliver optimal care and use resources optimally.

1.5 Research Aims and Objectives

The research aims to evaluate the extent of the implementation of the core components of Value-Based Healthcare, including adopting IPUs, measuring patient outcomes and costs, bundled payment systems, multisite care delivery systems, geographic expansion strategies, and integrated IT platforms by Meso-level hospitals in Palestine. It also aims to establish how well the concept is put into practice in hospitals, based on the presence and effectiveness of its major components, to reassure the VBHC principles in improving patient outcomes and efficiency within healthcare.

The objectives are designed to comprehensively evaluate how the various components of VBHC are applied within this context.

RO1. To evaluate the implementation of IPU in Meso-level hospitals in Palestine in line with how the units align with the principles of VBHC to ensure improvement in patient outcomes while enhancing the efficiency of care.

RO2. To evaluate the implementation of patient outcome and cost tracking measures in Meso-level hospitals of Palestine regarding alignment with core VBHC goals.

RO3. To examine the adoption and effectiveness of bundled payment systems for medical conditions within Meso-level hospitals in Palestine, exploring their role in promoting VBHC.

RO4. To assess the status of multi-site care delivery integration among Meso-level hospitals in Palestine and how such integration supports the continuous care model in VBHC in increasing the overall value of care.

RO5. To investigate the strategies and efforts of Meso-level hospitals in Palestine to expand their geographic reach, ensuring that expansion strategies are aligned with VBHC principles.

RO6. To assess the diffusion and adoption of integrated information technology platforms at the Meso-level hospitals in Palestine, outlining how such platforms facilitate VBHC through outcome-based decision-making in the care continuum.

RO7. To provide comprehensive insights into strategic recommendations for policymakers, decision-makers, healthcare professionals, and other stakeholders in the Palestinian healthcare sector regarding embedding the principles of VBHC into the structured roadmaps for a systematic transformation of healthcare delivery toward more effective reform, improvement of patients' outcomes, and optimization of health spending.

1.6 Research Questions

To address the research objectives, the following research questions have been formulated:

RQ1: Are Meso-level hospitals in Palestine implementing Integrated Practice Units (IPUs) as a component of VBHC?

RQ2: Are Meso-level hospitals in Palestine implementing effective measures to track patient outcomes and costs in line with the principles of VBHC?

RQ3: Have Meso-level hospitals in Palestine adopted and implemented bundled payment systems for medical conditions, and how aligned are these with the principles of VBHC?

RQ4: Are Meso-level hospitals in Palestine implementing multi-site care delivery systems, and to what extent do these systems align with the continuous care model in VBHC?

RQ5: Are Meso-level hospitals in Palestine implementing strategies to expand their geographic reach, and are these strategies aligned with VBHC principles?

RQ6: Are Meso-level hospitals in Palestine implementing integrated information technology (IT) platforms that support the principles of VBHC, particularly in outcome-based decision-making?

RQ7. What strategic recommendations can decision-makers and healthcare practitioners be made to support the effective implementation of VBHC components in Meso-level hospitals in Palestine?

1.7 Limitations

Several potential limitations may influence the research's outcome in assessing the implementation of value-based healthcare in the Palestinian healthcare system. One significant limitation is the level and completeness of data, as some institutions are reluctant to share information. For instance, hospitals often hesitate to respond to questionnaires or provide detailed insights due to concerns about confidentiality, accountability, and institutional regulations. This reluctance persists despite repeated attempts and engagement with key stakeholders. Additionally, there is a refusal to grant access to key documents, such as hospital

policies and strategic plans, which limit the scope of the analysis. In some cases, specific positions essential for data collection are absent, further complicating the process.

Moreover, regional variations, such as those in Jerusalem, where hospitals operate under different regulations and policies, make it challenging to capture data comprehensively. Hospitals in these areas' hesitation to disclose information exacerbates this issue. Beyond these institutional barriers, methodological challenges, such as biases related to social desirability and recall in participant responses, may compromise the accuracy and validity of the findings. Limited resources, including time, funding, and data accessibility, also restrict the research's breadth and depth.

Lastly, the dynamic nature of the Palestinian healthcare system, characterized by frequent changes in infrastructure, and regulations, makes it difficult to produce a comprehensive and static snapshot. This ever-evolving context adds another layer of complexity to evaluating the implementation of value-based healthcare within the system.

1.8 Structural Outline

1.8.1 Chapter One – Introduction:

This chapter provides the background and contextual setting for the study by focusing on the challenges faced by the Palestinian healthcare system in aligning with Value-Based Healthcare components. It justifies evaluating the implementation of VBHC components such as integrated practice units, outcome, and cost measurement, bundled payments, integrated IT platforms, geographical expansion, and regional integration. This tends to highlight a gap in knowledge on VBHC in conflict zones and, simultaneously, enhances the patient's results and health care efficiency. The research aims, objectives, questions, significance, and limitations are also addressed.

1.8.2 Chapter Two – Literature Review:

This chapter reviews the extant literature on Value-Based Healthcare, drawing from its definition and practice across different areas. The review examines core components such as IPUs, measurement of outcomes and costs, bundled payment, multisite care delivery, geographical expansion, and integrated information technology platforms. It further explores how these elements improve patient outcomes and healthcare efficiency and highlights specific areas where there is a gap in the literature concerning VBHC within this review framework.

1.8.3 Chapter Three – Methodology:

This chapter presents the adopted research design and methodology to evaluate the status of implementing VBHC components in Meso-level hospitals in Palestine. This section elaborates on a mixed-methods approach, combining qualitative and quantitative data collection and analysis methods. This chapter will elaborate on specific data collection methods and related techniques for analyses to be adopted in the research.

1.8.4 Chapter Four – Results:

This chapter presents findings on the assessment of the adoption of components of VBHC in Palestinian Meso-level hospitals. It ascertains the extent to which hospitals are adopting major IPUs, patient outcome and cost-tracking measures, bundled payment systems, integrated information technology platforms, multisite regional integration, and geographical expansion. The explanation of how such a design could assist in attaining high-value, patient-centered outcomes and enhance efficiencies in health care.

1.8.5 Chapter Five – Discussion:

This chapter explores the implications of the research findings for the broader literature regarding the adoption of VBHC components by Meso-level hospitals in Palestine. It reviews how well such implementation has achieved its objectives in improving healthcare outcomes and efficiency. Conclusions will address what this study added to theory and practice, the limitations of this research, and recommendations for hospitals, policymakers, and stakeholders on ways to enhance the adoption and effectiveness of VBHC in the Palestinian healthcare system.

1.8.6 Chapter Six – Conclusion and Recommendations:

This final chapter summarizes the main findings from the research and assesses the adoption of value-based healthcare principles by Meso-level hospitals in Palestine. Indications of what this study contributes to healthcare management give recommendations that will guide and influence effective VBHC adoption in Palestine. Pursuing a roadmap for healthcare reforms to improve patient outcomes and optimize healthcare spending. Future research directions and broader implications for healthcare systems in similar contexts are also discussed.

Chapter Two
Literature Review

2.1 Introduction

This chapter provides a concise review of the existing literature on VBHC and the theory developed around the core components comprising VBHC. Value-based healthcare is a healthcare delivery model and approach that systematically improves patient outcomes relative to the cost of care (Porter & Lee, 2013). The review of the literature addresses the underlying theoretical framework supporting each of the six basic building blocks of the VBHC strategy, as follows: 1) organize care around medical conditions (IPU); 2) measure outcomes and costs for every patient; 3) transition to bundled payments; 4) integrate care delivery across facilities; 5) expand geographic reach; and 6) utilize an enabling IT platform in support of these endeavors(Porter, 2010). It aims to explore how this theory has been adopted into health systems and how it fosters quality and efficiency in care delivery. The review will establish what has been found and the gaps in the present research on the implementation and outcome of VBHC theory.

2.2 Theoretical Framework: Conceptual Foundations, Theory Building, and Questions Development

2.2.1 Integrated Practice Unite

The healthcare system often requires a streamlined approach around specific service providers, such as endocrinologists, cardiologists, ophthalmologists, and podiatrists, whose services rarely overlap with a patient's medical circumstances. This can be inconvenient for patients and caregivers, leading to high costs and suboptimal outcomes (E. Teisberg et al., 2020). A solution to this issue is the implementation of integrated practice units (IPUs), considered the cornerstone of the VBHC agenda (Andersson et al., 2015). IPUs involve a dedicated team of clinical and non-clinical personnel (Porter & Lee, 2013) who are structurally and functionally organized around the medical condition over an entire care cycle, offering a comprehensive range of services (Jayakumar et al., 2019). These include outpatient, inpatient, and rehabilitative care, support services, and behavioral health (Porter & Lee, 2013). The integration of care consolidates the inputs, delivery, management, and organization of services related to diagnosis, treatment, care, and health promotion, thereby improving accessibility,

quality, professional satisfaction of physicians, patient satisfaction, and efficiency (Wouters, 2009). This patient-centric approach, which prioritizes the patient's needs and experiences, also considers healthcare organizational perspectives, the complexity of disease conditions, and caregiver perspectives, describing partners' core competencies in care delivery (Wouters, 2009).

Healthcare organizations can evolve by bringing together a team of experts with diverse skills and knowledge, saving clinicians from scrambling to coordinate routine services and minimizing wasted time and resources. It allows them to personalize services for patients with different needs, enhancing efficiency and effectiveness (Teisberg et al., 2020). They meet regularly, coordinate, monitor performance data, and measure health outcomes and costs to enhance care by implementing new protocols and better engaging patients. IPU members should be co-located to facilitate communication and collaboration, even at different locations (Porter & Lee, 2013). It promotes a collaborative environment among healthcare providers, influencing learning and research patterns in addressing clinical challenges and improving outcomes. By measuring and reporting outcomes, clinical teams can speed learning, identify the best practices, enhance patient care (Teisberg & Wallace, 2009), lower costs, and improve market share (Porter & Lee, 2013b). However, these results require a restructuring of work, with a focus on value-based care delivery and positive-sum competition (Teisberg & Wallace, 2009).

The principles of integrated patient-centered care (IPU) are also outlined by Jayakumar et al. (2019), emphasizing the importance of coordination between staff, sites, and support systems to ensure continuity of care and shared responsibility between patients and providers. However, designing and implementing IPU can be complex and involve multiple stakeholders. To address these challenges, Jayakumar et al. (2019) suggest focusing on seven key areas: horizontal scenarios for cost savings and value improvement, matching care scope to patient populations, comprehensive mapping of the care cycle, defining multidisciplinary (MDT) team policies, establishing operational policies, identifying areas of care, and effectively utilizing technical and non-technical assets (Jayakumar et al., 2019).

Combining multidisciplinary and interdisciplinary methods in IPUs can be highly effective in customizing individualized programs (Wouters, 2009). Each patient's care process is led by a physician or clinical care manager, and the team monitors outcomes, costs, and processes on a shared platform, integrating patient education, engagement, and follow-up throughout the entire care cycle (Porter & Lee, 2013). In multidisciplinary, healthcare providers from different disciplines collaborate to provide diagnoses, assessments, and treatments. At the

same time, interdisciplinarity approaches a subject from multiple angles, ultimately leading to a new understanding that crosses traditional disciplinary boundaries. This approach is particularly suited to addressing the global dimension of an individual's health while still placing the patient at the center of the process (Wouters, 2009). Hiring interdisciplinary professionals is crucial for effective VBHC implementation. This team of experts should comprise medical condition management leaders, communication managers, project managers, managerial leaders, quality and safety coordinators, process engineers, data managers, epidemiologists, data scientists, case managers, ICT engineers, and EHR referrals (Varela-Rodríguez et al., 2022). Working groups comprising clinicians, finance managers, and business analysts should be established to promote collaboration. This will help facilitate a better understanding of clinical and managerial perspectives, leading to improved morale and acceptance of organizational changes. Additionally, involving clinicians in designing and implementing quality improvements is essential to ensure alignment with organizational goals (Ng, 2022).

As health outcomes improve, evidence of better care can lead to expanded partnerships, as E. Teisberg et al. (2020) suggested. IPUs revolutionized the medical field by being purpose-built to combat specific conditions, such as breast cancer and joint replacement. They are quickly expanding into many acute and chronic care areas, such as organ transplantation, shoulder care, and mental health disorders (Porter & Lee, 2013b).

Healthcare systems should be centered around shared health needs; care teams can develop comprehensive solutions that address patients' physical and psychosocial needs as Jayakumar et al. (2019) noted to provide more effective and efficient care by improving processes and communication for specific patient populations. When the focus shifts from treating to solving patient needs, teams can broaden and integrate services to achieve better outcomes (Teisberg et al., 2020). Patient-centered, integrated care is the best approach for personalized management, resulting in faster care delivery and reduced patient stress, as patients with chronic conditions should actively participate in their care. Health professionals should collaborate with patients to co-manage their health issues while addressing the needs of those with complex circumstances (Teisberg & Wallace, 2009).

To deliver top-notch integrated care that meets patients' needs, healthcare providers must prioritize honing their core competencies. These competencies include the skills, expertise, attitudes, and behaviors necessary to guarantee job excellence and achieve the intended results (Wouters, 2009).

According to Porter & Teisberg (2007), a medical provider's success is primarily determined by their experience level, variety of services, and knowledge of specific medical conditions. They argue that a provider's value will dramatically increase when these components come together in a positive feedback loop. This improvement can lead to increased experience, greater effectiveness, access to better information, specialized teams, customized facilities, more control over the care cycle, streamlined medical procedures, quicker innovations, and, ultimately, better outcomes (Porter & Teisberg, 2007).

The effectiveness of medical condition management initiatives depends on the expertise of a skilled team of professionals with diverse skill sets, as highlighted by Varela-Rodríguez et al. (2022) and Wouters (2009). These professionals must possess clinical knowledge, exceptional interpersonal skills, and proficiency in communication and collaboration. They must also advocate for their patients, negotiate to attain shared goals and optimize patient outcomes. Proficiency in healthcare and project management, negotiation, conflict resolution, empathy, and advocacy are required for managers to organize care around the patient (Varela-Rodríguez et al., 2022) (Wouters, 2009). Additionally, communication experts ensure that effective communication channels are maintained throughout the process. At the same time, dedicated project managers and quality and safety coordinators work tirelessly to elevate the standards of patient safety and healthcare quality. These efforts ensure that patients receive the best possible care, with their well-being being the top priority (Varela-Rodríguez et al., 2022) and (Wouters, 2009). Process engineers, data managers, epidemiologists, data scientists, case managers, and Information Technology engineers all contribute unique expertise to the project's success. Furthermore, EHR referrals ensure that EHR tools are locally adapted to meet the project's specific needs during the first year of implementation. Healthcare organizations must acknowledge the joint efforts of managers and clinicians in performance management processes, as highlighted by Ng (2022). By assessing their practices and working closely with managers, healthcare providers can prioritize high-value care over low-value care (Scott, 2014). Developing leadership programs and promoting clinical leadership at all levels empowers clinicians to acquire management skills and make impactful decisions. Investing in formal leadership development and distributed leadership further empowers staff to drive improvements in healthcare value, as suggested by Ng (2022).

Scott (2014) and Ng (2022) outline several strategies for optimizing the quality of care provided. These may include integrating cognitive and behavioral techniques into the medical curriculum, listing low-value interventions, making evidence-based recommendations for novel technologies, educating specialty colleges about cost-effectiveness principles, and

prioritizing clinical interventions. According to Scott, a conservative approach to end-of-life care should also be applied.

By incorporating these strategies, healthcare organizations can cultivate an environment of collaboration and creativity that results in exceptional and effective healthcare. This can be achieved by endorsing transparent communication, cultivating mutual regard and confidence among colleagues, fostering regular casual interactions, and offering educational opportunities that promote comprehension of each other's responsibilities and obstacles (Ng, 2022).

Scott (2014) emphasizes that empowering patients with decision-making tools and self-care coaching can significantly reduce waste, standardize tasks, and enhance the quality and safety of healthcare services. By implementing such interventions, operational inefficiencies can be minimized, and patients can be better equipped to make informed decisions about their health. This aligns with Wouters research in (2009) that healthcare programs should prioritize personalized care that caters to patients' needs and encourages active involvement in decision-making. Patients and their families can participate in education, counseling, adherence to treatment plans, and support for behavioral changes. Self-management interventions bring healthcare providers and patients together to equip them with the necessary skills for disease-specific medication regimens, healthy habits, and overall well-being. This approach empowers patients to be responsible decision-makers and the center of their care, as noted by Wouters (2009) .

In many areas of care pathways, healthcare organizations are moving toward interdisciplinary teams to understand integrated strategies for improving patients’ care. This setting has facilitated a successful track record of understanding integrated strategies for solving complex health issues.

One successful example of interdisciplinary collaborative practice is at Dartmouth-Hitchcock Medical Center in the USA, where the Spine Center exemplifies interdisciplinary collaboration in managing shoulder disorders. This model is ideally suited to a value-based care delivery system faced with increasing costs, particularly with the increasing frequency of procedures such as rotator cuff repairs and shoulder arthroplasties (Black et al., 2013). The solution to the challenge of coordinated care delivery involves the transparent release of outcomes data, cost analysis, optimizing care delivery, and evidence-based practices. For example, the coordinated care for the shoulder will require care coordination by a multidisciplinary team that includes a shoulder surgeon, a physiatrist, a physical therapist, a musculoskeletal radiologist, an anesthesia provider, a care coordinator, and a nursing

supervisor. This coordinated care relies on multidisciplinary team-based care and universal healthcare reporting through national registries and high-quality communication to increase stakeholder value. According to Black et al. (2013), coordinated shoulder care improves provider efficiency, outcomes, complications, value to stakeholders, cost, care delivery, and collective expertise cross-specialties without compromising patient care (Black et al., 2013).

Similarly, the Erasmus MC academic institute in the Netherlands adopts IPUs for breast cancer care by implementing a 5-year value-based strategy, which includes the establishment of multidisciplinary teams consisting of various specialists, including oncological surgeons, medical oncologists, radiation oncologists, radiologists, plastic and reconstructive surgeons, pathologists, specialist nurses, clinical geneticists, psychologists, gynecologists, and thoracic surgeons, who work together in multidisciplinary board meetings (Van Egdom et al., 2019).

Implementing IPUs in breast cancer care aims to realign services with patients' needs and deliver more efficient care. The redesigned pathway involves multiple disciplines and determines time points for visiting different physicians and evaluating outcomes. A standardized outcome set for breast cancer patients was developed in collaboration with patients and advocacy groups, including provider-reported and patient-reported outcomes (PROs) and validated questionnaires. A secure electronic platform linked to electronic health records (EHR) was created to collect these outcomes during the outpatient phase. PROs are distributed to patients at appropriate times, allowing for individual clinic reviews. Implementing IPUs and outcome measurements in breast cancer care has significantly enhanced the quality of care and patient outcomes (Van Egdom et al., 2019).

Ahluwalia et al. (2021) presented the new approach to managing ankle fractures based on treatment with home care and the Day Surgery Unit (DSU), which is not the usual pathway of in-patient surgery. They first noted that swelling often caused surgery delays and may further increase surgery complications, rehabilitation time, and treatment costs. Their approach combines mobility immobilization with clarity on the guidelines that the patients might follow in maintaining their daily activities. It contributes to reducing the period of hospitalization, thereby cutting costs while ensuring safety and effectiveness (Ahluwalia et al., 2021).

This route of combined home care and DSU had a significantly shorter hospital stay—an average of 2.4 days versus eight days for inpatient groups—and fewer postoperative complications. In addition, there were fewer unplanned surgeries for the home care group; thus, the pathway is cost-effective and efficient. This study emphasizes that early surgical intervention within 24 hours will avoid increased costs due to patient or medical delays. Generally, this pathway has been labeled safe, cost-effective, and reproducible for patients,

hospitals, and clinicians, and it enhances value-based care and quality improvement (Ahluwalia et al., 2021)..

The University of Utah has adopted value-driven outcomes tools to drive the quality of joint arthroplasty and lower costs, showing considerable variation in quality and expenditure across procedures. This may justify the necessity for such a process, considering that this kind of process has ensured good patient-centered outcomes that prove and justify its necessity for those patients in need of joint replacement (Pelt et al., 2018). The creation of a chief value officer position solidified and significantly amplified the work of healthcare quality improvement and cost-effectiveness. This type of management allowed for new pathways of care and refinement of procedures based on evidence to improve standards. The adult reconstruction team also started projects to enhance these pathways concerning patient outcomes, complications, and costs (Pelt et al., 2018). Early ambulation became a priority, and same-day surgery mobilization rates increased from 64% to 85%, while significant costs were saved during this period. Complementary interventions included preoperative education as well as physician alignment based on financial incentives aligned with the same quality metrics that produced fewer discharges to post-acute care with a subsequent decline in the readmission rate, respectively increasing health value (Pelt et al., 2018).

Care pathways for Total Knee Arthroplasty (TKA) across multi-hospital systems have shown that standardized approaches decrease costs and improve discharge outcomes equally. TKA is also one of the most common extensive surgical procedures, with huge variability in cost and quality. This condition is compounded by a lack of standardized surgical indications and a fourfold variation in complication rates across U.S. hospitals (Featherall et al., 2019). Longer lengths of stay and disparities in hospital discharge practices further emphasize the goals of optimized care pathways. The TKA care pathway at a multi-hospital health system demonstrated lower direct costs of care, shorter lengths of stay, and better rates of home discharges. This pathway, devised by experts and embedded into the electronic medical record system, allowed for easy compliance and consistent application (Featherall et al., 2019).

In 2015, an academic hospital in Italy created a new dedicated bariatric surgery unit incorporating enhanced recovery after surgery (ERAS) principles. This unit was established to improve perioperative outcomes using value-based healthcare strategies. Bariatric surgery is an important solution to one of the major global health issues of morbid obesity, which has been associated with chronic diseases, mental health problems, and a decline in quality of life. It treats long-term weight reduction and resolves most obesity comorbidities (Goretti et al., 2020)..

The Italian hospital's involvement with an Integrated Practice Unit for bariatric patients incorporated a multidisciplinary pathway to ensure thorough presurgical assessments. The use of minimally invasive techniques minimized postoperative complications such as pain, nausea, and vomiting. Patients also played an active role by maintaining a diary post-surgery and having continuous access to the clinical team for support (Goretti et al., 2020). The IPU integrated Lean principles and patient feedback to maximize outcomes, focusing on weight reduction, improved quality of life, and increased patient satisfaction. Notably, the system emphasizes patient compliance with clinical pathways to achieve the intended outcomes while minimizing waste. The unit's long-term vision focuses on a patient-centered approach to enhance short-term rehabilitation, reduce mortality, and lower morbidity(Goretti et al., 2020).

Collaborative efforts in addressing childhood chest pain enhance preoperative risk assessment and patient outcomes (Mohan et al., 2018). In 2014, the Children's Hospital of Philadelphia (CHOP) formed a collaborative team of Cardiology and Emergency Medicine departments to streamline emergency department processes and enhance patient care. Childhood chest pain often prompts medical attention, but diagnosing cardiac disease in children can be challenging due to difficulties in describing symptoms and pinpointing pain location, leading to high healthcare costs and resource utilization. The hospital implemented an electronic template for documentation, but more importantly, education played a significant role in the introduction of constrained staff training (Mohan et al., 2018). They also launched a clinical pathway that included guidelines on interpreting pediatric electrocardiograms, recommended diagnostic testing, and used a set of rules for the follow-up approach. It led to a reduction in chest X-ray utilization and an increase in follow-up rates while having no case of missing out on cardiac disease. Moreover, patient management became markedly more efficient. However, several limitations still need to be validated, such as the apparent absence of the etiology of chest pain in most cases and the seeming rationale of conducting one set of diagnostic procedures. Despite the continued improvement process, the clinical path’s success indicates the promising effects of the collaborative approach and evidence-based solutions to pediatric care delivery (Mohan et al., 2018).

In light of these considerations, Colorectal cancer often requires extensive and scarce ostomy surgery. Hence, creating new care models aims to increase quality and decrease costs while improving treatment accessibility. Gálvez et al. (2020) presented a study on APN (Advanced Practice Nursing) in specialized stoma care. The efficiency of this model was studied in a sample of 12 hospitals in Andalusia, Spain. It compares an outpatient care model led by APNs with traditional care models concerning efficiency, effectiveness, and value per

consultation. Researchers analyzed factors influencing patients' quality of life, including sociodemographic and clinical aspects and demands for healthcare resources. The study also used questionnaires and contingent valuation to estimate the patient's willingness to pay for APN-led consultations (Gálvez et al., 2020). At six-month follow-up, patients under APN care significantly improved their physical and psychosocial status. Apart from clinical benefits, the APN model proved cost-effective, with patients willing to pay for the consultation charges. The study concluded that healthcare outcomes are of greater significance than simple service delivery. The involvement of APNs in ostomy care cuts costs, improves the quality of care, and enhances patient outcomes. Integrating APNs into ostomy care is recommended to improve healthcare delivery, meet patient needs more effectively, and ensure financial sustainability(Gálvez et al., 2020).

A recent investigation from St. Antonius Hospital in the Netherlands conducted by van der Vlies et al. (2020), underlines the critical importance of a multidisciplinary team (MDT) approach, particularly for frail colorectal cancer (CRC) patients. CRC in elderly patients is a complex condition, and the study emphasizes the need for collaboration across various departments, such as Anesthesiology, Intensive Care, Surgery, and Internal Medicine, to improve patient outcomes. The study found that while patients managed by an MDT who underwent surgery had a higher proportion of postoperative complications compared to non-MDT patients, the incidence of severe complications was not higher. This suggests that the complexity of frail patients makes the MDT approach essential. Additionally, many MDT patients were placed on non-surgical treatments due to preoperative frailty, illustrating the practical challenges in managing frail CRC patients. The study concludes that all CRC patients require a multidisciplinary approach for comprehensive and effective management (van der Vlies et al., 2020).

Moreover, besides the practices from the UCLA Section of Endocrine Surgery, it has become a crucial advocate of evidence-based clinical pathways and algorithms that have expanded, with excellent outcomes, to virtually many other clinical issues and improved resource utilization outcomes. SES began in 2006 to offer endocrine oncology and disease care in a combined, multidisciplinary-led delivery model. The utilization of several sections of departments, such as surgery, endocrinology, radiology, oncology, genetics, and pathology, proved essential to SES’s popularity and growth. Furthermore, standard multidisciplinary meetings improved the potential to innovate in terms of teamwork, quality of care, and creativity in therapy (Abdulla et al., 2012).

At UCLA hospitals, clinical pathways for patients receiving thyroid or parathyroid surgery between 2005 and 2011, these pathways very efficiently defined the patients' difficulty, guiding them to the best facilities and simplifying the care provided. In addition, a new path was established for papillary thyroid cancer with prophylactic central neck dissection and long-term monitoring for outcome analysis (Abdulla et al., 2012). Clinical pathways have transformed patient care and eased the strain on hospital facilities. Patient management has transformed significantly in their care, for example, the pathway's capability to address disease recurrence or offer appropriate alternatives to surgery. In research by Abdullah et al., an increase in community inpatient and outpatient cases and a decline in inpatient cases at tertiary care were noticed. This illustrated the effectiveness of clinical pathways in optimizing resource allocation, enhancing patient outcomes, and reducing costs. Thus, the results could provide valuable suggestions for endocrine surgery on improving the value offered due to the system transformation and endocrinology center establishment as the health system shifts to co-localization (Abdulla et al., 2012).

As healthcare systems navigate challenges, the COVID-19 pandemic has prompted a shift in the NHS, particularly in cataract services. This has necessitated telemedicine and digital prioritization software to improve patient care and streamline delivery. This shift emphasizes patient-centered care and operational efficiency, requiring reevaluation of current pathways and education practices(Lin et al., 2021). Patient surgery decision-making aides (PSDMA) should address individual patient needs beyond traditional metrics. The pandemic has also highlighted the need for timely access to second-eye surgery for older individuals to reduce fall and fractured risks. Digital prioritization software and IPUs are emerging as critical mechanisms for optimizing resource allocation and enhancing care quality. Telemedicine is reshaping cataract services, offering virtual consultations and diagnostic clinics to maximize resource utilization and patient safety. However, achieving these goals requires investment in digital transformation resources, updating electronic medical records, and enhancing workforce digital capabilities. Collaborative partnerships between trusts and commissioners are crucial for the long-term sustainability of healthcare services. However, Prioritizing efficiency, safety, and patient-centered care is crucial for healthcare systems to navigate current challenges and establish resilient and responsive service delivery (Lin et al., 2021)

However, challenges persist in optimizing care delivery, such as managing chronic illnesses like COPD. Integrated care approaches aim to deliver appropriate care at the right time, empowering patients through effective self-management and coordinated care activities. Patients with COPD face complex medical challenges that cannot be resolved through simple

pharmacological treatments alone. Unfortunately, medical treatment is often hindered by fragmented, disease-specific approaches and inadequate care integration across multiple levels, especially between hospital and home (Nici & ZuWallack, 2018).

COPD Integrated care is aimed at providing proper care at the right time and to ensure continuity of care across different levels. One of the fundamental principles of integrated care is care coordination, which defines integrating patient care activities among all participants involved that use care pathways to deliver appropriate healthcare services (Nici & ZuWallack, 2018). Another essential factor is self-management of COPD, including structured and educational programs on interventions that provide patients with valuable skills to improve their overall health. The goal is to empower patients to modify their health behaviors and develop the skills to manage their disease effectively. This results in improved physical health, reduced symptoms, and increased emotional, social, and overall well-being. As a result, patients have better relationships with healthcare professionals, family, friends, and the community, and a notable decrease in respiratory-related hospitalizations compared to usual care (Nici & ZuWallack, 2018).

Innovations extend to Pulmonary Embolism Response Teams (PERTs), streamlining patient care and reducing healthcare costs through rapid multidisciplinary assessment and personalized treatment plans. The study explores the impact of a Pulmonary Embolism Response Team (PERT) protocol at the University of Kentucky on patient care and cost-effectiveness. The protocol ensures consistency in medical reporting, especially for higher-risk patients (Annabathula et al., 2021). A single-call activation system is used to prompt the PERT team's activation. The team efficiently triages patients to determine risk status and identify effective treatment strategies. They use the latest approaches to address pulmonary embolism severity and patient factors, ensuring comprehensive assessments and personalized treatment plans. The PERT pathway protocol, which regularly monitors quality metrics, significantly reduced in-hospital mortality rates from 16.5% to 9.6% post-PERT era. This was due to early identification of high-risk PE patients, enabling prompt treatment initiation. The protocol also led to cost savings, with an overall reduction of approximately 34.3% in care costs during index hospitalization and 30 days post-discharge (Annabathula et al., 2021).

In addition to these points, Keswani et al. (2016) and Morrice et al. (2020) emphasize the crucial role of multidisciplinary teams in managing musculoskeletal disorders. These teams should include healthcare professionals from various disciplines, such as orthopedic surgeons, mid-level providers, physical therapists, nutritionists, and social workers, all working together to provide holistic, patient-centered care. The focus should be on addressing patients' physical

and psychosocial needs while ensuring effective communication and avoiding unnecessary healthcare services. Tools like shared decision-making, patient engagement platforms, and personalized risk calculators help strengthen the patient-provider relationship and improve care (Keswani et al., 2016). Keswani et al. (2016). Highlight that long-term investment in high-value care is essential for sustainable healthcare delivery and better patient outcomes.

Furthermore, Musculoskeletal care outside of IPU often fails when meeting the holistic needs of patients. However, orthopedic Trauma Units (IPUs) allow pivoting from low-value care to high-value, patient-centered care across the care cycle. Therefore, the IPU model of care is specifically designed to ensure integrated care during a care cycle for multiple injuries that range from ambulatory trauma hence to fragility fractures and complex polytrauma scenarios(Jayakumar et al., 2019). IPU care addresses multifaceted needs like emotional support, stable housing, and community support networks, among other multidimensional needs. The care cycle includes the initial and follow-up assessments, investigation, treatment, and rehabilitation services performed until fractures are healed and the patient may be able to return to regular activity. The emergency department screen and record tools identify patients who would benefit from specialized orthopedic trauma care (Jayakumar et al., 2019). IPUs have worked hard to ensure the development of an outcome measure and data visualization platform that would allow them to track patient outcomes and performance and analyze the results appropriately. They also use a communications portal for collaboration among multidisciplinary care teams and integrate patient engagement solutions to empower patients and improve adherence to care plans. Most IPUs provide a value-aligned structure that can encourage innovation in this area by meeting value-based payment (Jayakumar et al., 2019).

Moreover, the Dell Medical School at the University of Texas at Austin developed a model over ten months to determine clinic visits during an 8-hour workday, emphasizing provider mobility for better communication (Morrice et al., 2020). The study also considered patient mix, provider availability, exam room availability, and virtual medicine patient schedules. A detailed analysis was conducted using a discrete-event simulation model to assess operational metrics such as patient length of stay, resource utilization, provider idle time, and IPU closing time. Research shows that a multidisciplinary approach to patient care is practical. One-stop, multidisciplinary palliative care clinics have improved patient satisfaction and outcomes, reducing waiting times between diagnosis and treatment. The IPU director set minimum requirements for patient care, including at least 25 patients per day, no more than 90 minutes in the room, and 150 minutes in the (J. Morrice et al., 2020).

Applying the principles of integrated practice units can create a more transparent, effective, and competitive healthcare delivery system. Patients could obtain more information since they are incentivized to get the finest care at the lowest conceivable cost because a change from zero-sum to positive-sum competition will lead to better patient outcomes, reduced costs, and increased competition in the healthcare delivery system (Black et al., 2013). Healthcare institutions aspire to deliver high-value care excellently and responsibly govern expenses and resources via better comprehension of the importance of human resources and technological advancements (Varela-Rodríguez et al., 2022).

In Palestine, The VBHC framework represents a potentially highly effective way to improve healthcare delivery, primarily through the application of Integrated Practice Units to improve patient outcomes and reduce costs while directing care toward each patient's needs. VBHC principles are relevant for chronic diseases, as shown in a study about diabetic care quality in the Gaza Strip. El Aour et al. (2017) found that patient-centered care and outcome measurement are essential in improving healthcare outcomes, with patient satisfaction being a critical indicator of care quality. While there was an overall satisfaction rate of 78.1%, satisfaction relating to doctors was still lacking in their management plans for better coordination of care and optimization of processes. Integrating the IPUs with clear guidelines will enable continuity of care and improve patient outcomes, especially in chronic disease management such as diabetes (El Aour et al., 2017). Improving patient education and self-management support is another critical aspect of the model VBHC. It might further engage patients in their care and improve outcomes, especially in resource-limited settings like Palestine. Moreover, this study emphasizes the satisfaction of healthcare providers. It also enumerates the requirement for enhanced clinical decision-making instruments and shared decision-making between patients and providers, a core element of VBHC. It further states that telemedicine in tracking performance can improve healthcare efficiency, especially in resource-limited settings (El Aour et al., 2017).

One immediate priority for VBHC can yet make a stunning impact: to address antibiotic resistance. According to Abu Al-Halawa et al. (2019), beginning with the knowledge of proper utilization of antibiotics, many pharmacists were found to be severely lacking; 35.5% claimed inadequate knowledge. This results in poor patient care and increased resistance. The high rate of dispensing antibiotics without prescriptions, at 60.8%, underlines immediate better patient education and coordinated care efforts. Also, achieving the goals of VBHC would be possible by integrating pharmacists into MDTs to educate patients on the responsible use of antibiotics. Also, clear guidelines have facilitated this process, enabling pharmacists to take more effective

ownership of antibiotic stewardship, improving care coordination, reducing costs, and increasing patient involvement in their care (Abu Al-Halawa et al., 2019).

The VBHCS is based on IPUs, VBHC's primary backbone, which fits perfectly in scenario analysis of mismatches between disease burden and research conducted in Palestine. Albarqouni et al., (2018) suggested that few studies have been conducted on the major diseases responsible for most mortalities, such as cardiovascular diseases and cancer. At this point, implementing treatment through IPUs can help address such misalignments, with the focus of VBHC on high-need populations. These units enhance care coordination and align healthcare efforts with patients' needs and the health system's priorities (Albarqouni et al., 2018). It also outlines the usefulness of the Global Burden of Disease data measured through (DALYs) and mortality rates to press for better integration between healthcare outcomes and research. In addition, the lack of a national priority-setting process for research in Palestine is causing ineffective spending and inefficient delivery of these services, reinforcing even further the implementation of IPU to streamline healthcare efforts. (Albarqouni et al., 2018).

However, one barrier to introducing IPUs is the migration of doctors from Gaza. According to Abukmail & Albarqouni (2021), many medical doctors and students seek training abroad due to limited local training opportunities, poor residency programs, and political instability. Of 148 responding physicians and students, 106 aimed to pursue training in the UK, the USA, Germany, and Australia. This migration pattern weakens the local healthcare system by shrinking the pool of skilled professional’s indispensable to the success of IPUs, built upon multidisciplinary collaboration in sustained coordination to deliver high-value care. The study insists on ameliorating local residency programs and medical retention to guarantee successful IPU implementation and adherence to VBHC principles, culminating in improved patient outcomes (Abukmail & Albarqouni, 2021).

Further compounding the challenges in healthcare delivery is the need for robust accreditation and regulation systems in Palestine. AlKhaldi et al. (2022) argue that while their study on Health Workforce Accreditation and Regulation (HWAR) does not explicitly reference VBHC, the absence of systematic outcomes measurement and inconsistent regulatory standards suggests the need for structured evaluation and monitoring, which are core VBHC principles. IPUs designed to organize care around patient outcomes could address these regulatory gaps by enhancing performance monitoring and fostering collaboration between healthcare providers and regulatory bodies. Additionally, the fragmented nature of HWAR, coupled with insufficient governance, impedes care delivery integration, further emphasizing the need for IPUs to improve coordination among multiple stakeholders (AlKhaldi et al., 2022).

Enhanced professional development, particularly in preventive care, is crucial for achieving VBHC's comprehensive, outcome-focused care goal. IPUs could serve as a platform for organizing healthcare teams around prevention and treatment. Moreover, strengthening regulatory frameworks and key elements of VBHC could improve public trust and satisfaction. Lastly, the study hints at the potential for cost-effectiveness through a more robust regulatory system, as better care coordination and reduced duplicative efforts could lead to greater healthcare efficiency (AlKhaldi et al., 2022).

A literature review on health care systems in Palestine reveals that 'surprisingly few substantial studies precisely deal with the implication of Value-Based Health Care combined with Integrated Practice Units as a significant element within Palestinian health care institutions'. Although reviews like Abu Al-Halawa et al. (2019), El Aour et al. (2017), and Albarqouni et al. (2018)touch on different elements of VBHC, such as patient-centered care, outcome measurement, and coordination of care, none delve into its integration in an IPU as the structural element for VBHC. More specifically, even though El Aour et al. (2017) consider IPUs' role in the management of chronic diseases like diabetes through more effective care coordination and multidisciplinary approach, the concept does not look towards the fact whether this model has been enacted with effective results within the institution of healthcare. Meanwhile, Abu Al-Halawa et al. (2019)focus on antibiotic stewardship and the role of pharmacists within multidisciplinary teams instead of investigating their more extensive integration into an IPU structure under the VBHC model.

Given the gaps in the literature, there is a clear need to investigate whether Meso-level hospitals in Palestine are adopting Integrated Practice Units (IPUs) as a fundamental aspect of Value-Based Healthcare (VBHC). The absence of explicit studies addressing this topic prompts the following key questions:

Research Question 1: Do Meso-level private hospitals in Palestine implement IPUs as a component of Value-Based Healthcare?

RQ1.1 How effectively do these hospitals implement care coordination across a network of services, ensuring smooth transitions, centralized management, and the appropriate assignment of care coordinators for patients?

RO.1.2 To what extent are healthcare services in hospitals organized through multidisciplinary teams that collaboratively manage patient care, encompassing preventive, diagnostic, therapeutic, and rehabilitative services?

RO1.3 How do these hospitals facilitate coordination and communication among multidisciplinary experts and community-based resources to optimize patient care, including addressing non-medical needs and social determinants of health?

Exploring these questions is essential to assess whether the theoretical advantages of VBHC, such as enhanced patient outcomes, cost savings, and improved care coordination, are being implemented in practice within Palestine's healthcare sector. This inquiry could provide valuable insights into how VBHC is operationalized and the potential for IPUs to drive improvements within the Palestinian healthcare system.

2.2.2 Outcome and Cost Measurement

2.2.2.1 Outcome Measurement

Value-based healthcare (VBHC) enhances healthcare delivery by linking outcomes to financial incentives and penalties. It focuses on measuring patient-centered health outcomes and involves collaboration among healthcare providers across the care cycle. The core concept of VBHC is the interplay of quality and cost, emphasizing patient outcomes. Strategies like early detection, simplified care, and minimizing extensive treatments improve outcomes and increase value while controlling costs (Porter, 2010).

The healthcare industry's focus on easily measurable factors leads to incomplete care cycle assessments and stifles innovation. This approach misguides cost containment and overly manages physicians' practices, as cost measurement at the department or billing unit level overlooks the entire care cycle, which is crucial for determining the value (Porter, 2010). Implementing VBHC faces challenges in standardizing outcomes for patients, providers, and payers. Medical specialties struggle with identifying outcome measures due to their narrow focus within the care cycle, the high costs of gathering long-term patient data, fragmented organizational structures, and the lack of adequate electronic medical records (EMR) systems (Porter, 2010).

Healthcare outcomes are organized into a three-tier hierarchy addressing health status, recovery, and long-term sustainability, each needing tailored measures for understanding changes and trade-offs (Porter, 2010). Kaplan & Porter (2011) Advocate for comprehensive outcome hierarchies, including clinical outcomes, patient-reported outcomes, and functional status indicators, essential for optimizing practices and enhancing care. Teisberg et al. (2020) State that the metrics should include information related to clinical or functional status, patient experience, and the sustainability of health outcomes. While there has been difficulty in choosing outcome measurements that could be standardized across different contexts,

institutions such as the International Consortium for Health Outcomes Measurement (ICHOM) have seen great strides in implementing these practices worldwide (Porter et al., 2016). An all-encompassing characterization of value in healthcare delivery is necessary, measuring the worth of all patient services while tracking health outcomes and associated expenditures to inform decisions on improving care and managing costs. In the case of patients with multiple conditions, it is essential to evaluate each condition on its own and to normalize for other contributing conditions so that outcomes can be compared accurately, and providers can be assessed similarly by handling complex combinations of disorders (Porter, 2010). It guides decision-making and improves care and cost management: It offers a complete insight into the effectiveness and productivity of healthcare delivery in all diverse patient requirements (Porter, 2010).

Measuring the outcome is essential in improving healthcare since it provides necessary information about what medical providers can employ to improve their practices. Making accurate measurements, providing transparent reports, and comparing these results to enhance health quality and provide guidelines for implementing cost-effective solutions are essential. By fostering trust between providers, creating a climate of innovation, and benefiting all involved parties, the ability to compare outcomes will drive systemic improvement because of public reporting (Porter, 2010). However, this area has significant hurdles regarding gathering and interpreting data. Therefore, a robust data management infrastructure is essential to manage large-scale complexity and ensure the integrity and privacy of high-quality datasets used in these efforts (Sherman et al., 2016). In response to these challenges, more advanced methods, like predictive analytics and machine learning are used to analyze outcome data so that providers can quickly identify patterns and be more informed in decision-making via clinical analytics using big data (Bates et al., 2014).

Another essential element is involving patients in the outcome measurement. The active role of patients in reporting their health status and outcomes during care leads to robust data generation. Furthermore, it makes the interventions even more relevant because they are aligned with patient demands. This patient-centered approach reveals the available interventions likely to enhance patient results. This results in ensuring that individual satisfaction is increased as well (Hibbard & Greene, 2013).

Patient satisfaction is an essential aspect of the health care value, which has different definitions but generally implies how satisfied patients are with primary care processes. In practice, it is often measured using surveys concentrating on service-related aspects such as friendliness and convenience (Porter, 2010). As important as these variables are concerning

ensuring good patient experience, they do not translate into health results. Overemphasis on such ‘softer’ aspects can also cause a distraction away from other more critical levers of value enhancement in healthcare. Nevertheless, patient satisfaction surveys can be tools to gauge compliance and patients' health outcomes. They capture data on functional status, pain, and anxiety, which are not always measurable through biological markers (Porter, 2010).

A trend is emerging to incorporate regular patient-outcome surveys into measurement systems, with many leading providers integrating them directly into the care process. This is a crucial step in improving measurement and driving continuous improvement in healthcare (Porter, 2010) .In contemporary healthcare systems, patient-reported outcome measures (PROMs) have become essential to capturing patients’ subjective health and treatment experiences. Amini et al. (2021) Stated that VBHC is moving the system by linking payments to patient outcomes and satisfaction, orienting healthcare activities more closely to enhancing optimal patient health while managing resources.

According to Horn et al. (2021), patient-reported outcome measures (PROMs) are appropriately integrated into electronic health records (EHRs) to enhance data collection and improve communication between patients and healthcare providers. However, numerous barriers prevent more patients and clinicians from engaging with such tools, including data security concerns, resource constraints, clinician skepticism, and patient reluctance. Technological solutions and training for healthcare professionals and patients should be developed and implemented to overcome these barriers (Horn et al., 2021).

In the article by Withers et al. (2021), the critical role of patient-reported outcome and experience measures is addressed in improving health-related quality of life. For instance, these PROMs and PREMs could be selected to aid patient management decisions and showcase that state programs strategically apply mechanisms to steer clinical performance improvement. On the other hand, in Wales, a program known as the VBHC initiative to drive clinical performance improvement using patient-reported data primarily tuned to service delivery improvement. In this way, the initiatives described show how modern adaptive healthcare models focus on patient needs and quality of life, among other things, to measure and enhance health service delivery (Withers et al. 2021).

Electronic patient-reported outcomes (ePROs) are significant in patients' real-time health-related quality of life (HRQoL), primarily for cancer patients during treatment. Dronkers et al. (2020) Discusses the integration of ePROs into various clinical settings. It thoroughly examines the scope of patient-reported information that could be captured electronically. Among other areas, measuring physical functioning, other psychosocial aspects, and general

HRQoL for a particular patient is possible (Dronkers et al., 2020). With information derived from electronic health records, ePROs provide clinicians with a relatively comprehensive view of patient experience and outcomes, facilitating patient interaction and the likelihood of survival among patients with advanced cancer. It is important to retain such a holistic approach, considering not only symptoms but also the psychosocial impacts of any diseases, including head and neck cancer, as the effectively traumatic treatment significantly undermines patients' daily lives and overall quality of life(Dronkers et al., 2020).

Healthcare Monitor (HM), an ePRO-based system, as described by Dronkers et al. (2020), emphasizes the real-world implications as well as complexities that are associated with the implementation of these technologies in healthcare scenarios ranging from the initial diagnosis to significant post-diagnosis follow-up years afterward. Also, the system's chance to gauge and keep track of patient reaction after a while offers crucial insights into the evolving nature of the affected person's needs that could be important for adjusting proper care strategies accordingly. Additionally, the study emphasizes patient engagement through data visualization, supporting the shift toward a more patient-centered model of care (Dronkers et al., 2020).

Similarly, Horn et al. (2021) Provide an overview of implementing electronic health records integrated with patient-reported outcome measures in an orthopedic surgery department. This study is a reminder of the planning, selection, and engagement steps that must be followed to effectively integrate PROMs into common clinical workflows. Collecting scalable and standardized data is crucial, emphasizing the actionability of the provided results and making it easier for practitioners to incorporate them into actionable steps. Consequently, decisions made regarding care are backed by improved clinical decision-making, leading to superior patient outcomes. It also noted that the PROMIS® domains used in these events represent a focused effort to identify measures that could be collected at scale, often across thousands of divisions. Such an approach can significantly expand the range of different ways that patient results are examined (Horn et al. 2021).

The studies conducted by Dronkers et al. (2020) and Horn et al. (2021) investigated the crucial components of patient engagement and the incorporation process in clinical workflows relative to health reporting tools. Dronkers et al. (2020) point out that logistical barriers, such as the approach to reaching patients with low literacy or those without access to technology, hinder broader inclusion in ePRO programs. On the other hand, Horn et al. (2021) argue that increased multidisciplinary efforts are necessary to overcome the barriers to integration, including the alignment between the technical and clinical goals and data governance. Both

studies confirm the significance of ePROs/PROMs in increasing the quality of patient-centered care. For patients, it is a valuable tool for generating data-driven reports of plausible quality to the clinical decision support systems. For individuals, such tools become useful in population-level research, as well as the improvement of the health system via data-based analysis. Therefore, the move to implement these tools in daily clinical practice is essential for the development of more proactive and accountable patient care frameworks (Dronkers et al., 2020; Horn et al., 2021)

Implementation of the Patient-Reported Outcome Measures -the presence of multiple determinants determines PROMs at Erasmus University Medical Center. It is essential to have a well-functioning organizational culture and supportive infrastructure (Amini et al., 2021). Moreover, the professional staff's motivation and the PROM coordinator's presence are critical for resolving some issues and sustainability. There are also technological implications in providing a suitable IT infrastructure enabling such data integration, including the seamless incorporation of PROMs in E-health Records and regular investment for sustainability updates and availability. Language is a big issue in the Netherlands' linguistic smorgasbord. Patient-reported outcomes should be compiled in different languages, which means that linguistic adaptation and cultural sensitivity need to be guaranteed to achieve equity in healthcare (Amini et al., 2021).

Interpersonal dynamics between clinical teams, such as motivation, conflicting interests, and division of work, require good communication skills mutual trust, and shared responsibility for effective teamwork (Amini et al., 2021). Patients must be actively involved in their care, which can improve quality data and help people feel empowered, ultimately leading to better outcomes for all. Given the prior point, healthcare institutions should focus on patient-centered PROMs to ensure they meet their relevancy and importance in practice (Amini et al., 2021). The experience from Erasmus University Medical Center showed the importance of technological, organizational, and interpersonal factors in the successful implementation of PROMs. Successfully addressing several challenges requires a coordinated approach with appropriate resources, training, and equity-centered care practices (Amini et al., 2021).

Stroke and cardiovascular diseases are critical points of global health concern; thus, comprehensive assessments and improving patient care strategies are essential. In the study, which was conducted by Groeneveld et al. (2019) an extensive evaluation of the Netherlands' stroke rehabilitation trajectory is provided based on the Stroke Cohort Outcomes of Rehabilitation (SCORE) study. The study tracks patient-reported outcome measures (PROMs)

in stroke patients across various health domains. According to the findings presented by researchers, general health, psychiatric problems, motor function, and social domain continued to improve after one year. Meanwhile, the study indicates no significant improvements in cognitive function and fatigue level, even though the areas for improvement still exist (Groeneveld et al., 2019).

Concurrently, the cardiovascular field is witnessing similar efforts to refine and enhance patient outcomes through structured outcome measures and methodologies. van Veghel et al. (2016) describe the Netherlands Medical Board's initiatives to gather and analyze patient-relevant outcomes for various heart conditions, aligning with Value-Based Healthcare principles. Their work, through the Meetbaar Beter initiative, underscores the importance of longitudinal data collection on mortality, morbidity, and quality of life (QoL) across Dutch heart centers. This initiative has contributed to understanding effective treatment strategies and fostered continuous improvement by sharing best practices and outcomes(van Veghel et al., 2016).

Groeneveld et al. (2019) and van Veghel et al. (2016) stress multidisciplinary approaches to patient care in their articles. Stroke patients require a combination of specialists such as physiotherapists, occupational therapists, speech-language therapists, psychologists, social workers, and rehabilitation physicians (Groeneveld et al., 2019). Similarly, the cardiac care approach requires cardiologists, thoracic surgeons, and other specialists designed to manage and improve patient outcomes (van Veghel et al., 2016). Both articles demonstrate the efficacy of multidisciplinary approaches and their integration nature. They also have the importance of current research and adaption of care for specific patients and improving their outcomes and quality of life. Both research studies follow healthcare objectives regarding patient-centered care and advancing value-based healthcare. To achieve such goals, care must be continually evaluated (Groeneveld et al., 2019)

The research by Gabriel et al. (2019) examines the efficacy of the Value-Based healthcare model in treating primary routine hip osteoarthritis using traditional practice and an MDT-integrated practice unit. The traditional model is the straightforward referral of patients from general practitioners to orthopedic consultants. The MDT approach comprises a team of physiotherapists, service managers, and various subspecialists in orthopedic surgery. The MDT models were cheaper to implement, as patient management was simplified, and the number of first-until-hip orthopedic clinics increased. After NHS England’s directive to standardize care, PROMs were used in the form of EQ-5D-5L scores, EQ-VAS scores, and OHS to measure and compare objectively the results of the pre-operation and post-operation assessment of patients.

These tools were used to measure the objective clinical standards of pain, function, and psychological well-being. This study shows the benefits of a well-coordinated MDT and standardized care pathway, which ensures that there are high clinical competency standards and that they are cost-effective. It also shows that this integrated care could be used as a model for other high-volume healthcare requirements with maximum economic sustainability and high clinical standards for patients with chronic conditions such as osteoarthritis (Gabriel et al., 2019).

Ferguson et al. (2016) also provides a relevant overview of results assessment and cost evaluation in foot and ankle surgery. A three-tiered outcome hierarchy that evaluates surgical interventions should be based on: "(1) health status and recovery processes; (2) sustainability of the long-term maintenance of health gain". Grounded in Michael Porter's concept of value-based healthcare, this model suggests that actual cost should include spending from the time a disease is first diagnosed to patient tracking for life post-revision surgery (Porter, 2010). This kind of accurate costing is critical for determining what medical care should cost and better aligning it with patient needs and outcomes rather than merely the procedural costs. Ferguson et al. (2016) play a crucial role in the growing body of information-encouraging initiatives to promote value-based healthcare models. Thus, models combining patient-centered outcomes with consideration of health economic aspects mirror industry developments in efficient and effective management of exemplary patient care (Ferguson et al., 2016).

The literature by van den Hoven et al. (2020) throws light on Turner syndrome and its vast influences on health-related quality of life. It is evident that TS results in numerous physical and psychological challenges for women. It damages the female phenotype through short stature, estrogen deficiency, and cardiovascular disorders. There are other issues, such as the increased risk of diabetes, obesity, and hypertension (van den Hoven et al., 2020).

The psychosocial effects of Turner Syndrome (TS) and its impacts on levels of stress, depression, anxiety, and fatigue affecting health-related quality of life have produced specialized outcome sets and TS-specific questionnaires. This involves tailoring interventions to enhance individuals' HR-QoL. This has led to increased development of personalized strategies to foster the HR-QoL of TS patients, as the current studies reveal that many subset factors of this condition have substantial effects on these constructs. For example, as a result of cognitive shortcomings, negative body images, and hypertonia, many TS people suffer from profound exhaustion and prefer engaging in solo sports like running or fitness (van den Hoven et al., 2020).

A study by Lee et al. (2020) surveyed Taiwanese olds with two or more chronic health conditions, which were included in the appropriation of The Declaration of Helsinki's items on the ICHOM Standard Set for Older Persons. Evaluate health results since they are measured by achieved or preserved health status, evaluated treatment burden and complications, and long-term worth of care. Metrics included physical performance, health behaviors, cognitive function, and comorbidity affliction. The study measures how patients affected by multimorbidity differ in their prognosis outcomes(W. J. Lee et al., 2020).

Lee et al. (2020) revealed that although younger Taiwanese adults without cognitive impairment showed high scores in value-based healthcare evaluations, poor health outcomes were associated with disease burden and the presence of severe mental impairment. The researchers concluded that the results indicated high medication and low adverse events, thus raising the question of whether the condition of elderly patients can be improved by enhancing end-of-life care preparation. Some primary concerns include falls, depression, pain, and lack of a system for loneliness. Besides, the ICHOM Standard Set is limited because it contains no specific cognitive assessment tools; it burdens patients and healthcare providers implementing the approach and the need for even greater consolidation of clinical tools. Thus, the study results show that creating appropriate interventions for delivering care to older patients is vital because the solutions should be designed to meet the existing problems and develop comprehensive assessment tools to improve older patients' healthcare outcomes (W. J. Lee et al., 2020).

Inflammatory Bowel Disease (IBD) is associated with extremely high healthcare costs and compromised quality of life. Any model that aims to improve health and reduce the cost associated with IBD management is called a value-based healthcare model. According to Ahmed et al. (2019) IBD primarily affects young people, thus requiring long-term person-driven healthcare approaches. The VBHC principle aims for quality measures and disease control benchmarks while lowering long-term steroid dependence. This minimizes disease exacerbation, reducing costs (Ahmed et al., 2019).

Audit of IBD care in the UK gave national quality standards and opened great strides to more structured delivery through the IBD registry. However, myriad obstacles to getting such an implementation arise from exponentially growing and massive applications of electronic health records that increase physician burnout or patient compliance with treatment plans (Ahmed et al., 2019). Almost one-third of IBD patients exhibit non-adherence to their treatment plan because of psychological, symptom-control, and socioeconomic problems. A complete and well-rounded VBHC scheme demands excellent communication between

provider and patient, the availability of the most suitable therapies to patients on their risk profiles, and a deeper understanding by patients. Making documentation more straightforward and utilizing technology can lower the administrative load, eventually enhancing care quality and patient well-being (Ahmed et al., 2019).

The integration of value-based health care within the UK's national health service is primarily influenced by Michael Porter's model, which requires a data-centric, outcomes-oriented healthcare approach (Porter, 2010).VBHC's deployment in managing conditions such as heart failure, which affects almost a million UK residents and puts significant pressure on NHS resources, requires data derived from the NHS's vast information systems. The data includes vital signs, such as the number of hospital admissions, and mortality rate that weigh the healthcare's effectiveness (Burnhope et al., 2022).

Burnhope et al. (2022) Imply that the Value-Based Health Care framework has several significant defalcations. One of the most prominent is the failure to introduce an automated system that would help quantify costs throughout the care continuum. They also emphasize that developing a robust cost quantification system for VBHC implementation is one of the core directions to work towards its effectiveness, arguing that designing such systems is critical to improving existing deployments. Furthermore, Burnhope et al. (2022) stress the importance of regularly integrating and transforming data from different sources, such as hospital systems, the Office of National Statistics, and the National Institute for Cardiovascular Outcomes Research, to enable the creation of a specific VBHC database, where the patient data from these and previous systems are not broken down on separate records but relatively consolidated. Notably, using the universal medical codes ICD-10 and OPCS-4 also appears highly relevant, as data precision cannot recognize specific comorbidities and surgeries for accurate calculations. Using these standardized medical codes and detailed data management can help avoid any inconsistencies that might be found during data transformation when such databases are used (Burnhope et al., 2022).

One crucial point described in the articles by Zipfel et al. (2019) and van Veghel et al. (2020) implementing the Integrated Care Model (ICM)under the Value-Based Healthcare structure and systematic outcome measurement of patients in the Netherlands' cardiac care area presents significant healthcare improvements. For instance, Zipfel et al. (2019) Explain that integrating the Integrated Implementation Model driven by the VBHC requirements, using outcome registries, and benchmarking substantially changes the ICM standards. One refers to fulfilling the demands within the VBHC introduction, such as continuous feedback and evaluation based on the outcome.

The study by van Veghel et al. (2020) supports this conclusion by showcasing the Netherlands Heart Registry, the McKinsey 7S model, and the cyclical approach to outcome-based improvements. However, Zipfel et al. (2019) and van Veghel et al. (2020) Note that the models and approaches under analysis are not consistently used across healthcare organizations, and significant cultural and structural barriers like strongholds on leadership, the culture of collaboration between medical professionals, and the inclusion of all involved professional parties prevent their penetration. The two studies also suggest that the measurement systems could be better, and the outcomes associated with their measurements are hard to translate into improvements. Furthermore, such gaps require a central approach to an organizational overturn and integration of outcomes into hospital strategies. The meeting of theoretical models with practical implementations might form the processual bridges between irrelevant data collection and the improvement of methods, thus aiding in implementing the VBHC approach. These conclusions are supported by Porter's suggestions, which focus on the practical organizational aspects of applying VBHC (Porter, 2010).

A case study by Bonde et al. (2018)was conducted on the adoption of VBHC in one Danish region, which clearly showed an emerging nationwide trend away from traditional activity-based systems toward more patient-centered models anchored on quality and care outcomes by improving patients' values and outcomes. Such transformation represents the core of VBHC philosophy, placing the value of the patient and his or her outcome above the performance metric background. Setting the trend, the Danish region has become a benchmark for this approach because it puts a belief in people's minds that the significant indicator of value should be the experience and clinical results of the patients, not efficiency. Bonde et al. (2018) also mentioned that such transitions require considerable effort to operationalize the VBHC framework, showing challenges and benefits in restructuring the core of healthcare systems around patient-centered values. The Danish case indicates the potential of VBHC in taking up some of the most stubborn challenges of quality and cost that plague modern health systems, and in so doing, provides several important lessons for other countries considering similar health reforms (Bonde et al., 2018).

2.2.2.2 Cost Measurement

Measuring healthcare costs with precision is inherently difficult due to the complexity and fragmented nature of healthcare delivery systems, encompassing diverse resources and processes further compounded by the heterogeneous medical conditions of patients (Kaplan & Porter, 2011). Healthcare organizations need help in accurately assessing and consolidating

expenses across various departments, physician specialties, and service areas. The division of care units, such as rehabilitation and counseling center, introduces additional layers of complexity to cost evaluation, thereby impeding a comprehensive understanding of healthcare expenses (Porter, 2010).

The current cost measurement systems often need to focus on the right metrics. This misalignment contributes to inefficiencies and detracts from the actual value of healthcare services (Kaplan & Porter, 2011; Porter, 2010). The efforts to micromanage costs at the individual and organizational unit levels frequently lead to cost-shifting rather than reducing total costs or improving value. They can even reduce the effectiveness of care while driving up administrative expenses (Kaplan & Porter, 2011).This misalignment in cost systems is the main drawback of health care, making it focus on volume rather than value. The problem is particularly severe in emerging and developing countries where financial resources are limited, and the performance of health systems is crucial (Niñerola et al., 2021).

Moreover, payers pressure healthcare organizations to reduce and curtail payment rates and incorporate innovative reimbursement for health services. This pressure further complicates the task of precise healthcare cost measurement (Kaplan et al., 2014). The shift in consumer preferences, with people increasingly valuing quality rather than quantity, makes it crucial to develop better cost measurement methodologies that genuinely reflect the value provided by the consumption of a given health service (Niñerola et al., 2021).

Accurate costing systems in healthcare must comprehensively account for the total costs associated with all resources utilized by patients as they navigate the system, necessitating meticulous tracking of the sequence and duration of clinical and administrative processes unique to each patient. Current hospital information systems frequently fall short in this regard (Kaplan & Porter, 2011). Many proponents of restructuring the delivery system maintain that a new era of rapid improvement in healthcare value is feasible with comprehensive outcomes and cost measurement and empowered by changes in care organization, payments, and market competition. In addition, many people note that accounting for the costs of individual patients simultaneously reveals the wide variations in costs even among patients with the same chronic disease conditions, a critical need for assessing the quality of care (Porter, 2010).

Several different cost systems have been used to measure the cost of healthcare services, such as traditional charge systems, relative value unit costing, ratio-of-cost-to-charges, and Diagnosis-Related Groups (Niñerola et al., 2021). However, these methods have been established as significant barriers to clinician-driven cost reduction and process

improvement initiatives because they use inaccurate and arbitrary cost allocations and limited transparency (Kaplan et al., 2014).

On the other hand, while traditional cost accounting has limitations, Activity-Based Costing (ABC) and Time-Driven Activity-Based Costing (TDABC) have effectively optimized resource allocation and delivered accurate cost information, particularly in healthcare services characterized as complex environments. These methods rectify criticisms concerning traditional cost accounting through precise adjustment and valid data provision for informed decision-making (Niñerola et al., 2021). Considering the widespread use of activity-based costing in many sectors, its application in healthcare is limited. Niñerola et al. (2021) identify limitations, such as the difficulty of precisely defining activities and implementation issues. To avoid these, Kaplan and Anderson introduced TDABC, simplifying the process using time as the only cost driver. To do that, the TDABC should rely on the capacity cost rate and the time required to perform activities (Niñerola et al., 2021)

Kaplan et al. (2014) wrote a detailed article on the benefits of TDABC, describing the possibility of a radical improvement in organizational performance. Reducing the requirement for broad resources and enabling managers to identify and eliminate toxic currencies allows them to focus on the most critical factors that affect processes and activities. Thus, this approach is most relevant in the healthcare sector today, where there is a crucial need for information on the exact work costs and strategic planning.

Healthcare must take a more patient-centered approach, measure costs using the individual care experience, and provide high-value care (Porter, 2010). Kaplan (2014) extends this idea even further by entirely reinventing the application of TDABC through better quality healthcare delivery at a lower cost. This includes detailed mapping of all healthcare processes and measuring the costs for each process associated with a specific condition, including well-defined cost measurement and outcomes. In return, the process provides insights into value-creating care, enables process improvements, and facilitates process improvements, which are value-based business models. It helps providers understand and evaluate bundled payments and the value delivered (Kaplan et al., 2014). Etges et al. (2020) share Kaplan's opinion by revealing that high-value healthcare can be achieved using TDABC, reducing costs across a care episode. More precise cost data and ways to reduce waste are available, and determining accurate cost outcomes expands on VBHC programs and healthcare using data (Etges et al., 2020).

Additionally, Kaplan and Porter (2011) highlight the "inherent complexity" of applying TDABC to the fragmented processes of the contemporary healthcare delivery system. They

suggest that the disjointed nature of healthcare services significantly constrains TDABC's potential to reduce costs and enhance efficiency. However, Kaplan and Porter (2011) also claim that since providers are gradually reorganizing themselves into condition-focused units, standardizing clinical protocols, and improving their information systems, it would become more accessible and more beneficial to apply TDABC. From this perspective, it is possible to argue that the broader trend towards integrated care models growing in popularity would allow the alignment of financial incentives with patient outcomes, easing the implementation of such costing methodologies as TDABC (Kaplan & Porter, 2011) .

Unfortunately, the current healthcare system often needs to more adequately compensate providers for treating patients with complex conditions, leading to their exclusion or neglect. This payment issue results in a focus on more profitable patients rather than clinical excellence (Porter, 2010) .To thrive in the rapidly evolving healthcare landscape, providers must master the art of lowering costs sustainably while enhancing or maintaining patient outcomes. Kaplan et al. (2014) highlight that organizations with strong clinical and executive leadership are more successful in implementing TDABC and achieving accurate cost estimates. Effective leadership and focused process management are crucial for deriving meaningful outcomes and supporting strategic objectives in healthcare. As a result, empowering clinicians to reengineer their processes can lower their costs per minute without compromising quality (Kaplan et al., 2014). However, to find the right balance, many clinicians must be involved, and individualized support must be provided. Therefore, executive leadership should concentrate on improving the reduced cost to outcomes value for patients, following the principles of Value-Based Healthcare. The finance staff is critical to accurately calculate the time of service per minute for each clinical resource. All costs, such as personnel, space, and equipment, should be considered essential(Kaplan et al., 2014). In addition, TDABC facilitates risk adjustments and care variability: it should be the cornerstone of various care pathways, depending on the patient’s situation. Moreover, poor health also exacerbates patients' and their family's financial hardship (Porter, 2010).

Etges et al. (2020) delve into the strategic importance of employing TDABC in bottom-up microcosting techniques, asserting its status as the benchmark for economic analyses in healthcare. Their study emphasizes the importance of carefully documenting each step in methodology to help ensure the reliability and replicability of cost studies. The quality of this detailed fashion, which also makes it possible to validate results robustly, is essential in applying TDABC across various situations. Furthermore, Etges et al. (2020). highlights the

importance of defining the scope, objectives, and business context of the cost analysis to pinpoint cost-saving and efficiency opportunities in health management.

Kaplan and Porter (2011) Conceptualization of TDABC embedded within the Care Delivery Value Chain (CDVC) framework provides a tool for addressing healthcare costs and processes related to focused medical conditions. CDVC merges detailed individual processes to generate accurate outcome measurement and process mapping achieved with resource maps based on extensive interviews undertaken with clinicians independently or in group meetings. Process maps reveal immediate opportunities for improvement and cost reduction in healthcare. Accurate costing is crucial in identifying and eliminating unnecessary variations and non-value-adding processes, which can standardize care and reduce costs without compromising patient outcomes (Kaplan & Porter, 2011).

Time-Driven Activity-Based Costing improves healthcare management by analyzing resource costs and time spent on patient care. It aids in tracking costs within and across organizations, helping to understand the economic impact of medical conditions and developing cost-reduction strategies while maintaining care quality (Kaplan, 2014). TDABC in healthcare accurately estimates process durations and resource use, employing standard times for consistent tasks and actual durations for complex, variable tasks involving multiple professionals (Kaplan & Porter, 2011). It improves cost accuracy by reallocating routine tasks to mid and lower-level providers, enabling specialists to focus on complex care and enhancing efficiency and patient outcomes. By mapping care processes and assigning costs based on time and personnel capacity, TDABC reduces costs and improves workflow, supporting value-based healthcare goals for high-quality, cost-effective care (Kaplan, 2014).

Optimizing resource utilization in healthcare involves aligning clinical skills with tasks, allowing lower-cost professionals to handle duties typically performed by physicians without compromising outcomes. This approach frees physicians and nurses to focus on more complex tasks (Kaplan & Porter, 2011). TDABC aggregates all care costs to understand their components, reallocates spending, eliminates non-value-added services, improves cycle times, optimizes capacity use, and identifies efficient service locations, ultimately reducing structural costs and enhancing value-driven care (Kaplan & Porter, 2011). Significant cost variations exist across healthcare facilities. Shifting routine procedures to lower-cost satellite clinics can reduce overall patient care costs and ease capacity pressures (Kaplan, 2014).

Allocating support resources for primary patient care requires understanding various cost components, including supervising employees, space and furnishings, and corporate functions. Kaplan & Porter (2011) highlight that supply costs should include purchase costs

and making supplies available. Accurate cost allocation involves process mapping, precise cost calculation, and assignment based on service demands. Supervising employee costs cover salaries and indirect expenses, while space and furnishings costs are allocated by departmental usage. Corporate functions such as HR, IT, and finance must be assigned based on actual usage to improve resource management and financial decision-making in healthcare organizations (Kaplan & Porter, 2011).

The TDABC approach significantly advances healthcare management by encouraging interdisciplinary collaboration and creating detailed process maps and resource cost estimates for patient care cycles. This method bridges the gap between managerial and clinical teams, enhancing care efficiency through a shared information platform (Kaplan & Porter, 2011). Accurate cost data aid in identifying high-cost steps, inefficiencies, and unused capacities, which are crucial for cost reduction and process improvement projects (Kaplan et al., 2014). Estimating resource costs requires expertise from finance, human resources, information systems, and clinical quality management (Kaplan & Porter, 2011). TDABC optimizes staff work, improves processes, eliminates unnecessary tasks, and supports benchmarking for best practice adoption (Kaplan, 2014).

According to Kaplan & Porter (2011) implementing TDABC can enhance healthcare value by ensuring transparency of cost information, which is imperative for identifying inefficiencies. As Keel et al. (2017) note, clinical engagement is fundamental, as involving clinical teams in cost estimation enhances data accuracy by reflecting actual resource use in medical procedures. This collaboration provides individual clinicians with accurate information to press for resources and support where these are required (Keel et al., 2017).

TDABC facilitated improved care quality and decreased costs, supporting the transition to value-based healthcare (Niñerola et al., 2021). Short-term strategies encompass process redesign and better resource utilization; long-term strategies include matching resource capacities with demand and adopting reimbursement methodologies such as bundled payments (Kaplan et al., 2014). TDABC has gained impetus as its application in different medical paths has improved resource allocation, cost-effectiveness, and, thus, care quality.

Yu et al. (2016) and Yu et al. (2017) Further, explores the possibilities of using time-driven activity-based costing in the health sector, specifically its application for pediatric patients diagnosed with uncomplicated appendicitis. Yu et al. (2016), they indicated that the conventional accounting system of the hospital could never incorporate its whole cost. In contrast, they argued that TDABC is helpful as it tracks clinical workflows and patient encounters with more accurate estimates by directly estimating the cost of treatments. Over the

two-year observation, from 2013 to 2015, their research showed a reduction of overall treatment expenses by 17% when using TDABC as opposed to traditional means. As suggested, the operating room, hospital floor, and emergency department are key cost drivers. Triangulations of additional efficiencies could likely be derived from triage-based standing delegation orders, surgical advanced practice providers, and standardized same-day discharge protocols—all changes that were found to have significant cost- and length-of-stay impacts but without compromising patient outcomes(Yu et al., 2016).

In a concurrent study, Yu et al. (2017) also dove into this topic and applied TDABC to similar pediatric appendicitis management. Not surprisingly, their results are consistent with the prior examination: adopting TDABC and targeted initiatives — specifically, advanced practice providers (APPs), standing delegation orders, and same-day discharge protocols — resulted in significant cost savings and efficiency improvements. Hospitalization time was reduced by 51%, and the total length of stay decreased to 17 hours. This was not the case with Post-Anesthesia Care Unit PACU — while costs for this phase increased slightly, removing the post-operative floor phase saved $306 off the total cost per patient from $2753.39 to $2447.68. The data availability issue is a limitation of the present study but was mitigated by estimates and national salary surveys. Nevertheless, despite these constraints, the CDA revealed that TDABC was effectively reducing hospital episode costs and increasing efficiency. These results provide direct empirical support for pay-for-performance healthcare systems and highlight the importance of continued stakeholder participation and further research to confirm efficiency improvements in other disease areas (Yu et al., 2017).

Furthermore, Anderson et al. (2017) reviewed the orthopedic outpatient fracture clinic at Glasgow Royal Infirmary and reported on implementing a virtual system known as the Glasgow Virtual Fracture Clinic (VCF) to improve clinic performance. VFC helped in early discharge and self-care due to evidence-based protocols and multi-disciplinary reviews, which reduced unnecessary visits and improved patient satisfaction and outcomes. It ultimately leads to a considerable amount of savings, as it costs £14.23 per patient in contrast to the traditional fracture clinic (TFC), which costs £36.81, marking a 38% reduction in chances. The results of the discrete event simulation (DES) model provide evidence in favor of the VFC being more efficient with fewer face-to-face staff hours and appointments, as well as capacity alignment of patient flow and resource utilization than a traditional clinic at all levels of demand. Using TDABC, Anderson et al., this case illustrates the judicious and cost-effective employment of VFC staff members while simultaneously preserving levels of care necessary to prevent medicolegal conflict. Notwithstanding, the study demonstrated some of the advantages

inherent in the VFC model regarding resource utilization and clinical safety (Anderson et al., 2017).

Additionally, Keswani et al. (2018) describe utilizing a value-based system, which involves the transition of orthopedic healthcare into aligning patient health outcomes with expenses. This provides a broader "bottom-up" methodology of cost estimation where indirect and support costs are allocated to the activities of clinical and non-clinical staff and equipment provided in the process. It will be helpful in orthopedics as we can estimate expenditure at each level of care (procedural, admission, and post-procedure till 90 days). It provides a better ability to analyze profitability and pricing strategically and process enhancements. Implementing TDABC in orthopedics will involve collaboration; processes must be carefully mapped, and per-minute resource costs must be calculated accurately. Practical applications, such as outpatient knee injections, demonstrate how TDABC improves cost analysis and patient care by disrupting the workflow to remove unnecessary steps. Consequently, this helps enhance the patient throughput, lowering the cost per patient. It allows healthcare providers to identify the difference between high and low-average-cost cases, control for variation in patient-level factors and clinical attributes, enable pricing in value-based contracting models, and pinpoint which resources are used when providing patient care. In conclusion, TDABC is a powerful tool for both cost management and the delivery of congress value-based care in orthopedics, providing an opportunity to benefit patient outcomes and financial sustainability (Keswani et al., 2018).

However, Martin et al. (2018) provide a broader view of applying TDABC in multiple medical procedures to identify various efficiencies and possible cost savings that need to be apparent. Martin et al. (2018) investigated the reason for the high rate of healthcare expenditure in the US, noting that a considerable gap existed between what administrators and providers knew about costs at their institutions and how they could use this knowledge to change patient care delivery fundamentally. They proposed a value-based framework using TDABC, scrutinizing cost methodologies at the University of Vermont Medical Center (UVMMC). This revealed significant cost discrepancies in procedures like colonoscopy, aortic valve replacement, and carpal tunnel release(Martin et al., 2018). TDABC reduced the wait times for colonoscopy at the Brigham and Women's Hospital. Although transcatheter aortic valve replacement (TAVR) had higher initial costs than standard aortic valve replacement (SAVR), costs diminished within a year due to lower rehabilitation needs. Martin et al. highlighted the cost benefits of conducting open carpal tunnel release (CTR) in outpatient settings instead of operating rooms at UVMMC. In this way, they demonstrated that TDABC was adequate for a

more detailed cost analysis and process improvement, not only compared with simple top-down methods. “Nephrology clinic visits were just one example where we found that a combination of TDABC and process mapping led to substantial savings and improvements in efficiency. Martin et al. (2018) found that focusing TDABC on particular procedures could generate significant savings and efficiencies; they urged reinvesting those savings to improve the healthcare processes in the face of numerous hurdles, such as extensive need for IT infrastructures or potential stakeholder resistance (Martin et al., 2018).

Moreover, looking into international health commitments, Marotta et al. (2020) echo the growing need for value-for-money evaluations within global health, specifically maternal and newborn health. However, in this context, the authors’ emphasis on the cost-effectiveness of community-based antenatal care and primary care interventions to reduce maternal mortality is unwarranted because hospital-based obstetric intensive care seems essential to prevent such deaths. In resource-limited settings, up to 15% of pregnant women require intensive care, underscoring the importance of high-dependency units (HDUs) for critically ill women. The study by Marotta et al. (2020) focused on the sustainability, economic cost, and usefulness of an obstetric intermediate critical care unit in a country where the maternal death ratio remains the highest worldwide setting in Sierra Leone. Some of the objectives of this research were to ascertain whether a nurse-led HDU in an already high-volume urban maternity hospital effectively prevented maternal mortality by offering more dignified end-of-life care or both. In this study, the value of the HDU was evaluated using Quality Adjusted Life Years (QALYs). Marotta et al. (2020) have provided the cost of implementation and operational costs, which DwA-CUAMM pays along with the hospital. The study calculates the cost per QALY and finds that interventions yielding a QALY of less than $523 are very cost-effective. The total cost for the HDU for over 500 patients was €120,082, with a cost per QALY of €10, indicating high cost-effectiveness. After external support ends, the running costs per admission would be just above €100, with a cost per QALY below $5, ensuring sustainability (Marotta et al., 2020).

In Kurt et al. study, (2019), they explore the urgent demand for healthcare reforms in Turkey while focusing on moving toward value-based services to improve the quality of care and cut costs. They highlight the necessity of accurate cost and activity measurement, which they recommend using the TDABC method. The ophthalmology department in a Turkish state hospital has demonstrated the effectiveness of TDABC, as revealed by this study. The authors analyze patient records and develop comprehensive process maps explaining how TDABC correctly assigns surgical treatment costs and processes, including shadow capacities and direct expenses such as salaries or equipment depreciation (Kurt et al., 2019). These results indicate

that TDABC presents accurate cost predictions and facilitates resource utilization and waste minimization. In conclusion, they strongly recommend implementing service integration and staff reassignment to improve capacity utilization by realizing improved hospital efficiency, improving patient outcomes, increased profitability, and ultimately enhanced sustainability of quality healthcare services (Kurt et al., 2019).

In synthesizing these studies, it becomes evident that TDABC offers a robust framework for enhancing cost accuracy and operational efficiency in healthcare. By identifying and targeting key cost drivers and implementing strategic interventions, healthcare providers can significantly reduce expenses while maintaining or improving patient outcomes (Kaplan & Porter, 2011).

Speeding up healthcare cycle times improves resource management and patient outcomes by increasing efficiency and satisfaction, reducing uncertainty, discomfort, and disease progression. Streamlined processes adhere to TDABC principles, focus on patient education, and cohesive clinical teams to lower complications and readmissions (Kaplan & Porter, 2011). Detailed process maps and cost information enable early diagnostics and educational investments, improving outcomes and reducing long-term costs (Kaplan, 2014). Enhancing Tier 2 and Tier 3 health outcomes, such as faster recovery times and fewer complications, significantly reduces healthcare costs by minimizing prolonged treatments. Adopting comprehensive outcome measurements across all tiers allows healthcare providers to assess treatment effectiveness better, improve patient care quality, and optimize resource utilization, enhancing cost-efficiency (Porter, 2010).

Value-based healthcare principles advocate transitioning from fee-for-service or capitation to bundled payments, covering entire care cycles. This shift aligns reimbursement with value, promoting efficiency and accountability. Precise measurements of costs and outcomes is essential for improving value, ensuring fair provider compensation, and fostering integrated, patient-centered care (Porter, 2010).

The integration of value-based health care, initially characterized by outcome and cost measurement (Porter, 2010), is still limited in the Palestinian setting. The most fundamental finding in the literature is that there are no formal mechanisms for tracking patient outcomes at an individual patient level. Whereas works such as that by Najjar et al. (2021), present the prevalence of diseases and the use of medication among the elderly; it does not include systems for measuring the efficacy of treatments or the recovery results of patients. This absence restricts assessing whether interventions may have improved health outcomes. The same gap is noticed in the study by Shakhshir & Alkaiyat (2023) regarding nutrition care, inadequate

screening, and monitoring practices that prevent evaluating patient progress. That fact militates directly against the principles of VBHC and prioritize measurable improvements in patient health.

Additionally, Palestinian healthcare faces other challenges from a cost measurement perspective. According to the World Health Organization in (2012), with specific cost-sharing mechanisms, such as prescriptions and diagnostic tests, their calculation does not consider the actual cost of care. Besides, a formal framework still needs to be developed to assess the cost-effectiveness of advanced medical technologies, which restricts healthcare providers from making appropriate resource allocation decisions based on evidence. This deficit is critical because VBHC depends on accurate cost information that can relate spending directly to better health outcomes(World Health Organization, 2012).

All these challenges come with the need for integrated digital platforms. Many studies have documented that without IT systems that allow data sharing in real-time, coordination across different providers and regions, which is critical to outcome measurement and cost management, becomes problematic, as seen in studies by Najjar et al. (2021). Advanced health systems have begun incorporating digital health technologies into their operations to provide 24/7 patient monitoring and track the relevant costs in real time to support efficient, value-based healthcare. The literature indicates that a more significant investment in health information technology will allow Palestine to embrace the data-driven approach under VBHC goals (Najjar et al., 2021).

Furthermore, there should be continuing evaluation for quality improvement. While knowledge, attitude, and practice (KAP) scores, as mentioned by Shakhshir & Alkaiyat, (2023) represent a limited basis on which to assess provider performance, these measures would have to be more directly linked to improvements in measurable patient outcomes and cost reductions. The introduction of standardized protocols for health outcomes and treatment cost tracking would move the Palestinian health systems toward the goals of VBHC: high-value, lower-cost care (Shakhshir & Alkaiyat, 2023).

The current literature constantly underlines that outcome and cost measurement are crucial for successfully implementing VBHC in Palestine. Without these systems, healthcare providers cannot plan and manage resource use to extend quality and improve patient outcomes. From now on, the reforms aimed at integrated care models, the adoption of digital health solutions, and the development of formal mechanisms for continuous outcome and cost evaluation are underway to align Palestinian healthcare services with the fundamental principles of VBHC. This gap raises pertinent questions:

Research Question 2: Do Meso-level hospitals in Palestine implementing effective measures to track patient outcomes and costs in line with the principles of Value-Based Healthcare?

RO.2.1 Do hospitals effectively collect, evaluate, and use patient treatment outcomes and financial resource data to measure and improve the quality of care and patient satisfaction while ensuring transparency and alignment with value-based healthcare principles?

RO.2.2 Do hospitals actively implement standardized care processes, continuous quality improvement techniques, and performance data sharing to reduce unnecessary utilization, improve healthcare equity, and align with both internal goals and external improvement initiatives?

2.2.3 Bundled Payment

The widely used fee-for-service (FFS) provider reimbursement model has been heavily criticized for its role in promoting inefficiencies. By rewarding volume over quality, the FFS model has been found to incentivize more services without significant improvements in patient-level outcomes (Hines et al., 2021). By its nature, the FFS model can lead to increased costs at the expense of patient satisfaction and care. It may encourage providers to focus more on the volume of procedures and interventions rather than on patients' needs and well-being for long-term health outcomes. This underscores the potential negative impact of the FFS model and the urgent need to explore alternative solutions. (Porter & Lee, 2013). While models like global capitation, which offers fixed payments per patient regardless of care volume, have not fully addressed these issues, they present a promising alternative. These models could potentially enhance the current situation by improving care quality and patient outcomes (Eriksson et al., 2020).

The incentive structure in health creates “severe principal-agent problems” and is significantly influenced by information asymmetry among the main stakeholders, which complicates governance (Eriksson et al., 2020). Reimbursement programs that some argue address these problems at least tangentially by linking payment to professional values have met with varying degrees of difficulty. Indeed, as Eriksson et al. (2020) comment, excessive under or over-incitement can result in adverse outcomes such as overtreatment or undertreatment if a provider is being moved through a system determined primarily to curb costs instead of boosting quality. These transactions depend heavily on trust, yet the less you have as a preexisting condition in healthcare interactions, the more inefficiencies these exacerbate. Providers, for example, are often frustrated by the opaqueness and complexity of claims

processes in which arbitrary payment denials and delays occur regularly. In addition, such frustrations are compounded by the efforts of health plan auditors to detect overpayments, creating an environment where providers' financial behavior is viewed as unethical (Nijagal et al., 2018).

Similarly, patients are skeptical of health plans and see them as opponents in the healthcare process rather than allies for better health outcomes. Employers, too, grew distrustful, beginning to wonder about the practices of health plans and providers due partly to increasing healthcare costs (E. O. Teisberg & Wallace, 2009). This has led to a vicious cycle of mistrust that demands the organizational and financial structure in healthcare be transformed from fee-for-service models incentivizing high-volume care to value-based payment systems rewarding the improvement in health outcomes within industries without overlapping interests between providers, plans, and employers given their common objective is to deliver cost-effectively (E. O. Teisberg & Wallace, 2009).

There has been a global turn from provider-centric to patient-centric healthcare models, and thereby, there is a growing aspiration for integrated care delivery systems (Hurh et al., 2017). Nevertheless, while saving lives and millions of dollars for the state, resource inefficiencies endure fundamentally, resulting from fragmented care delivery and multiple funding streams. But even as the groundswell of opinion supporting reformation continues to grow, payment models like FFS and global capitation have yet to find practical solutions for unique patient acuities and outcomes-based variables (Hurh et al., 2017).

One promising approach to healthcare reimbursement is the use of alternative payment models (APMs), which pay not based on quantity and volume but rather on quality and efficiency in the care delivered. Medicare has moved toward the use of payment mechanisms that provide economic incentives to physicians who participate in APMs, such as bonus payments for performance based on selected quality measures (Nijagal et al., 2018). For example, The Medicare Access and CHIP Reauthorization Act (MACRA) provides an increased focus on rewarding high-quality healthcare through a variety of medical services performed by our nation's healthcare professionals while aligning payment more closely with desired outcomes (Nijagal et al., 2018). These APMs have some early evidence of savings without sacrificing quality and suggest they may play a role as levers on the path to more value-based delivery models (Nijagal et al., 2018).

Bundled payment models are a subset of Alternative Payment Models (APMS), using a single, comprehensive payment to pay for all services delivered as part of an entire episode of care. There is a large body of research that supports the effectiveness of this strategy. For

example, Hines et al. (2021) meta-analysis looked at 32 studies on the effect of bundled payments on health care spending and quality of care. Among these studies, 20 showed a decrease in medical costs and 18 exhibited improved care quality pre- to post-model (Hines et al., 2021). This study is an example of the promise that bundled payments hold in reducing rising healthcare costs while also improving patient care.

Bundled payment models offer a complete view into how cost-containment and patient-centered quality improvement can be realized together as an effective model from financial incentives to promote better outcomes in the healthcare sector (Porter & Lee, 2013). Bundled payments aim to be a single payment that includes all services for an episode of care related to some condition or procedure during a specified time frame, incentivizing providers to work towards outcomes rather than treatment (Porter & Lee, 2013) .This approach changes the focus of care from quantity to quality, supporting the economic theory that financial incentives should be based on value or outcomes realized per dollar expended (Hewett & Rex, 2010).

One of the main characteristics of bundled payment systems is that they incorporate performance metrics that evaluate quality. This multi-dimensional model also contributes to balancing clinical short-term and long-term gains, efficiency, and patient satisfaction measurement metrics, amongst others (Hewett & Rex, 2010). Tying payments to such pre-defined measures acts as an incentive for providers to not only carry out care in a more cost-effective way but also, at the same time, maintain the best clinical standards and patient satisfaction. This example is significant for cancer care in the long run, because better outcomes result in fewer complications, and many who undergo repeated procedures will avoid crutches or step off of them sooner (E. O. Teisberg & Wallace, 2009).

To succeed, bundled payment models need the involvement of project managers, hospital leadership and clinical champions, and IT folks. This means that these groups must work together to evaluate the institution is performance today and target it toward payers, comparing some pre-determined care delivery to a careful review of historical patient data followed by modification (Liang et al., 2020). Key to this is the power of real-time quality metrics monitoring and reporting. This process needs robust infrastructure support and may require risk models built explicitly for patient groups (Liang et al., 2020). Clinicians remain pivotal to these models, while a concerted effort is being made in the applicant pools for hospitals and clinicians, with hospital-clinician teams held accountable under episode payments across inpatient and outpatient settings. Despite the seemingly fragmented system, this provides an excellent impetus for cooperation and teamwork between levels of care (Nijagal et al., 2018). To strengthen interdisciplinary collaboration, gainsharing models

encourage the care team by spreading financial incentives, leading to more quality throughput among team members. These microsystems that deliver high-value outcomes should also be encouraged to post these results openly for everyone in the organization and immediate access (Nijagal et al., 2018).

Care teams consistently achieve high-value outcomes and are encouraged to openly share their results, fostering a transparent culture essential for building trust. Transparent outcome reporting strengthens confidence among health plans and employers, facilitating sustained trust in the healthcare system (Teisberg & Wallace, 2009). This openness also serves as a basis for discussions on team-based reimbursement models that cover the entire care cycle, rather than isolated procedures. While some employers and health plans are experimenting with new payment models, broader adoption is contingent upon the clear demonstration of value creation. Once established, this could significantly restore trust in healthcare transactions and enable more collaborative reimbursement models (Teisberg & Wallace, 2009).

Designing effective payment reform in healthcare involves several key considerations, which must be strategically aligned with both clinical and organizational structures. These considerations include clinical setting, patient population, nature and scope of incentives, performance standards, and the payment unit, each of which plays a critical role in achieving successful implementation. Hewett & Rex (2010) emphasize that payment incentives can be targeted at multiple levels within the healthcare system, with alignment to the provider organization paramount for these reforms' effectiveness. In particular, bundled payment models, which have gained prominence to enhance both cost efficiency and care quality, require intricate design features to address the complex dynamics of healthcare delivery. For instance, severity adjustments are critical to accommodate patient heterogeneity, preventing the penalization of providers who manage more complicated cases. This is particularly important in systems where equitable distribution of care is sought, and risk adjustment strategies are integral to prevent adverse selection (Hewett & Rex, 2010).

Care also ensures no provider is able to escape from being held responsible against preventable complications which, as a quality assurance mechanism, sets performance benchmarks for levels of care and in turn minimizes chances of complications (Porter & Lee, 2013). These guarantees ensure better patient outcomes and reward providers who coordinate their care more responsibly. Another pillar of bundled payment models is stop-loss provisions, which offer financial protection for the provider against these high-cost outlier events. This reduces the financial risk to providers associated with participation in these models while simultaneously reducing their exposure relative to uncontrolled cost growth — offering a more

palatable path for broader adoption. In addition, mandatory outcomes reporting creates an element of transparency that allows providers to compare their performance with peers. This bundled payment feature creates incentives for ongoing improvement and fosters competition between providers to offer better care (Porter & Lee, 2013).

Addressing attribution, risk adjustment, and measuring quality outcomes is important for any type of payment of Alternative Payment Models. These elements increase the likelihood that payments are generated by incentives for better quality and efficiency in good health, without excessively disadvantaged select patient groups (Liang et al., 2020). Ultimately, healthcare systems can apply these strategies to develop payment models that provide cost containment and quality maintenance across a broad patient population(Liang et al., 2020).

Providers have voiced concerns that the measures must assure predictable reimbursement and revenue neutrality, without shifting substantial insurance risk to them (Nijagal et al., 2018). Episode-based payment models are one mechanism designed to achieve this by bundling payments for episodes of care, but they face significant challenges in implementation given the reality that delivery is fragmented among a multitude of providers and healthcare systems (Liang et al., 2020). There are two primary subtypes of bundled payment models: prospective and retrospective. These models vary in their clinical triggers, episode duration, and fiscal allocation, as well as the methods of payment reconciliation (Liang et al., 2020).

Prospective bundled payments differ from the more dynamically used retrospective ones in that a single, pre-determined payment is provided for the entire care episode (Nijagal et al., 2018). For payers, such a scheme simplifies the calculation of expected costs, but the organization of care requires a truly systemic shift in care. Retrospective payments are, in fact, the only type of bundled payments when service providers are paid after the services for which the payment is being made are provided. At the same time, the provider and the payer initially conclude a bundled payment agreement in which the conditions for a specific type of service provided during the specified period are spelled out (Hines et al., 2021). Retrospective bundling, like prospective bundling, is designed to reduce the cost of care provided. However, the retrospective bundling is even more flexible since, knowing that it will not be punished for exceeding the bundle, the provider is inclined not to adhere to it all the time but to make exceptions in cases when the patient needs some specific care (Hines et al., 2021).

However, the distinguishing attribute of retrospective bundling is the fact that any additional services required for a patient may be included in the bundle without altering reimbursement schedules (Hines et al., 2021). This type of arrangement demonstrates a higher

level of flexibility, and while careful patient selection is required at the onset of treatment, providers will not be penalized for patient complications or unanticipated needs (Hines et al., 2021). Both of these models try to be equally cost-efficient; still, fundamental distinctions in organizational processes make retrospective bundling more applicable in multi-provider settings. Episode-based payments are designed in such a way to deliver high-quality service while controlling costs, and unlike current fee-for-service payments, they consider the peculiarities of multi-provider care settings(et al., 2020; Nijagal et al., 2018).

According to Liang et al. (2020) the development of target prices for episode trigger codes relies on several approaches, including historical claims data, Medicare discounts, and risk stratification, as well as provider performance on quality metrics. These variables help ensure that the biannual payment reconciliations can accurately identify the patients for whom care is provided and the performance of the providers involved (Liang et al., 2020). An indispensable element of this system is the risk adjustment model, a methodology crucial for estimating the number of resources that need to be consumed in the course of care, especially in light of the ongoing transition of the healthcare system from the fee-for-service model. If the risk adjustment is inaccurate, the extent of potential reimbursement loss is staggering for the patients whose conditions require complex or otherwise resource-intensive types of care. The risk adjustment models that do not reflect the condition of such patients and require that they be treated the same as the lower-risk ones provide a strong incentive for the under-treatment of the high-risk patients. There is a similarly significant risk that potential reimbursement loss is staggering for patients whose conditions require complex or e inaccurate risk adjustment resulting in providers refusing to accept high-risk patients, which, in each case, undermines the descriptive equity of the healthcare system (Liang et al., 2020). The challenge with bundled payment models is outlier patients whose care costs exceed the limit due to various factors. Hines et al. (2021) suggest outlier protection mechanisms to address financial risk, which could provide some financial protection to healthcare providers for unpredictably high costs associated with complex cases.

Healthcare systems typically employ one of two main risk adjustment strategies to address these risks: exclusive and inclusive. The exclusive strategy relies on defining low-risk attributes of the patient and excluding high-risk patients from the APM. As a result, the patient population becomes more homogeneous, and the variability of outcomes and unpredictability of costs are minimized(Liang et al., 2020). However, while the risk is appropriately adjusted, this process may significantly reduce the volume of the APM and make it less applicable to the cases of patient groups that do not serve this model. The inclusive strategy applies to all patients

with a certain diagnosis or procedure and uses a risk calculator to categorize patients in terms of risk. Each tier has a fixed price paid for care episodes, adjusted based on the risk exposure. This strategy increases the size of the participant base. However, it increases the financial risk for providers as patients' needs become more varied and less predictable (Liang et al., 2020).

The significance of risk adjustment is not limited to cost control, as it allows for the measurement of outcomes without bias. Precisely, the peculiarities of patients who are treated by different providers, including their age, comorbidities, etc., and their social determinants of health, affect the outcomes (Hewett & Rex, 2010). Therefore, when the adjustments are not made accordingly, the outcomes are skewed and do not provide the basis for fair penalization of the physicians and the nurses who work with challenging and vulnerable populations. As a result, maintaining a fair comparison of different providers is possible only when risk adjustment is in place, and the adjustment patterns reflect the diversity and multiplicity of needs of different patient groups. Thus, using technology, apart from improving cost efficiency, becomes a means of preserving fairness and supporting adequate resource distribution (Hewett & Rex, 2010).

Value-based care models present considerable pressure on both patient and physician autonomy as their development is highly standardized and aimed at cost reduction. Determination of the course of care deprives the patients of their own decisions. As a result, when it comes to advanced conditions, for instance, cancer, standard protocols are not always suitable for everyone as there is a great risk that the patient can be left out of this standardized frame. Such pressure can restrict physicians' professional autonomy, presupposing the care plan's development (Gupta et al., 2016) .Indeed, the physician was previously responsible for determining the best course of action for the patient, considering the problem's peculiarities and the specialist's medical experience. In this situation, the patients and physicians are not happy with the development of standardized metrics, which can reduce the individuality of the care plan developed by the practicing physicians (Gupta et al., 2016).

Furthermore, value-based models, particularly those related to evidence-based practices, increasingly make the cost-effectiveness of clinical decisions a matter of scrutiny by regulatory agencies and internal policies. This places the entire "art of medicine" under threat while being especially averse to complex cases that frequently require physician judgment (Gupta et al., 2016). However, using payment models such as bundled payments, which only reimburse healthcare providers based on the entire episode of treatment, may make autonomy possible, as it depends on measuring outcomes accurately. When this condition is met, healthcare teams can make economic decisions centered on the patient (Teisberg et al., 2020).

VBHC has specifically brought to the fore the quality of colonoscopy, whose efficiency in the screening and prevention of colorectal cancer is well-established. The traditional fee-for-service payment systems have always been blamed for rewarding the volume of services at the expense of quality because they are ineffective in aligning providers' interests with patients' outcomes (Hewett & Rex, 2010). However, with the increasing shift towards pay-for-performance and pay-for-quality, various professional organizations such as the American Gastroenterological Association (AGA), American College of Gastroenterology (ACG), and American Society for Gastrointestinal Endoscopy (ASGE) have revived their focus on measuring such indicators of quality as adenoma detection rates because of their relevance for measuring the quality of colonoscopy. While the quality indicators are useful per se, the value-based payment systems aim to remunerate better healthcare by rewarding its verifiable improvements and not just increased volumes (Hewett & Rex, 2010).

To address the issues of variability in patient case complexity and deficiencies in currently available databases, episode-based payments have been developed. Designed to link financial reimbursements to healthcare providers with the quality of care and costs within a specific episode of care, this method appears to be capable of driving the indicated improvements in the quality and efficiency of care (Hewett & Rex, 2010). Given its recentness, research on the effects of the proposed payment models on care quality, patient outcomes, and efficiency in colonoscopy in general is still scarce. However, the existing body of studies does suggest that the application of episode-based payments can encourage a decrease in the costs of care and the enhancement of its quality (Hewett & Rex, 2010).

Furthermore, U.S. healthcare has experienced some notable changes to the broader landscape of payment structure, and this is part of the response to the increasing cost of medical care. The Bundled Payments for Care Improvement Initiative (BPCI), which the Centers Head for Medicare and Medicaid Services, is an essential step in this development (Kirby et al., 2019). In particular, the payments are tied to the expected cost of specific episodes, such as those related to managing coronary artery disease or diabetes. As such, this BPCI model allows authorities to control costs while improving the quality of care or outcomes. These measures were evaluated in various domains, and the outcomes were particularly satisfactory in fields such as dermatology. The study by Kirby et al. (2019) reviewed several bundled payment models for actinic keratosis. As such, the mean-based Model 2, in this case, better covered patient estimates and gained provider incentives than the median-based model, which was at a financial loss during Trial (Kirby et al., 2019).

The implementation of the Value-Based Purchasing (VBP) program by CMS links hospital payments to quality measures, including clinical outcomes, patient experience, and efficiency, and has accelerated many aspects that were started with The Affordable Care Act. The VBP program, launched in 2013, motivates the hospital to improve care quality by rewarding high performance and penalizing poor performance (Aroh et al., 2015). These efforts, spearheaded by advanced practice nurses (APNs), have been instrumental in our intention to improve patient outcomes with improved care processes and decreased readmissions as well as unnecessary emergency visits. Several nurse-led programs, in particular those based at Magnet®-designated hospitals, have used Lean Six Sigma models to reengineer clinical processes more efficiently and effectively than previously possible (Aroh et al., 2015).

The current widespread adoption of value-based care has substantially influenced radiology. In particular, it has led to a growing focus on the balance between the potential benefits of breast cancer detection at an early stage and limitations, such as cost (Gupta et al., 2016). This is especially evident with the emergence of new technologies such as automated ultrasound, which raises additional challenges with managing the cost-quality relationship. It has also limited the scope of physician's decisions as a matter based on evidence. For example, dual screening for high-risk women with mammography and MRI may be regarded as a manifestation of the tug-of-war between cost-efficiency due to standardized practice and individual approaches to specific patient needs (Gupta et al., 2016). Avoiding alternative considerations at this point is complex within the current pay-for-performance and Physician Quality Reporting System constraints that are still insufficient to capture the provided value fully. Lastly, another concern is related to compressing diagnostic mammogram scheduling, reducing specialists' interaction with patients, which is usually seen as essential for the latter's satisfaction (Gupta et al., 2016) .

Gynecologic oncology has similarly seen the integration of alternative payment models (APMs), such as Bundled Payments for Care Improvement (BPCI) and Accountable Care Organizations (ACOs). These models link financial incentives to outcomes, aiming to reduce costs while maintaining care quality(Dorney et al., 2019). The Endometrial Cancer Alternative Payment Model (ECAP) provides a clear example, segmenting care into preoperative, surgical, and postoperative phases to improve payment structures (Liang et al., 2020). However, the success of such models depends on accurate risk adjustment, which must consider factors like surgical techniques and patient comorbidities. Tools like the ACS National Surgical Quality Improvement Program (NSQIP) risk calculator have been instrumental in refining these models

(Liang et al., 2020). Additionally, patient-reported outcomes (PROMs) are increasingly integrated into APMs to guide clinical decision-making and improve the quality of life for cancer patients (Dorney et al., 2019).

Gynecologic oncology has seen the proliferation of alternative payment models in recent years, such as the Bundled Payments for Care Improvement model and Accountable Care Organizations. These models use financial incentives to improve healthcare and reduce costs at the same time (Dorney et al., 2019). An example of this is the Endometrial Cancer Alternative Payment Model, which divides the payment process into deliver, improve the process, and benchmarks sections (Liang et al., 2020). Overall, it provides a clear example of how gynecologic care can be subdivided into preoperative, surgical, and postoperative care and how that can be used to improve payment structures (Liang et al., 2020). However, whether these models truly decrease costs while maintaining satisfaction with care depends largely on their risk adjustment. For example, while the ECAP model uses patient comorbidities and surgical technique factors, the National Surgical Quality Improvement Program (NSQIP) risk calculator has been used to make these models look more risk-relevant (Liang et al., 2020). Finally, these alternative payment models are starting to collect patient-reported outcome measures to assist in making clinical decisions and improve the quality of life for cancer patients (Dorney et al., 2019).

In the context of spine surgery, bundled payments and value-based reimbursement programs have become increasingly popular given that they can enhance both clinical outcomes and the cost of the treatment (Hines et al., 2021). However, the nature of spine surgery, let alone lumbar spinal stenosis procedures, is that there is a significant amount of variance in costs and patient outcomes (Hines et al., 2021). One of the programs called the Stockholm Value-Based Reimbursement Program attempts to address this variance using bundled payments and pay-for-performance measures. The financial outcome of the program was assessed using patient-reported pain levels (Eriksson et al., 2020). One of the critiques of such VBRP schemes is that the financial incentives are insufficient to prompt medical institutions to improve patient-reported outcomes (Eriksson et al., 2020). Empirical data from the Swedish Quality Register for Spine Surgery, indeed, indicates that simply implementing financial incentives as part of VBRPs does not overwhelmingly improve patient-reported outcomes and the nature and structure of VBRP frameworks should be altered (Eriksson et al., 2020).

Across various health systems in the context of Brazil, Korea, Australia, and the US, it is evidenced that the integration of value-based healthcare principles signifies a global

challenge and a reform that requires particularized approaches. The driving factor for the respective reform is the unproductive nature of a fee-for-service health model whereby the value is ascribed to volume and not the quality of procedures, tests, and treatments. In the words of Porter & Teisberg (2006) the value-based healthcare paradigm challenges care delivery models by changing the goal 'from delivering more services to delivering better results.' However, the pace of respective reforms varies unevenly across different regions and is defined by country-specific challenges.

The Sistema Único de Saúde -Brazilian Unified Health System- although having a key role in ensuring universal care, ultimately coexists with a private sector that uses a disproportionate number of resources relative to the population it serves. This serves to emphasize not only the apparent financial imbalances in the country but also the urgent need for more coherent payment models based on the VBHC value-based healthcare principles (Abicalaffe & Schafer, 2020). Indeed, recent efforts in the country, such as the formation of the Brazilian Value-Based Health Care Institute and the initiation of ICHOM-based standardization, demonstrate a trend towards more standardized ways of measuring outcomes, a development that is crucial for aligning stakeholders within a single VBHC model (Abicalaffe & Schafer, 2020). However, as illustrated by the country's COVID-19 experience, the adaptation towards these new models needs to center on the problem of system-wide financial sustainability and adaptability. This is particularly relevant in the context of cash-strapped LMICs where massive investments into building critical care infrastructure can risk the collapse of business models altogether (Da Silva Etges et al., 2021). Furthermore, the crisis fully exposed the intrinsic vulnerability of a volume-based recompensation system, a redesign toward crisis-resilient, outcome-oriented models is critical (Da Silva Etges et al., 2021).

In Korea, similar pressures are faced by the National Health Insurance System due to growing expenses on healthcare that are conditioned by the aging population and an inefficient referral system in terms of primary care. Several attempts were made to integrate VBHC, including the Support Fund Program for Care Quality Assessment, which offered hospitals better care quality in the form of payment (Hurh et al., 2017). However, national progress in Korea is still limited by the dominance of process rather than measure-based approaches, estimated at a level of 94% in accordance with Hurh et al. (2017) Apart from this shortcoming, Korea also has high out-of-pocket payments and financial incentives bound to the number of services. This suggests that to drive profound changes, reforms such as bundled payments and the creation of comprehensive patient registries are required (Hurh et al., 2017).

On the other hand, Australia made considerable efforts to integrate VBHC into its healthcare system, with Primary Health Networks (PHN) playing a key role. This network model stresses quality improvement, accountability, and the use of blended payment schemes to focus on evidence-based care and chronic disease management, such as the Practice Incentives Program (PIP) (Oliver-Baxter et al., 2017). Still, as in other systems, there are challenges associated with the direct link of the payments to meaningful patient outcomes. The other problem is the use of process-based indicators that serve as constraints to VBHC, as currently available data systems are too fragmented to be helpful. In addition, there is a risk of financial incentives having little effect on improving patient care due to the reduced number of relevant indicators. The need for rigorous data collection and outcome-based metrics remains a substantial issue for achieving quality improvement throughout the Australian healthcare system(Oliver-Baxter et al., 2017).

In the U.S., value-based reforms are also evolving, with alternative payment models (APMs) such as Accountable Care Organizations (ACOs) and bundled payments leading the charge (McClellan & Leavitt, 2016). These models aim to incentivize efficiency and quality, yet their success has been uneven. For example, while some ACOs have demonstrated economic savings and improved care quality, the broader transition to VBHC remains hampered by issues such as regulatory challenges, particularly in states like North Carolina, where the Certificate of Need (CON) rules restrict the availability of high-quality, cost-effective surgeries (Bruch, 2016). Moreover, the Bipartisan Budget Act of 2015 and subsequent legislative efforts have complicated the expansion of value-based care, particularly for independent physicians who face significant financial and administrative burdens in adapting to these new models (Bruch, 2016). Nevertheless, programs like the Bundled Payments for Care Improvement (BPCI) initiative, which groups medical care by diagnosis-related group (DRG) codes, have shown potential in promoting cost-efficient, high-quality care, signaling a path forward for broader VBHC adoption (McClellan & Leavitt, 2016)

The common thread across these diverse systems is the recognition that financial incentives must shift away from rewarding volume and toward outcomes that matter to patients. Whether through bundled payments, accountable care models, or performance-based risk-sharing programs, the success of VBHC hinges on developing reliable, standardized metrics and the ability of healthcare providers to capture and act on this data. However, as shown by the experiences of Brazil, Korea, Australia, and the U.S., it requires overcoming several structural challenges, such as the presence of fragmented data systems, misaligned incentives, and the resistance to change of stakeholders who are used to a model of care based on volume.

Only through this can healthcare systems leverage the benefits of value-based healthcare and improve their efficiency, as well as the effectiveness of care.

Value-based payment models can improve healthcare quality and efficiency, but their success depends on careful design and ongoing refinement to address the complexities of patient care across different specialties. Implementing bundled payment models presents challenges, particularly regarding subspecialty referrals and access to advanced treatments. Concerns arise that ACO primary care physicians may limit referrals to subspecialists to control costs, but studies show no significant differences in key clinical outcomes (Dorney et al., 2019). Additionally, bundled payments may incentivize providers to favor patients with better prognoses, disadvantaging those with more complex conditions. Implementing quality metrics, which are critical for determining reimbursement, is a significant challenge, as extracting relevant data from electronic records and ensuring their applicability across diverse populations complicates the process. (Liang et al., 2020). These issues highlight the complexity of achieving cost control and equitable care in the bundled payment model.

The gaps in the literature on VBHC in Palestine demonstrate substantial blemishes at the design and implementation levels of equity and efficiency in healthcare systems. Dominant fee-for-service payment models payment models, coupled with a lack of regulatory mechanisms to guarantee accessibility for low-income populations, stand in significant opposition to reaching the goals of VBHC. Everything is further complicated by a lack of comprehensive patient records and a prevalent reliance on informal payments, making tracking of service provision and any assessment of equity and efficiency in healthcare distribution skewed, which in turn obstructs efforts toward the provision of quality care to all patients (WHO, 2012)

Thus, transfers of patients from public hospitals to private or foreign institutions underline the current system's inefficiency. Such referrals, however, are very costly to the Palestinian MoH since the private healthcare sector operates on prices that respond to market demands and thus tends to be highly unaffordable for many (WHO, 2012). The dependence on such external health service provision, especially with fee-for-service, only furthers this dilemma by having massive financial outlays transferred away from public hospitals and ultimately diminishes any capability of the MoH to reach the goals of VBHC for cost-effectiveness and patient-centered care. Accordingly, these payment systems create a disproportionate burden on the MoH with no proportional benefit of improvement in health outcomes for which the VBHC was envisaged (WHO, 2012).

More defects come through salary structures and payment schemes. The public health care system is based on civil service scales with allowances. Pay disparities between the West Bank and Gaza reflect broader political and economic divides, which are at once demoralizing healthcare workers and detracting from the quality of care. This may further increase inequity within the system, as receiving unequal pay and various compensations by different territories increases inequity where healthcare quality would depend on one's geographical location and the financial incentives of the health worker rather than being universally regulated across the country (WHO, 2012).

This fragmented approach to paying for care considers the VBHC model, which focuses on quality, access, and cost control. It is an outcomes-based nearly reimbursement system. The literature on the Palestine healthcare system often neglects these key elements of VBHC, namely the integration of outcome-based payments as the central metrics for claims payment in health services. This omission also begs some key questions about the feasibility of implementing VBHC in a context where informal payment systems and fee-for-service models predominate.

Research Question 3: Do Meso-level hospitals in Palestine adopt and implement bundled payment systems for medical conditions, and how aligned are these with the principles of Value-Based Healthcare?

RO.3.1 How effectively do hospitals manage financial risk and resource allocation?

RO.3.2 How well do hospitals align clinical incentives with value-based care outcomes?

Bundled payment models are a critical opportunity to reform healthcare. Integrating financial, clinical, and operational strategies will result in improved quality of care and lower costs to stakeholders (Bruch, 2016). As value-based models continue to advance, insurers and government payers' corresponding evolution in reimbursement models will align their incentives to be efficient and high-quality. Independent physicians remain at the front line in delivering high-quality care in the most appropriate setting. Ensuring equity in access and fairness in the participation of narrowed networks will remain a work in progress as policy continues to evolve (Bruch, 2016).

2.2.4 Integration of Multi-Site Care Delivery Systems

It is also crucial for VBHC to implement integration in multisite care delivery systems to minimize fragmented care and maximize the services at every site. In relation, Porter & Lee (2013), expressed that for a prudent VBH, "every health organization should

define with precision the scope of services provided, concentrate operations in fewer strategically selected locations, and coordinate care across sites". This can best be done through regional integration in which various disciplines and institutions collaborate and share knowledge so that the entire cycle of patient care can be managed in a much more coherent way (Porter & Lee, 2013).

Integration in multisite care delivery includes consideration of divestment of low-value service lines, particularly in community settings, while focusing on those services that represent the provision of the most outstanding value at the lowest cost to patients (Porter & Lee, 2013). This sometimes means scaling back complex, higher-cost procedures, such as cardiac surgeries and rare cancer treatments, and partnering with centers of excellence for such services. This approach ensures that routine services are streamlined across the network while specialized care is centralized at highly specialized facilities. In such a multitasking set of operations, the competence and commitment of the providers in offering value-based healthcare incorporation from multiple sites become synonymous with the overall success of the healthcare system (Porter & Lee, 2013).

Integrating multi-site care delivery systems has become increasingly important, particularly with the growing use of post-acute care (PAC), which has seen over $59 billion in Medicare spending by 2013 (Johnson et al., 2020). Upon discharge from acute hospitals to PAC facilities, patients' physical function (PF) has become critical with healthcare policies linking reimbursement to patient outcomes. Johnson et al. (2020) examined this association and reported that high PF at discharge from acute hospitals was a strong predictor of favorable outcomes in inpatient rehabilitation facilities (IRFs). Their study, based on data extracted from the University of Utah Health and Utah's all-payer claims database, underlined the value of testing PF in supporting care transitions to ensure that patients receive appropriate post-acute care (Johnson et al., 2020).

The study showed that patients with intermediate PF at the time of discharge were more likely to experience meaningful functional recovery at IRFs compared to those with lower PF. It demonstrated that decisions regarding PAC eligibility must be based on the evidence (Johnson et al., 2020). Care integration within and across various sites, focusing on follow-up PF assessment, may improve patient outcomes and facilitate efficient resource utilization. (Johnson et al., 2020). This fits into the general trends of healthcare today in moving to value-based care, where accomplished delivery of care coordination is necessary to attain optimum patient outcomes and financial sustainability.

The Johns Hopkins Medicine (JHM) illustrates integrating the care delivery approach through facilitating inter-disciplinary collaboration in prioritization and improvement in safety and quality across multiple sites, which better befits the goals of VBHC (Ishii et al., 2017). Besides building better coordination of care, the JHM aims for cost reduction through value-added engagement in supply chain management, especially for joint replacement and spine surgeries. It is, therefore, central that such improvements be physician-led, which further resonates with the notion that clinicians should be involved in decision-making to not compromise patient care due to cost-saving. This approach furthers the broader VBHC goal of balancing high-quality care with cost efficiency, as stated by (Ishii et al., 2017; Porter & Lee, 2013).

Kadakia et al. (2020) emphasize that health reform was essential, especially after the COVID-19 pandemic, and had an enlarged diastole of service delivery; hence, enlarged capacity in hospitals and revision of payment models were required. This is in concert with the model of VBHC proposed by (Porter & Lee, 2013) To reduce costs and free up hospital bed space for more complex procedures, Kadakia and colleagues considered alternative care sites such as the Ambulatory Surgical Centers or the so-called ASCs, where pressure could be relieved. Surgeries now, which have never taken center stage in VBHC, are being called upon to reduce costs by offering virtual care, such as telemedicine, instead of physical visits.

Kadakia et al. (2020) and Porter & Lee (2013) further emphasize that care should be decentralized by shifting fewer complex procedures away from expensive teaching hospitals into lower-cost settings. This would allow a better distribution of resources and enhance patient care at multiple sites. Combining these elements, this integrated system effectively uses competent facilities and frees hospitals to perform more complex treatments, keeping costs down.

In the Netherlands, VBHC was studied as a collaboration between Catharina Hospital in Eindhoven and St. Jans Gasthuis in Weert; integration of multisite care delivery systems drives VBHC (Van Veghel et al., 2020). Catharina Hospital is one of the leading hospitals for complex cardiac procedures and thus often receives referrals from St. Jans Gasthuis. This team approached clinical and patient-reported outcomes through improved communication, knowledge dissemination, and uniformity regarding this core failed regional healthcare integration process(Porter & Lee, 2013b; Van Veghel et al., 2020).

Physical outcomes such as improved event-free survival and patient satisfaction were achieved because of mutual quality improvement initiatives. This indicated the strategic focus of care services and changes in patient care at different sites and disciplines. Better planning,

lesser workload, and personalized care contributed to positive outcomes (Van Veghel et al., 2020).

Karhade et al. (2021) discuss how healthcare reform has been transforming spine care along the lines of Porter and Lee's VBHC model. Among the most expensive, spine surgeries are being radically reassessed as far as the venue is concerned. Less complex procedures are increasingly done in outpatient centers, while more complex procedures are making their way into larger hospitals with more specialized care. That is part of a broader trend to concentrate care in high-volume locations to increase efficiency and better outcomes. Karhade et al. (2021) have also pinpointed Centers of Excellence, which treat complex conditions by bringing together multiple disciplines. These facilities represent regional integration wherein teams from various disciplines are united in their best mode of care. COEs compete to treat the most complex cases, similar to what Porter & Lee (2013) describe as competition among specialized care centers. This shift pushes regions towards making strategic decisions on service provision at points where value is maximized, hence driving better patient care through efficient use of resources to support VBHC goals.

The Morehouse Choice Accountable Care Organization and Education System, initiated in Georgia in 2012, is an excellent example of health system integration. It brings together free-standing healthcare organizations to provide integrated primary and specialty care, targeting urban and rural communities. The MCACO-ES follows the Triple Aim framework to improve care experiences for targeted populations, improve the health of targeted populations, and reduce per capita healthcare costs. Central to this success is health information technology that implements data warehousing and Web-based communication platforms to support care coordination (Brown et al., 2019).

MCACO-ES participates mainly through traditional Medicare beneficiaries with considerable savings reinvested into improving infrastructure, designing redesigned care processes, and supporting various stakeholders, including disabled populations and Medicaid-eligible individuals. The organization improves chronic disease management in the primary setting. It achieves lower rates in key CMS Quality Measures to prove its paramount importance in delivering high-quality and cost-efficient care (Brown et al., 2019).

Statistically, UC San Diego Health’s approach to multisite regional integration within value-based healthcare (VBHC) centers on clinically integrated networks (CINs), which aim to improve care quality, reduce costs, and enhance care coordination (Friedman et al., 2021). The integration process involves creating governance structures, adopting evidence-based practices, and aligning payment models with performance-based incentives to meet quality and

cost benchmarks. Their strategy allows independent community practices to collaborate with the more extensive health system, addressing reimbursement, quality reporting, and regulation challenges. UC San Diego Health initially targeted Medicare measures such as blood pressure control and diabetes management. It expanded to include evidence-based surveillance for conditions like prostate cancer, improving patient outcomes and reducing costs (Friedman et al., 2021).

Dr. Delos Cosgrove's leadership at the Cleveland Clinic has been instrumental in expanding healthcare services across multiple locations—a characteristic feature of VBHC. He extended endocrine surgery to several clinic sites using his strategy, which was very much related to resource challenges. By spreading care across multiple locations, the Cleveland Clinic achieved its aims of enhanced patient access, fewer complications, higher satisfaction, and lower costs (Abdulla et al., 2012).

This approach reflects the broader drive for delivering healthcare services based on the needs of the patients, as even argued by Porter & Lee (2013). Indeed, for instance, UCLA experienced similar dilemmas when it was forced to transfer its care services owing to the damages the Westwood Hospital had suffered and finally resorted to the facilitation of outpatient care services by increasing its capacity to handle overflows of patients, Abdulla et al., 2012. This multisite expansion from Cleveland Clinic reflects a ramp-up towards performing more procedures, including those of endocrine surgeries, on an outpatient basis, improving quality and efficiency of care while enacting principles of VBHC (Abdulla et al., 2012).

In Palestine, the health care system is underfunded and very fragmented, with various managing bodies. There is no coordination between the different entities at a comprehensive level. Also, the Israeli occupation, the blocking of Gaza, and the military stops hinder coordination of appropriate levels of care between locations. Therefore, hospitals and clinics in Gaza and the West Bank primarily work in a cocoon, unable to share resources, staff, and data, which leads to inefficiency and disparities in the outcome (Asi, 2019).

The distribution of healthcare resources between Gaza and the West Bank reveals a glaring healthcare inequity that demands urgent attention. Palestinians are often denied access to essential medical services, such as vaccines and medical facilities. This inequity directly affects outcomes and highlights a need for multi-site integrated healthcare delivery, a foundational principle of VBHC (Adjerid, 2024). The Gazan healthcare system faces numerous challenges, ranging from resource and facility shortages to personnel working well beyond their capacity. In this respect, efficient coordination among different levels of care and health

providers' locations is crucial to ensure an integrated model of care and a more rational distribution of available resources. In line with such proposals to establish a humanitarian corridor, the supply of necessary medical consumables would be enabled in this way (D. R. Katz & Sim, 2023) .

Such inequality in dental health services between the Gaza Strip and the West Bank underscores the need for an integrated health care system at the frontline. Though private clinics, public health centers, or mobile clinics operate independently, added value would be gained if they all worked together as part of one network to provide primary healthcare services more accessible to the population (Zhu et al., 2024).

Throughout the COVID-19 pandemic, Palestinians endured grave health challenges, further worsened by inadequate healthcare facilities and resources, all while grappling with political obstacles. Although not typically framed within a VBHC framework, the situation in Palestine underscores how political factors play a crucial role in shaping healthcare equity and outcomes, aligning with the core tenets of VBHC that advocate for patient-centered and outcome-oriented care (Adjerid, 2024) .

According to Value-Based Healthcare, care should be improved through collaboration. Still, numerous issues must be resolved on the path to integrated care such as ,interoperability at the systems level regarding sharing patient recording and medical knowledge between the facilities in Gaza and the West Ban(Asi, 2019) . Telemedicine and e-learning platforms have been developed, but they are rarely exploited. Furthermore, the political situation limits the training and mobility of health workers due to geographical discontinuity between Gaza and the West Bank (Asi, 2019).

The described situation highlights the broader need for multisite integrated healthcare delivery that could improve coordination and delivery in resource-constrained settings like Palestine by addressing inequities and improving health outcomes. This has been supported in a review of the literature about the health care systems in Palestine, where a significant gap exists in comprehensive studies that would detail, with relevance to the Palestinian health care context, how VBHC is integrated, along with multisite health care delivery as an essential component. This lacuna thus creates the need to explore whether Meso-level hospitals in Palestine adopt this model as a critical feature of VBHC. The shortage of clear-cut research on the subject gives birth to many critical questions:

Research Question 4: Do Meso-level hospitals in Palestine implement multi-site care delivery systems, and to what extent do these systems align with the continuous care model in Value-Based Healthcare?

RO.4.1 Do hospitals establish a specific service offering by focusing on improving care in selected areas while refraining from offering other services?

RO.4.2 Do Hospitals implement complex treatments in specialized settings and routine care at less costly sites while coordinating care across institutions through a central body?

2.2.5 Expand Excellent Services Across Geography

Value-based healthcare is a strategic approach to extending excellent services across various geographies, focusing on enhancing value rather than mere volume expansion (Porter & Lee, 2013b). In a mobile society, patients may travel longer distances to access providers with superior outcomes, expanding the geographic market. National or international competition becomes desirable, especially for specialized care (Kim, 2011). However, providers often confine their competitive efforts to narrow geographic areas, leading to fragmentation and preventing the concentration of experience and patient volume, thus undermining value (Kim, 2011)

Healthcare organizations widely use two models, particularly IPUs, to expand hub-and-spoke and clinical affiliation (Porter & Lee, 2013). Accreditation is a tool for facilitating value-based competition in healthcare because it sorts out those organizations that are forced to eliminate free riders. The value-based model allows accredited facilities such as Ambulatory Endoscopy Centers (AECs) to win the competition by adhering to common standards and accumulating data on their centralized system and regional and national benchmarks (Kim, 2011). Furthermore, creating accurate outcomes measures specific to medical specialties, such as those developed by the American Gastroenterological Association Institute, can clarify the value propositions of accredited entities such as AECs (Kim, 2011).

The hub-and-spoke model used with satellite facilities developed in other regions and served by parent organization clinicians establishes teamwork and care delivery efficiencies. However, the clinical affiliations used included relationships with local providers that collaborated with or were acquired by parent institutions to serve based on their provider and care offerings, which helped broaden the market reach and brand awareness (Porter & Lee, 2013).

The strategic geographic expansion of the UCLA Surgical Endocrinology Service (SES) demonstrates a model supportive of VBHC. According to (Abdulla et al., 2012), SES has been aggressively expanding its relative market share and geographic reach; more referrals have been attracted while competitors witness a decline. Such growth has dual objectives. Not only can it lead to increased market influence, but it can also enhance patient care by raising the standard of competition within the realm of healthcare (Abdulla et al., 2012).

This growth for SES allows care management to be further systematized, thus driving efficiencies for healthcare providers and new avenues toward cost savings in pursuit of innovation. Economies of scale feature in their wider reach enabling the adoption of advanced technologies like intraoperative PTH measurement and dynamic imaging to create better patient outcomes. As SES expands geographically, it enhances its capabilities for innovation, attracting more patients and acting as a role model for how VBHC can be implemented across diverse healthcare settings. (Abdulla et al., 2012).

A study by Al-Thani et al. (2023) identified traumatic injury as the fourth leading cause of death in Qatar, which indicates priority interest by the country in improving trauma care. The state of Qatar has cooperated with the American College of Surgeons and the Trauma Quality Improvement Program (TQIP) to guarantee incessant improvement of quality in care. Hamad Trauma Center (HTC) is the only level 1 trauma center, and as such, it provides prevention through rehabilitation. The HTC has a strong liaison relationship with the Level 2 centers to ensure continuity of care and availability when needing specialized equipment. A comparison of Qatar's National Trauma Registry data and that from the TQIP database provided the most significant divergences in patient demographics and outcomes at the HTC, thus emphasizing the need to adapt international standards and practices to fit local needs, tools such as TQIP help in identifying opportunities for improvement and collaboration. Data-driven strategies may, hence, be formulated to enhance trauma care outcomes (Al-Thani et al., 2023).

The United States' rapidly changing healthcare landscape is undergoing a shift to one focused on value-based care. The change is fueled by the realization that organizing healthcare according to patients' common goals will encourage more effective partnerships and improve health outcomes. Indeed, employers are among the stakeholders that increasingly understand the value of increased per-care episode investments, given the possibility of faster recoveries and lower absenteeism expenses (Karhade et al., 2021).

To navigate these challenges, third-party administrators have emerged as core intermediaries, enabling the interactions between employer-sponsored insurance plans and healthcare providers. The intermediate success has promoted further utilization of the TPA and

Center of Excellence (COE) models(Karhade et al., 2021). For example, the “Walmart experience” patients who underwent spine surgery at a COE achieved substantial cost savings and postoperative recovery improvement; as a result, the TPA and COE structure is being more broadly embraced, and elective spine surgeries are shifting to nearby COEs. Enterprises must leverage hub-and-spoke models by deploying specialized operational Centers of Excellence (COEs) and non-operational COEs. Local branches will take charge of non-operational management to ensure patient access. Innovative virtual technology must be utilized to significantly expand the scope of services offered by nonoperative COE services (Karhade et al., 2021). After experiencing ease throughout their convalescence, more patients would return for subsequent elective treatment. The COE system usage proportion of general surgery and other sectors will grow, and a coherent strategy for providing patient-centered medical services will be institutionalized (Karhade et al., 2021).

The MD Anderson Cancer Network (MDACN) exemplifies geographic expansion principles by implementing a quarterly quality audit program designed to enhance the integrity of the peer-review process of this component and the quality of provider education at its network of community centers (Thaker et al., 2016). Educational opportunities for community-based CMs include video conferences, multidisciplinary conferences, disease site-specific case presentations, guideline updates, feedback reports, and an annual cancer symposium. CM personnel at each site manually enter peer-reviewed patient cases into the maxMC electronic database. Subsequently, MDACC faculty evaluates the entries. The first four CMs introduced patient cases between January and December 2013, amounting to 719 cases. The most common cancer types were breast, lung, and prostate. 14% of cases were audited retrospectively by MDACC faculty, and 78% met concordant guidelines. These initiatives demonstrate the importance of high-quality peer-review programs in ensuring high-quality, high-value cancer care at community sites as integrated health systems expand (Thaker et al., 2016).

Kim et al. (2013) emphasize that success in global health depends on delivering high-value care, where the focus is on patient outcomes rather than program achievements. As healthcare systems expand geographically, this patient-centered approach remains critical, requiring careful measurement of patient outcomes about the costs involved. They outline a strategic framework with four key elements: integrating care for individual conditions, consistent delivery across specialties supported by shared infrastructure, efficient use of local resources, and economic considerations at the community level (Kim et al., 2013).

However, the spread to new geographies demands adaptable models, such as the Comprehensive Care Delivery model. Centered on the many comorbid conditions of patients,

early diagnosis and timely treatment assume importance, particularly in more under-resourced parts of the world. Shared infrastructure for delivery is paramount for increasing accessibility and affordability even in remote or under-resourced regions. The Global Health Delivery Project also supports these principles in their emphasis on closing gaps in policy, research, and healthcare delivery in low-resource settings, and advocacy for resources being directed toward high-value programs that emphasize outcomes for patients in a variety of geographic contexts (Kim et al., 2013).

In light of the geographic challenges posed in the backdrop of the Palestinian healthcare system, particularly within the West Bank and Gaza setting, there is a need to delineate the extent to which healthcare delivery is done concerning the VBHC principles. Geographic fragmentation, imposed by the military checkpoints, restricted movements, and separation between Gaza and the West Bank, forms huge barriers to seeking access to care for Palestinian patients, especially when urgent or specialized cases are in question (Asi, 2019). Further reliance on cross-border treatment in Jordan and Egypt underlines the constraints imposed by the local health system, where border closures and other political contingencies often mean access is compromised. These realities pose critical questions regarding geographic expansion as one strategy to enhance the reach and impact of VBHC within Palestine (Asi, 2019).

While international efforts and donors have made it possible to establish some health facilities, these are not sustainable and accessible due to political instability, resource scarcity, and infrastructural issues (Asi, 2019) .Therefore, the Palestinian healthcare system continues to rely on external providers within specialized treatments against the values of VBHC, which focuses on building capacity for locals toward the achievement of optimal healthcare at an efficient cost. In light of the inadequacies in the local health infrastructure, Palestinian healthcare does not entirely align with VBHC, which aims to reduce unnecessary reliance on external sources of care by building domestic capacities for high-value healthcare (Asi, 2019).

Recent advances in mobile care and telemedicine have presented some protuberant strategies to enable the Palestinian healthcare system to overcome some of its core geographic and political barriers. Telemedicine, in particular, fits with most of the VBHC objectives; it provides access to health services remotely, avoids unnecessary hospital admissions, and allows for population health management in cases where health needs are most neglected or damaged due to conflict situations, such as in Gaza (D. R. Katz & Sim, 2023; Zhu et al., 2024). Such technologies can significantly enhance access to care for isolated or displaced populations and thus help overcome many barriers to care imposed by geographic and political fragmentation.

A literature review on Palestinian healthcare systems reveals a significant gap in addressing geographic expansion as a core element of VBHC implementation. This gap raises pertinent questions:

Research Questions 5: Do Meso-level hospitals in Palestine strategically expand their geographic reach to overcome the obstacles imposed by political fragmentation?

RO.5.1 Do hospitals focus on expanding excellent forms of care and forming cooperations within care networks, including private practices, hospitals, and clinics, to enhance the quality of care?

RO.5.2 Do hospitals promote professional exchange and cohesion by facilitating the regular rotation of employees between participating care facilities?

The questions call for further research into whether hospitals are penetrating the healthcare access gap in Palestine through mobile care, telemedicine, and local capacity enhancement initiatives. Furthermore, the research should establish whether such hospitals apply VBHC principles in their expansion efforts by ensuring cost reduction, quality of care, or enhancement of patient outcomes against severe geographic, political, and resource-related limitations.

2.2.6 Information Technology

Technology is a double-edged sword, a key enabler, and yet a roadblock in value-based healthcare. Value-based care is about delivering quality services at lower costs; technology has been instrumental in ensuring this, providing a sense of financial reassurance. It is essential to recognize that the adoption of new health technologies is not merely a cost-saving measure but also a potential catalyst for significantly improving care outcomes (Meinert et al., 2018). This optimistic view of technology's role in healthcare is often called a 'great fantasy for healthcare', is a beacon of hope in the industry. This argument is supported by Porter & Lee (2013), who argue that a well-designed IT infrastructure can effectively address this issue by enhancing the efficiency of system processes, promoting interdepartmental collaboration, and enabling innovative reimbursement models. While intangible to the health value equation, these factors are crucial for its success. However, the rapid evolution of health information technology for scalability and sustainability presents challenges at scale in healthcare (Meinert et al., 2018). Further complicating the provision of comprehensive solutions is the fragmented nature of legacy healthcare IT systems, which have tended to be departmental or service-specific rather than supportive of multi-disciplinary integrated care (Porter & Lee, 2013).

Electronic health records (EHRs) are the cornerstone of the digital transformation into value-based healthcare. They significantly reduce transcription errors and enhance data sharing across institutions, shifting towards a more patient-directed model consistent with value-based care goals, as Meinert et al. (2018) noted. EHRs empower patients to take more control over their health data. However, effectively implementing these digital systems goes beyond mere setup; it necessitates comprehensive assessments in change management and stringent security measures. These processes are not just important but paramount in maintaining patient privacy and ensuring the sustainability of the technological infrastructure (Meinert, Fellow in Healthcare, et al., 2018). Therefore, while technology has the potential to advance value-based healthcare goals, its thoughtful utilization is crucial as it introduces significant barriers.

Technology is also becoming more pivotal in optimizing care delivery and financial risk management, mainly concerning population health management, an equally important feature of value-based healthcare. Mobile reminders and other patient engagement technologies have also decreased no-shows, resulting in better care outcomes and substantial cost savings (Bauer, 2018a). This reflects an overall trend in healthcare marketing, where patient engagement strategies parallel consumer loyalty programs to build closer connections between patients and healthcare providers (Bauer, 2018a). Consequently, the convergence of healthcare delivery and technology is further expanding, given initiatives to reduce inefficiencies in organizations while reducing redundancies in how care is delivered, which will only allow for providing healthcare services that are financially sustainable and patients with a reduced burden (Bauer, 2018a).

The utilization of digital health interventions (DHIs) and interoperable IT systems has transformed patient-centered care into streamline healthcare processes and facilitate the exchange of data between various stakeholders. In both instances, adopting these technologies is increasingly informed by a user-centered approach designed with patients and healthcare providers in mind (Porter & Lee, 2013). The principles of an IT platform that enhances value follow patients through their teams, bringing together all functionally diverse data records for the entire care cycle patient notes from attending physicians, test results, treatments performed or not throughout departments. This model is the building block of value-based care because single-enterprise data sources will natively lead to better clinical decision-making and resource distribution to maximize patient outcomes (Porter & Lee, 2013).

The importance of interoperability in facilitating data exchange across different systems is further illustrated by Meinert et al. (2018), Who also argue that the standardization of data collection practices leads to less care duplication and greater efficiency. This is critical when

integrating real-time analytics and big data that provide population health insights, enabling more proactive vs. reactive care management strategies. Furthermore, using expert systems and templates built into these platforms also improves team productivity by helping in record-keeping and scheduling drug interactions, among other functions leading to proper diagnosis (Porter & Lee, 2013b).

The infusion of new technologies like Voice interfaces, the Internet of Things (IoT), Artificial Intelligence, and Predictive Analytics (AI/PA), coincident with newer care models built around telemedicine platforms and behavioral health modules on data analytics, holds the promise to revolutionize value-based healthcare. Voice recognition tools such as Amazon Echo and Apple's Siri, coupled with IoT, are helping to optimize clinical documentation, leading to more cohesive models of care, which results in superior patient service (Meinert et al., 2018). Specifically, in predictive analytics, healthcare providers can provide personalized treatments using AI by examining real-time data, which results in increased clinical outcomes and decreased costs. This is further supported by Telemedicine and M-Health solutions, which offer round-the-clock patient monitoring and access to care at length, particularly in chronic conditions like CMS Chronic Care Management. Telemedicine increases healthcare cost savings by continuing to be a condition that becomes a transition and shows the progression of accepted untreated ability, while Text4Baby mobile tools strengthen patient engagement and compliance (Bauer, 2018a).

At the same time, digital health interventions (DHIs) and e-health solutions are increasingly being utilized to manage chronic diseases. An example is the Mount Sinai Health System, which uses mobile and online tools to improve real-time patient communication in chronic pain management, improving medication compliance through targeted treatments (Bauer, 2018a). Likewise, digital health interventions (DHIs) in cancer care, such as patient-reported outcome follow-ups, lead to higher survival rates and better quality of life while decreasing costs for the healthcare system through telemedicine and e-surveillance systems (Miettinen & Tenhunen, 2020).

In the same vein, machine learning (ML) can be instrumental in managing healthcare waste that burns a gaping hole of almost 1 trillion dollars annually through inefficiencies, over-prescription, and diagnostic errors in the U.S. system. By analyzing complex data, ML algorithms enhance the accuracy of diagnosis and aid in decreasing safety concerns and help optimize individual treatment plans. Reduced errors and costs are real benefits, but it faces challenges like sourcing high-quality data in a susceptible world to do so (Crowson & Chan, 2020). Similarly, telemedicine can assist with access to health services in rural regions and

reduce emergency room visits unnecessarily if correctly integrated technologically and financially (Schwamm, 2014).

Dashboards tracking the value of surgical procedures are an essential part of moving towards a system based on value for patient care, which is increasingly relevant in orthopedics and spine surgery. Reilly et al. (2020) have highlighted the use of an institutional dashboard to evaluate surgeon-specific total knee arthroplasty (TKA) and total hip arthroplasty (THA), outlining clinical outcomes, including readmission rates, as well as patient-reported outcome measures (PROPs - PROMIS-10, HOOS-JR, KOOS-JR). This will enable comparing surgeon performance to institutional benchmarks and license creation for targeted process improvements. However, with the focus on overall values and without risk adjustment, its limitations illustrate how hard it can be to measure value in different clinical settings accurately (Reilly et al., 2020). Azad et al. (2016) expand on this by detailing the creation of an electronic array for minimal-use-of-scales (EAMUS) used in spine surgery, affixed with patient-reported QOL metrics embedded within the Epic MyHealth platform. This model optimizes data capture and clinical decision-making by incorporating tools like the Oswestry Disability Index (ODI) & Visual Analog Scale (VAS), serving as an example of how dashboards may improve outcome tracking accuracy/effectiveness across both orthopedic/spine surgeries (Azad et al., 2016).

In addition, using digital tools such as Kaiku Health Cancer Follow-Up Application (CFUA) is another excellent example of how physicians and oncology nurses could benefit from DHIs. Miettinen & Tenhunen (2020) note that DHIs can reduce unnecessary clinic visits and calls and "free up resources in the health care," thus appropriately allocating healthcare resources. Nurses and nonphysician providers handle non-urgent cases asynchronously and forward only critical cases to physicians. Care coordination improves due to the reallocation and upskilling of staff on specific clinical tasks, which surges labor costs downward to optimize care delivery (Miettinen & Tenhunen, 2020).

Although these technologies provide many benefits, the critical ability to generate timely and efficient data is limited in some settings, which increases costs associated with measuring outcomes or managing patient-centered care (Porter & Lee, 2013b) . Such lacunae further highlight the need for state-of-the-art systems to enable unrestricted availability and data sharing. Systems like those pointed out by Meinert et al. (2018) and Miettinen & Tenhunen (2020) facilitate patient empowerment by allowing patients to participate in shared decision-making by providing access to electronic health records and easily attainable communication

channels. This sense of empowerment is vital in value-based care models, where patient-focused engagement can influence health outcomes directly and cost-effectively.

In addition, the evolution of healthcare analytics capabilities has enabled this move towards data-driven clinical practice. The collaboration model used by Dell Medical School and Ascension's Seton Healthcare Family, as described in Winegar et al. (2018), involves surgeons in identifying outcome and process measures. In the worlds of reducing unnecessary variation and improving compliance with care pathways, getting clinicians to decide those metrics could reflect a much more human authority in areas where humans have substantial authority. This model of surgeon engagement follows a general trend towards clinician-led, multidisciplinary councils establishing the design and approval for clinically actionable data elements promoting care improvements across scopes within various specialties (Winegar et al., 2018).

However, the move to value-based care is not limited to orthopedics and spine surgery; it's inevitable in many other service lines, such as oncology. Alvarnas (2017) explores the increasing cost of healthcare and cancer care specifically, where drug costs alone soared to $37.8 billion in 2016. Driven to reduce costs and enhance patient outcomes, efforts are underway to transition from a fee-for-service (FFS) model towards value-based care — something even more challenging in an environment with spotty comprehensive data systems. Challenges notwithstanding, innovative advances in big data analytics and precision medicine offer potential solutions. CancerLinQ and CotaHealth are examples of companies using big data to relate how much cancer treatments cost versus patient outcomes, which is an essential move toward personalized medicine (Alvarnas, 2017).

For inflammatory diseases, the same kinds of taking-along methods are being employed. Beard et al. (2020) have drawn attention to the growing incidence of Inflammatory Bowel Disease (IBD), and hence a rising economic burden on healthcare providers. The Specialty Medical Home (SMH) model and telemedicine projects like Project Sonar have been developed to overcome these issues and help track diseases, medicine sticking, and healthcare outcomes while reducing hospital remissions. Such a multidisciplinary model underscores broader trends toward integrated care models focused on patient-centered outcomes rather than procedural volume, similar to what has been seen in the other fields of orthopedics and cancer(Beard et al., 2020).

The advent of the COVID-19 pandemic has catalyzed the use of artificial intelligence (AI) products and digital health tools across healthcare, demonstrating their capacity to handle myriad data inputs at scale while providing clinical efficiencies. Cossio & Gilardino (2021)

delve into the role of diagnostic imaging with artificial intelligence (AI) and predictive analytics during pandemic times —An approach for patient selection in emergency service & resource planning. The design of the Coronavirus Tracker by Johns Hopkins University, showing how AI can significantly reduce data collection and analysis inefficiencies, illustrates just some of the revolutionary capabilities these technologies possess — pandemic or no-pandemic. Nevertheless, issues surrounding the generalizability of AI models to more varied populations and locations suggest that additional polishing is required before these tools could likely be used as a healthcare delivery mechanism(Cossio & Gilardino, 2021).

Healthcare technologies have proven their capacity to help improve health outcomes in several regions, but policy frameworks enabling sustained technology use and effectiveness are essential for successful adoption. The broad perspectives regarding the value of these technologies among IT professionals, clinicians, and policymakers may increase variability in their interpretation and application due to the lack or absence of clear policies that could result in underutilization or abandonment (Meinert et al., 2018). Similarly, Miettinen & Tenhunen (2020) Argue that the economic and clinical benefits of DHIs may only be realized where policy frameworks are complete or ambiguous, highlighting a need for adaptive policies to respond dynamically to technological changes.

The concern with data governance and ethics extends to a broad array of patient-information protection frameworks like GDPR and HIPAA. Yet, incidents like this unpermitted data sharing continue to erode trust in healthcare systems (Meinert et al., 2018). Furthermore, the rise of cyberattacks, exemplified in the WannaCry ransomware attack, emphasizes the importance of robust data protection strategies within health organizations. However, most respond slowly as risks change over time (Meinert et al., 2018).

Integrating healthcare technologies in large organizations requires planning challenges and stakeholder engagement. Today, poorly managed technology project plans add inefficiencies and cost. Meinert et al. (2018), Miettinen & Tenhunen (2020) On the other hand, they have argued that strategic planning is needed to make these technologies more durable. It is essential to understand that while healthcare systems automate, modernize, and integrate new technologies to protect the security of data exchange and its scalability retention management, change control risk mitigation remains critical in maintaining patient care operations (Meinert et al., 2018; Miettinen & Tenhunen, 2020).

Information technology use within the Palestinian healthcare system enhances quality in the aspects approved for a Value-Based Healthcare system. Digital health platforms employing decision-support tools improve the quality of antenatal care by managing key health

issues, such as anemia and high blood pressure, among pregnant women. This helps focus care on patient outcomes by better utilizing resources, reducing manual processes, and improving decision-making (Venkateswaran et al., 2022).

It also increases cost efficiency by smoothing healthcare operations, reducing paperwork, and minimizing errors. In a limited-resource country like Palestine, these improvements significantly maximize the resources used within the healthcare system. The system further supports integrated care by linking patient information across different care providers, enabling a more coordinated and continuous approach to treatment (Venkateswaran et al., 2022).

IT systems have worked effectively in Palestine, drawing from the experience of the United Nations Relief and Works Agency (UNRWA). In one example, automated alerts increased the screening rate for diabetes and adherence to antenatal care schedules. Thus, IT-driven similar systems could serve early detection and management of chronic conditions to reduce hospitalization, enhancing overall patient care (Ballout et al., 2021).

Nevertheless, collecting comprehensive data, even at the level of all health providers, is still a challenge. At the same time, political conflicts bear much of the blame for the problem of fragmented Healthcare Information Systems in Palestine. IT solutions provide an avenue towards more efficient, patient-centered healthcare in Palestine as the nation slowly edges closer to the goals of VBHC, as stated by the World Health Organization in (2012).

Since the literature on implementation regarding IT as a critical component of VBHC is scant in the Palestinian context, several important questions should ideally be further explored to fill these gaps.

Research Questions 6: Do Meso-level hospitals in Palestine implement integrated information technology (IT) systems that support the principles of Value-Based Healthcare, particularly in outcome-based decision-making?

RO.6.1 How effectively does the hospital's Health Information Technology (HIT) infrastructure support value-based healthcare (VBHC) through the integration, interoperability, and standardization of electronic health records (EHRs), data analytics, and patient care coordination?

RO.6.2 How well does the hospital's digital patient record system facilitate comprehensive, accurate, and real-time access to patient data while supporting clinical decision-making, diagnostic accuracy, risk adjustment, and data-driven insights for optimized patient outcomes?

These questions are critical for understanding the broader impact of IT on VBHC implementation in Palestine and for designing systems that can effectively meet the challenges posed by the region's healthcare infrastructure and political landscape.

2.3 Summary

In conclusion, the literature reviewed highlighted the main elements of Value-Based Health Care, which has been proven worldwide to be an effective tool to improve quality and contain costs; however, there is a lack of evidence on its applicability in the Palestinian health system. Existing literature indicates that Palestine faces many challenges, including fragmentation of care, scarcity of resources, and lack of uniform tools to measure patient outcomes. In addition to those obstacles, implementing VBHC in the occupied Palestinian territory amid persistent political and social issues renders the application of all efforts for high-value care almost impossible. This study fills these gaps by evaluating the application of VBHC in Palestinian hospitals. It assesses the best practices and recommendations that might help lead to improved regional healthcare outcomes through the lens of global dialogue on how VBHC can effectively function in low-resource and conflict-affected areas.

Chapter Three
Methodology

3.1 Introduction

The chapter outlines the research framework and methodologies adopted to assess the status of VBHC implementation in mid-tier hospitals located within the West Bank, Palestine. The study focuses on the six core components of the VBHC, organizational strategies, challenges, and results associated with its implementation. An exploratory method was used to analyze existing practices and scrutinize the obstacles faced by hospitals at the Meso-level.

In light of this, the research methodology will adopt a qualitative and quantitative approach. It will involve gathering quantitative data from structured questionnaires and qualitative information from in-depth semi-structured interviews. Such a blend can synthesize a comprehensive evaluation of the implementation process of VBHC and its consequences on healthcare performance. The chapter explains the data collection procedures, the sample selection criteria, and the analytical techniques. Further, it outlines ethical considerations relevant to the research, adhering to accepted ethical practices.

In this regard, the study explores the critical dimensions of the implementation process of VBHC and its subsequent impacts on healthcare outcomes. Anchored on empirical data and underpinned by theoretical frameworks from health services research, particularly value-based care, the methodology attempts to look at points of strength and weakness in current healthcare practices in Palestine. Based on such findings, strategic recommendations are made for enhanced healthcare delivery in the region.

3.2 Research Design

This study employs a sequential mixed-methods design for testing the implementation of the components of Value-Based Health Care in hospitals across Palestine. This is worthwhile because, as Toyon (2021) mentioned, sequential mixed methods effectively explore the depths of research questions by embedding strengths in quantitative numerical data together with the richness of contextual qualitative narratives. Whereas the first quantitative phase identifies measurable trends, the second qualitative phase provides accurate detail to reinforce the explanation of outliers and an improved contextual understanding of the findings (Toyon, 2021). This integrated approach means that this research will take up a multi-dimensional approach toward VBHC adoption and can analyze adoption by integrating the preciseness of quantitative data and depth of qualitative inquiry. Thus, this approach is crucial for capturing

measurable outcomes and nuanced contextual factors relevant to how VBHC principles are applied in practice.

Deductive in nature and informed by the theories and models created within the field of VBHC on which this research will be based, this structured design enables the conceptualization of research on implementing the components of VBHC in Palestinian hospitals. A deductive methodology embeds the research in literature while establishing a theoretical basis on which actual realities and challenges faced in the implementation process of VBHC can be analyzed.

This will be further operationalized into a quantitative phase comprising a structured survey measuring the extent of VBHC adoption across the different hospital sectors. Such a structured approach quantifies how VBHC principles have been operationalized within Palestine's healthcare systems, especially in resource-constrained settings (Creswell, 2009). Quantitative analysis ensures replicable and generalizable findings by applying statistical techniques that may help draw trends of VBHC adoption across hospital types and regions, building a robust understanding of healthcare reform efforts in Palestine.

In this vein, the qualitative phase will be proposed with semi-structured interviews of the key stakeholders. These would, in turn, bring in much deeper insights into the challenges and facilitators associated with VBHC implementation and provide contextual data to complement the numerical data from the quantitative phase. Focusing on experiences, perceptions, and organizational dynamics has enabled the qualitative phase to highlight why certain elements of VBHC are, or are not, successfully integrated into healthcare systems (Hammarberg et al., 2016). The flexibility of the qualitative approach lets the exploration of complex and nuanced issues often missed by more quantitative approaches bring richness and narration that adds depth to the understanding of implementing VBHC at a Meso-level.

A cross-sectional design is critical in this research, as it allows for data collection at a single point across multiple hospitals. This provides a comprehensive offering of insights into the current status of healthcare reforms within the region's diverse hospital landscape (Wang & Cheng, 2020).

3.3 Study Setting

The healthcare infrastructure in the West Bank comprises 58 hospitals, all of which will be part of this study, categorized by their management under the Ministry of Health (MOH), the United Nations Relief and Works Agency (UNRWA), non-governmental organizations (NGOs), and private entities. This indicates a difference in financial and operational structures

but also presents a challenge and an opportunity regarding implementing VBHC. Specifically, 18 hospitals are governed by the MOH, with NGOs overseeing 22, private entities controlling 17, and one by UNRWA as in (Table 3.1) (PHIC, 2023); This distribution highlights the variance in hospital governance, significantly influencing the capacity to adopt VBHC principles. The diversity of healthcare providers makes it possible to investigate the healthcare landscape and its adherence to VBHC initiatives, especially in light of diverse regional and institutional needs.

Table 3.1 Distribution of hospitals by health provider and district Palestine 2022

District	**MOH**	**UNRWA**	**NGOs**	**Private**	**Total**
	No. of Hospitals	No. of Hospitals	No. of Hospitals	No. of Hospitals	No. of Hospitals
West Bank	18	1	22	17	58

Table 3.2 illustrates the distribution of hospitals by governorate, a witness to inequity in the distribution of health resources in the West Bank. Indeed, Hebron represents the highest number of 12 West Bank hospitals; five are MOH, three are NGO hospitals, and four are private. Other governorates like Tubas and Salfit have only one hospital. Also, the different types of hospitals by governorate have inspired motivating adaptable VBHC frameworks for both high and low-resource settings (PHIC, 2023). Distribution includes the health system's geographical and institutional complexity, which demands a tailored approach to implementing VBHC.

Table 3.2 Distribution of Hospitals by Governorate Palestine 2022 (PHIC, 2023)

Governorate	**MOH**	**UNRWA**	**NGOs**	**Private**	**Total**
Jenin	1	0	2	2	5
Tubas	1	0	0	0	1
Tulkarm	2	0	1	0	3
Nablus	2	0	4	2	8
Qalqiliya	1	1	0	0	2
Salfit	1	0	0	0	1
Ramallah	2	0	1	6	9
Jericho	1	0	0	0	1
Jerusalem	0	0	6	1	7
Bethlehem	2	0	5	2	9
Hebron	5	0	3	4	12

The specialization of hospitals, as detailed in Table 3.3, highlights another critical aspect of healthcare provision in the West Bank. General hospitals are prevalent across multiple governorates, including Hebron, Nablus, and Ramallah, with Hebron alone having 7 general hospitals(PHIC, 2023). Maternity and rehabilitation hospitals, on the other hand, are fewer in number, indicating potential gaps in specialized care. The presence of specialized hospitals in areas such as Nablus and Ramallah reflects a growing recognition of the need for advanced, focused care within the broader healthcare infrastructure (PHIC, 2023). Addressing these specializations, the study provides insight into how VBHC can be implemented within diverse hospital types, enhancing efficiency and patient outcomes.

Table 3.3 Distribution of Hospitals by Specialty & Governorate, Palestine 2022 (PHIC, 2023)

Specialty / Governorate	General Hospital	Maternity Hospital	Rehabilitation Hospital	Specialized Hospital
Bethlehem	3	3	1	2
Hebron	7	3		2
Jenin	3	1		1
Jericho	1			
Jerusalem	3	1	1	2
Nablus	4		1	3
Qalqilya	2			
Ramallah	4	2		3
Salfit	1			
Tubas	1			
Tulkarm	3			

In terms of patient care, Table 3.4 illustrates the number of outpatients treated by different healthcare providers. The MOH, which treats the largest volume of patients, handled over 1 million in emergency and 651,732 in outpatient clinics in the West Bank (PHIC, 2023). NGO hospitals treated slightly more outpatient clinics (766,083) but significantly fewer in emergencies (260,469), reflecting their distinct operational focuses. Private hospitals also play a significant role, albeit with lower patient volumes than the MOH and NGOs. UNRWA, with a more limited operational scope, handled 7,124 outpatient clinics and 26,491 emergency cases. These patient volumes provide critical data for assessing hospitals' performance under VBHC models, particularly in improving healthcare delivery efficiency and patient satisfaction across varying capacities and services (PHIC, 2023).

Table 3.4 Distribution of the number of visitors to outpatient clinics and emergency rooms by provider and district, Palestine 2022 (PHIC, 2023).

	Provider	No. of outpatients Clinics	No. of outpatients Emergency
West Bank	**MOH**	651,732	1,035,032
	NGOs	766,083	260,469
	Private	284,706	93,155
	UNRWA	7,124	26,491

This detailed analysis of hospital distribution, specialization, and patient volumes within the West Bank is essential for understanding the complexities of implementing VBHC in Palestine's healthcare system.

Given the region's unique sociopolitical and economic context, as outlined in the study by AlKhaldi et al. (2018), adopting VBHC requires a nuanced approach that considers not only the disparity in healthcare resources but also the varying capacities of healthcare providers. In resource-constrained settings like Palestine, as argued by Giacaman et al. (2009) , enhancing healthcare outcomes through innovative, value-driven strategies is particularly critical. Integrating VBHC into such a context promises to improve patient outcomes while addressing systemic inefficiencies.

3.4 Population and Sampling

3.4.1 Population

The targeted population in this study is a representative sample of all healthcare directors, administrators, and policymakers working at strategically relevant levels in various hospitals in the West Bank and taking part in implementing Value-Based Health Care. Target groups shall be selected based on the strategic and operational value they provide for this study to gain insight into how VBHC can be adopted and put into operation by healthcare organizations, whether public, private, or NGO-run. The focus shall fall on stakeholder groups bearing significant responsibilities vis-à-vis the shaping and orientation of VBHC efforts:

Healthcare Administrators: These stakeholders like the CEO, CFO, and CTO have much to say in decisions, resource allocation, and financial models that define hospital operations. Their contribution will provide insight into how VBHC might be integrated into the general organizational strategy perspective and what financial sustainability could look like under VBHC frameworks.

Medical Professionals: These include department heads, clinical leaders, and para-medical staff directly involved in patient care. Because they stand at the forefront of providing

healthcare services, their perspectives are critical in assessing the clinical application of VBHC principles and how well the patient care processes align with VBHC goals.

Quality Assurance and Patient Safety Officers: The focus will be on care standards since they ensure that the healthcare services offered are of quality and within the set safety benchmarks. Their role is believed to be quite important in understanding how VBHC could drive improvement in care quality and organizational efficiency.

Targeting different stakeholders in various levels of hospitals to capture as broad a perspective as possible on how VBHC can be integrated. This broad focus identifies challenges and opportunities that can arise in adapting VBHC within the varied healthcare environments in Palestine. Participants' leadership and clinical roles are essential in understanding how VBHC can be fitted into the various operational and structural characteristics of the healthcare system in the West Bank.

3.4.2 Sampling

The research design applies purposive sampling in selecting participants directly involved in the VBHC implementation or holding strategic management positions in hospitals across Palestine. This sampling technique will ensure that participants can provide enough knowledge on the governance of their organizations, clinical operations, and financial models to give a holistic representation of VBHC adoption in different functional areas.

In the quantitative phase, the sample size is targeted at a reasonable number of around 150-200 participants to obtain a diversified view. This will also be feasible within the resources available for this study. In this regard, all the hospitals in the West Bank should be targeted, taking 3-5 participants from each institution for diversity. This would ensure a wide-ranging understanding of VBHC implementation across varied hospital environments and regions.

In this qualitative phase, purposive sampling will also be used to select 10-15 key informants for in-depth interviews among the quantitative survey respondents. Participants will be chosen based on their roles and the ability to give substantial, detailed insights into VBHC processes. The key informants shall oversee strategic and operational VBHC initiatives. This targeted sample can provide a more in-depth probe of the challenges and facilitators of VBHC implementation in Palestinian hospitals.

3.5 Inclusion and Exclusion Criteria

The study will include professional and administrative personnel in all hospitals in the West Bank. They selected to be active in the decision to adopt or implement Value-Based

Health Care to ensure that their response directly implicates the adoption and implementation of VBHC. At least a year of service within the same hospitals, thereby having sufficient knowledge regarding the operations and any VBHC initiatives among the operations. Participants to be targeted in this study would include governance, clinical leadership, and operation participants who are key to management, healthcare delivery, and VBHC-related strategies. These essential functions are fundamental in reflecting realistic challenges and opportunities while implementing VBHC within varied health settings in Palestine.

It excludes all hospitals outside the West Bank. Such a selection would ensure consistency and relevance in Palestinian healthcare systems. It will exclude those not involved in decision-making or policy-formulation processes regarding VBHC. These are all those individuals whose job description is irrelevant to the strategic, clinical, or operational management of VBHC. This will protect the data from participants who are less likely to engage or affect VBHC-related strategies and their implementation.

3.6 Data Collection

3.6.1 Research Instrument

The Value-Based Healthcare Strategic Assessment Tool employed in this study is a structured, self-administered online and face to face survey designed to collect quantitative data on implementing Value-Based Healthcare (VBHC) across hospitals in the West Bank. The tool covers 74 specific components categorized into seven core topics. All measurement constructs and indicators are detailed in Table 3.5.

Governance Assessment: This section evaluates the accountability for leadership and governance by hospitals in terms of transparency of decision-making and their engagements in community health improvement. This will check whether the hospitals have periodic reassessment of community health needs, identification of champions for health improvement, and transparency in decision-making both at macro and micro levels. These indicators are relevant in understanding how leadership supports or hinders the integration of VBHC into the policies and strategies of a hospital. This construct and its indicators were adapted from (Krebs et al., 2023; RUPRI Center for Rural Health Research, 2023)

Integrated Practice Units (IPUs): This section gauges the level at which the hospitals adopt multidisciplinary care teams and treatment pathways. It concerns care coordination across outpatient, inpatient, and rehabilitative services and whether care networks are managed within one structure. Critical issues for exploring the operation readiness of the hospitals regarding comprehensive and coordinated care constitute one of the cornerstones of VBHC.

Indicators for this construct are directly adapted from (Krebs et al., 2023; RUPRI Center for Rural Health Research, 2023).

Outcome and Cost Measurement: This section measures how hospitals can collect and use patient outcomes and cost data for decision-making. It assesses how the hospitals collect valid data on treatment outcomes, e.g., patient pain levels, functional capacity, and financial resources, and to what extent such data are used in improving patient care. The section shows the view, by assessment of outcome data and cost efficiency, of the hospital's ability to optimize the quality of care while reducing costs. Indicators for this measure are based (Krebs et al., 2023; RUPRI Center for Rural Health Research, 2023).

Payment Models: This section assesses how hospitals manage financial risks through value-based payment models and costs aligned with patient outcomes. The indicators are the number of alternative payment contracts, cost-accounting systems, and distribution of shared savings. Indicators have been adapted from (Krebs et al., 2023; RUPRI Center for Rural Health Research, 2023).

Multi-site Regional Integration: This section shall cover how, for instance, complex treatment concentration, enhanced by high-volume providers, is coordinated for routine care across multiple sites for further efficiency and, thus, specialized care where needed. The indicators were adapted from (Krebs et al., 2023).

Geographic Expansion: This section evaluates hospitals' geographic expansion and cooperation strategies in care networks. It checks if the hospitals allow rotation and cooperation within the network to create opportunities for staff collaboration and cohesion, which is useful in disseminating best practices in the several facilities offering care. The indicators are inspired by (Krebs et al., 2023).

Information Technology (IT) Platforms: This last section integrates and reviews the use of Health Information Technology, such as EHRs, in support of the VBHC model. Indicators will measure whether the HIT systems are interoperable, enable data exchange, support clinical decision-making, and include predictive analytics that identify high-risk patients. This section will help understand how hospitals leverage technology to improve care coordination and outcomes. Indicators adapted from (Krebs et al., 2023; RUPRI Center for Rural Health Research, 2023).

This instrument is a Likert-scale-based; for each section, participants will grade the implementation of VBHC at their hospital, ranging from "Fully Developed and Deployed" to "Not Sure". It is systematically developed in such a way as to give a full image of the state of VBHC adoption, with profound insight into organizational readiness and challenges within

participating hospitals in the West Bank. The structured nature of the tool will ensure that data collection is rigorous enough to inform actionable recommendations to enhance the implementation of VBHC in the region. This survey will be conducted with a cover letter explaining the purpose of the study, ensuring confidentiality, and highlighting that participation is strictly voluntary will accompany it. Completion shall be allowed for two weeks to permit follow-up letters to ensure high response rates.

Table 3.5 Items for Measuring Constructs

Construct	Indicators	Categories	Source/ Author(s)
Governance	12 indicators	(a) Leadership accountability, (b) Decision transparency, (c) Community health, (d) Equity in care, (e) Value-based care engagement, (f) Communication, (g) Micro-/macro-level transparency, (h) Patient involvement, (i) Staff interaction, (j) Wellness programs.	Adapted from (Krebs et al., 2023; RUPRI Center for Rural Health Research, 2023)
Integrated Practice Units (IPUs)	10 indicators	(a) Multidisciplinary teams, (b) Care coordination, (c) Treatment pathways, (d) Joint responsibility, (e) Network management, (f) Preventive/palliative care, (g) Risk identification, (h) Community collaboration, (i) Care coordinators, (j) Standardized care.	Adapted from (Krebs et al., 2023; RUPRI Center for Rural Health Research, 2023)
Outcome and Cost Measurement	15 indicators	(a) Outcome data collection, (b) Short-/long-term tracking, (c) Cost tracking, (d) Data integration, (e) Outcome review meetings, (f) Performance benchmarking, (g) Public outcome data, (h) Financial/clinical collaboration.	Adapted from (Krebs et al., 2023; RUPRI Center for Rural Health Research, 2023)
Payment Model	14 indicators	(a) Cost-outcome alignment, (b) Risk management, (c) Payment contracts, (d) Shared savings, (e) Efficiency projects, (f) Stop-loss insurance, (g) Multidisciplinary budgets, (h) Performance-based reimbursement.	Adapted from (Krebs et al., 2023; RUPRI Center for Rural Health Research, 2023)
Multi-site Regional Integration	5 indicators	(a) Complex treatment specialization, (b) Routine care in cost-effective sites, (c) Centralized coordination, (d) Service differentiation.	Adapted from (Krebs et al., 2023)
Geographic Expansion	5 indicators	(a) Care network cooperation, (b) Focus on care quality, (c) Employee rotation for cohesion.	Adapted from (Krebs et al., 2023)
Information Technology Platforms	13 indicators	(a) EHR interoperability, (b) Data exchange, (c) Decision support, (d) Predictive analytics, (e) Population health management, (f) Diagnostic coding, (g) Digital records accessibility, (h) Standardized data, (i) Real-time alerts.	Adapted from (Krebs et al., 2023; RUPRI Center for Rural Health Research, 2023)

3.6.2 Semi-Structured Interviews

Complementing the survey, semi-structured interviews will be conducted with key hospital administrators, clinical leaders, and selected staff directly involved in implementing VBHC. These interviews aim to gather qualitative insights into the lived experiences and challenges those engaged in VBHC initiatives face. Respondents for the interviews will be selected as decision-makers with extensive experience in the Palestinian healthcare system, encompassing both government and private hospitals, as well as involvement with the World Health Organization (WHO). The interviews, lasting between 45 and 60 minutes, will be conducted in person or via online platforms such as Zoom, depending on participant availability. Interview questions will focus on themes identified during the quantitative phase and will explore topics such as:

- Assess the current healthcare system in Palestine, including its strengths, weaknesses, and challenges in implementing a value-based care model.
- Explore how public-private partnerships and international collaborations can address healthcare system challenges and support value-based care.
- Evaluate the impact of current payment models on healthcare quality and identify reforms to align with value-based care goals.
- Review the measurement of healthcare quality and address challenges in integrating patient-reported outcomes and experiences (PROMs and PREMs) to improve services.
- Analyze the challenges of changing the culture of healthcare institutions and the role of leadership in enhancing patient engagement in value-based care.

Thematic analysis will be applied to transcribed interviews to identify key insights and themes related to the facilitators and barriers of VBHC implementation.

3.7 Data Analysis

3.7.1 Quantitative Analysis

In this regard, the present research will utilize different statistical methods; quantified analysis will consider the necessary assessment of the implementation of VBHC across various hospitals in the West Bank. Descriptive statistics will summarize the survey data and measure central tendency-mean, and standard deviation along with variability standards of deviation(Byrne, 2007). This provides a clear overview of the adoption of VBHC components across hospitals. Moreover, the frequency distribution helps determine expected levels of

VBHC adoption, allowing for an all-rounded understanding of general implementation patterns.

The analysis will be performed using statistical software like SPSS to calculate descriptive statistics accurately. The outcome will be represented through tables to present results in a more readable and accessible format. This is an elaborate quantitative approach toward assessing the implementation of VBHC and its change in hospital performance across different healthcare contexts.

This study will try to determine which specific components of VBHC explain the variation in the implementation level of VBHC strategy. SPSS will test the VBHC component and implementation level a comparison of VBHC adoption. At the same time, associations of categorical variables will be tested using One-way ANOVA (e.g., hospital ownership). Correlation analysis will therefore be conducted to explore the relationships between different components of VBHC and hospitals implementation level, identifying possible associations of greater VBHC adoption with improved outcomes.

The scoring of responses will be based on seven options reflecting the anticipated stage of implementation of Value-Based Healthcare (VBHC): 6 ("fully developed and deployed"), 5 ("developed but incompletely deployed"), 4 ("in development"), 3 ("in discussion"), 2 ("not applicable"), 1 ("not considered"), and 0 ("not sure"). These options will facilitate a comprehensive assessment of progress, as well as identify areas of uncertainty or irrelevance in VBHC implementation. The scoring methodology will ensure balanced representation, preventing larger organizations or those with more respondents—often indicative of more administratively engaged facilities—from disproportionately influencing the overall analysis, while still capturing diverse perspectives from smaller organizations. This approach will acknowledge the need for tailored VBHC strategies, recognizing that a one-size-fits-all model may not effectively address the unique challenges faced by facilities operating under different conditions. For the analysis, mean scores across three categories will be calculated: scores between 1 and less than 3 will indicate low implementation, reflecting that VBHC principles are not yet considered or are at an early discussion stage; scores equal to 3 and less than 5 will represent moderate implementation, indicating initiatives under active discussion, in development, or partially deployed; and scores equal to or greater than 5 will signify high implementation, indicating that VBHC practices are highly developed and well-deployed. This classification system will provide a structured understanding of VBHC adoption, highlighting both progress and areas requiring targeted interventions, ultimately informing strategies to advance implementation efforts across the studied organizations.

3.7.2 Qualitative Analysis

This qualitative analysis explores the contextual factors that affect the implementation of value-based health care in Palestinian hospitals, including the barriers, what facilitates it, and what strategies these institutions use. This study utilizes thematic analysis to capture detailed patterns and narratives not readily provided by other quantitative methods (Hammarberg et al., 2016).This research evaluates organizational, human, and cultural factors influencing the VBHC implementation in very minute detail through deep interviews with key decision-makers in the Palestinian healthcare system, depicting the behavior of different hospitals.

The thematic analysis starts with transcription and continues through in-depth engagement with the interview data. The interviews will be analyzed using MAXQDA software to perform initial coding based on the critical aspects of adopting VBHC; afterward, the recurring patterns give way to themes describing the most common challenges and facilitators observed in the hospitals by the staff. Tools such as coding matrices and word clouds track the importance of the theme for completeness in capturing data complexity.

The barriers include but are not limited to erratic leadership support, financial and human resource constraints, and cultural resistance in hospitals to new models of care. The challenges in leadership vary across hospitals in terms of integrating VBHC into the organization's organizational goals. Facilitators include but are not limited to solid leadership engagement, flexible hospital structures that promote innovation, and VBHC-specific training programs that build competencies among the staff.

Data collection in this research is triangulated, drawing from structured questionnaires and semi-structured interviews. These cumulatively ensure a comprehensive assessment of the challenges and opportunities regarding implementing VBHC in Palestinian hospitals. According to Lauri (2011) Incorporating quantitative and qualitative data enhances the study's reliability; therefore, biases will be minimal, allowing sound conclusions. Such a method will provide insight into the elements surrounding the adoption of VBHC, hence informing healthcare policy and practice in Palestine.

3.8 Validity and Reliability

Several key measures will be implemented to ensure the validity and reliability of the research instruments. The internal consistency of survey responses will be assessed using Cronbach’s Alpha, with a threshold of 0.7, indicating acceptable reliability (Kumar, 2024). Pilot testing will also ensure clarity and consistency in the survey instruments. To guarantee

content validity, healthcare management and policy experts will review the questionnaire, adapted from a validated Value-Based Healthcare (VBHC) tool.

The reliability analysis of the questionnaire produced a Cronbach's Alpha value of 0.967 for the 74 items included. This exceptional level of internal consistency indicates that the questionnaire items are highly correlated and effectively measure the same underlying constructs. In general, Cronbach's Alpha values exceeding 0.9 are considered excellent, demonstrating the robustness of the instrument. This reliability result confirms that the questionnaire is suitable for evaluating VBHC implementation within the Palestinian healthcare system.

Qualitative data validity will be ensured through the interview protocol will undergo pilot testing with healthcare professionals to refine the questions. Multiple researchers will evaluate inter-coder reliability through independent coding of interview transcripts. These comprehensive steps ensure both the validity and reliability of the instruments used in the research.

3.9 Ethical Considerations

Ethical considerations in this study are anchored in strict adherence to established ethical guidelines, with ethical approval being sought from the Institutional Review Board (IRB) of the Arab American University of Palestine. The research ensures that all participants, including administrators, clinical staff, and patients, provide informed consent, guaranteeing their voluntary participation and understanding of the study's objectives, risks, and data usage (Creswell, 2009). The study emphasizes confidentiality and data protection by anonymizing all participants and institutional identifiers and assigning codes to hospitals to prevent their identification. Data will be securely stored, with electronic files on password-protected servers and physical documents in locked storage (Creswell, 2009). No personal identifiers will be collected, and participants will be informed of their right to withdraw from the study at any stage without facing any repercussions. These measures ensure compliance with local and international ethical standards governing research with human subjects. All procedures aim to maintain the privacy and integrity of participant data, consistent with the guidelines from the Arab American University and relevant health and research authorities in Palestine.

3.10 Summary

In general, this chapter design ensures full multidimensionality in assessing the practice of VBHC within mid-tier hospitals in the West Bank, Palestine. Therefore, the study's

sequential mixed-methods design captures the scope for quantifying the outcomes owing to the adoption of VBHC, bringing along much-needed rich context explaining failures and successes. This will also allow the proper assessment of VBHC implementation because of the health systems' complexity in resource-constrained settings. Besides, with considerations of ethical issues, rigorous methods of data collection, and an emphasis on triangulation, this may be the real thing in the reliability and validity of research findings to place this study at a vantage point toward making meaningful contributions toward healthcare reform in Palestine.

Chapter Four
Results

4.1 Introduction

This chapter elaborates on detailed findings regarding the current status of the implementation of Value-Based Healthcare in various hospitals in Palestine. It assesses strategic elements, challenges, and solutions by using both quantitative and qualitative approaches. In developing the findings, there is a narrative presentation accompanied by both statistical descriptions and thematic insights to light up broader implications for adopting VBH in Palestinian hospitals.

4.2 Characteristics of the Study Sample

Table 4.1 provides an overview of the demographic characteristics of respondents across various selected variables, illustrating the breadth and depth of the study's sample. The study involved 157 respondents drawn from 48 hospitals in Palestine, representing 83% of the hospital population. These hospitals, located in the West Bank, were subdivided into the Northern West Bank, Central West Bank (including Jerusalem), and Southern West Bank regions. The demographic data encompasses geographical distribution, hospital specialty, type, size, and respondents' job titles, offering a comprehensive view of the diverse settings and roles within the Palestinian healthcare system.

The geographical distribution highlights regional variations in participation, with 39.6% of respondents located in the Northern West Bank, emphasizing the prominence of Nablus (16.7%) and Jenin (8.3%) as key contributors. Central West Bank and Jerusalem provided 20.8% of the sample, with Ramallah and Al-Bireh (16.7%) dominating this group, while the Southern West Bank, matching the Northern region at 39.6%, underscored Hebron (25%) as a major contributor.

Further diversity is evident in hospital specialties, where general hospitals represented the majority at 56.3%, emphasizing their pivotal role in the Palestinian healthcare landscape. The inclusion of specialized hospitals (18.8%) and maternity hospitals (20.8%) adds depth to the sample, while the presence of psychiatric and rehabilitation hospitals, though limited at 2.1% each, ensures that niche healthcare services are not overlooked.

Table 4.1: Demographic characteristics of the respondents

Variable		Frequency	Percent%
Locations	Northern West Bank	19	39.6
	Jenin	4	8.3
	Nablus	8	16.7
	Tulkarm	3	6.3
	Qalqilya	2	4.2
	Salfit	1	2.1
	Tubas	1	2.1
	Central West Bank & Jerusalem	10	20.8
	Ramallah and Al-Bireh	8	16.7
	Jericho	1	2.1
	Jerusalem	1	2.1
	Southern West Bank	19	39.6
	Bethlehem	7	14.6
	Hebron	12	25.0
Specialty of Hospital	General Hospital	27	56.3
	Maternity Hospital	10	20.8
	Psychiatric Hospital	1	2.1
	Rehabilitation Hospital	1	2.1
	Specialized Hospital	9	18.8
Hospital Ownership	MoH	18	37.5
	NGO	15	31.3
	Private	14	29.2
	UNRWA	1	2.1
Size of Hospital	very small	14	29.2
	small scale	8	16.7
	small	14	29.2
	medium	11	22.9
	large	1	2.1
Respondents Job Title	Director of Administration	40	25.5
	Chief Medical Officer (CMO)	26	16.6
	Chief Financial Officer (CFO)	26	16.6
	Director of Quality Assurance	29	18.5
	Director of Human Resources (HR)	13	8.3
	Director of Information Technology (IT)	23	14.6

Hospital ownership structures further enhance the complexity of the sample, with Ministry of Health (MoH) hospitals accounting for the largest share at 37.5%, followed by Non-Governmental Organizations (31.3%), private hospitals (29.2%), and UNRWA facilities (2.1%). The categorization of hospitals by size adds another layer of understanding to the sample's composition. Very small hospitals (1–24 beds) and small-scale hospitals (25–49 beds), each representing 29.2%, dominate the sample, while medium-sized hospitals (100–300

beds) account for 22.9%, reflecting their significant role in the healthcare system. The smaller representation of small hospitals (50–99 beds) at 16.7% and the single large hospital (over 300 beds) at 2.1% underscore the predominance of smaller facilities in Palestine, highlighting potential resource constraints and operational challenges that may influence healthcare outcomes.

The diversity in respondents' roles provides critical insights into the leadership structure within Palestinian hospitals. Directors of Administration, the largest group at 25.5%, indicate the centrality of administrative leadership, while the nearly equal representation of Chief Medical Officers (CMOs) and Chief Financial Officers (CFOs) at 16.6% reflects the shared emphasis on clinical and financial oversight. Directors of Quality Assurance (18.5%), Information Technology (14.6%), and Human Resources (8.3%) further highlight the varied strategic priorities across hospitals. However, the absence or vacancy of certain positions, particularly IT and Quality Assurance roles in smaller hospitals, underscores systemic disparities that may hinder organizational effectiveness.

The distribution of respondents across hospitals, ranging from one to six participants per facility, further reflects the structural and operational variations in the Palestinian healthcare system. Hospitals with three or four participants accounted for 66.7% of the sample, likely to signify larger facilities or more proactive engagement. In contrast, hospitals with fewer participants, often smaller or resource-constrained facilities, illustrate disparities in participation, which may mirror broader structural inequalities in hospital capacities.

This interconnected analysis of demographic characteristics provides a comprehensive understanding of the Palestinian healthcare system's structural and operational dynamics. These foundational insights pave the way for an in-depth exploration of the implementation status, challenges, and strategic recommendations for value-based healthcare (VBHC) in Palestine, grounded in the diversity and complexities highlighted by the study sample.

The following section does an in-depth analysis of the status of implementation, challenges, and strategic recommendations for VBHC in the Palestinian context, using these foundational insights.

4.2.1 VBHC Implementation in Palestinian Context: Assessment and Insights

The score for the implementation of VBHC in the 48 participating hospitals in the West Bank was calculated by aggregating the responses for each question at the hospital level and weighing these scores for differences in the number of participants per hospital. This approach ensured that the final score accurately reflected the collective perspective of respondents within

each hospital, mitigating the potential bias introduced by varying respondent numbers. The weighted aggregation provides a nuanced, representative look at VBHC implementation in a wide array of different hospital settings. Answers were scored based on seven options reflecting the stage of implementation of VBHC: 6, "fully developed and deployed"; 5, "developed but incompletely deployed"; 4, "in development"; 3, "in discussion"; 2, "not applicable"; 1, "not considered"; and 0, "not sure." These options allowed a thorough assessment of progress and areas of uncertainty or irrelevance.

This weighted scoring methodology ensures that hospitals with more respondents—often indicative of larger or more administratively engaged facilities—do not disproportionately influence the overall analysis, while still capturing the breadth of perspectives from smaller hospitals. It highlights the need for tailoring VBHC strategies to the unique contexts of each facility, recognizing that a one-size-fits-all approach may not address the specific needs of hospitals operating under vastly different conditions.

For a more detailed analysis of the results, including mean scores from three categories, scores ranging from 1 to less than 3 were considered low implementation, which reflects that the VBHC principles were not yet considered or were at an early discussion stage; scores from equal to 3 and less than 5 represented moderate implementation, depicting initiatives still under active discussion-in-development or partial deployment; scores equal to 5 or greater than were categorized as high implementation, indicating VBHC practices were highly developed and well deployed. This classification system allows a more systematic understanding of the VBHC adoption process, showing not only the progress but also pointing towards areas where targeted interventions might be necessary to further the implementation effort across the studied hospitals.

Results in Table 4.2 show that the scores ranged from a minimum of 0.61 to a maximum of 4.52, with a mean score of 2.4643 (SD = 1.00433). This means that on average, a low level of implementation was realized, though the substantial variability suggests considerable disparities between hospitals. Facilities scoring in the lower range probably face huge challenges, including resource shortages and fragmented administrative structures, thus limiting their alignment to the principles of VBHC. These obstacles always remain the reasons why progress cannot occur in adopting transformative healthcare models in resource-poor settings.

Table 4.2 Overall score for implementation of VBHC

	N of participant	Minimum	Maximum	Mean	Std. Deviation
Integrated Practice Units (IPU)	157	0.62	5.48	2.80	1.21
Outcomes and Cost Measurement	157	0.71	5.60	2.69	1.12
Payment Models	157	0.60	4.26	2.12	0.98
Multisite Care Delivery	157	0.28	4.24	2.26	1.00
Geographic Coverage	157	0.44	4.40	2.29	1.08
Information Technology	157	0.42	5.17	2.60	1.15
Overall Score	157	48	4.52	2.46	1.00
Valid N (listwise)	157	48			

On the other hand, the top-scoring hospitals are those that may be considered better prepared through leadership, organizational capacity, and readiness for the implementation of VBHC. The stronger the institutional frameworks, the more significant the investments in training, technology, and quality assurance systems are seen in those kinds of hospitals. The mean score, however, is below the midpoint of the range, reflecting an early stage in VBHC implementation across the region point in the process when most of the hospitals are still in the early stages.

The standard deviation of 1.00433 also indicates how well the dispersion is between the hospitals. These differences can be attributed to variations in geographic location, size, type of ownership, and available resources. Larger hospitals or those at the urban centers may have better access to various facilities including financial and human resources for the proper implementation of the principles of VBHC. Smaller or rural hospitals may find it hard to overcome various infrastructural and operational challenges that will, in return, affect their performance measures with the introduction of the VBHC.

Integrated Practice Units (IPUs) have the highest mean score among all components at 2.8043 (SD = 1.20875), also in the low implementation range. This suggests that hospitals are making strides toward patient-centered, multidisciplinary care, but widespread adoption of fully operational IPUs has yet to occur. Some hospitals demonstrate more progress, likely driven by resource availability and operational efficiency.

The outcomes and cost measurement component has a mean score of 2.6935 (SD = 1.12268), remaining in the low implementation category. Hospitals are in the early stages of

developing frameworks to evaluate health outcomes related to costs, reflecting ongoing efforts to adopt cost-effectiveness and performance measurement tools.

The payment models component, with a mean score of 2.1233 (SD = 0.98053), is also in the low implementation range, representing the lowest-performing dimension of VBHC. This underscores the systemic difficulty in transitioning to value-based payment mechanisms and the need for financial policy reforms to incentivize hospitals to align with VBHC principles.

Multisite care delivery, with its average standing at 2.2613 (SD = 1.00071), represents a low level of implementation. This indicates that multisite care delivery is characterized by insignificant collaborations and sharing of knowledge through the network of hospitals to boost coordination in care delivery, facilitating the scaling up of best practices and driving innovation through coordinated care delivery.

The average score for the geographic coverage component is 2.2921, with a standard deviation of 1.07657, hence falling within the low implementation range. This would imply that there are various challenges in attaining equity in access to care and integration of health services across different regions, which could be partly related to disparities in resources and logistic barriers.

Finally, **information technology (IT)**, also falls in the low implementation range with a mean score of 2.596 (SD = 1.14676). Although some hospitals do use IT for data sharing, interoperability, and analytics, most lack the infrastructural and capacity levels required to exploit these opportunities from IT, thus limiting the scalability of VBHC initiatives.

The findings underline the imperative for targeted interventions to reduce disparities, including providing at-risk hospitals with additional support, enhancing training programs, and making investments in priority areas. The score variability also points to an opportunity for cross-hospital learning: where higher-performing institutions can share the best practices and strategies for successful VBHC implementation.

4.2.2 Component Wise Analysis of VBHC: Dynamics and Interdependencies

Value-Based Health Care (VBHC) implementation relies on the seamless integration of its core components, each of which plays a pivotal role in achieving patient-centered and outcome-driven care. The essential elements of VBHC include Integrated Practice Units (IPUs), Outcomes and Cost Measurement, Payment Models, Multisite Care Delivery, Geographic Coverage, and Information Technology (IT). These components collectively aim to optimize healthcare delivery by aligning care structures, measuring and improving

outcomes, incentivizing value, and ensuring accessibility and equity. While governance is not explicitly defined as a component of VBHC, it is a critical enabler that must be present to support the effective implementation of VBHC principles. Governance provides the necessary leadership, accountability, and strategic oversight required to align organizational efforts with VBHC objectives. This analysis will explore each component in depth, examining their current implementation levels, underlying challenges, and potential strategies for improvement, while highlighting the overarching role of governance as the framework that sustains and drives VBHC adoption across healthcare systems. These results are classified as follows: scores between 0 and 0.9 are considered Out of Scope, 1.0 to 2.5 represent Not Started, 2.6 to 4.0 indicate the Planning stage, 4.1 to 5.0 denote components In Progress, 5.1 to 5.5 reflect Partial Implementation, and scores between 5.6 and 6.0 signify components that are Fully Implemented.

4.2.3 Integrated Practice Units (IPU) Implementation Analysis

- How effectively do Palestinian hospitals implement care coordination across a network of services, ensure the integration of multidisciplinary teams for comprehensive patient care, and facilitate communication among experts and community-based resources to address medical and non-medical needs, including social determinants of health?

The analysis of the Integrated Practice Unit (IPU) component within the VBHC framework Table 4.3 highlights varying levels of implementation across its constructs, with moderate progress observed in some areas and significant gaps in others.

Table 4.3 Mean, Standard Deviation, and Percentage of IPU Implementation Dimensions

#	N of participant	Mean	Std. Deviation	Not Started%	Planning %	In Progress %	Partial Implementation %	Fully Implemented %	Outside Scope%	Overall Level of Implementation
Q13	157	3.20	1.43	25.0	35.4	25.0	0.0	6.3	8.3	Medium
Q14	157	3.41	1.36	22.9	39.6	27.1	2.1	4.2	4.2	Medium
Q15	157	3.18	1.40	16.7	47.9	18.8	2.1	4.2	10.4	Medium
Q16	157	2.88	1.28	25.0	47.9	14.6	0.0	2.1	10.4	Low
Q17	157	2.66	1.24	45.8	31.3	14.6	0.0	2.1	6.3	Low
Q18	157	2.55	1.36	33.3	37.5	10.4	0.0	2.1	16.7	Low
Q19	157	2.60	1.46	43.8	22.9	14.6	2.1	2.1	14.6	Low
Q20	157	2.18	1.28	45.8	27.1	10.4	0	0.0	16.7	Low
Q21	157	2.29	1.33	37.5	27.1	10.4	0	0.0	25.0	Low
Q22	157	3.09	1.48	22.9	43.8	16.7	0.0	6.3	10.4	Medium

Systems ensuring senior leadership involvement in operational decisions alongside medical staff (Q13) have achieved a mean score of 3.20, with 25.0% of institutions in progress and 6.3% fully implementing this construct. Similarly, accountability for clinical care quality and patient safety through leadership rounds (Q14) scored the highest in this component (Mean = 3.41), with 39.6% of institutions in the planning phase, 27.1% in progress, and 4.2% fully implemented. These findings reflect a strong emphasis on leadership involvement and accountability, critical elements of successful VBHC integration.

Healthcare organizations around clinical pathways based on disease indicators also demonstrate moderate progress (Q15), scoring a mean of 3.18. While 47.9% of institutions are in the planning phase and 18.8% in progress, only 4.2% have fully implemented disease-specific care organizations, indicating room for improvement. Comprehensive care planning, including prevention, diagnosis, treatment, rehabilitation, and palliative care (Q16), scored lower at 2.88. Although 47.9% of institutions are in the planning phase, only 14.6% are in progress, with minimal full implementation (2.1%). This highlights the need for more comprehensive and integrated care networks.

Constructs related to patient-centered coordination, such as assigning a single team leader to manage each patient's care (Q17), remain underdeveloped. This construct scored a mean of 2.66, with 45.8% of institutions not starting implementation and only 14.6% in progress. Similarly, the use of data analysis to identify high-risk patients, supported by care coordinators (Q18), scored 2.55, with 33.3% of institutions not starting and only 10.4% in progress. These findings indicate significant gaps in targeted care management and the integration of data analytics into care coordination.

Collaboration with community resources to address health disparities and improve care (Q19) scored a mean of 2.60, but 43.8% of institutions have not started this process, and only 14.6% are in progress. Referrals to community resources, with follow-up information shared with physicians, performed even worse (Q20), scoring 2.18, with 45.8% of institutions not starting and no reported progress beyond the planning phase. These findings underscore the need for stronger partnerships between healthcare providers and community organizations.

Non-traditional roles in care coordination teams, such as including defined responsibilities and communication protocols (Q21), scored 2.29, with 37.5% of institutions not starting and no reported implementation progress. Specialized training for multidisciplinary teams to enhance teamwork and coordination performed slightly better (Q22), scoring 3.09. While 43.8% of institutions are in the planning phase and 16.7% are in progress, only 6.3%

have fully implemented this construct, indicating the need to expand training initiatives to support VBHC principles.

The findings suggest that while progress has been made in leadership involvement and accountability, other critical constructs such as care planning, community collaboration, and data-driven patient management remain underdeveloped. Institutions should prioritize developing systems that assign single team leaders, incorporate non-traditional healthcare roles, and enhance data analytics to support high-risk patient identification. Strengthening partnerships with community resources and improving follow-up protocols are equally important to bridge existing gaps. Expanding training for multidisciplinary teams and leveraging progress in leadership accountability can create a stronger foundation for VBHC integration. By addressing these challenges, healthcare institutions can improve care coordination and align more closely with VBHC principles.

4.2.4 Outcome and Cost Measurement Implementation Analysis

- How effectively do hospitals use treatment outcomes and financial data to improve care quality and satisfaction while implementing standardized processes and quality improvement techniques to enhance equity and align with value-based healthcare goals?

The analysis of the "Outcome and Cost Measurement" component highlights significant implementation gaps across various constructs, despite some areas showing moderate progress. The construct in Table 4.4 addressing the use of systems to collect patient treatment outcomes using reliable and valid tools (Q23) scored a mean of 2.46, with 41.7% of institutions not having started implementation and only 2.1% fully implementing this system. Similarly, data collection integrated into daily patient care scored slightly better (Q24) at 2.88, with 47.9% in the planning phase but only 2.1% fully implemented. These findings highlight the need to strengthen data collection and integration into care processes.

Table 4.4 Mean, Standard Deviation, and Percentage of Outcome & Cost Measurement Implementation Dimensions

#	N of participant	Mean	Std. Deviation	Not Started%	Planning %	In Progress %	Partial Implementation %	Fully Implemented %	Outside Scope%	Overall Level of Implementation
Q23	157	2.46	1.41	41.7	27.1	12.5	0	2.1	16.7	Low
Q24	157	2.88	1.26	31.3	47.9	12.5	0.0	2.1	6.3	Low
Q25	157	2.61	1.32	41.7	37.5	10.4	0.0	2.1	8.3	Low
Q26	157	2.69	1.30	45.8	35.4	10.4	2.1	2.1	4.2	Low

Q27	157	2.34	1.15	58.3	31.3	2.1	0.0	4.2	4.2	Low
Q28	157	2.43	1.33	47.9	27.1	10.4	0.0	2.1	12.5	Low
Q29	157	2.99	1.27	29.2	47.9	14.6	0.0	2.1	6.3	Low
Q30	157	3.05	1.33	31.3	37.5	20.8	2.1	2.1	6.3	Medium
Q31	157	2.83	1.38	31.3	41.7	12.5	0.0	4.2	10.4	Low
Q32	157	2.16	1.24	47.9	29.2	6.3	0.0		16.7	Low
Q33	157	2.21	1.26	50.0	25.0	6.3	0.0	2.1	16.7	Low
Q34	157	2.74	1.29	33.3	43.8	10.4	0.0	2.1	10.4	Low
Q35	157	3.18	1.24	18.8	50.0	20.8	0.0	2.1	8.3	Medium
Q36	157	2.82	1.30	41.7	31.3	16.7	2.1	2.1	6.3	Low
Q37	157	3.01	1.19	33.3	41.7	16.7	0.0	2.1	6.3	Medium

Outcome data reflecting both the short- and long-term effects of healthcare (Q25) scored 2.61, with 41.7% not starting and 10.4% in progress. Healthcare performance evaluation for continuous improvement fared slightly better (Q26) at 2.69, with 35.4% in planning and 10.4% in progress. However, treatment outcome data availability by care providers (Q27) is significantly underdeveloped, with a mean score of 2.34 and 58.3% of institutions have not started. This suggests a need for more robust systems to disseminate outcome data for transparency and decision-making.

Documentation and joint evaluation of financial resources (Q28) scored a mean of 2.43, reflecting that 47.9% of institutions have not started this practice, and only 2.1% have fully implemented it. Regular team meetings to discuss treatment outcome data (Q29) scored 2.99, with 47.9% in the planning phase and 14.6% in progress, indicating the potential for improvement in fostering collaborative decision-making.

Senior leadership's use of clinical and cost data for strategic decision-making (Q30) showed moderate progress with a mean of 3.05, and 20.8% of institutions were in progress. Performance results shared within institutions (Q31) scored 2.83, with 41.7% in planning and 4.2% fully implemented. However, public reporting on clinical care and cost performance (Q32) remains weak, scoring 2.16, with 47.9% of institutions not starting implementation.

Efforts to reduce unnecessary usage, such as avoidable readmissions or emergency visits (Q34), scored a mean of 2.74, with 43.8% in the planning phase and 10.4% in progress. Continuous quality improvement techniques integrated into staff training and procedures (Q35) scored higher at 3.18, with 50.0% of institutions in the planning phase and 20.8% in progress, marking a relatively stronger area in this component. Similarly, internal process analysis and workflow streamlining (Q37) scored 3.01, with 41.7% of institutions in planning and 16.7% in progress, showing moderate progress.

To enhance the implementation of outcome and cost measurement systems, healthcare institutions must prioritize the development of robust data collection mechanisms integrated into daily patient care. Improving systems for disseminating treatment outcome data and fostering transparency should be a key focus, especially since 58.3% of institutions have not started publishing or sharing outcome data. Institutions should also work towards strengthening collaborative practices, such as holding regular team meetings to review outcomes, as these scored moderately but indicate room for improvement.

Senior leadership must leverage clinical and cost data for strategic decision-making more effectively, drawing on the moderate progress observed in this construct. Similarly, quality improvement initiatives must be expanded and institutionalized, ensuring that they are integrated into staff training and procedures. Efforts to reduce unnecessary usage and improve cost efficiency should be intensified, particularly in areas such as avoidable readmissions.

Finally, institutions must focus on external benchmarking and public reporting to align with VBHC principles. Enhanced transparency in clinical care, patient experience, and cost performance will enable actionable insights and foster accountability. By addressing these gaps, healthcare providers can build more effective outcomes and cost measurement systems that support value-based care delivery.

4.2.5 Payment Model

- How effectively do private hospitals manage financial risk, and resource allocation, and align clinical incentives with value-based care outcomes?

The analysis of payment-related constructs within the VBHC framework reveals a significant lack of progress across healthcare institutions, as evidenced by the data. The mean scores for these constructs as in Table 4.5 range from 1.67 to 2.75, with all components classified as low implementation. A substantial proportion of institutions have not yet started implementation for key constructs, such as the use of integrated systems to forecast profits and losses for alternative payment contracts (Q39) (Mean = 1.94, 58.3% not started) and structured financial risk management approaches (Q42) (Mean = 1.84, 52.1% not started). Similarly, constructs such as verifying the validity of costs set by payers (Q40) (Mean = 2.17, 50% not started) and managing financial and medical risks through self-insurance or self-insured employer contracts (Q41) (Mean = 2.11, 45.8% not started) remain largely in the planning phase for most institutions.

Table 4.5 Mean, Standard Deviation, and Percentage of Payment Model Implementation Dimensions

#	N of participant	Mean	Std. Deviation	Not Started%	Planning %	In Progress %	Partial Implementation %	Fully Implemented %	Outside Scope%	Overall Level of Implementation
Q38	157	1.97	1.02	54.2	27.1	2.1	0.0	0.0	16.7	Low
Q39	157	1.94	1.03	58.3	18.8	4.2	0.0	0.0	18.8	Low
Q40	157	2.17	1.06	50.0	37.5	2.1	0.0	0.0	10.4	Low
Q41	157	2.11	1.29	45.8	25.0	6.3	0.0	2.1	20.8	Low
Q42	157	1.84	1.12	52.1	18.8	4.2	0.0	0.0	25.0	Low
Q43	157	2.22	1.29	45.8	25.0	10.4	0.0	0.0	18.8	Low
Q44	157	2.40	1.26	45.8	27.1	10.4	0.0	2.1	14.6	Low
Q45	157	2.53	1.31	39.6	37.5	10.4	0.0	2.1	10.4	Low
Q46	157	2.24	1.11	56.3	27.1	6.3	0.0	0	10.4	Low
Q47	157	2.75	1.40	27.1	43.8	10.4	2.1	2.1	14.6	Low
Q48	157	1.67	1.03	43.8	25.0	0.0	0.0	0.0	31.3	Low
Q49	157	1.83	1.15	43.8	27.1	2.1	0.0	0.0	27.1	Low
Q50	157	2.26	1.22	45.8	27.1	10.4	0.0	0.0	16.7	Low
Q51	157	1.80	1.24	41.7	18.8	8.3	0.0	0.0	31.3	Low

Progress is slightly better for constructs like continuous monitoring of revenues and costs (Q44) (Mean = 2.40, 45.8% in the planning phase, 10.4% in progress) and cost accounting systems to determine the cost per encounter or service (Q45) (Mean = 2.53, 37.5% planning, 10.4% in progress). However, these constructs still reflect a widespread lack of full implementation. The weakest areas include the presence of a documented plan to distribute shared savings or value-based incentives (Q48) (Mean = 1.67, 43.8% not started) and budget allocation systems for treating specific conditions requiring multidisciplinary care (Q49) (Mean = 1.83, 43.8% not started), both of which indicate a systemic inability to align financial systems with value-based care principles.

The highest-rated construct, comparing provider performance through transparent standards to improve outcomes (Q47) (Mean = 2.75), shows some promise, with 43.8% of institutions in the planning phase and 10.4% in progress, though it still falls within the low implementation category. Despite these challenges, no construct has achieved partial implementation or full implementation across institutions, underscoring the critical gaps in financial readiness for VBHC. Addressing these gaps requires the development of risk management systems, implementation of cost accounting frameworks, alignment of financial incentives with patient outcomes, and leveraging progress in performance transparency to build a foundation for broader reform. This data-driven approach will enable healthcare institutions to advance payment-related constructs and better align financial systems with the goals of VBHC.

4.2.6 Multi-site regional integration

- Do hospitals focus on specific service offerings by improving care in selected areas, while coordinating complex treatments in specialized settings and routine care at less costly sites through a central body?

The analysis of multisite regional integration reveals substantial gaps in implementation as in Table 4.6, particularly in adopting telemedicine and decentralized care models. The use of telemedicine for routine and less complex treatments (Q56) (Mean = 1.7250) shows that 54.2% of institutions have not started implementation, while 18.8% are in the planning phase, and 25.0% classify this area as "Outside Scope," underscoring systemic barriers to adoption. Similarly, enabling fewer complex treatments to be delivered at lower-cost locations outside hospitals (Q54) (Mean = 2.0750) has 47.9% of institutions not started and only 31.3% in the planning phase, reflecting missed opportunities to decentralize care and reduce costs. Systems aimed at improving care in specific areas while avoiding low-value services (Q52) (Mean = 2.0771) show that 52.1% of institutions have not started implementation, and only 29.2% are in the planning phase, indicating a limited focus on optimizing care pathways.

Table 4.6 Mean, Standard Deviation, and Percentage of Multi-site Regional Integration Implementation Dimensions

#	N of participant	Mean	Std. Deviation	Not Started%	Planning %	In Progress %	Partial Implementation %	Fully Implemented %	Outside Scope%	Overall Level of Implementation
Q52	157	2.0771	0.98028	52.1	29.2	2.1	0.0	0.0	16.7	Low
Q53	157	2.7243	1.38518	37.5	33.3	14.6	0.0	2.1	12.5	Low
Q54	157	2.0750	1.10675	47.9	31.3	4.2	0.0	0.0	16.7	Low
Q55	157	2.7049	1.34402	31.3	37.5	18.8	0.0	0.0	12.5	Low
Q56	157	1.7250	1.02449	54.2	18.8	2.1	0.0	0.0	25.0	Low

Slightly better progress is observed in systems designed for scheduled or complex treatments through specialized providers (Q53) (Mean = 2.7243), with 37.5% in the planning phase, 14.6% in progress, and 2.1% classified as "Outside Scope." The most advanced construct, the coordination of collaboration among healthcare entities through a central organization (Q55) (Mean = 2.7049), shows 31.3% not started, 37.5% in planning, and 18.8% in progress, highlighting potential for improvement if collaboration efforts are strengthened. However, despite these slightly higher percentages in progress, no construct has reached partial or full implementation.

To address these gaps, healthcare institutions must focus on telemedicine infrastructure and training, as the high percentage of institutions (54.2%) not starting implementation indicates systemic challenges. Decentralizing care delivery should also be prioritized, with 47.9% of institutions failing to initiate systems for delivering fewer complex treatments at lower-cost locations. Care optimization frameworks need to focus on high-value services while eliminating inefficiencies, addressing 52.1% of institutions not improving care while avoiding low-value services. Collaboration among healthcare entities requires further advancements, leveraging 18.8% of institutions already in progress to build momentum for others. Finally, developing systems for specialized treatments by concentrating care in high-volume centers can enhance outcomes and efficiency. These targeted strategies are essential to advancing multi-site regional integration and aligning it with VBHC principles.

4.2.7 Geographic Expansion

- Do hospitals focus on expanding high-quality care through collaborations within care networks, including private practices, hospitals, and clinics, while promoting professional exchange and cohesion by facilitating regular employee rotations between participating facilities?

The analysis of geographic expansion constructs within the VBHC framework highlights pervasive challenges, with all constructs classified as having low overall implementation as in Table 4.7.

Table 4.7 Mean, Standard Deviation, and Percentage of Geographic Expansion Implementation Dimensions

#	N of participant	Mean	Std. Deviation	Not Started%	Planning %	In Progress %	Partial Implementation %	Fully Implemented %	Outside Scope%	Overall Level of Implementation
Q57	157	2.4882	1.27051	35.4	37.5	8.3	2.1	0.0	16.7	Low
Q58	157	2.1125	1.32209	43.8	29.2	6.3	0.0	0.0	20.8	Low
Q59	157	2.4549	1.16269	39.6	39.6	8.3	0.0	0.0	12.5	Low
Q60	157	2.4674	1.17838	41.7	35.4	8.3	0.0	0.0	14.6	Low
Q61	157	1.9375	1.18513	45.8	25.0	4.2	0.0	0.0	25.0	Low

The mean scores for geographic expansion constructs range from 1.9375 to 2.4882, reflecting limited progress across institutions. The highest-performing construct is the development and implementation of a system focused on expanding excellent care models rather than the coverage area of the care network (Q57) (Mean = 2.4882), with 35.4% of institutions not started, 37.5% in the planning phase, and only 2.1% reaching partial

implementation. This indicates progress in optimizing care quality, but widespread adoption is lacking.

Programs encouraging regular staff exchanges between healthcare facilities to promote teamwork and knowledge sharing (Q59) (Mean = 2.4549) show similar results, with 39.6% not started and 39.6% in planning, highlighting an emphasis on fostering collaboration but limited practical implementation. The development of systems that consider local needs and geographical factors in applying the VBHC model (Q60) (Mean = 2.4674) also reflects moderate planning activity (35.4%) but remains underdeveloped, with 41.7% of institutions not starting.

In contrast, constructs aiming to expand geographic reach into new or underserved areas (Q58) (Mean = 2.1125) and the utilization of advanced technology like telemedicine or mobile clinics (Q61) (Mean = 1.9375) are among the weakest-performing. 43.8% and 45.8% of institutions, respectively, have not started implementing these systems, while no institutions have reached partial or full implementation in either area. The high proportion of institutions categorizing telemedicine-related constructs as "Not Started" or "Outside Scope" (25.0%) underscores significant barriers to leveraging technology for geographic expansion.

The findings reveal systemic gaps in geographic expansion, with minimal progress across all constructs. Institutions have made some headway in optimizing care models and promoting staff collaboration but lag significantly in expanding care to underserved areas and utilizing advanced technology for remote care delivery. To address these gaps, institutions should prioritize the development of telemedicine and mobile clinic systems, focusing on the 45.8% of institutions that have not started implementation. Programs that encourage regular staff exchanges must transition from the planning phase (39.6%) to active implementation, fostering collaboration and knowledge-sharing between facilities. Expanding healthcare services to underserved regions requires significant investment, addressing the 43.8% of institutions that have not yet initiated such efforts. Finally, systems must be developed to adapt VBHC models to local needs and geographical contexts, ensuring that care delivery is responsive and effective across diverse regions. These strategies are critical to overcoming existing challenges and enabling effective geographic expansion within VBHC.

4.2.8 Information Technology

- How effectively does the Health Information Technology (HIT) infrastructure in hospitals support value-based healthcare through EHR integration, interoperability, and

standardization, while facilitating real-time access to patient data, enhancing clinical decision-making, and enabling data-driven insights for improved patient outcomes?

The analysis of the information technology (IT) component in the VBHC framework reveals varying levels of progress across its constructs, with some areas showing moderate adoption while others remain underdeveloped as in Table 4.8. A comprehensive health IT strategy to support value-based care (Q62), for instance, has a mean score of 2.73. While 35.4% of institutions are in the planning phase and 18.8% have made progress, an equal proportion of institutions (35.4%) have not started implementation. This reflects a critical need for strategic alignment and investment in IT infrastructure to meet diverse patient care needs and continuously improve healthcare delivery.

Table 4.8 Mean, Standard Deviation, and Percentage of IT Implementation Dimension

#	N of participant	Mean	Std. Deviation	Not Started%	Planning %	In Progress %	Partial Implementation %	Fully Implemented %	Outside Scope%	Overall Level of Implementation
Q62	157	2.73	1.25	35.4	35.4	18.8	0.0	0.0	10.4	Low
Q63	157	2.84	1.30	33.3	39.6	14.6	0.0	2.1	10.4	Low
Q64	157	2.26	1.24	47.9	27.1	8.3	2.1	0.0	14.6	Low
Q65	157	3.21	1.50	29.2	35.4	16.7	2.1	8.3	8.3	Medium
Q66	157	2.35	1.20	35.4	37.5	10.4	0.0	0.0	16.7	Low
Q67	157	2.60	1.24	39.6	41.7	6.3	2.1	2.1	8.3	Low
Q68	157	3.07	1.54	27.1	35.4	20.8	0.0	6.3	10.4	Medium
Q69	157	2.89	1.36	31.3	39.6	16.7	0.0	4.2	8.3	Low
Q70	157	2.57	1.33	43.8	33.3	10.4	2.1	2.1	8.3	Low
Q71	157	2.77	1.34	37.5	33.3	14.6	2.1	2.1	10.4	Low
Q72	157	2.22	1.38	45.8	25.0	6.3	0.0	4.2	18.8	Low
Q73	157	2.55	1.35	37.5	33.3	10.4	0.0	4.2	14.6	Low
Q74	157	1.68	1.01	54.2	18.8	0.0	0.0	0.0	27.1	Low

The interoperability of electronic medical records (EMR) is another essential construct (Q63), scoring a mean of 2.84. Although 39.6% of institutions are in the planning phase and 14.6% are in progress, only 2.1% have achieved full implementation. A significant 33.3% of institutions have not initiated efforts to ensure seamless data exchange and standardized digital record structures, which are vital for collaboration and coordinated care among healthcare providers.

Predictive analytics, a key enabler of proactive care planning, is one of the most underdeveloped constructs(Q64), with a mean score of 2.26. Nearly half of the institutions (47.9%) have not started implementing systems to monitor service usage and identify at-risk

patients, and only 8.3% are in progress. The absence of robust analytics tools limits the ability of institutions to provide accurate outcome forecasts and improve decision-making.

The development of a comprehensive digital patient record, covering the entire care pathway (Q65), achieves the highest mean score of 3.21. This construct demonstrates relatively better adoption, with 29.2% of institutions not started, 35.4% in planning, and 16.7% in progress. Notably, 8.3% have achieved full implementation, making it a promising area within the IT component. Similarly, enabling electronic prescription systems shows moderate progress (Q68), with a mean score of 3.07. 20.8% of institutions are in progress, while 35.4% are in the planning phase, indicating growing adoption of tools that improve clinical efficiency.

Other constructs, however, lag. Systems that alert care teams electronically about changes in patient status, such as emergency visits or hospital admissions (Q66), score a mean of 2.35, with 35.4% not started and only 10.4% in progress. Programs such as Prescription Drug Monitoring Programs (PDMPs) to track controlled substance prescriptions (Q69) score 2.89, with 39.6% in planning and 16.7% in progress, but no institutions have reached partial or full implementation. Systems for tracking partial care costs and aligning resource allocation with activity levels (Q70) have a mean score of 2.57, with 43.8% not started and 10.4% in progress.

Finally, constructs related to enabling patient access to digital records and active participation in decision-making score the lowest (Q74), with a mean of 1.68. Over half of the institutions (54.2%) have not started, and none have reached partial or full implementation. Similarly, systems to ensure comprehensive and accurate diagnostic coding for risk adjustment(Q72) score 2.22, with 45.8% not starting and 25.0% in planning.

Overall, the IT component reveals significant gaps, particularly in patient engagement, predictive analytics, and resource tracking. To align with VBHC principles, institutions must prioritize the development of interoperable EMR systems, implement predictive analytics tools, and expand access to digital patient records. Investments in IT infrastructure and strategic alignment with care delivery goals will be crucial to achieving meaningful progress across all constructs.

4.2.9 Governance

- How effectively have hospitals implemented governance structures to address community health needs, foster leadership, promote collaboration, ensure transparency, align performance with value-based care metrics, and support equitable access and sustainable health IT policies?

The governance as enablers of Value-Based Healthcare (VBHC) implementation in Palestinian hospitals reveals significant challenges across various domains, as evidenced by the statistical analysis of survey responses. As in Table 4.9, Strategic planning for community health (Q1) scored a mean of 2.56 (SD = 1.34), with 41.7% of hospitals reporting no progress and only 2.1% achieving partial implementation. This indicates a lack of systematic approaches to addressing community health priorities, likely hindered by limited stakeholder engagement and inadequate resource allocation. Similarly, establishing leadership roles dedicated to community health improvement (Q2) scored a mean of 2.51 (SD = 1.16), with half of the institutions not initiating such roles and 29.2% still in the planning phase. The absence of clear leadership structures undermines the ability to coordinate and prioritize VBHC initiatives effectively.

Table 4.9 Mean, Standard Deviation, and Percentage of Governance Implementation Dimensions

#	N of participant	Mean	Std. Deviation	Not Started%	Planning %	In Progress %	Partial Implementation %	Fully Implemented %	Outside Scope%	Overall Level of Implementation
Q1	157	2.56	1.34	41.7	27.1	16.7	2.1	0.0	12.5	Low
Q2	157	2.51	1.16	50.0	29.2	12.5	8.3	0.0	12.50	Low
Q3	157	2.62	1.26	29.2	45.8	8.3	2.1	0.0	14.6	Low
Q4	157	2.54	1.31	39.6	41.7	10.4	0.0	0.0	8.3	Low
Q5	157	2.74	1.30	29.2	39.6	20.8	0.0	0.0	10.4	Low
Q6	157	2.81	1.25	37.5	43.8	8.3	4.2	0.0	6.3	Low
Q7	157	2.94	1.34	33.3	43.8	12.5	2.1	2.1	6.3	Low
Q8	157	3.18	1.33	27.1	43.8	20.8	0.0	4.2	4.2	Medium
Q9	157	3.05	1.18	29.2	50.0	12.5	2.1	2.1	4.2	Medium
Q10	157	1.78	1.01	52.1	20.8	0	0	0	27.1	Low
Q11	157	2.91	1.37	33.3	35.4	16.7	2.1	4.2	8.3	Low
Q12	157	3.17	1.33	25.0	41.7	20.8	4.2	2.1	6.3	Medium

Collaboration with community entities (Q3) scored marginally better, with a mean of 2.62 (SD = 1.26). Despite 45.8% of hospitals being in the planning stage, only 8.3% have reached partial implementation, reflecting a pervasive lack of integrated efforts to address priority health needs. Health and wellness programs for employees (Q4) showed similar trends, scoring 2.54 (SD = 1.31). Approximately 41.7% of institutions are still in the planning phase, and only 8.3% reported partial implementation. These results indicate that the workforce well-being key driver of healthcare performance—remains neglected across most institutions.

Transparency in decision-making, another critical aspect of VBHC governance, demonstrated low levels of implementation. Transparency in high-level decision-making(Q5)

scored a mean of 2.74 (SD = 1.30), with 39.6% of hospitals in the planning phase but no reports of full implementation. Similarly, transparency in small-scale decisions(Q6) and patient-centered practices(Q7) scored slightly higher at 2.81 (SD = 1.25), with 43.8% of institutions planning but only 4.2% achieving partial implementation. These deficiencies highlight systemic barriers to fostering accountability and inclusivity within governance structures.

Equitable access and outcomes (Q8) showed modest progress, achieving a mean score of 3.18 (SD = 1.33). While 43.8% of hospitals reported planning efforts, 4.2% have achieved full implementation. This performance, although relatively higher than other elements, underscores the persistent geographic and socio-economic inequities in healthcare delivery across Palestinian regions. Evaluating value-based performance metrics (Q9) scored 3.05 (SD = 1.18), with half of the hospitals in the planning stage but only 4.2% implementing these metrics fully. Linking leader evaluations and compensation (Q10) to VBHC outcomes scored lowest among the elements, with a mean of 1.78 (SD = 1.01), where 52.1% of hospitals have not started this initiative and 27.1% marked it as outside their scope.

Governance policies for sustainable and effective health IT systems (Q11) scored 2.91 (SD = 1.37), with 35.4% of hospitals in the planning stage and only 8.3% reporting partial implementation. Similarly, the collaboration with partners to enhance VBHC (Q12) showed a moderate mean score of 3.17 (SD = 1.33), with 41.7% of institutions in the planning stage and 6.3% achieving full or partial implementation. These findings highlight systemic challenges in leveraging IT and partnerships to support VBHC principles effectively.

Across all governance elements, the data reveal a low level of overall implementation, with significant variability. The mean governance implementation score of 2.73 (SD = 1.11) reflects systemic deficiencies, including fragmented leadership, limited collaboration, and underdeveloped transparency mechanisms. These gaps underscore the need for targeted interventions to strengthen governance structures, improve accountability, and enhance strategic alignment with VBHC principles. Such reforms are essential to bridge the disparities and enable a cohesive and effective adoption of value-based care across Palestinian hospitals.

4.2.10 Comparative Analysis: The Effect of Hospital Ownership on VBHC Implementation Score

VBHC implementation scores differ significantly by hospital ownership type (Table 4.10). MoH hospitals scored highest (mean = 2.74), followed closely by NGO hospitals (mean = 2.72). The UNRWA hospital, represented by one facility, had a moderate score of 2.5, while

private hospitals scored lowest (mean = 1.83). The overall mean across all hospital types was 2.46.

Table 4.10 Overall VBHC Implementation Scores and Hospital Ownership

Domain	MoH	NGO	Private	UNRWA	Significance **
Overall score	2.74	2.72	1.83	2.5	Moderate evidence of a difference
Integrated Practice Units (IPU)	3.18	3.07	1.95	4.08	Strong evidence of a difference
Outcomes and Cost Measurement	3.1	2.89	2	2.17	Moderate evidence of a difference
Payment Models	1.97	2.61	1.82	1.99	No evidence of a difference
Multisite Care Delivery	2.6	2.44	1.61	2.4	Moderate evidence of a difference
Geographic Coverage	2.59	2.73	1.44	2.32	Strong evidence of a difference
Information Technology	3.11	2.64	1.92	2.15	Moderate evidence of a difference
Governance	2.98	3.09	1.96	3.72	Moderate evidence of a difference

*** The detailed ANOVA results can be found in Appendix A, Table 1, which illustrates both significant and non-significant differences across the domains.*

The strong performance of MoH and NGO hospitals reflects their alignment with national health agendas and international donor support, enabling better VBHC adoption. In contrast, private hospitals lag due to profit-driven priorities, minimal integration with public health initiatives, and limited external pressure to adopt VBHC principles. However, the wide variability within private hospitals suggests some facilities are progressing faster than others. UNRWA hospitals, while serving specific populations with limited resources, benefit from adherence to international healthcare standards, enabling moderate performance.

The ANOVA analysis (Table 4.8) shows significant differences in VBHC implementation scores across hospital ownership types. With a total sum of squares of 47.41, 7.96 is attributed to differences between ownership groups, and 39.45 is due to within-group variability. The F-value of 2.96 ($p = 0.04$) confirms that ownership type significantly influences VBHC implementation levels. This finding highlights how ownership structures shape operational priorities, funding, and organizational practices, making ownership a key determinant of VBHC adoption. However, the substantial within-group variation suggests that

other factors, such as hospital size, location, and internal management, also play a role in shaping VBHC performance.

The implementation of Integrated Practice Units (IPUs) varies significantly across different hospital ownership types, as evidenced by the ANOVA results ($p = 0.01$). MoH hospitals achieve a moderate average score of 3.18, excelling in leadership accountability and clinical pathway organization, but they underperform in community resource collaboration and non-traditional role integration, signaling key areas for improvement. NGO hospitals follow with a score of 3.07, showing strengths in leadership and team training but revealing deficits in data analytics and referral systems for high-risk patients. Private hospitals, with the lowest score of 1.95, face pervasive challenges, including leadership engagement and care coordination, underscoring the need for foundational reforms. UNRWA hospitals lead with a score of 4.08, reflecting strong capabilities in leadership and clinical pathway organization, though gaps persist in comprehensive care planning and role diversification.

The adoption of outcome and cost measurement practices also reveals significant variations among hospital types (ANOVA $p = 0.032$). MoH hospitals lead with a score of 3.10, demonstrating proficiency in integrating outcome measurement into team collaboration, though transparency in public reporting remains a critical weakness. NGO hospitals, scoring 2.89, exhibit low staff engagement and operational efficiency but struggle with tailoring performance data and transparency. Private hospitals, scoring the lowest at 2.00, reveal significant deficits in patient outcome collection and performance reporting, highlighting the need for foundational investment. UNRWA hospitals, with a score of 2.17, show similar limitations in outcome data integration, hampering progress in meaningful care improvements.

While variations in payment model implementation are not statistically significant (ANOVA $p = 0.139$), mean scores reveal important trends. NGO hospitals score the highest at 2.61, reflecting relative strength in financial resource allocation and cost monitoring, yet they face challenges in financial risk management. MoH hospitals, scoring lower, remain in early implementation stages, with underdeveloped financial systems and risk management processes. Private hospitals exhibit mixed progress, with notable weaknesses in aligning financial incentives with VBHC principles. UNRWA hospitals demonstrate some advancements in risk-adjusted resource allocation but face resource and operational constraints, limiting the full implementation of VBHC payment models.

Multi-site regional integration highlights statistically significant differences (ANOVA $p = 0.031$). MoH hospitals scored the highest at 2.60, showing moderate progress, while NGO hospitals follow closely with 2.44. However, both face challenges in scaling care delivery

systems. Private hospitals lag with a score of 1.61, reflecting systemic barriers to regional coordination, whereas UNRWA hospitals, with a score of 2.40, exhibit variability in integration across service areas. Across all types, the underdevelopment of telemedicine and decentralized care systems remains a persistent issue, requiring tailored strategies for VBHC alignment.

Geographic coverage also varies significantly (ANOVA $p = 0.003$). NGO hospitals score the highest at 2.73, excelling in care model expansion and staff collaboration, but they share with MoH hospitals (score: 2.59) challenges in reaching underserved areas. Private hospitals score the lowest (1.44), reflecting severe limitations in outreach programs and technology-driven solutions. UNRWA hospitals score moderately at 2.32, demonstrating relative strengths in expanding care models but struggling with resource constraints for underserved populations. Investments in telemedicine and targeted outreach strategies are critical for all hospital types to achieve comprehensive geographic coverage.

Information technology (IT) adoption shows statistically significant disparities (ANOVA $p = 0.028$). MoH hospitals lead with a score of 3.11, reflecting a moderate level of IT systems implementation for interoperability and digital records, but gaps remain in patient engagement. NGO hospitals, scoring 2.64, perform well in digital patient records and electronic prescriptions, yet they lag in predictive analytics and cost tracking. Private hospitals score the lowest at 1.92, struggling across all IT constructs due to resource and operational limitations. UNRWA hospitals, scoring 2.15, demonstrate moderate progress in digital records but face similar challenges in advanced analytics and engagement systems.

Governance implementation also varies significantly (ANOVA $p = 0.014$). UNRWA hospitals lead with a score of 3.72, excelling in transparency and collaboration but facing challenges in workforce engagement and institutional priorities. NGO hospitals follow at 3.09, emphasizing stakeholder engagement but requiring improvement in value-based performance evaluations. MoH hospitals, scoring 2.98, benefit from government oversight but face limited operational autonomy, impacting community engagement. Private hospitals scored the lowest at 1.96, revealing significant governance weaknesses, particularly in transparency and workforce engagement.

The findings emphasize the need for hospital-specific strategies to enhance Value-Based Health Care (VBHC) implementation across key areas, including Integrated Practice Units (IPUs), outcome measurement, payment models, regional integration, geographic coverage, information technology (IT), and governance. Tailored investments in infrastructure, capacity building, and technology are crucial to addressing the unique challenges of MoH, NGO, Private, and UNRWA hospitals.

Governance is strongest in UNRWA hospitals and weakest in private hospitals, which face systemic gaps in leadership and community engagement. IPUs show mixed progress, with UNRWA leading and private hospitals lagging due to deficiencies in leadership and care coordination. Outcomes and cost measurement systems are underdeveloped across all hospital types, limiting care improvements. Payment models and multisite care also consistently score low, reflecting barriers in financial systems and regional integration.

IT adoption highlights significant disparities, with MoH hospitals leading but struggling in patient engagement and analytics, while private and UNRWA hospitals require substantial investments in infrastructure. Geographic coverage remains a challenge, as NGO hospitals excel in care model expansion but face outreach barriers, while private hospitals show the weakest performance in underserved areas. Tailored interventions are essential. MoH and NGO hospitals should enhance data systems and community collaboration, private hospitals need foundational reforms in governance and care systems, and UNRWA hospitals should build strengths in leadership and planning. Strengthening IT systems, financial models, and governance frameworks will be key to advancing equitable, patient-centered VBHC across all hospital types. A heatmap (Figure 4.1) visually summarizes these disparities, emphasizing areas of strength.

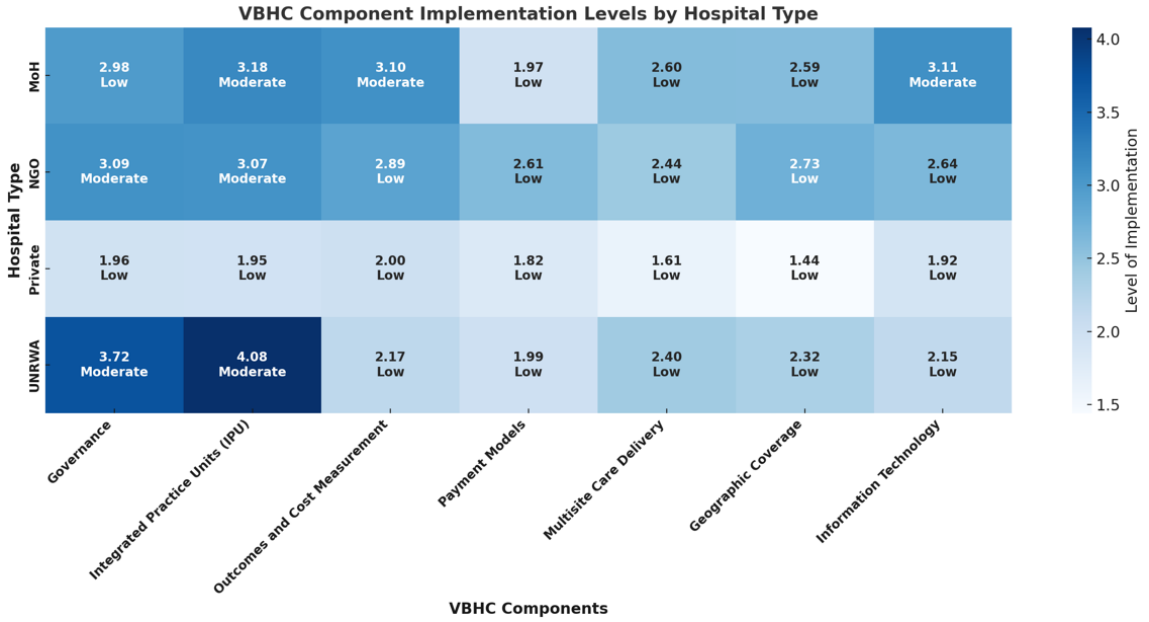

Figure 4.1, VBHC Component Implementation Level by Hospital Type

4.3 Gap Analysis

The gap analysis as in Table 4.11 shows notable differences between current and desired VBHC implementation scores, with the highest gap for payment models, which is 6.00. This suggests remarkable challenges in transitioning to value-based systems. Multisite care delivery and geographic coverage also show a high level of gaps, at 3.74 and 3.71, respectively, indicating the need for collaboration among hospitals for equitable access. Information technology at 3.40 requires increased investment in data sharing and analytics, while governance at 3.27 and integrated practice units at 3.20 need further improvements in leadership and care organization. Strengthening these areas, besides strong outcome and cost measurements, is important to achieving the goals of VBHC.

Table 4.11: Gap Analysis of VBHC Components

Component	Current Mean	Desired State (6.00)	Gap (Desired - Current)
Governance	2.73	6.00	3.27
Integrated Practice Units (IPU)	2.80	6.00	3.20
Outcomes and Cost Measurement	2.69	6.00	3.31
Payment Models	2.12	6.00	3.88
Multisite Care Delivery	2.26	6.00	3.74
Geographic Coverage	2.29	6.00	3.71
Information Technology	2.60	6.00	3.40

4.4 In-Depth Assessment of VBHC Implementation: Qualitative Approach

This section represents the findings from the qualitative analysis through structured interviews. Responses were sought from the researcher for 10 key informative who included six directors in MOH, one director in a private hospital, two from the WHO, and a former minister of health on the challenges, barriers, and opportunities related to the implementation of VBHC in Palestine. The responses were systematically compared to highlight common themes and discrepancies, offering a nuanced understanding of the factors influencing VBHC adoption in the context of the Palestinian healthcare system.

4.4.1 Comprehensive Analysis of System Characteristics in Palestinian Healthcare

The Palestinian health system is relatively young; it was officially established less than three decades ago. The process of developing a health system within the Palestinian context has been influenced by an intricate history of political transition. According to Participant 3, "The Palestinian health system can be considered a nascent system; it is in the process of construction and development.". It has passed through various stages: first the British Mandate, then Jordanian rule, followed by the Israeli occupation, and finally, the Palestinian Authority.

Amidst such adversities, over the past couple of decades, this health system has recorded major achievements. According to Participant 8, "There have been qualitative leaps in this health system in the last two decades.". There were no protocols or standards inherited from the occupation when the Palestinian Authority set up the Ministry of Health. Protocols and standards had to be set ab initio. Such efforts characterize the building of a strong framework for healthcare against the odds.

The Palestinian healthcare system is multi-tiered and multi-entity, involving both public and private stakeholders. As stated by Participant 2, "The health system consists of four main components: the Ministry of Health, UNRWA, the private sector, and non-governmental organizations." This diversity adds to the complexity in the management and coordination of the system since each entity plays a different role in the delivery of healthcare services.

The system depends on multi-levels of care, for example, primary, secondary, and tertiary levels. According to the explanation of Participant 1, "The health system depends on multi-levels of care, such as primary, secondary, and tertiary. This system is costly, not always accessible in all cases, and the challenge lies in keeping up the quality of these three levels." This kind of structure is expensive and resource-intensive to maintain; hence, it requires some strategic planning and judicious use of the available resources.

4.4.2 Comprehensive Analysis of System Strengths in Palestinian Healthcare

The Palestinian healthcare system has gained regional recognition for its resilience and achievements despite significant challenges. Participant 6 noted, “By God’s grace, the Palestinian health system is considered one of the best in the Middle East, as acknowledged by our neighbors in countries like Jordan and Egypt.” This acknowledgment highlights the system’s ability to deliver effective services under resource constraints, driven by the dedication of its stakeholders. Enhancing governance, fostering collaboration, and investing in infrastructure present pathways for further development, reflecting its potential for growth and innovation.

The system’s strengths, as revealed through participant interviews, include international support, comprehensive health insurance, government-led reforms, local expertise, and the success of vaccination programs. These elements collectively ensure the healthcare sector meets the population's needs while navigating financial and political challenges.

International support has been instrumental in bolstering the Palestinian healthcare system. As Participant 3 explained, "International attention, as manifested in support of donors,

is one of the key strengths of the Palestinian health system. This support allows development and improving its performance." External funding has allowed the system to address resource shortages and advance its capabilities.

Health insurance is another cornerstone of the Palestinian healthcare system, providing extensive coverage for the population. Participant 5 emphasized its unique nature, stating, "The current health insurance system is a big strength, covering the whole family for 900 shekels per year, irrespective of the number of family members. This will cover all the services, including major surgeries such as kidney and lung transplants, which is unparalleled in other countries." Participant 7 added, "Government health insurance is the backbone of the public health sector in our country. Almost all costs are covered, with a small percentage having to be covered by the patient." Approximately 79% of the population is covered by health insurance, as noted by Participant 4, which contributes to equitable access to healthcare services. When local resources fall short, referrals to neighboring countries further enhance service availability.

The government has implemented targeted reforms to address high-demand areas such as cancer treatment, cardiac care, and specialized surgeries. Participant 5 outlined these efforts, stating, "The five areas that have been targeted by the government are cancer treatment, cardiac catheterization, ICU services, kidney transplantation and dialysis, and specialized surgeries." These reforms aim to reduce dependence on external medical referrals by upgrading facilities and emphasizing prevention and early diagnosis.

Local expertise is a vital asset of the Palestinian health system, supported by robust educational institutions. Participant 3 remarked, "Local expertise is one of the most valuable resources of the Palestinian health system, with medical and health colleges graduating large numbers of doctors and specialists annually." This expertise is reflected in high-quality care outcomes, such as the 300 kidney transplants performed annually at Ramallah hospitals, as noted by Participant 5.

The involvement of diverse stakeholders ensures comprehensive healthcare services. According to Participant 5, "The health system includes several key players, such as the Ministry of Health, the private sector, NGOs, UNRWA, and military services." This multi-stakeholder approach reduces systemic risks by spreading responsibilities and enabling a variety of services to meet the population's needs. Participant 2 further elaborated, "The Ministry of Health is working in partnership with UNRWA, the private sector, and NGOs to provide health services, which forms a complex but necessary network of partnerships."

A strong primary care network serves as the backbone of the healthcare system, contributing to positive health outcomes. Participant 2 stated, "Palestine has a strong primary

healthcare network, which is one of its most significant strengths and contributes to achieving very good health indicators." Participant 4 also emphasized the efficiency and equity provided by this network.

Vaccination programs are a significant achievement, preventing the spread of infectious diseases and improving overall health. Participant 3 highlighted, "The success of vaccination programs has prevented the spread of many infectious diseases." Participant 6 added, "Our national vaccination program is the best in the region, even compared to Israel. Many diseases that still exist in neighboring countries have been eradicated here due to our vaccination campaigns."

Specialized facilities and unique services further enhance the system's strengths. Participant 7 described the Palestine Medical Complex, noting, "At the Palestine Medical Complex, there is a Negative Pressure System, the only one of its kind in the country. The Pediatric ICU there is highly developed and includes services that are unmatched elsewhere in Palestine." High success rates for kidney transplants, reaching 90%, demonstrate the system's advanced capabilities.

Finally, the socio-political context of Palestine shapes the healthcare system's ethical commitment to serve all individuals. Participant 4 explained, "Due to the political and economic situation, and also because of the social situation in Palestine, hospitals... are obliged to treat patients regardless of financial constraints." This obligation underscores the system's dedication to equitable care for all.

4.4.3 Healthcare System Challenges to VBHC Implementation in Palestine

At their core, numerous challenges to Value-Based Health Care implementation in Palestine are systemic, financial, and operational. Added to this political turbulence, fragmented governance, and constraints on resources exacerbate the adoption of patient-centered, outcome-driven models of care. This section elaborates on key barriers within the Palestinian healthcare system, describes the structural and contextual factors hampering the shift towards VBHC, and underlines areas for targeted interventions critical to effective implementation.

4.4.3.1 Political Challenges

The political situation in Palestine provides very significant systemic obstacles to the introduction of VBHC. These are closely linked with financial instability, infrastructural constraints, mobility restrictions, workforce challenges, and humanitarian crises caused by

ongoing conflict. Participants' insights bring out the complexity of such barriers and their cumulative effect on the healthcare system.

These include financial instability due to occupation and dependence on foreign aid. For example, as Participant 8 stated, "The Palestinian Authority is heavily dependent on international aid because the occupation has taken most of the resources." Over the past decade, foreign financial support has declined, leaving the health system underfinanced and unable to afford serious reform processes. The support has been slowing down over the last decade, with financial boycotts from the U.S. and EU making the crisis even deeper. This dependence is further increased by Israel's control over local revenues. Participant 4 explained, "70% of local revenues come from clearance funds collected by Israel, but these are often withheld for years, leaving the system unable to plan or execute healthcare initiatives." Such financial unpredictability creates significant obstacles to implementing VBHC, which requires sustainable funding and resource allocation.

Besides financial barriers, limitations on medical equipment and specialized care are another critical barrier. Participant 8 noted that the West Bank and Gaza do not have radiotherapy units for cancer patients: "Importing these materials requires Israeli approval, which is usually late or refused." Participant 6 also pointed out that "even when the so-called modern machinery, like nuclear imaging facilities, has been introduced, they continue to be dysfunctional due to the scarcity of materials necessary to maintain them, pending in Israeli barriers." The foregoing represents some of the logistical and political issues that deter the health system from providing the people with specialized value-added services.

All these are further exacerbated by the fragmentation of the healthcare system. The health care system was described by Participant 1 as "fragmented due to military checkpoints and political divisions," thus making cohesive planning and integrated care delivery almost impossible. This is reflected in how medical teams and patients navigate the system. Participant 6 added, "There is a lot of discomfort for medical teams to travel from one city to another due to roadblocks, which creates delays in treating the patients." The same happens with ambulance staff: "Ambulances often cannot reach the patients or transport them to required places due to frequent road closures, creating life-threatening delays," says Participant 6. These restrictions to mobility disrupt the timeliness of care, one of the core principles of VBHC. Geographical barriers further exacerbate access issues. Participant 2 highlighted, "Patients living in remote villages or areas far from healthcare centers face immense difficulties in accessing health services."

More serious than logistical barriers are the personal safety of medical professionals. Regarding violence against medical professionals, Participant 6 reported: "Ambulance crews are constantly being beaten and detained, while this has, in fact, increased since October 7." Working conditions like that render the workforce unenthusiastic and eventually diminish the effectiveness of the working system. This also adds to the systemic weaknesses, like political control over resources. As explained by Participant 4, "Local resources, including tax revenues, are controlled by Israel; the Palestinian Authority is thus unable to harness these resources to develop the healthcare system." Such political dependencies reduce the self-sufficiency and reform-making ability of the system to respond appropriately to local demands. Political interferences also constitute a delay in the introduction of innovations in healthcare services. Participant 2 provided a good example to explain this: "New servers for the healthcare system were delayed by more than a year because they were stuck at the airport due to Israeli restrictions." These delays impede the modernization of healthcare infrastructure so much is needed for the implementation of VBHC.

External political agendas also play a disruptive role. Participant 7 explained that "donor-driven programs often impose external policies that disregard local healthcare priorities, hindering the implementation of localized reforms." This misalignment between external agendas and local needs prevents the healthcare system from achieving its full potential. Coupled with this is the lack of resources for specialized training. Participant 8 highlighted that "the system lacks enough specialized teams for areas like radiotherapy, as the required training and resources are unavailable due to political and logistical constraints." These gaps further limit the healthcare system's ability to deliver specialized, high-quality care.

These various challenges summarize that the healthcare system hardly can afford to provide the basic services themselves, let alone more advanced reforms like VBHC. These systemic barriers of financial instability and resource blockades, violence, and external interference are interwoven to further create a vicious circle of dependency and underperformance. As expressed concisely by Participant 4: "The destruction of the infrastructure of the health system, coupled with relentless political interference, renders it incapable of dealing with present needs, let alone strategize for the future." These were identified to address core multi-sector approaches of ensuring that protecting local autonomy and resources while keeping the workforce safe comes first.

4.4.3.2 Financial Constraints

The financial barriers to implementing Value-Based Health Care in the Palestinian healthcare system are profound. These stem from dependency on international aid, budgetary limitations, operational costs, outstanding debts, the cost of external medical referrals, and the heavy burden on patients. All these together have contributed to a vicious circle of inefficiency and scarcity of resources, crippling the system's ability to change and address the needs of the population.

As mentioned, one critical problem is the dependence of the health system on international aid, which has actually been shrinking during the last ten years. It was pointed out by Participant 8 that "the Palestinian Authority depends on international aids because the occupation seizes all our natural and other resources, weakening the system." Participant 4 added, "External funding, which at the beginning constituted a lion's share of the national budget, has now dropped to just 12-13%." While such aid is still very much required, it is generally hedged around with stiff conditions. Participant 7 expressed it thus: "Donors require hiring international experts for program evaluations, whose costs are ten times higher than local expertise, limiting the actual impact of aid." This very dependence creates a paradox in itself: aid keeps the system going but at the same time restricts its flexibility and autonomy.

Budgetary challenges and high operational costs are other critical issues. The Ministry of Health (MoH) operates an expansive network of hospitals, clinics, and emergency centers across the West Bank and Gaza, requiring significant resources to function 24/7. Participant 6 noted that "these operational expenses consume the largest share of the budget, leaving little room for strategic investments." The financial strain is further exacerbated by incomplete development projects, many of which were initiated by previous administrations but remain unfinished due to funding shortages. Participant 7 emphasized the gap between planning and execution: "Strategies are well-designed and include clear goals, but without adequate financial resources, they cannot be implemented."

Adding to these challenges is the increasing debt owed to suppliers, which has reached alarming levels. Participant 5 disclosed that "the Ministry's outstanding debt to suppliers exceeds $800 million, reflecting the scale of financial difficulties." This has resulted in a situation where private-sector suppliers would not continue with the provision of services, hence disrupting healthcare delivery. Participant 6 reported, "Some suppliers have stopped delivering critical medications, thus creating a shortage of essential drugs like anticoagulants." Participant 7 reinforced that this is the kind of debt accumulation that compels the ministry to

borrow to satisfy basic needs, a practice likely to erode stakeholder confidence and further destabilize the system.

The high cost of external medical referrals is another financial drain. In 2023 alone, the cost of these referrals surpassed 1.1 billion shekels, as noted by Participant 5. This dependency on external care stems from the lack of adequate local infrastructure to provide specialized treatments. Participant 6 explained, "Balancing the reduction of external referrals with improving local services is extremely challenging. Without sufficient resources to build capacity internally, we are forced to rely on external services, which increase costs." This perpetuates inefficiencies, diverting funds that could otherwise be invested in strengthening domestic healthcare services.

These systemic inefficiencies also pass a substantial percentage of the costs down to patients. According to Participant 5, "Out-of-pocket expenses account for 33-35% of healthcare spending, mainly due to significant shortages of medications in government facilities." This has compelled many patients to buy drugs from private pharmacies or seek private sector care; this is indeed unaffordable. For example, Participant 5 reported, "Many patients have to sell their properties or borrow money to afford private-sector care, especially while waiting for surgery in public hospitals, which may take years." Participant 4 added that these high out-of-pocket expenditures, combined with the general bad economic situation in Palestine, place a heavy burden on families and widen disparities in access to care.

Even when healthcare services are theoretically free, economic factors create additional hurdles. Participant 2 explained, "The patient’s socioeconomic status significantly impacts access. Even if services are free, many patients cannot afford transportation costs to reach the hospital." This financial barrier excludes a segment of the population from receiving necessary care, despite the availability of services. In other countries, systems exist to address these challenges by covering transportation costs for patients. Participant 2 pointed out, "Some countries have systems where the government pays for patients' transportation to the hospital, but such a system does not exist here. This absence of support leads to many patients being deprived of the healthcare they need." As a result, even when healthcare services are available, access remains a persistent challenge due to financial, geographical, and systemic factors.

The current health insurance system, while offering comprehensive coverage, is financially unsustainable. Participant 5 noted that "the system provides full family coverage for a nominal annual fee, but this model undermines the quality and sustainability of services." Without substantial reforms, this system will continue to strain the healthcare infrastructure, making it increasingly difficult to deliver quality care.

The cost of medications adds another layer of financial difficulty. Participant 10 stated that "the cost of drugs is a significant burden, and there is a clear shortage of essential medications in the market." These shortages are partly due to MoH's inability to pay suppliers, as noted earlier. This affects not only patients but also healthcare providers, who struggle to maintain a steady supply of necessary medications.

The financial challenges are borne by the MoH, which has limited resources to meet the increasing demands of the system. In the view of Participant 2, "Lack of sustainable funding affects the system's structure and capacity at every level." This is compounded by the reliance on debt to manage shortfalls. The build-up of governments' debts was so dire to an extent that Participant 7 postulated: "Even the private sector is struggling due to the accumulation of government debts, which in one way disrupts service delivery and threatens public health." Participant 6 added, "In some instances, suppliers of key consumable medical supplies have halted providing them to institutions due to accumulation of unpaid bills that have consequently caused shortages of essentials in important sections."

These challenges mark the dire need for targeted interventions: optimization of resource allocation, reforming health insurance, and building local capacities to reduce external dependencies. Without addressing these foundational financial barriers, the implementation of VBHC in Palestine will be no more than an unattainable dream.

4.4.3.3 Challenges in Resource Allocation

The Palestinian healthcare system faces profound challenges stemming from a lack of resources, which significantly hinders its ability to deliver quality healthcare services and implement strategic reforms like Value-Based Healthcare (VBHC). These challenges include a lack of expertise in health quality, shortages in medical subspecialties, overwhelmed hospitals, insufficient equipment and medications, staff reductions, and chronic understaffing. These interconnected issues paint a complex picture of systemic inadequacies that directly impact the quality, accessibility, and sustainability of healthcare in Palestine.

A crucial gap within the Palestinian healthcare system is related to the absence of expertise in the field of health quality management. Participant 8 highlighted, "There is a mismatch in vision at the decision-making level, as many of the decision-makers have no background in health quality. It is only recently that attempts are being made to try to address these inadequacies." This institutional lack of focus on quality is exacerbated by inadequate academic and practical competencies in areas such as epidemiology and public health. Participant 10 said, "The crisis highlighted the lack of capacity regarding the analysis of health

indicators, forecast of tendencies, and strategic planning based on evidence. This shortage has drastically impeded the capacity of the health system to effectively respond in emergencies."

Besides that, in a health institution, the lack of a well-structured quality department weakens the system's assurance in terms of offering consistent care to its patients. According to Participant 1, "Quality departments are crucial in any advanced hospital; however, in Palestinian institutions, they are either not available or considered secondary. Investment in quality and information technology is not an option but a necessity to ensure long-term success." The lack of a systematic approach to quality management diminishes patient satisfaction and erodes the system's credibility.

The other big challenge is the supply of the specialist physician workforce in various medical subspecialties, which remains particularly short supply. This reduces the capacity of the system for specialist care. Participant 5 pointed to the imbalance in the distribution of medical specialties, explaining, "There is an oversupply of specialists in areas like obstetrics and pediatrics, while critical fields such as psychiatry, pathology, and radiology face acute shortages." This imbalance reflects the lack of strategic workforce planning, which exacerbates healthcare inequities. Participant 6 added that "the migration of doctors, especially those in rare specialties, further deepens this gap. Many doctors leave Palestine due to security concerns and financial instability, seeking better opportunities abroad".

The shortage of resources and subspecialties contributes to overcrowding in Palestinian hospitals, creating significant barriers to effective healthcare delivery. Participant 5 stated, "Hospitals are overwhelmed, with long waiting times and high bed occupancy rates. The lack of resources prevents hospitals from expanding their capacity or increasing the number of beds." Participant 6 echoed this sentiment, explaining, "In government hospitals, overcrowding often means five patients share a room designed for one, compromising privacy and comfort." This overcrowding is particularly problematic in a system heavily reliant on public hospitals. Participant 2 noted, "The high workload and resource shortages in hospitals make it extremely difficult to implement reforms such as VBHC, as the system struggles to meet even basic needs".

Medications, particularly for chronic diseases like diabetes and hypertension, are often unavailable in public facilities, forcing patients to purchase them privately. Participant 7 emphasized the systemic nature of this issue: "The supply of medications is entirely dependent on available financial resources. Without sustainable agreements with suppliers, shortages are inevitable".

The Palestinian healthcare system faces chronic understaffing, which significantly impacts service delivery and patient satisfaction. Participant 5 shared, "Recent reductions in human resources have led to fewer working days for doctors and nurses, extending waiting times for surgeries and other treatments to years." This issue directly affects access to care, as Participant 5 further explained, "If a patient visits a clinic and finds it closed because the doctor is unavailable, it directly impacts their ability to access care." Specialized services are particularly affected, with reductions in surgeons' working days exacerbating delays. Participant 5 highlighted, "When a surgeon's working days are reduced from three days to just one per week, the waiting list for surgeries stretches for years. Some patients might have to wait until 2027 for a simple procedure." These delays often force patients to seek expensive private care, compounding the financial burden on households.

Participant 6 explained that while attempts are made to redistribute existing staff to fill gaps, these efforts are insufficient to meet demand. "We operate with minimal resources, often relying on the resilience of our staff to maintain services," Participant 6 noted. However, the lack of competitive salaries compared to international standards exacerbates the problem. Participant 7 highlighted that "offers of ILS 5,000 monthly salaries for specialists are often declined, as doctors can earn ILS 20,000 or more abroad." This makes it nearly impossible to attract and retain talent in critical fields.

Beyond the staff reductions, the system suffers from an overall shortage of healthcare workers, particularly in specialized areas like IT and data management. Participant 2 explained, "The limited number of IT professionals slows down development and system improvements. In some major hospitals, a single IT staff member is responsible for all maintenance tasks, leaving no room for innovation." Participant 6 added that "the lack of resources forces the system to rely on stopgap measures, rather than implementing comprehensive solutions." Participant 7 illustrated the systemic nature of this issue, stating, "When the Ministry of Health requests 1,000 new staff to meet its needs, only 15% of that number is approved, making it nearly impossible to implement any meaningful strategy." This chronic understaffing perpetuates inefficiencies and limits the healthcare system's ability to adapt to growing demands.

In conclusion, the lack of resources in the Palestinian healthcare system poses significant challenges to the implementation of VBHC. From shortages in expertise, subspecialties, and medications to overwhelmed hospitals and chronic understaffing, these issues are deeply interconnected and require systemic solutions. Addressing these gaps will require coordinated efforts to improve resource allocation, build local capacity, and attract and

retain skilled professionals. Without these interventions, the healthcare system will continue to struggle to meet the population’s needs, let alone achieve the ambitious goals of VBHC.

4.4.3.4 Challenges in Technical and Educational Integration in the Palestinian Healthcare System

The Palestinian healthcare system faces systemic challenges in technical and educational integration, which directly affect the quality and efficiency of healthcare delivery. These challenges include disparities in technical and educational standards, insufficient clinical training, outdated knowledge, and issues with medical specialization programs. Together, they hinder the development of a competent and cohesive healthcare workforce, ultimately impacting patient outcomes and the overall system's sustainability. "Addressing these interconnected challenges requires recognizing how deeply educational inconsistencies and a lack of training opportunities shape the broader healthcare landscape."

One significant issue is the disparity in technical and educational approaches across institutions. "Differences in educational systems, particularly between the Eastern and Western schools, have created inconsistencies and disagreements within the Palestinian healthcare system," explained Participant 8. These disparities contribute to fragmentation and a lack of cohesion in healthcare service delivery, as professionals from varying educational backgrounds struggle to align their practices under a unified system. "Such fragmentation reverberates across all levels of healthcare, creating bottlenecks in both decision-making and the delivery of care".

The gap between theoretical knowledge and practical skills is another critical challenge. "Medical students excel in theory and exams but lack the hands-on skills needed to handle real-world medical cases," highlighted Participant 5. This disconnect is exacerbated by inadequate opportunities for practical training during internships, leaving graduates unprepared for clinical responsibilities. "The lack of comprehensive training affects the quality of healthcare services, making it essential to address this gap to build the capacities of healthcare workers," emphasized Participant 10. Furthermore, Participant 9 illustrated the practical implications of insufficient training: "A lack of scientific awareness among healthcare workers leads to unnecessary tests, increasing costs and patient suffering. Properly trained professionals can reduce costs and improve treatment outcomes by making precise decisions." "These inefficiencies point to the urgent need for a more structured and hands-on approach to medical education, ensuring graduates are equipped to meet real-world demands."

Additionally, the rapid growth in the number of healthcare graduates exacerbates the challenges in training and employment. "Palestine produces thousands of graduates annually in medicine, nursing, pharmacy, and laboratory sciences, but the available clinical training opportunities are insufficient to accommodate them," noted Participant 5. With universities graduating 600–700 students per year, the limited capacity of hospitals and training facilities creates bottlenecks in practical education. This surplus of graduates without adequate training infrastructure strains the system and reduces the quality of healthcare delivery. "Without significant investment in training infrastructure, this overproduction of graduates risks compounding existing systemic inefficiencies".

Medical specialization programs in Palestine also require significant reform. "Specialization programs should not only focus on exams but must also include components like research, teaching, and mastering medical procedures," explained Participant 5. Current evaluation criteria fail to adequately measure professional competence during specialization, and a lack of qualified supervisory teams compounds the issue. Establishing structured oversight and monitoring systems for specialists is essential to ensure their professional growth and the delivery of high-quality care. "Reforming these programs is essential to build a pipeline of specialists capable of addressing both current and future healthcare demands."

Continuous medical education is another area of concern. "A doctor who graduated 20 years ago must continually update their knowledge to stay aligned with the rapidly changing medical landscape," noted Participant 5. However, ongoing education is often treated as an individual effort rather than an institutional mandate, leading to gaps between current medical practices and patient needs. Participant 6 added that logistical barriers, such as difficulty obtaining travel permits or visas to attend international conferences, further hinder access to global knowledge and training opportunities. "In a rapidly evolving field like medicine, such barriers to ongoing education leave the system vulnerable to stagnation and diminished patient care quality.

4.4.3.5 Challenges in Primary Care, Preventive Strategies, and Chronic Disease Management

The Palestinian healthcare system faces significant challenges in primary care and early detection programs, undermining its ability to provide preventive and efficient healthcare services. Despite isolated successes, such as vaccination programs, these do not reflect a comprehensive approach to prevention or early diagnosis. Participant 3 noted, "primary healthcare in Palestine is not as robust as it should be. The rising rates of cancer and chronic

illnesses highlight the absence of effective early detection and treatment programs." This gap creates an over-reliance on secondary and tertiary care, straining the healthcare system's capacity. Around 40% of hospital admissions are for preventable conditions, reflecting a failure in primary care systems to act as the first line of defense. The systemic weaknesses in primary care underscore the urgent need for a shift in healthcare priorities and investment.

Preventive care, a cornerstone of any healthcare system, remains underdeveloped in Palestine. Without a proactive culture of prevention, the system fails to identify and manage diseases at earlier, less costly stages. Efforts to promote routine health checkups and preventive screenings are minimal. Participant 6 observed, "Many citizens do not visit primary care clinics until their conditions have worsened, leading to increased pressure on hospitals." This imbalance reflects a reactive approach to health that neglects the long-term benefits of prevention, increasing both the burden on hospitals and healthcare costs. Resources are often diverted toward expanding secondary care, leaving little attention to the foundations of preventive healthcare. Participant 7 pointed out that "resources are currently diverted toward expanding secondary care, leaving little attention to the foundations of preventive healthcare."

The current structure of primary care does not align with its intended role. If adequately strengthened, primary care could alleviate pressure on higher levels of care, ultimately improving system efficiency and reducing costs. Participant 5 emphasized, "Primary care should act as the gatekeeper to secondary care, managing prevention, early diagnosis, and family health. However, this role is not being fulfilled effectively, resulting in overwhelmed emergency departments where more than 70% of cases could have been managed at the primary care level." Additionally, the lack of trust in primary care facilities and their limited hours of operation pushes patients to seek immediate care in hospitals, even for minor or manageable conditions. This trend places undue strain on emergency resources and compromises the quality of care for severe cases, perpetuating a cycle of inefficiency that is particularly detrimental in resource-limited settings.

Non-communicable diseases (NCDs) such as cancer, diabetes, and cardiovascular diseases are increasingly burdening the Palestinian healthcare system. This rise is closely linked to demographic changes, including increased life expectancy and an aging population. Participant 2 highlighted, "With life expectancy rising, the proportion of older adults (aged 60 and above) is expected to double in the next decade, leading to higher rates of chronic diseases and greater demand for healthcare services." Historically, the healthcare system concentrated on maternal and child health due to its predominantly youthful demographic profile. However, this focus has shifted due to emerging population dynamics. Participant 2 reflected on this

change, stating, "Previously, Palestine was considered a youthful society, and the top priority was caring for children and pregnant women. However, demographic developments have revealed a clear rise in chronic diseases and aging, which now require greater attention."

The rising prevalence of chronic diseases and cancer poses a significant challenge. Participant 5 provided a stark example: "By 2040, cancer cases are expected to double. The healthcare system is unprepared to handle this additional burden due to the lack of a clear strategic plan." Participant 3 reinforced this point, stating, "Cancer and chronic disease rates continue to rise year after year, reflecting significant gaps in the healthcare system." Delays in diagnosis, particularly for cancer, are among the most alarming consequences of weak preventive care. Participant 5 noted, "In 2020, the average wait time for mammogram results exceeded 14 months, during which patients risk transitioning from early to advanced stages of cancer."

The absence of multidisciplinary teams and specialized radiologists further exacerbates these issues, creating a bottleneck in early detection. Participant 3 emphasized that "the lack of clear strategies for early detection contributes to the increasing burden of non-communicable diseases like diabetes, hypertension, and cancer." These systemic gaps highlight the pressing need for investment in diagnostic infrastructure, training, and recruitment of skilled personnel. While comprehensive population-wide screenings may not be feasible in resource-limited settings like Palestine, focused initiatives for high-risk groups could yield significant benefits. Participant 5 suggested, "Targeted early detection for high-risk populations provides better outcomes within the available resources." Participant 2 added, "Cancer patients often receive diagnoses at very advanced stages, leading to poor treatment outcomes and reduced quality of life".

The management of chronic diseases imposes substantial financial and infrastructural demands, exacerbating existing resource limitations. Participant 4 emphasized, "The rise in chronic diseases like diabetes and hypertension requires specialized medications and services, driving up healthcare spending." In a resource-constrained environment like Palestine, economic hardships further restrict the ability to meet these increasing demands. Participant 1 observed, "While Palestine is a small and resource-poor country, like the rest of the world, the incidence rates of cancer and cardiovascular diseases are rising, creating a growing demand for specialized services."

Addressing these challenges requires a paradigm shift in how primary care and prevention are prioritized within the Palestinian healthcare system. Strengthening primary care

infrastructure, fostering a culture of prevention, and focusing on early detection programs—particularly for high-risk groups—are essential steps in reversing current trends.

4.4.3.6 Systemic Inequities in the Palestinian Healthcare System

The Palestinian healthcare system is marked by significant challenges in achieving equitable access to services, despite the presence of a legal framework designed to promote equality. Persistent disparities in service delivery, particularly across socioeconomic groups, undermine public trust and exacerbate health inequities. Participant 7 underscored these disparities, stating that "the current system does not ensure justice between the poor and the rich. A simple citizen without 'connections' stands in long queues to access services, while others can obtain medications and treatment easily with a phone call." This observation highlights the systemic inefficiencies and the absence of mechanisms to ensure fairness in healthcare delivery.

Although the Palestinian Public Health Law mandates equal and high-quality treatment for all citizens, the gap between policy and practice remains a significant obstacle. The healthcare infrastructure is often unable to meet demand equitably, with resource allocation frequently favoring those with social or financial capital. These systemic deficiencies reveal the lack of robust governance structures and accountability mechanisms essential for upholding the principles of universal healthcare.

Addressing these inequities necessitates comprehensive systemic reforms aimed at reducing the influence of social and financial disparities in healthcare access. Implementing transparent service delivery mechanisms, such as digitalized appointment systems, holds promise for minimizing favoritism and ensuring that healthcare services are distributed based on medical necessity rather than personal connections or socio-economic status.

4.4.3.7 Challenges of Cost-Effective Healthcare in the Palestinian Healthcare System

The Palestinian healthcare system faces significant challenges related to cost-effectiveness, stemming from a lack of awareness among providers, inefficiencies in communication between medical professionals, and the impact of physician behaviors on healthcare efficiency and costs. Effective communication between healthcare providers, particularly between physicians and laboratories, is another area of concern. Participant 5 described the lack of integration, noting, "Doctors may request numerous tests, and laboratories perform them without adequate communication about the details or implications of the results."

This disconnect reduces the efficiency of diagnostic processes and may lead to redundant or unnecessary tests.

A multidisciplinary approach, where specialists from different fields collaborate on patient care, was highlighted as a potential solution. Participant 5 explained, "Globally, the best approach is a multidisciplinary team where specialists work together to develop a unified treatment plan. Improved communication between laboratories and physicians would significantly enhance patient outcomes." Establishing such collaborative practices could streamline diagnostic and treatment pathways while improving resource utilization.

A critical issue is the limited understanding among healthcare providers regarding the importance of cost-effective healthcare. Participant 9 highlighted, "The first and foremost challenge is the lack of awareness among key players in the health cycle, including doctors, laboratories, nurses, and pharmacists, about strategies to deliver quality care at lower costs." This gap in awareness leads to inefficient use of resources and missed opportunities to improve patient outcomes.

Participant 9 emphasized the broader implications, stating, "Effective and sustainable healthcare goes beyond reducing costs; it involves achieving the best outcomes for patients with minimal effort and time." Building awareness and providing continuous education to healthcare professionals is essential to instill a mindset focused on resource optimization and patient-centered care.

Physician behaviors play a pivotal role in determining the efficiency and cost-effectiveness of healthcare. Participant 9 categorized physicians into three types based on their diagnostic approaches:

- **"Shotgun" Approach:** Conducting numerous tests without a focused plan, leading to high costs and inefficiency.
- **"Rifle" Approach:** Using a targeted and systematic method to request only essential tests based on patient symptoms.
- **Scientific Methodology:** Starting with basic tests and progressively conducting more complex investigations as needed.

Participant 9 noted, "Unfortunately, some physicians in Palestine follow a random approach, requesting all tests at once without considering initial results. This practice incurs high costs and delays diagnosis and treatment." Encouraging physicians to adopt a more structured and evidence-based approach can reduce unnecessary expenditures and improve patient care.

Addressing the challenges of cost-effectiveness requires a multifaceted approach that includes education, system-level reforms, and changes in individual behaviors. Continuous professional development programs can equip healthcare providers with the knowledge and skills needed to adopt cost-effective practices. Implementing policies to monitor and guide physician behaviors, such as protocols for test ordering and resource utilization, can further promote cost-effectiveness.

4.4.3.8 Information Accessibility, Patient Awareness, and Medical Advancements

The intersection of information accessibility, patient awareness, and rapid medical advancements has introduced new complexities to the Palestinian healthcare system. These factors have reshaped patient expectations and place additional pressure on healthcare providers and infrastructure.

The widespread availability of medical information online has empowered patients but also created challenges for healthcare providers. Participant 1 noted, "In the past, patients were content with receiving a prescription from their doctor. Today, patients come with prior knowledge, often from the internet, and demand detailed explanations of treatment options." This shift has increased the workload for providers, who must now address patients' questions and clarify misconceptions, while simultaneously managing their core responsibilities.

This dynamic has also raised patients' expectations of the healthcare system, leading to greater demands for advanced technologies, highly skilled personnel, and improved infrastructure. As Participant 1 explained, "Meeting these expectations requires significant investment in technology, workforce development, and infrastructure, which adds financial pressure to the healthcare system."

Despite increased access to information, gaps in patient understanding of cost-effective healthcare persist. Participant 9 highlighted the impact of societal perceptions, stating, "If a doctor does not prescribe medication or order extensive tests, patients may perceive them as incompetent. This misunderstanding increases unnecessary costs and delays treatment."

Educating patients about appropriate healthcare strategies is essential. For example, simple conditions like influenza can often be managed with rest and basic care, as Participant 9 emphasized, "Some cases don't require immediate medical intervention or costly prescriptions. Awareness campaigns could teach patients to trust medical advice for non-critical conditions."

While advancements in medical technology have revolutionized treatment options, they have also escalated costs. Participant 1 observed, "Since 2000, progress in cancer treatment has

been remarkable, but it has also significantly increased costs, as medical technology becomes faster and more sophisticated." This dual-edged sword of innovation highlights the need for strategic investment in technology and an emphasis on the cost-effective utilization of these advancements.

By addressing these challenges collaboratively, the Palestinian healthcare system can align patient expectations with resource realities and leverage medical advancements for broader public benefit.

4.4.3.9 Trust and Operational Challenges in Public Healthcare Facilities

Public healthcare facilities in Palestine face dual challenges: a lack of trust among patients and significant operational issues that hinder their effectiveness. These factors collectively contribute to a perception of inferiority compared to private healthcare services, despite the public sector's often superior medical expertise and capacity.

Patients often perceive private healthcare services as superior due to their enhanced amenities. Participant 5 explained, "Patients frequently believe that private hospitals provide better services. While private facilities excel in hotel-like amenities and advanced support services, this does not necessarily equate to better medical care." However, public facilities are often overlooked despite offering greater expertise and capacity.

Participant 6 elaborated, "The core difference lies in non-medical aspects like private rooms and high levels of cleanliness, which patients seek in private facilities." This emphasis on "five-star" services creates an additional challenge for public hospitals, which must meet these expectations while operating under resource constraints. Public hospitals are often blamed for hospital-acquired infections, further eroding trust. Participant 7 highlighted, "Infection cases are frequently attributed to public hospitals, exposing flaws in the broader public health system." Addressing infection control and improving adherence to quality standards across all institutions is essential for restoring confidence in public healthcare. Public hospitals face several operational challenges that exacerbate patient dissatisfaction:

- **Cleanliness and Maintenance Issues:** Participant 6 noted, "Some patients fail to maintain cleanliness in public hospitals, leaving trash or spoiled food in drawers, which deteriorates the hospital environment. Ironically, these same patients adhere to strict cleanliness rules in private hospitals."
- **Damage to Equipment:** Irresponsible use of medical equipment by patients and staff often leads to frequent breakdowns. Participant 6 explained, "Medical equipment is

often misused or damaged, requiring constant repairs or replacements, which strains the healthcare budget."

- **Overcrowding:** Overcrowded facilities further reduce patient comfort. Participant 6 highlighted, "Rooms often house five patients instead of one, leading to a lack of privacy and comfort as entire families accompany patients, increasing congestion."
- **Inadequate Facilities:** Public hospitals frequently struggle with basic amenities. Participant 7 noted, "Patients are sometimes referred to private hospitals due to a lack of simple resources, like bed linens, which frustrate patients and foster a preference for private care."

By addressing these trust and operational challenges, public hospitals can enhance their reputation, improve service delivery, and provide equitable care that meets patient expectations.

4.4.3.10 Information Technology Barriers

The public healthcare sector benefits from an established IT infrastructure, which provides a solid foundation for further development. Participant 3 emphasized, “The health system’s readiness in terms of IT infrastructure and data exchange is somewhat good, especially in the government health sector. There is an existing infrastructure in clinics and hospitals that can be built upon.” This includes robust systems for data retention and backup. As Participant 3 added, “The government systems provide excellent long-term data retention with backup mechanisms that protect data from loss.” However, integration across different levels of care remains limited. Participant 5 observed, “On the primary care level, much of the system is still paper based, with electronic systems only covering about 50% of operations. This limits connectivity with secondary care.” Disparities persist even within hospitals, as Participant 2 noted, “Some newer hospitals have not fully implemented electronic systems, and even where they are implemented, technical software issues persist.”

Efforts to enhance public healthcare IT face significant logistical and political barriers. Participant 2 explained, “New servers procured in 2023 were delayed for over a year due to restrictions by the occupation, leaving the system reliant on outdated infrastructure.” Despite these constraints, initiatives like the Ibn Sina system demonstrate potential. Participant 9 stated, “The Ibn Sina system allows patient records to be accessed across government hospitals using a unique identifier, reducing the need for repeated tests and saving resources.”

In contrast, the private healthcare sector exhibits greater IT readiness, driven by financial incentives and operational needs. Participant 3 emphasized, “In the private sector, the

situation is advanced, with a focus on cost reduction and profitability driving more effective and flexible use of resources." Participant 5 remarked on the widespread adoption of electronic systems, saying, "All private institutions rely on electronic systems, even if basic ones like Excel, avoiding paper-based operations entirely." However, fragmented systems remain a challenge. Participant 1 explained, "Private institutions function independently, with no shared databases, making inter-hospital data exchange impossible." Additionally, many private hospitals rely on internally developed IT systems that often fail to meet comprehensive healthcare needs. Participant 1 elaborated, "Some institutions invest in custom-built systems, but these often fail to meet broader healthcare management needs."

Data quality challenges persist across both sectors. Participant 9 noted gaps in data entry, stating, "The Ibn Sina system has significant advantages but suffers from misuse, particularly by some medical staff who do not enter all patient data. This leads to gaps in information needed for sound healthcare decisions." Time constraints exacerbate this issue, as Participant 2 explained, "Doctors often avoid entering detailed patient information due to time constraints, which compromises data quality." The lack of standardized coding practices compounds these issues. Participant 4 remarked, "Procedure codes vary widely between hospitals, creating confusion when analyzing data." Participant 5 added, "Even where electronic systems are used, the lack of uniform data and built-in performance indicators undermines their utility."

Although IT systems are operational, their ability to support analytics and decision-making is limited. Participant 5 observed, "Existing systems track daily operations, such as medication administration, but lack tools for performance monitoring and data analysis." Participant 4 noted the absence of automated analytics, stating, "Without automated analytics, data must be manually processed, delaying decisions and limiting actionable insights." Additionally, poor system adoption by clinicians affects data usability. Participant 9 highlighted, "Some systems suffer from poor adoption, resulting in incomplete datasets that are difficult to analyze effectively."

The public IT sector's systems also suffer from a lack of regular updates and maintenance. Participant 7 explained, "Government systems like HIS have not been updated for years due to insufficient budgets, leaving them outdated and prone to failure." External factors contribute to delays, as Participant 2 noted, "Improving the ministry's data center was delayed because servers procured in 2023 were held up for over a year due to political restrictions." Overreliance on foreign IT solutions exacerbates these issues. Participant 7 criticized, "Imported systems are expensive to maintain and update, yet no local alternatives

have been developed." Security vulnerabilities also remain a concern. Participant 2 stated, "The current systems lack adequate data security measures, exposing them to potential breaches."

A unified medical records system remains absent, significantly hindering IT readiness. Participant 1 observed, "Patients transitioning between institutions often face repeated tests because their medical data isn't accessible across facilities." This fragmentation negatively affects patient outcomes and efficiency. Participant 5 emphasized its impact in emergencies, stating, "For women moving from private clinics to public hospitals, the lack of centralized records delays urgent care and compromises outcomes." Efforts to address these challenges remain limited. Participant 4 reiterated, "Different hospitals use inconsistent codes for the same procedures, making it nearly impossible to integrate data effectively." However, the Ibn Sina system offers some promise, as Participant 9 noted, "The Ibn Sina system allows a patient's test results to be retrieved across government hospitals using a unique identifier, reducing redundancies."

Leadership plays a pivotal role in shaping IT readiness. Participant 1 remarked, "One of the major challenges in implementing IT systems is the lack of belief among some senior managers in the importance of technology. Some view hospitals purely as business ventures and focus on short-term profit rather than long-term infrastructure improvement. This strategic deficiency undermines investment in IT infrastructure and adoption. The absence of dedicated IT leadership further complicates the situation. Participant 1 highlighted, "Most healthcare institutions do not have a full-time IT director. If an issue arises, an external consultant is called on a case-by-case basis. This reflects the traditional view of IT as a supplementary function rather than a strategic one." In contrast, private institutions are beginning to address this gap. Participant 1 noted, "In some private institutions, the IT director reports directly to the CEO and has a role similar to the Chief Medical Officer (CMO), reflecting the increasing recognition of IT's strategic importance."

Resistance to change continues to hinder IT implementation. Participant 5 explained, "Senior managers in some institutions are resistant to change, viewing IT as an additional cost rather than a tool for improving efficiency and quality of care." Participant 7 elaborated on the consequences, stating, "Instead of building sustainable systems locally, they continue to rely on expensive, imported solutions that are difficult to maintain".

4.4.3.11 Aging Infrastructure

A critical challenge highlighted by participants is the aging infrastructure in Palestinian healthcare, particularly concerning medical devices. Participant 7 underscored the issue,

stating, “The Palestinian health system suffers from aging infrastructure, especially in medical devices. Most equipment is donated and often arrives five years or more after its initial use elsewhere.”

This reliance on outdated technology significantly impacts operational efficiency. Participant 7 explained, “While technological advancements are accelerating globally, we are still trying to repair old equipment. For example, if a light in a medical device break, it might take six months to repair, disrupting medical workflows.” This delay in repairs and maintenance reflects broader systemic issues, such as dependency on external donations and insufficient financial resources for infrastructure upgrades.

The lack of modern technology also hampers the health system's ability to adopt and sustain advanced IT solutions. Outdated hardware and infrastructure make integrating new systems challenging, further exacerbating the gap between Palestine’s healthcare sector and international standards.

Despite these challenges, there are encouraging signs of progress. Systems like “Avicenna” demonstrate the potential of IT to streamline patient care by improving record access and reducing duplication. Participant 9 praised the system, stating, “Ibn Sina allows hospitals to access patient records efficiently, reducing the need for redundant tests.” However, the lack of a unified national medical record system undermines these efforts. As Participant 5 reflected, while initiatives like the “Blue Book” are steps forward, “these solutions are not comprehensive enough to meet the system’s needs”.

4.4.3.12 Structural and Operational Challenges in the Palestinian Healthcare System: Fragmentation, Outdated Policies, and Systemic Inefficiencies

The Palestinian healthcare system faces extensive structural and operational challenges characterized by fragmentation, weak governance, outdated policies, poor contract management, bureaucratic inefficiencies, and a lack of integrated strategic vision. These issues are compounded by overlapping roles within the Ministry of Health (MoH), inconsistencies in leadership, and inadequate coordination among stakeholders. Participant 3 highlights the systemic inefficiencies arising from the MoH's simultaneous roles as regulator, provider, and monitor, describing it as akin to "playing the roles of referee, coach, and player at the same time." This conflict of interest compromises the MoH's ability to set effective standards and monitor compliance, leading to a fragmented and underperforming system. Addressing this requires the MoH to focus on its regulatory role and delegate service delivery to other sectors, such as private healthcare providers.

Frequent changes in leadership within the MoH further exacerbate systemic challenges. Participant 8 highlighted, "With each new leader, there are shifts in vision and priorities, creating inconsistencies and challenges." This variability disrupts the continuity of long-term healthcare strategies and results in fragmented efforts that fail to address systemic issues comprehensively. By addressing these organizational and leadership challenges, the Palestinian healthcare system can move toward a more efficient and cohesive model, capable of delivering high-quality, equitable care to its population.

The absence of a cohesive strategic framework and shared national goals further complicates the system's functionality. Participant 3 remarked, “Currently, the ability of healthcare institutions to align with a comprehensive strategy is weak. This does not mean that institutions cannot improve, but the issue lies in the absence of shared goals and a unifying vision. Without a unified vision, institutions prioritize their individual financial and operational concerns, leading to duplication of efforts and resource wastage. Participant 5 noted the inefficiencies caused by the multiplicity of players, where “several entities often provide the same service in the same area without coordination.” These redundancies exacerbate regional disparities, leaving some areas underserved while others experience overlapping services.

The issue of outdated policies compounds these challenges. Participant 1 criticized the superficial nature of current healthcare policies, noting, “Policies exist merely to satisfy accreditation or workshop requirements and are rarely applied effectively on the ground.” Many policies lack depth, actionable steps, or relevance to contemporary healthcare needs. Participant 3 added, “Since the establishment of the Ministry of Health in 1994, no performance indicators or comprehensive strategic objectives have been set.” Without updates that incorporate measurable outcomes and alignment with modern demands, these policies fail to foster systemic progress or address the growing complexity of healthcare challenges. Updating policies to include actionable, measurable components and ensuring relevance is vital for sustainable improvement.

Poor contract management is another significant factor undermining the system’s functionality. Contracts with suppliers often lack provisions for maintenance and sustainability, leading to outdated technology and resource shortages. Participant 7 emphasized this gap, explaining, “Contracts should include maintenance, and equipment upgrades every five years. However, devices often remain outdated due to the absence of such agreements.” These lapses extend to medication supplies, as highlighted by Participant 7: “Without sustainable agreements with suppliers, it is difficult to ensure continuous supply, leaving patients without

treatment." Effective contract management is critical for ensuring the availability of essential resources, maintaining infrastructure quality, and improving service delivery.

Bureaucratic inefficiencies create further barriers to effective healthcare delivery. Participant 7 noted the significant delays caused by procurement processes, stating, "Government institutions are constrained by tendering requirements, where every procurement must go through a lengthy and effort-intensive process. This sometimes leads to breaches, as selections are not necessarily based on cost-effectiveness or quality." Such inefficiencies exacerbate financial strain and diminish the system's responsiveness to urgent needs. Participant 5 elaborated on the economic impact, observing that "Despite health insurance, personal expenses for healthcare remain high. This reflects a lack of effective governance in managing economic resources." These bureaucratic constraints not only delay resource allocation but also undermine trust in the system's ability to address pressing challenges efficiently.

Geographic and governance fragmentation amplify the challenges, as institutions operate independently without cohesive oversight. Participant 1 observed that governance structures are fragmented, with each hospital and region operating autonomously, making coordination and integration exceedingly difficult. The lack of centralized governance not only complicates resource allocation but also hinders the alignment of donor priorities with national goals. Participant 1 underscored the impact of conflicting donor priorities, stating, "Different donors supporting various institutions further complicates coordination efforts." Addressing these issues necessitates centralizing governance and fostering alignment among donors to streamline decision-making and resource utilization.

Weak governance and transparency deficits further undermine public trust and system accountability. Participant 7 highlighted the lack of transparency in budget allocation and expenditure reporting, stating, "The government has not disclosed its budgets or expenditures clearly, creating a significant gap between planning and implementation." Bureaucratic inefficiencies in procurement processes also exacerbate delays in resource allocation and diminish the system's ability to respond to urgent needs. Participant 7 noted that tendering requirements are often cumbersome, resulting in breaches where cost-effectiveness and quality considerations are overlooked. These inefficiencies erode trust and undermine efforts to establish a responsive and efficient healthcare system.

The absence of unified medical protocols and standardized performance indicators creates additional inconsistencies in healthcare delivery. Participant 5 emphasized the need for standardization, stating, "There is an urgent need to standardize protocols and medical

guidelines at all levels to ensure consistent, high-quality care across all sectors." Without these foundational elements, healthcare delivery remains inconsistent, with disparities in treatment practices and outcomes further undermining equity and effectiveness. Participant 10 illustrated the challenges posed by the absence of performance indicators, questioning, "How can we guarantee that the service provided was of the highest standard and that the patient returned in good health?" Without measurable outcomes or feedback mechanisms, the system struggles to assess service quality and identify areas for improvement.

The system's focus on isolated services rather than holistic population health needs further exacerbates inefficiencies. Participant 3 criticized this approach, noting that institutions often concentrate resources on narrow priorities while neglecting broader healthcare needs. Infrastructure development also prioritizes new facilities over improving existing ones. Participant 7 argued that this approach neglects critical upgrades to infrastructure, such as neonatal incubators and patient rooms, leading to overcrowding and diminished patient satisfaction. Participant 7 observed, "Instead of building more hospitals and facilities, the focus should be on improving existing infrastructure, such as increasing the number of neonatal incubators, upgrading bathrooms and patient rooms, and reducing overcrowding, where it's unreasonable for six patients to share a single bathroom."

Finally, the healthcare system struggles with execution gaps, where strategic frameworks are not effectively implemented. Participant 3 remarked, "The system still requires strong governance, effective implementation, and monitoring mechanisms to ensure these values are realized." Despite the presence of strategic plans, inadequate funding and weak accountability mechanisms hinder execution. Participant 10 noted, "Without adequate funding, plans remain on paper and are not executed effectively." Bridging these gaps requires embedding actionable steps, robust performance indicators, and accountability into all strategies to ensure their realization.

Addressing these challenges demands a comprehensive, integrated approach that prioritizes unified governance, strategic coordination, systemic modernization, and robust contract and policy management. By focusing on long-term planning, standardization, equitable resource distribution, and the resolution of bureaucratic inefficiencies, the Palestinian healthcare system can transition from its current fragmented state to a more efficient, cohesive model capable of delivering high-quality, accessible care.

4.4.3.13 Public-Private Partnerships (PPPs) in Healthcare

Public-Private Partnerships (PPPs) hold transformative potential for enhancing healthcare systems, particularly in resource-constrained settings like Palestine. Despite their promise, PPPs face multifaceted challenges, ranging from financial constraints to governance issues, while simultaneously offering significant opportunities to improve service delivery and health outcomes.

Efforts to foster PPPs extend beyond individual healthcare facilities. As Participant 2 explains, "A national development program for 2025-2026 includes initiatives like the 'Service Localization' project, aiming to reduce dependency on referrals abroad by investing in local capabilities, both governmental and non-governmental." Such initiatives embody a broader vision to create sustainable and impactful partnerships that strengthen the healthcare system.

- **Collaboration and Integration in PPPs**

Collaboration is essential to effective PPPs, yet achieving it requires extensive effort. Participant 10 underscores the importance of integration, stating, "Collaboration between sectors ensures that each component of the system functions cohesively towards shared health goals." Participant 1 echoes this sentiment, emphasizing shared decision-making to optimize resources: "If specific capabilities exist in one area, they should be leveraged comprehensively rather than duplicated in other regions unnecessarily." International collaborations also serve as a model for overcoming local challenges. Participant 6 highlights the role of organizations such as WHO, which provide essential medical supplies and training. However, these efforts often face external political restrictions, limiting their full impact.

Participant 7 identifies the independence of the private sector as both an opportunity and a challenge, noting, "The private sector operates independently, making immediate decisions, while the government is constrained by lengthy procurement processes." This misalignment highlights the need for better coordination and integration between sectors. Additionally, gaps in healthcare infrastructure hinder PPP effectiveness. Participant 2 points to the need for investment in workforce training and electronic health records to implement systems like family medicine: "This model requires significant investment in workforce training and electronic health records to enable comprehensive and efficient care delivery".

- **Financial Challenges and Strategic Opportunities**

The financial sustainability of PPPs is a recurrent theme. Participant 3 emphasizes the potential of national insurance as a funding mechanism, suggesting, “The government can fund the healthcare sector through national insurance, collecting funds from citizens to provide healthcare services via the private sector, while ensuring quality and achieving national health objectives.” Such mechanisms could alleviate financial pressure on the public sector and ensure equitable access to services.

However, the high cost of private sector services poses a challenge. Participant 5 explains, “When clear agreements were established, the private sector focused on essential services, reducing costs for the public sector while ensuring high-quality service delivery.” Participant 10 further stresses the importance of precise economic evaluations: “The government must compare the cost of outsourcing services to private providers versus delivering them internally.” Such analyses are crucial for informed decision-making, cost optimization, and improved efficiency.

- **Governance Structures for Effective PPPs**

Robust governance frameworks are pivotal for PPP success. Participant 3 advocates for a regulatory role for the Ministry of Health, which should focus on “licensing, monitoring performance, and evaluating policies,” fostering transparency and trust among stakeholders. The establishment of an independent regulatory body could enhance accountability by clearly defining the roles and expectations of all parties. Participant 5 highlights the need for effective monitoring systems, noting that “current guidelines and protocols need robust systems to monitor their implementation and assess their impact on service quality.” Standardized practices across sectors, such as unified drug dispensing systems and patient registration methods, could improve resource utilization and service consistency, as emphasized by Participant 9.

Participant 2 emphasizes revising contracts with private hospitals, supported by technical assistance from WHO and the World Bank, to enhance procurement efficiency and sustainability. Partnerships with Jerusalem hospitals further demonstrate the role of external funding, such as contributions from the European Union, in supporting essential services like oncology care.

- **Lessons from International Models**

International examples offer valuable lessons for PPP implementation in Palestine. Participant 3 references Turkey, the United Kingdom, and Japan as models where ministries have successfully transitioned to regulatory roles, allowing private entities to deliver services within structured frameworks. These examples demonstrate that “this model is not about privatization but about partnerships built on solid and transparent foundations.” Regionally, Saudi Arabia provides an example of leveraging partnerships to enhance healthcare service quality and coverage.

- **Localized PPP Initiatives and Their Impact**

Palestine has implemented several PPP-driven initiatives to address healthcare service gaps. Participant 5 notes the development of radiotherapy services at Al-Istishari hospital and the future Khaled Hassan Cancer Hospital as examples of collaboration aimed at continuity and resource optimization. Similarly, Participant 2 highlights the Family Practice Approach, which focuses on patient-centered care delivered by multidisciplinary health teams supported by unified electronic health records. Partnerships with universities, such as the collaboration with An-Najah University, have been instrumental in advancing these efforts.

Participant 9 aptly summarizes the essence of PPPs, stating, “They are not merely an option but a necessity for building an integrated and effective healthcare system.” By addressing governance challenges, fostering strategic collaborations, and adopting international best practices, PPPs can bridge gaps in healthcare delivery, ensure financial sustainability, and improve health outcomes in Palestine. The path forward lies in the effective integration of public and private efforts, underpinned by robust governance and sustainable resource mobilization strategies.

4.5 Barriers to Effective Healthcare Quality Evaluation in the Palestinian Healthcare System

Evaluating healthcare quality in the Palestinian healthcare system reveals a multifaceted interaction of systemic limitations, emerging improvements, and unrealized opportunities. Major gaps include the lack of comprehensive clinical outcome tracking, weak accountability mechanisms, and significant resource disparities between the public and private sectors. Despite these obstacles, the gradual adoption of international best practices and increasing public awareness offer promising pathways for transformation. Participant 6

highlighted: “Patients increasingly demand higher-quality services, particularly from government hospitals where expectations are higher.” This growing demand underscores the rising expectations for improved healthcare quality, driven by greater public engagement.

Healthcare progress remains uneven, with inconsistencies in protocol implementation and insufficient prioritization of measurable outcomes. While some frameworks exist, their impact is limited. Participant 3 observed: “Chronic disease and cancer cases are on the rise, underscoring gaps in preventive care and early detection.” These issues reflect the system's inability to integrate preventive strategies with outcome-based healthcare approaches, which are essential for addressing the growing burden of chronic and non-communicable diseases.

Efforts to develop evaluation frameworks show potential but remain hindered by the absence of outcome-based performance indicators. Participant 5 emphasized: “While protocols and quality focal points exist in hospitals, their impact is limited without indicators such as readmission rates, complication rates, or mortality statistics.” This gap creates a disconnect between adherence to protocols and achieving meaningful improvements in care. Participant 6 further noted: “The speed and depth of analysis are constrained by resource limitations,” highlighting the need for more robust systems to collect and analyze clinical data systematically.

The private sector generally outperforms the public sector in responsiveness and adaptability due to market-driven incentives that prioritize patient satisfaction. Participant 5 remarked: “Private hospitals prioritize patient safety and quality due to their reliance on patient satisfaction for success.” However, these advantages are offset by challenges such as the frequent transfer of complex cases to public facilities. Participant 7 explained: “High cesarean rates in private hospitals create complications that are referred to government facilities, exacerbating resource challenges.” This interdependence underscores the need for greater coordination and equitable resource allocation between the sectors.

Public sector hospitals, while making some progress, face systemic inefficiencies and significant resource constraints. Initiatives like introducing digital tools to collect and analyze patient feedback have been implemented to identify service gaps. However, as Participant 6 observed: “The sheer volume of daily patients limits the speed of quality improvement initiatives, even with clear goals and strategies in place.” Scaling these efforts will require substantial investments in infrastructure, workforce training, and advanced data management systems.

One of the most pressing challenges is the lack of systematic approaches to measuring clinical outcomes. Tools such as Patient-Reported Outcome Measures (PROMs) and Patient-

Reported Experience Measures (PREMs) are critical but remain underutilized. Participant 6 noted: “Tools like PROMs and PREMs are essential but are not prioritized in the current system.” In addition, incomplete documentation undermines the ability to evaluate and improve services effectively. Participant 7 explained: “Medical records are often incomplete, with physicians failing to review prior entries, leading to a loss of critical information.” This affects data accuracy, continuity of care, and the ability to track patient outcomes.

Efforts to address these systemic gaps are constrained by high patient loads and limited resources. Participant 6 commented: “The sheer volume of daily patients limits the speed of quality improvement initiatives.” Addressing these barriers requires significant investment in infrastructure, technology, and staff training to enable efficient and effective quality improvement processes.

Accountability is a cornerstone of healthcare governance but remains weak in the Palestinian system. Participant 5 observed: “The absence of clear accountability mechanisms for medical errors makes it difficult to distinguish between negligence and incompetence.” Furthermore, cultural resistance to accountability, often perceived as punitive, complicates reform efforts. Participant 7 emphasized: “Quality improvement efforts should focus on identifying gaps for correction rather than as tools for punishment.” Building a culture of continuous improvement necessitates shifting perceptions and institutionalizing transparent accountability mechanisms.

Outcome-based performance indicators, such as readmission rates, mortality statistics, and surgical complication rates, are essential for aligning with international standards. Participant 1 remarked: “High readmission rates can indicate premature discharges or inadequate treatment, providing key insights into system inefficiencies.” While some public hospitals conduct quarterly patient satisfaction surveys to identify service gaps, Participant 7 noted: “Expanding these efforts to link them to clinical outcomes could create a more comprehensive view of healthcare quality.” Incorporating metrics like the Average Length of Stay, Patient Falls, and Preventable Deaths could provide actionable insights to drive quality improvement.

Technology plays a transformative role in advancing healthcare quality. Participant 10 stressed the need for protocols to define success metrics, such as surgical complication rates, while integrating these with electronic health records (EHRs) for risk stratification and individualized assessments. Participant 9 called for “Robust electronic systems to continuously monitor physician performance, enabling periodic evaluations that combine patient feedback with clinical metrics.”

Measurement tools must also address broader dimensions of care, including quality of life and psychological health. Participant 3 remarked: “Tools must focus on clinical outcomes, patient experience, and PROMs to assess treatment efficacy and improve patient engagement.” Collecting such data ensures that treatments enhance overall well-being, not just clinical outcomes. However, as Participant 7 observed, “Raising awareness among patients requires a comprehensive plan to align their expectations with the realities of healthcare delivery.”

Institutionalizing quality assessment processes is crucial for sustained improvement. Participant 3 recommended linking quality evaluations to governance structures, while Participant 5 suggested tools like “patient satisfaction surveys, exit interviews, and focus groups” for collecting actionable feedback. Integrating PROMs and PREMs into digital systems ensures alignment with organizational goals and fosters patient-centered care. Participant 9 emphasized: “Effective tools not only evaluate success but identify weaknesses, enabling corrective actions.”

Creating effective feedback loops is central to quality improvement. Participant 3 proposed “Regular analysis of patient satisfaction data, linking it to employee performance through incentive-based systems.” QR codes, as described by Participant 1, allow patients to send complaints directly to authorities for resolution: “Patients can scan a QR code and send complaints directly to the concerned authorities, ensuring timely resolution.”

Finally, harmonizing cultural and organizational perspectives is integral to reform. Participant 7 observed: “Cultural awareness campaigns are needed to align patient and provider perspectives on quality standards.” Similarly, Participant 5 emphasized integrating patient-centered tools into organizational frameworks to bridge gaps between institutional goals and patient perceptions.

The Palestinian healthcare system, despite its challenges, stands at a crossroads. By prioritizing outcome-based metrics, fostering collaboration between public and private sectors, leveraging technology, and institutionalizing transparent governance structures, the system can move toward equitable, high-quality, and patient-centered care.

4.6 Current Payment to a New Payment Approach in Palestinian Healthcare

The Palestinian healthcare system faces systemic challenges within its payment structure, characterized by inefficiencies, misaligned incentives, and limited accountability mechanisms. Its reliance on fixed salaries, coupled with an absence of performance-linked rewards and comprehensive evaluation systems, hinders the sector’s ability to deliver high-quality care and retain talent. The reliance on fixed salaries remains a critical issue, as it fails

to incentivize healthcare providers to improve their performance or focus on patient outcomes. Participant 3 highlighted that "The current payment system does not incentivize healthcare providers to improve their performance or achieve better patient outcomes. A doctor who diligently identifies and manages early-stage diseases, such as hypertension or diabetes, earns the same as another who provides minimal effort." This one-size-fits-all approach undermines professional motivation and the quality of care.

Specific salary comparisons further illustrate the problem. Participant 6 reported, "A newly graduated doctor starts with a salary of approximately 4,000 to 5,000 shekels per month in Palestine, whereas similar roles in Jordan offer starting salaries of 10,000 shekels, and in Israeli hospitals like Hadassah, it begins at 10,000 shekels." Similarly, Participant 4 noted, "Specialist doctors in the government sector typically earn around 200% of the base salary, but this remains insufficient to retain them, especially compared to private sector salaries that offer far better financial conditions."

The system’s inability to link compensation to outcomes or productivity has created widespread discontent. Participant 9 observed, "Doctors performing the same surgeries in government and private hospitals experience vast differences in financial recognition, impacting their commitment and quality of care." Accountability deficits further exacerbate the issue, particularly regarding oversight of medical errors and professional conduct. Participant 5 noted, "There is no clear system to monitor or analyze medical errors, making it difficult to differentiate between negligence and incompetence." This lack of accountability fosters complacency, especially given the strong job security enjoyed by government healthcare employees. Participant 7 emphasized, "Civil service laws make it nearly impossible to dismiss underperforming employees, which discourages accountability and effort."

Moreover, government employees often exploit opportunities to work part-time in the private sector. Participant 5 explained, "This makes their loyalty and engagement skewed toward the private sector, which evaluates them based on their performance, while the government system does not." Meanwhile, Participant 2 described the evaluation system in the public sector as superficial: "The government salary remains constant regardless of whether an employee is rated as 'excellent' or 'poor.' Only administrative actions, such as warnings or denial of promotions, are taken after consistent underperformance over three years."

The lack of robust evaluation systems limits the ability to assess healthcare services, particularly those provided through referrals. Participant 5 pointed out, "There is no precise follow-up system to track outcomes for patients referred to the private sector, making it impossible to evaluate the success or complications of treatments." Similarly, Participant 2

stated, "Evaluation tools in the government sector focus on administrative compliance, such as attendance and adherence to policies, rather than patient outcomes or quality of care." This lack of evaluation contributes to frustration among healthcare providers. Participant 9 noted, "The absence of performance-linked incentives discourages professionals from focusing on improving outcomes or patient satisfaction."

Significant salary disparities between the government and private sectors exacerbate workforce retention issues. Participant 6 highlighted, "Specialists like cardiologists or oncologists often receive offers of 5,000 ILS in Palestine, but such figures pale compared to the 20,000 to 25,000 ILS they can earn abroad." Participant 5 also noted, "While government salaries for junior employees are relatively competitive, senior-level professionals earn substantially less than their private sector counterparts, causing a 'brain drain' of skilled professionals." Such disparities have broader consequences for the healthcare system. Participant 4 remarked, "The financial framework for paying doctors is limited, often based on fixed percentages of the base salary, which fails to retain specialists or motivate high performance."

The current system does not integrate Value-Based Healthcare (VBHC) principles, which prioritize patient outcomes over service quantity. Participant 2 explained, "In the government, salaries are fixed and disconnected from productivity or patient outcomes, making it difficult to align with VBHC models." Challenges associated with VBHC adoption include potential trade-offs between quality and quantity. Participant 5 warned, "A fee-for-service system risks prioritizing quantity over quality, which could lead to compromised patient care." Furthermore, Participant 9 observed, "The lack of performance-linked incentives discourages professionals from focusing on improving outcomes or patient satisfaction."

Reforming the payment system is further hindered by structural and cultural barriers. Participant 7 highlighted the prevalence of patronage, stating, "Favoritism overshadows merit-based practices, weakening the overall integrity of the system." Meanwhile, Participant 6 pointed to financial pressures as a significant driver of workforce attrition: "Some doctors accept training opportunities in Israel despite ethical concerns, purely due to financial necessity." These opportunities often involve private or international roles offering $20,000–25,000 per month.

The current payment system in Palestinian healthcare undermines its potential by failing to incentivize quality care and accountability. Reforms targeting performance-based incentives, improved evaluation mechanisms, and competitive pay structures are critical to

addressing the existing challenges. These changes would not only boost workforce morale but also enhance systemic efficiency and patient outcomes.

The transition to a performance-based payment system represents a critical step in addressing systemic inefficiencies and improving the quality of healthcare in Palestine. While participants emphasize the importance of this transformation, implementing such a system requires thoughtful planning, cultural adaptation, and transparent evaluation mechanisms. This analysis integrates direct participant insights with broader discussions about potential strategies and implications.

4.6.1 Gradual Implementation of New Payment Models

Introducing a new payment approach must be incremental to mitigate resistance and manage the complexities of change. Starting with specific disease groups, such as diabetes or hypertension, as suggested by Participant 4, could provide a controlled environment to test the system's effectiveness. "Hospitals can begin by applying the system to specific groups of diseases, such as diabetes or hypertension, instead of trying to implement it for all diseases at once. This gradual approach helps manage change better and allows for system improvements based on practical experience."

Supplementing fixed salaries with performance-based incentives is a pragmatic compromise. This strategy avoids abrupt disruptions to existing compensation structures while introducing accountability and motivation. "Instead of eliminating fixed salaries, the system can be introduced as additional incentives added to basic salaries. For example, doctors could retain their usual salaries but be rewarded with additional incentives if they show exceptional performance or achieve better-than-expected patient outcomes." (Participant 4)

Pilot programs, as Participant 3 suggested, offer an essential testing ground. "These criteria should be clear and predefined and applied initially on a limited scale as a pilot project, such as in one public and one private hospital in a small governorate before being generalized to the entire healthcare system." These pilots would help address logistical issues while ensuring the system aligns with the unique challenges of the Palestinian healthcare context.

4.6.2 Highlighting Benefits of Value-Based Healthcare

Value-based healthcare (VBHC) centers on improving patient outcomes while optimizing resource use. Transitioning to VBHC is not merely a financial reform but a cultural shift. Participants unanimously agree that VBHC could revolutionize care delivery. Participant 1 succinctly captured this by emphasizing: "The patient is the primary beneficiary because the

doctor or caregiver works with high quality to achieve the points. At the same time, the hospital or institution loses nothing; on the contrary, even if the doctor is given a significant financial reward, it solves many problems and increases patient satisfaction."

However, realizing the benefits of VBHC requires systemic alignment. Cultural barriers, as noted by Participant 6, demand targeted education and awareness campaigns: "If we want to transition from the 'salary-for-service' system to a 'pay-for-performance' system or adopt a comprehensive strategy like Value-Based Health Care, we will face significant cultural challenges. This strategy requires a cultural shift and increased awareness of its importance."

Participants also highlighted the economic advantages of VBHC in optimizing resources. Participant 5 pointed out: "In global health systems, there is a trend toward using systems such as bundled payments, where a fixed amount is provided to cover medical services for a specific population." These models align financial incentives with patient outcomes, encouraging efficiency and quality care.

4.6.3 Importance of a Clear and Thoughtful Policy

The success of a new payment system hinges on clear, comprehensive, and well-communicated policies. Participant 3 stressed the need for a foundational situational analysis: "To make genuine reforms in this area, the process must begin with establishing a clear and well-studied policy. But before that, a comprehensive assessment of the current situation is needed to identify the real problems and estimate the economic impacts of these policies."

Policy implementation also requires strong governance and institutional alignment. Participant 1 emphasized: "This model requires decisions from policymakers and support from top management and governance, as well as societal and media awareness to support it." Transparency in setting performance metrics, as noted by Participant 9, is essential: "There must be unified and clear performance standards to evaluate healthcare providers".

4.6.4 National Consensus and Incentivizing Healthcare Providers

Participants emphasized the need for national consensus among stakeholders to ensure the system's success. Participant 3 noted: "National consensus should involve all concerned parties, with clear and agreed-upon performance standards for evaluating healthcare providers. These standards should be published and transparent for everyone."

Incentives for healthcare providers were also seen as a crucial factor. Participant 4 stated: "When doctors know that there are increases or incentives linked to their performance and results, they will have a stronger motivation to adopt this strategy and strive to achieve the

best results." A transparent reward system aligned with measurable outcomes can boost provider morale and patient care quality.

4.6.5 Challenges and Opportunities

While the benefits of a performance-based payment system are evident, challenges remain. Infrastructure limitations, cultural resistance, and regulatory hurdles must be addressed. As Participant 4 highlighted: "The application of this strategy requires changes on several levels, including adjusting laws and financial systems and ensuring a strong infrastructure to support this shift."

By addressing these challenges through thoughtful policies, stakeholder engagement, and pilot programs, Palestine's healthcare system could lay the foundation for a more efficient, equitable, and high-quality service delivery model.

4.7 Challenges Among Healthcare Providers

Healthcare providers face significant cultural and systemic challenges in adapting to changes in healthcare delivery, such as transitioning to value-based healthcare (VBHC) or performance-based payment systems. Participant 3 identifies a core issue, stating, "Healthcare providers often lack a complete understanding of the importance of shifting from a reactive to a proactive approach in delivering healthcare services." This shift, which emphasizes prevention and awareness, requires providers to reframe their traditional methods of practice. To address this, Participant 3 suggests, "Organizing intensive sensitization meetings with doctors, nurses, and hospital administrators to clarify how this change improves healthcare quality and patient outcomes."

Resistance is another barrier. Participant 5 explains, "When people are not accustomed to a system that includes accountability and oversight, resistance is inevitable. Some may avoid or object to the new strategy because it represents a significant change from past practices." This resistance is particularly evident in transitioning from fee-for-service to pay-for-performance models. Participant 6 highlights the cultural resistance required to adopt VBHC: "This strategy demands a significant cultural shift and increased awareness of its importance."

Moreover, Participant 10 points to professional pushback, noting that "Doctors might resist performance-based payment strategies, especially if they feel these systems devalue the humanitarian aspect of their work." Professional associations and unions may also resist these changes, creating additional barriers to adoption. Participant 4 emphasizes that such transitions could raise concerns among healthcare workers, particularly physicians, about the stability of

their incomes, adding, "Doctors might worry about losing fixed salaries and shifting to performance-based income, especially if they lack sufficient support or training to improve patient outcomes."

A lack of infrastructure exacerbates these challenges. Participant 9 highlights, "The absence of comprehensive and updated medical records represents a significant challenge to effectively implementing these systems." This issue compounds resistance from providers, who may feel burdened by unclear evaluation criteria or administrative inefficiencies. Participant 2 also points to the extensive resource requirements for implementing such models: "Transitioning to a system that prioritizes patient outcomes demands significant financial and human resources, including additional staff, more training, and better facilities."

Leadership plays a pivotal role in addressing these challenges. As Participant 3 notes, "Healthcare providers need education and sensitization to understand the importance of this shift." Similarly, Participant 5 stresses the necessity of robust systemic planning: "Before launching any strategy, the system must be fully prepared, with all tools, equipment, and human resources in place." Furthermore, Participant 1 highlights that leadership must ensure collaborative decision-making, stating, "When employees feel included in the decision-making process, they are more motivated to work in alignment with organizational goals."

Promoting transparency and equitable evaluation is essential for overcoming resistance. Participant 9 explains, "Doctors may resist performance evaluations if they perceive the criteria as unclear or unfair." Educating providers about the benefits of these systems and ensuring transparency in evaluation methods can help build trust and mitigate resistance. Participant 1 elaborates on this transformative approach, advocating for creating an environment where "decisions are collaborative and foster a culture of shared responsibility, enhancing system-wide commitment to quality improvement."

In conclusion, overcoming cultural and systemic challenges among healthcare providers requires comprehensive planning, transparent leadership, and sustained efforts to build trust and understanding. Addressing these issues through education, infrastructure development, and clear communication is critical for successfully transitioning to modern healthcare delivery models.

4.8 Cultural- Structural Barriers to Healthcare Transformation

Organizational and financial constraints present significant hurdles in the implementation of effective healthcare reforms. Participant 2 discusses the challenges of adopting a comprehensive Family Health Approach, emphasizing the need for "qualified

nurses, home visits for the elderly, and integrated geriatric care." This approach requires not only traditional healthcare but also psychological and social support at home, areas currently underdeveloped in the system.

Expanding such care models demands substantial investments in time, resources, and personnel. As Participant 2 notes, "To allow physicians to dedicate more time to each patient, the healthcare system will need additional staff, training programs, beds, and financial resources." This necessity for increased capacity reflects the growing demand for healthcare services as the population ages. For instance, "The proportion of elderly patients over 60 years old is expected to double in the next decade," highlighting the urgency of addressing these demographic shifts.

However, these initiatives face significant financial strain. Participant 2 observes that while healthcare needs are escalating, "the system's capabilities are declining due to increasing financial crises." This dynamic creates a gap between healthcare demands and available resources, making it challenging to meet the growing needs of an aging population.

The transition to value-based care also introduces resistance, as it requires substantial investments in human and financial capital. According to Participant 2, "This system demands high material resources, whether in terms of human resources or financial infrastructure." Similarly, Participant 9 highlights "the need for an integrated information system and precise management to ensure fair performance evaluations," which can strain institutions already grappling with limited resources.

In addition to resource challenges, technical and regulatory barriers further complicate reform efforts. Participant 9 mentions that "weak technical infrastructure in some health institutions hampers the use of digital systems for performance measurement," while Participant 4 underscores the need for governance reforms, stating: "Linking physicians' salaries to performance requires changes in labor laws and governance systems." These adjustments are critical for aligning incentives with performance without exacerbating financial pressures on the sector.

Collectively, these insights reveal the intricate balance required to navigate organizational and financial challenges while striving to improve healthcare quality and equity. Addressing these constraints will necessitate collaborative planning, resource mobilization, and policy reforms to ensure sustainable improvements.

4.9 Socio-Cultural Barriers to Effective Patient-Centered Care

Addressing cultural and organizational challenges is crucial to fostering patient engagement and improving healthcare outcomes. Participant 3 points out a significant cultural hurdle where patients often struggle to accept proactive healthcare initiatives. For example, "If the government contacts a patient for preventive screenings due to risk factors like obesity or stress, the patient might react with suspicion or fear, believing there's a hidden health issue." This highlights a need for transparent communication to alleviate anxiety and encourage cooperation.

Similarly, Participant 6 emphasizes the lack of preventive care culture among patients, stating that "many citizens avoid primary care services, such as family health clinics, until their conditions worsen, which increases the burden on hospitals and creates additional challenges." This resistance to early intervention complicates efforts to transition to value-based care models, which prioritize prevention over reactive treatment. Participant 10 echoes these sentiments, noting that "the absence of a strong preventive culture leaves hospitals overwhelmed, though the reasons are not entirely due to negligence but also systemic constraints."

Resistance to systemic change also arises among healthcare professionals. Participant 1 highlights that shifting from "pay-for-service" to "pay-for-performance" models requires substantial cultural adaptation: "Such transitions link everything to performance, necessitating collaboration from doctors and awareness among patients to align with this strategy".

4.9.1 Patient Awareness and Engagement: Community Campaigns

Improving patient awareness and engagement is vital for transforming healthcare systems. Participant 3 advocates for comprehensive public awareness campaigns, stating: "There must be intensive education to clarify that the healthcare system is transitioning to a preventive approach aimed at disease prevention rather than reaction. Patients need to understand that communication from healthcare providers stems from concern for their well-being, not to incite fear".

Educational efforts must be multi-faceted and persistent. Participant 6 details ongoing initiatives: "We focus on explaining services, distributing brochures, and utilizing media such as television to educate citizens. However, changing health culture takes time and consistent effort. Collaboration across all societal institutions is essential to improve healthcare outcomes." These campaigns emphasize the importance of primary care and early screening, aligning with the notion that "prevention is better than cure."

Participant 4 suggests integrating health education into broader strategies to reduce healthcare costs, explaining that "health education can reduce chronic illnesses, enhance public health, and ease the burden on the Palestinian healthcare system." This aligns with efforts by Participant 9, who emphasizes educating healthcare providers and the public to foster a shared understanding of value-based healthcare principles: "Educating both doctors and the community is key to improving healthcare quality and efficiency".

4.9.2 Health Education Initiatives: Promoting Proactive Engagement

Building health literacy is a cornerstone of patient engagement. Participant 3 calls for targeted initiatives, such as "awareness campaigns emphasizing preventive and routine screenings, particularly for at-risk groups like the elderly or individuals with a family history of chronic diseases." To achieve meaningful cultural shifts, Participant 7 underscores the importance of structured strategies: "Current efforts include setting monthly objectives aligned with the national strategy, which are then approved by the minister and forwarded to the prime minister’s office for execution."

However, these initiatives must navigate logistical and cultural barriers. Participant 6 notes that "despite significant efforts in community education through clinics and direct outreach, achieving health culture transformation requires time, patience, and multi-stakeholder collaboration." Integrating patient perspectives into these campaigns fosters a sense of inclusion, as Participant 10 states: "Citizens are a central axis in healthcare systems and must be informed and involved at every stage of care to enhance their sense of responsibility and satisfaction".

4.9.3 Promoting Partnership Between Patients and Providers

A collaborative approach that positions patients as active stakeholders is critical to advancing healthcare quality. Participant 3 advocates for fostering partnerships: "Patients should feel like active participants in healthcare system improvements rather than passive recipients of services, which will enhance their positive engagement with changes." Participant 10 highlights the need for cross-sector collaboration, explaining that "partnerships with private and civil institutions are essential, but the citizen remains the most critical partner. Involving them in healthcare decisions, such as treatment choices, strengthens their trust and ownership."

The role of transformative management is central to this effort. Participant 1 emphasizes the importance of participatory governance: "Transformational leadership relies on

involving all stakeholders in decision-making. Effective communication and collaboration inspire commitment to organizational goals".

4.9.4 Transparent Communication and Trust Building

Transparent communication is key to overcoming cultural resistance and building trust. Participant 3 underscores the need for clear, empathetic messaging: "Educational interactions with patients should provide straightforward information about preventive steps, addressing concerns to dispel fears." Miscommunication or lack of transparency can hinder preventive efforts, as evidenced by patients' reactions to unsolicited medical advice.

Proactive and transparent dialogue fosters patient trust and lays the groundwork for a preventive care culture. This aligns with broader efforts to unify patients and provider objectives under a shared vision of improved health outcomes.

4.10 Conclusion

The findings from both quantitative and qualitative data point in the same direction to emphasize systemic barriers that exist in the implementation of VBHC at Palestinian hospitals. Quantitatively, the low level of implementation of VBHC was evidenced by the average score of 2.46 across the reviewed hospitals. This generally signifies that most of the hospitals are still within the nascent stages of adopting the principles of VBHC. Governance was the second most critical area of concern, with a mean score of 2.73, pointing toward an absence of well-structured mechanisms for supporting strategic planning, leadership, and accountability for VBHC. Resource constraints were another big challenge, most notably in payment models and information technology. The infrastructure of healthcare itself is fragmented, further complicating efforts toward equity in care access due to geographic disparities in coverage and resource distribution. Smaller hospitals, particularly the very small ones, are highly challenged because their financial and operational capacities are limited. MoH and NGO hospitals, however, are relatively better prepared to take up VBHC.

The qualitative findings give further insight into the systemic barriers identified from the quantitative analysis. The wider political and economic context-a context of occupation and dependency on international provides an unstable foundation for healthcare reform. Financial unpredictability, increased by restricted access to local revenues and also international funding, makes it difficult for hospitals to invest in sustainable infrastructure and strategic initiatives. The multi-layered and poorly coordinated structure of the healthcare system promotes fragmentation, which acts as a formidable barrier to cohesive planning and implementation.

Logistical barriers include restrictions on mobility, delays in importing medical equipment, and political interference that further stress the ability of the system to provide consistent and timely care. Adding to this are the chronic understaffing and lack of specialized training, making the hospitals ill-prepared for the demands of VBHC.

Despite this, the qualitative data brings to light some key opportunities for advancement. The Palestinian healthcare system enjoys popular international support and is on the radar of most donors, thus offering the necessary resources for development. The local workforce is skilled and resilient, hence a considerable strength on which to advance the principles of VBHC. Besides, the successful vaccination programs prove that the system can yield high-impact outcomes once the resources and coordination are put together. Governance improvements, being among the areas of priority in both data, can provide a route toward tackling the tangle of systemic inefficiencies and promoting alignment with the objectives of VBHC.

Taken together, the quantitative and qualitative findings evidencing poor implementation become an indication of the complexity of implementing VBHC in Palestine. Systemic challenges rooted in governance deficits, resource limitations, and political instability are reflected in the low current level of its implementation. On the other hand, international collaboration and local expertise form a good basis for targeted interventions. Overcoming these barriers will require strategic governance reforms, increased resource allocation, and workforce development to address systemic hurdles for the further advancement of VBHC implementation in Palestinian hospital

Chapter Five
Discussion of Findings

4.1 Introduction

This chapter presents a comprehensive discussion of the findings derived from both quantitative and qualitative methodologies in the exploration of the implementation of the VBHC strategy in Palestine. The quantitative phase showed a low level of implementation of VBHC, indicating a wide gap in the acceptance of such an innovative healthcare framework. These findings called for a more in-depth investigation of challenges and barriers at play provided by the qualitative phase through structured interviews with key stakeholders. This mixed-method approach enables a nuanced understanding of systemic, organizational, and contextual factors impeding VBHC implementation. The discussion places such findings in perspective with the general literature on the implementation of VBHC worldwide and is aimed at actionable recommendations, given the unique socio-political and economic situation in Palestine, with contributions to the wider discourse of healthcare reform in low- and middle-income countries.

4.2 Descriptive Analysis Discussion

4.2.1 Variability in VBHC Implementation Across Hospitals

The low overall mean score of 2.4643, with a standard deviation of 1.00433, suggests low implementation of VBHC and identifies systemic barriers, consistent with global evidence regarding challenges in the adoption of VBHC within resource-constrained settings. Resource constraints and fragmented administrative arrangements are commonly identified in the literature as major barriers to VBHC and were similarly noted in those lower-scoring hospitals. Some, such as Kaplan et al. (2014), for example, believe it is the misaligned organizational structures and improper resource allocations that thwart reorganization into integrated models of care delivery, as VBHC requires. Equally, Porter (2010) note that inequities in funding and infrastructural investments may multiply inequity in the quality of healthcare and limit scaling of VBHC initiatives.

4.2.2 Integrated Practice Units (IPUs)

The integration of findings on the implementation of Value-Based Healthcare in Palestinian hospitals provides critical insights into the adoption of Integrated Practice Units

and related components of VBHC. While there has been progress in terms of leadership involvement and accountability, significant systemic barriers remain to the realization of comprehensive care planning, data analytics, and community collaboration. These are challenges concurrent with global trends, thus signifying the need for tailored interventions that will align the principles of VBHC with specific resource and structural contexts of Palestinian healthcare.

IPUs, a major component of VBHC, remain underdeveloped in Palestinian hospitals, as indicated by their low mean score of 2.8043 (SD = 1.20875). Globally, IPUs emphasize disease-focused, multidisciplinary care, managing the entire care cycle to enhance outcomes and efficiency. However, the absence of enabling factors—such as governance reforms, co-location of teams, and performance dashboards, as observed in the UMass Memorial Health Care system—hampers full adoption (Phillips et al., 2015). These findings mirror broader challenges faced in low- and middle-income countries (LMICs), where limited resources and operational frameworks constrain VBHC implementation (Keswani et al., 2016; Porter & Teisberg, 2006).

The mean scores related to the extent of engagement and accountability at leadership levels regarding clinical quality and safety as per operational decision-making were moderately engaged, showing means of 3.20 and 3.41, respectively. Such initiatives take a leading role played by the leadership, thereby reinstating the importance of findings in various literatures on VBHC adoption that accord a frontline position to the leader's role, such as Braithwaite et al. (2018) and Lee et al. (2016). This includes leadership rounds and being directly available in in-patient care processes as the foundation for setting up a safety and quality culture. Swedish hospitals showed how accountability from the leadership facilitates the integration of clinical and administrative priorities (Nilsson, Bååthe, Erichsen Andersson, et al., 2017). However, the findings in Palestinian hospitals revealed that the integration of accountability among leaders within a broader organizational framework is incomplete-a problem noted in resource-constrained settings (Kaplan et al., 2014; Phillips et al., 2015).

Comprehensive care planning and patient-centered coordination scored lower, with means of 2.88 and 2.66, respectively, underscoring significant challenges in achieving integrated care. Comprehensive care planning, encompassing prevention, diagnosis, treatment, and palliative care, is critical for VBHC success but remains underdeveloped in many LMICs (Keswani et al., 2016; Porter, 2010). Evidence from Dutch hospitals highlights the value of matrix structures fostering horizontal and vertical collaboration, bridging gaps in care delivery (Steinmann et al., 2022). Similarly, care navigators employed by Northwell Health exemplify

strategies to enhance care continuity across the patient journey (Randazzo & Brown, 2016). However, the fragmented care models observed in Palestinian hospitals reflect global trends, where resource limitations and insufficient training impede effective coordination (Berwick et al., 2008).

The underutilization of data analytics in this component, as reflected by a mean score of 2.55 for data-driven patient management, further highlights critical gaps. Effective VBHC systems rely on robust IT platforms for real-time tracking of patient outcomes, cost measurement, and risk stratification (Keswani et al., 2016; Nilsson, Bååthe, Erichsen Andersson, et al., 2017). Swedish hospitals leverage dashboards to foster iterative care improvements and a culture of learning (Nilsson, Bååthe, Erichsen Andersson, et al., 2017). In Palestinian hospitals, the lack of technological infrastructure and training significantly limits these capabilities, echoing challenges faced by other LMICs (Porter & Teisberg, 2006).

Scores for collaboration with community resources (Mean = 2.60) and multidisciplinary training (Mean = 3.09) suggest fragmented progress. International evidence highlights the importance of community partnerships in addressing social determinants of health and reducing disparities. Vermont's learning collaboratives demonstrate how structured community engagement enhances care delivery (Kissam et al., 2019). However, Palestinian hospitals lack robust frameworks for such collaboration, a systemic gap that limits the scalability of VBHC principles. The relatively higher score for training initiatives reflects emerging recognition of their importance, consistent with recommendations to prioritize capacity building for VBHC success (van Staalduinen et al., 2022).

Resource limitations constrain the development of required components included under VBHC, IPUs, data analytics, and community partnerships (Keswani et al., 2016; Phillips et al., 2015). Organizational inertia and staff engagement challenges add to the deterrence towards systemic change, with a requirement for cultural realignment. Indeed, Nilsson et al. (2017) argue that there is a cultural resistance to VBHC. It points to governance reforms that include shadow budgets and matrix models, put into practice in Dutch hospitals, which provide very actionable strategies in the way of addressing such barriers. Such findings emphasize investments targeted at the development of leaders, multisectoral training, technology infrastructure, and partnerships with communities in bringing Palestinian hospitals closer to the guiding principles of VBHC.

4.2.3 Outcome and Cost Measurement Implementation

In addition, the application of VBHC at a meso level in the context of hospitals in Palestine highlighted some remarkable gaps regarding measuring outcomes and processes in the underlying structure of cost information. In general, all those aforementioned aspects contribute to very low means; 2.6935 explains that data-driven decision-making, outcome transparency of care, and cost efficiency were poorly implemented. The collection of patient treatment outcomes into systems reliably scored an average of 2.46, where 41.7% of the institutions had not started implementation, and only 2.1% reached full implementation. Indeed, similar challenges have been reported in other contexts; for instance, Swedish and Dutch hospitals reported that because of their limited IT infrastructure and siloed data systems, this fact had obstructed the adoption of PROMs-the main constituent of VBHC (Nilsson et al., 2018; Steinmann et al., 2022). Robust IT platforms are essential for integrating PROMs into clinical workflows, enabling consistent evaluation and continuous improvement (van Staalduinen et al., 2022; van Veghel et al., 2020).

Data collection integrated into daily patient care scored marginally better (mean = 2.88), yet 47.9% of institutions remain in the planning phase. Without operational workflows for routine data collection, visibility into treatment efficacy and cost-effectiveness remains limited. The research has emphasized that the lack of integrated care processes inhibits clinical decision-making and slows progress toward VBHC goals (Nilsson et al., 2018; Steinmann et al., 2022). Transparency also remains a critical challenge, with treatment outcome dissemination scoring a mean of 2.34. This aligns with findings that public reporting of clinical and cost data fosters accountability and motivates care quality improvements (van Staalduinen et al., 2022). However, many institutions struggle to establish transparent systems due to cultural resistance and technical barriers (Nilsson et al., 2018; Steinmann et al., 2022).

The mean for leadership engagement in strategic alignment was 3.05, indicating moderate and, hence requiring stronger executive commitment. Although leadership is instrumental in bringing about cultural and structural change, the moderate level of leadership engagement reflects systemic inertia. Thus, studies in Dutch hospitals indicate that leadership through advocacy by the creation of such positions as the Chief medical officer will fill such lacunae in the alignment of departmental goals and the principles of VBHC (Daniels et al., 2022; Steinmann et al., 2022). On the other hand, the frequency of team meetings focusing on discussion of outcomes data reached only 2.99 - thus leaving enormous scope for further improvements in cooperation culture. Multidisciplinary teams will, thus, enhance the implementation of VBHC by facilitating shared knowledge and the integration of decision-

making, as extracted from various works of Randazzo & Brown (2016) and van Veghel et al. (2020), while such attempts in the Palestinian context are still underdeveloped.

Cultural resistance also poses a significant barrier, particularly regarding joint financial documentation and evaluation, which scored a mean of 2.43. This resistance is common during VBHC transitions, as staff often perceive the model as disruptive or impractical (Daniels et al., 2022). Incremental approaches, such as pilot programs, have been effective in reducing resistance by fostering familiarity with VBHC principles in other healthcare systems (Steinmann et al., 2022). For instance, Dutch hospitals used pilot projects to introduce VBHC components gradually, testing their feasibility and addressing challenges before broader implementation (Nilsson et al., 2018; van Staalduinen et al., 2022).

Technical and infrastructural challenges further hinder the adoption of this component. The lack of advanced IT systems to support outcome tracking limits real-time analysis and decision-making (van Veghel et al., 2020). In high-performing systems, hospitals have leveraged real-time dashboards and interoperable IT platforms to monitor performance and support data-driven care (Daniels et al., 2022; van Staalduinen et al., 2022). Resource constraints exacerbate these issues, as insufficient funding and staffing prevent effective implementation of VBHC initiatives (Nilsson et al., 2018; Steinmann et al., 2022). Decentralized financial autonomy, such as shadow budgets for pilot projects, has been identified as a strategy to align resource allocation with VBHC goals and improve efficiency (Van Veghel et al., 2020)

Other major issues for the adoption of outcome and cost measurement involve technical and infrastructural barriers. There is an apparent lack of high-powered IT systems in tracking outcomes to support real-time analytics and decision-making. In high-performing systems, various leading hospitals utilize real-time dashboards and interoperable IT platforms for performance monitoring, thereby enabling data-driven care(Daniels et al., 2022; Steinmann et al., 2022). The problem of not being able to apply initiatives effectively either for lack of funding or because of a lack of staff makes resource constraints worse (Nilsson et al., 2018; Steinmann et al., 2022). More financial autonomy has been suggested, in the line of shadow budgets for pilot projects, in order to link resources better with goals on VBHC and to create efficiencies where this does not currently exist (van Veghel et al., 2020).

These gaps have direct and indirect implications for outcome and cost measurement in VBHC adoption. Without proper measures on outcomes and costs, it lessens the ability to correctly measure the value of care. Core principles, therefore, get undermined with respect to VBHC adoption (Nilsson et al., 2018; Steinmann et al., 2022). Similarly, transparency and

collaboration are still weak and act as obstacles to further development in this aspect(Randazzo & Brown, 2016; van Veghel et al., 2020). Indirectly, the lack of leadership advocacy and cultural readiness creates skepticism in the minds of the staff, who are unwilling to adopt VBHC changes(Daniels et al., 2022; Steinmann et al., 2022). If such perceptions get built further without seeing any visible signs of efficiency gains or improvement in patient outcomes, the transformation process might get stalled. By addressing these systemic, cultural, and technical challenges, Palestinian hospitals can align their practices with global VBHC standards, improving patient-centered care and operational efficiency. These steps will not only enhance implementation at the meso level but also ensure sustainable adoption of VBHC principles.

4.2.4 Bundled Payment

The findings from the results in terms of the level of implementation of VBHC payment models at the hospital level in Palestine underpin systemic barriers impeding proper adoption, especially in financial dimensions. These challenges resonate well with global literature to explain direct and indirect barriers to the realization of VBHC goals.

The low implementation score from the payment model (Mean = 2.1233, SD = 0.98053) insinuates systemic barriers in the transition to value-based financial systems from volume-based ones. Indeed, literature mentions that traditional FFS models have dominated the makeup of many countries' healthcare payment systems and structurally incentivize more volume over quality, leading to inefficiencies and increases in costs unmatched by improvements in outcomes(Hines et al., 2021; Porter & Lee, 2013b). These are further exacerbated by challenges such as asymmetric information and the general distrust among the providers, patients, and payers; these have increased financial management while aligning poorly with VBHC principles(Eriksson et al., 2020).

Key constructs from the results, like only limited implementation of integrated systems for forecasting profits and losses under alternative payment contracts, with a mean of 1.94, 58.3% not started, which means there is a big gap in financial preparedness. This is also in line with the global trend and the lack of sophisticated cost-accounting systems and integrated approaches to risk management is considered a barrier to VBHC. The bundled payment models central to VBHC require strong infrastructural support in risk management and performance monitoring; without this, financial systems are not aligned with the goals of VBHC (Liang et al., 2020; Porter & Lee, 2013b).

Similarly, financial risk management approaches represented a mean of 1.84, where 52.1% were not started, and validated cost structures were at a mean of 2.17, where 50% were not started; these point to the lack of essential mechanisms with regard to ensuring financial sustainability and equity in care delivery. No VBHC framework can function properly without proper risk-adjusted payment systems that address heterogeneity among patients and do not penalize those providers who take up complex cases. The absence of such systems also carries the potential for inequity, since a provider may apply triage to high-risk patients and thus potentially defeat the VBHC equity aim (Liang et al., 2020).

There was some evidence of improvement, as cost monitoring had a mean of 2.40, while cost accounting had reached a mean of 2.53; both are nevertheless still largely considered at their planning stage by most institutions. In line with that perspective, the literature underlines how, in their absence - in other words, fully operationalized cost-monitoring frameworks - it becomes hard to make accommodations easily towards transition: the bundle or episode-based system that incentivizes quality improvement is noted accordingly through (Hines et al., 2021; Nijagal et al., 2018). Transparent performance comparison, on the contrary, is one of the relatively higher-rated constructs than others with a mean of 2.75, hence showing some promise. However, its low implementation status underlines the broader challenges of fostering accountability and standardization that are so essential for VBHC reforms (E. O. Teisberg & Wallace, 2009).

Systemic issues, such as fragmented payment structures, limited transparency in data, and the absence of either shared savings or value-based incentive plans were pointed out here; Mean = 1.67-profound inability for alignment of the financial mechanisms linked to multidisciplinary care needs. In many parts of the world too, similar failures were noted regarding moving financial mechanisms still stuck into silo-based, process-oriented metrics toward value or outcome-based frameworks of operation; for instance, (Hurh et al., 2017; Oliver-Baxter et al., 2017), noted this too.

The literature identifies the main strategies to overcome barriers for the implementation of VBHC: the use of integrated cost-accounting systems, stakeholder collaboration in trust, and financial incentives with improved outcomes for patients. Mechanisms for risk-sharing, as well as cost and quality reporting in a very transparent manner, have been mentioned as key levers to creating trust, a very significant tenet of VBHC. Without these mechanisms, systemic inefficiencies and inequities will prevail, and any movement toward VBHC shall not be attained. The findings now indicate that while many of the challenges facing the adoption of VBHC in Palestine are similar to those in other parts of the world, they are exacerbated by

specific systemic and contextual factors, and thus strategic reforms should be made to suit particular contexts in this region's healthcare landscape.

4.2.5 Multisite Care Delivery

The implementation of Value-Based Healthcare (VBHC) at the Meso-level within hospitals in Palestine reveals systemic gaps, as shown in the analysis. The multisite care delivery system, characterized by a low implementation level (Mean = 2.2613, SD = 1.00071), exemplifies these challenges. Specifically, the negligible collaboration among hospitals and the underutilization of telemedicine (Mean = 1.7250), with 54.2% of institutions not starting implementation, indicate significant barriers to scaling up best practices and fostering innovation.

Literature underscores that successful VBHC implementation demands strategic multisite integration to optimize care coordination and efficiency. Porter & Lee (2013) emphasize that healthcare organizations must focus operations in fewer, strategically selected locations and enhance coordination across sites. This approach ensures that routine services are streamlined while specialized care is centralized, maximizing value and minimizing costs. However, the fragmented and underfunded Palestinian healthcare system, compounded by political constraints, hinders such integration (Asi, 2019).

The limited focus on decentralizing care in Palestine is reflected in the negligible initiation of systems for less complex treatments in lower-cost locations (Mean = 2.0750, with 47.9% of institutions not starting). This mirrors global evidence where decentralizing care to alternative sites, such as Ambulatory Surgical Centers (ASCs), has been shown to relieve hospital pressure and reduce costs (Kadakia et al., 2020). Furthermore, specialized systems for scheduled or complex treatments remain underdeveloped in Palestine, as seen in the mean progress score of 2.7243. The Cleveland Clinic’s multisite approach, which distributed endocrine surgeries across various locations, achieved improved patient outcomes, cost reductions, and better access(Abdulla et al., 2012), reflecting the potential benefits of adopting similar strategies in Palestine.

Care coordination is another critical area requiring attention in Palestine, with 52.1% of institutions failing to implement systems that optimize care pathways while avoiding low-value services. This aligns with global challenges, as the integration of multisite care delivery, particularly through telemedicine and post-acute care (PAC) transitions, has proven effective in improving outcomes and resource utilization when adequately implemented (Johnson et al., 2020). For instance, in the Netherlands, collaboration between Catharina Hospital and St. Jans

Gasthuis improved outcomes and patient satisfaction by leveraging regional integration (van Veghel et al., 2020).

The barriers in Palestine are exacerbated by systemic issues, including a lack of interoperability and constrained health worker mobility, due to geopolitical challenges (Asi, 2019). While the potential for telemedicine exists, its low implementation levels (54.2% not started) contrast starkly with examples like the Morehouse Choice Accountable Care Organization, which uses digital platforms to improve care coordination and outcomes across sites (Brown et al., 2019). Additionally, significant healthcare inequities between Gaza and the West Bank further hinder the adoption of multisite care delivery models, limiting the ability to deliver equitable and efficient care (Adjerid, 2024).

The multisite care delivery improvement initiatives in Palestine should be directed at systemic barriers, resource prioritization, and evidence-based frameworks. Strategies identified from successful implementations elsewhere, such as the use of clinically integrated networks in the UC San Diego Health model, could guide the development of governance structures and evidence-based practices in Palestine(Friedman et al., 2021). The fact is these measures would at least substantially help overcome existing gaps and create a favorable environment in which to enhance the principles of VBHC amid the contextual challenges facing the region.

4.2.6 Geographics Expansion

Results of the study on VBHC geographic expansion in Palestine indicate important obstacles in implementing key constructs about geographic coverage. The average score for this is 2.29, meaning a low range of implementation. There is variation in health access, with limited health services integrated into the regions. The findings therefore point toward bigger issues in geographic equity and resource allocation as highlighted in the literature. The low scores on the implementation reflect the challenges in equity and accessibility. Porter & Lee (2013) said that geographic fragmentation can reduce the potential of VBHC because it generates inefficiencies in care delivery and reduces the concentration of expertise and resources. In Palestine, military checkpoints, restricted movements, and separation between Gaza and the West Bank increase these challenges, making access to urgent and specialized care difficult (Asi, 2019). This is consistent with findings from Kim (2011), who noted that narrow geographic competition prevents the full realization of VBHC's potential by undermining regional integration and collaboration.

The analysis shows that the highest-performing construct involves the development of systems for expanding excellent care models (mean = 2.4882), though even this is only partially

implemented. This aligns with the findings of Karhade et al. (2021), who argue that hub-and-spoke models can optimize care by centralizing expertise and ensuring efficient resource use. However, in Palestine, such systems remain underdeveloped, with 35.4% of institutions in the planning phase and 37.5% not started. The low scores for telemedicine (mean = 1.9375) and mobile clinics emphasize barriers to leveraging technology for remote care delivery, similar to observations in other low-resource settings where infrastructure limitations hinder the adoption of advanced technologies (Katz & Sim, 2023; Zhu et al., 2024).

Expanding care to underserved areas scored particularly low (mean = 2.1125), reflecting systemic neglect of marginalized populations. This result resonates with findings from Al-Thani et al. (2023)who highlighted the need for localized strategies to adapt VBHC models to unique regional challenges. In Palestine, geographic fragmentation due to political and infrastructural barriers further hinders such expansion, as reliance on cross-border treatments often fails to provide sustainable solutions (Asi, 2019).

Programs that promote staff exchange and collaboration were rated relatively better, with a mean of 2.4549 but are still at a low level of implementation in practice. This supports the argument by Kim et al. (2013) that integrated care delivery systems hold the key to enhancing value and reducing waste. Facility-to-facility collaboration in Palestine may help overcome some of the geographical barriers but is currently theoretical and needs translation into active implementation.

The systemic gaps identified in the study directly hinder the adoption of the principles of VBHC by failing to ensure equitable access and integration of services. Limited geographic reach and underutilization of technology prevent the delivery of high-value care efficiently. The Global Health Delivery Project says that extension of access in under-resourced settings requires shared infrastructure and adaptable models (Kim et al., 2013). Findings point out, therefore, that with no huge investments in telemedicine, mobile clinics, and also capacity building on the local levels; the Palestinian healthcare system will always lag significantly behind in pursuing this goal of VBHC.

Overcoming these barriers will bring the institutions closer to more inclusive and efficient health systems, in line with the principles of VBHC. This should be pursued by integrating technology, collaboration, and using strategies at the local level to overcome geographic and systemic limitations.

4.2.7 The implementation of Information Technology (IT)

The low overall mean scores depict that in most of the constructs, the implementation of IT as part of the VBHC framework within Palestinian hospitals has critical gaps. A few hospitals reported progress in certain areas, but overall, infrastructural and capacity constraints hamper meaningful adoption. For example, interoperability of EMRs was rated 2.84, reflecting poor levels of data exchange between hospitals and uniformity in record structures. Interoperability is considered the basis of VBHC because it ensures coordinated care and minimizes redundant services. However, studies have indicated that fragmented systems remain a global problem. For example, Meinert et al. (2018) and Porter & Lee, (2013) identify that standardized and interoperable data sharing is key to ensuring better patient outcomes and facilitating evidence-based care. However, most healthcare environments have fragmented IT systems that limit such benefits, which is also the case in Palestine.

If the mean for Predictive Analytics as a tool for transformational, proactive care planning was an even lower 2.26, where almost half the institutions did not even start implementing it, this gap will further erode the predictive capabilities in healthcare systems that are necessary for recalibrating patient outcomes and optimizing care pathways. According to Bauer (2018) and Miettinen & Tenhunen (2020), predictive analytics enhances clinical decision-making by stratifying patients according to risk and utilizing resources efficiently, thus directly contributing to VBHC goals. Without strong analytics capabilities, health systems and other organizations fail to unlock the full value of these new models; care remains fundamentally reactive, rather than proactive.

The highest mean score of IT-related constructs was the development of comprehensive digital patient records, with a score of 3.21, though the adoption is not consistent. This is consistent with global trends where digital health records are a cornerstone of VBHC but face challenges in scalability and integration. In line with this, the development of digital health systems in full function calls for comprehensive change management and security protocols(Meinert, Fellow in Healthcare, et al., 2018), which remains highly underdeveloped in resource-constrained settings like Palestine. Additionally, other enabling tools such as electronic prescription systems had a score of 3.07, which represents incremental development but again very slow progress on the journey toward a digital continuum of care.

Engagement with patients through the systems of care is at a low level of 1.68, which should be one of the important aligners for providing care according to individual needs. This represents a huge impediment to VBHC, as mentioned by Bauer (2018) and Ramos et al. (2021), who talked about the requirement for patient empowerment. PROMs and PREMs,

integrated with IT systems, foster active participation from the patients themselves, thus improving quality. The lack of such systems in Palestinian hospitals also reflects broader challenges in the realization of goals that are core components of VBHC, such as the goals pertaining to patient-centeredness.

Resource tracking systems, scoring a mean of 2.57, point out inefficiencies in the alignment of expenditures with activity levels, further illustrating gaps in operational integration. This is reflected in global findings, where a lack of robust cost analytics limits the ability to manage financial risk effectively under VBHC models. Nilsson et al. (2018) and Daniels et al. (2022) suggest that integrating financial and clinical data systems is important to optimize resource allocation and ensure the sustainability of value-based initiatives.

The results demonstrate that while Palestinian hospitals are making strides in certain aspects of IT adoption, significant gaps hinder the full realization of VBHC. The absence of robust interoperability, predictive analytics, patient engagement, and resource tracking systems directly limits the scalability and efficiency of VBHC. Addressing these deficiencies requires strategic investment in IT infrastructure, capacity-building, and policy reforms to foster integration, standardization, and patient-centered care. By aligning these efforts with evidence from global best practices, Palestinian hospitals can overcome systemic barriers and advance toward sustainable VBHC implementation.

4.2.8 Governance

The governance implementation level of VBHC, as seen in the hospitals of Palestine, is an average of 2.73. This proves that systemic challenges and gaps occurred in the realization of the intentions of VBHC. Specific and more concrete governance challenges may be supported by literature as a means to describe their influence on the adoption of VBHC.

The average score for strategic planning, 2.56, is so low, considering the huge proportion of hospitals that report no progress; thus, it points out the absence of systematic approaches in community health initiatives. Strategic planning in VBHC means the involvement and engagement of stakeholders, resource allocation, and integration at healthcare systems, as stated by the literature continuously. For instance, in the Netherlands, the step-by-step approach-an organized process that starts with pilots and involves multidisciplinary teams-clearly allows for collaboration and strategically aligns goals with those of VBHC (Steinmann et al., 2022). The lack of strategic focus observed in Palestinian hospitals is also reflected in experiences from other low-resource settings where financing and coordinated leadership to support the movement are limited. With an average of 2.51, the lack of specific management

positions significantly puts down the whole governance structure regarding VBHC (Griffiths et al., 2023). The role of leadership is central to embedding organizational culture into VBHC goals, as was the case in Dutch and Swedish hospitals which developed executive leaders to drive cultural integration and coordinate cross-departmental strategies (Nilsson, et al., 2017; Steinmann et al., 2022). The lack of leadership structures within Palestinian hospitals is highly indicative of one of the serious issues in the country's hospitals: fragmented governance that directly influences VBHC priorities.

The marginally higher score of 2.62 indicates limited collaboration with community entities, which is quite essential in the holistic addressing of health priorities. Evidence from the Catalonia Health Plan demonstrates that collaboration with external stakeholders, such as community organizations and healthcare providers, enhances the integration of VBHC principles through shared goals and responsibilities (Griffiths et al., 2023). This points to limited progress by Palestinian hospitals in driving integrated care delivery through formal partnership frameworks.

The mean scores for workforce wellness programs of 2.54 and transparency in decision-making of 2.74 reflect significant gaps that act as barriers to VBHC adoption. Workforce wellness is related to healthcare performance; in Korea, investment in the training and wellness programs of staff supported the adoption of VBHC (Hurh et al., 2017). In the same way, transparency in decision-making brings about accountability and inclusiveness, which are important features of patient-centered governance (Ng, 2022). The low levels of implementation in Palestinian hospitals indicate systemic barriers to building trust and inclusiveness, considered important for VBHC governance.

Relatively higher scores for equitable access, 3.18, and health IT governance 2.91 are areas of modest progress. Equitable access lies at the very heart of VBHC, hence reducing disparities, as was realized in the Netherlands Heart Network (NHN) where standardization of care pathways was accompanied by collaborative governance and translated into equitably delivered care (Theunissen et al., 2023). However, this general lack of robust IT systems for data collection and analysis in Palestinian hospitals reflects the challenge that, in general, under-resourced settings face, where infrastructure may limit the scalability of VBHC initiatives (Griffiths et al., 2023).

The minimum score for the indicator of linking leadership evaluations to VBHC outcomes was 1.78, which shows a very significant governance gap. Indeed, studies highlight that incentivizing leadership for VBHC metrics-for example, clinical outcomes and patient satisfaction-acts as a driver of accountability and alignment with organizational goals (Daniels

et al., 2022). Its absence in Palestinian hospitals constitutes a critical barrier to sustainably enacting value-driven care.

The findings indicate systemic barriers directly or indirectly influencing the adoption of VBHC. Such factors include fragmented leadership, poor resource allocation, and poor mechanisms for collaboration and transparency. The literature also underlines that robust governance frameworks, committed leadership, and multi-stakeholder collaboration are all essential elements of VBHC's success. Their absence in Palestinian hospitals perpetuates inefficiencies and limits progress toward value-based care.

4.2.9 Gap Analysis and Barriers to VBHC Implementation in Palestinian Hospitals

The gap analysis of VBHC implementation in Palestinian hospitals reveals systemic challenges, particularly misaligned payment models, which are inconsistent with value-based principles. This aligns with Porter & Kaplan (2016), who identify fee-for-service systems as a global obstacle to VBHC. Limited collaboration and inequitable access, reflected in multisite care delivery (3.74) and geographic coverage (3.71) gaps, resonate with Berwick et al. (2008) on the detrimental effects of fragmented systems on continuity of care.

A significant information technology gap (3.40) highlights underinvestment in essential data systems, supporting Kawamoto et al. (2015), who emphasizes the need for robust analytics to drive value-based care. Governance deficits (3.27) are also evident, indicating leadership challenges consistent with Bass & Riggio (2005) on the importance of strong governance in resource-constrained settings. Additionally, the integrated practice unit gap (3.20) reflects resistance to reorganizing care structures, a critical barrier highlighted by Porter & Lee (2013) for VBHC success.

These systemic gaps sustain inefficiencies, misaligned incentives, and inequities, mirroring challenges identified in similar low-resource settings. Overcoming these barriers demands reforms targeting payment models, IT infrastructure, and governance to align care delivery with VBHC principles and improve health outcomes.

4.2.10 VBHC implementation scores by hospital ownership type

The type of ownership in Palestinian hospitals significantly contributes to the scores of implementations of Value-Based Healthcare since it reflects governance structures, resource allocation, and external factors. MoH and NGO hospitals have higher scores since they are supported by top-down oversight, donor support, and alignment with public health mandates, supported by Porter & Lee (2013). This stands in complete contrast to private hospitals, which

had lower scores, as pointed by Gaynor et al. (2010), with profits being the major driving force along with fragmented care and under-investments. Whereas the scores at the UNRWA hospitals are moderate, mostly following international standards the resource constraints put their limitations as Kruk et al. (2018) depict.

It is also known that leadership and integrated care within IPUs are strengths in MoH and UNRWA hospitals, while private hospitals lack coordination and leadership (Eijkenaar et al., 2013; Porter & Kaplan, 2016). The identified financial misalignment across the hospitals of all three types represents the systemic barriers, while the status of the implementation of the payment model has no static significance. Disparities in geographic coverage and IT adoption also emerge. NGO hospitals are performing exceptionally well on outreach but fall short in reaching the underserved areas, while private hospitals are mainly located in urban areas, thus reflecting Gaynor et al. (2010). Private and UNRWA hospitals also had IT gaps, which were observed by Adler-Milstein and Jha (2017), and investments in interoperability and analytics will be needed.

There are also disparities in governance where, for example, UNRWA hospitals perform well because of international accountability frameworks, while private hospitals are struggling with transparency and workforce engagement (Dixon-Woods et al., 2012). These financial, technological, and governance constraints hinder VBHC adoption, and specific targeted interventions will be required for better infrastructure, capacity, and policy support (Kruk et al., 2018; Porter & Lee, 2013b).

4.3 Barriers Hindering VBHC Implementation

4.3.1 Political Challenges to Implementing Value-Based Healthcare (VBHC) in Palestine

The political challenges to implementing VBHC in Palestine emanate from systemic barriers that compromise not only the functionality but also the reform potential of its health system. A basic challenge is financial instability root lies in the Palestinian Authority's dependence on international handouts, along with Israel's control over locally generated revenues. Withheld clearance funds and dwindling foreign financial support were mentioned by participants as critical binding factors for transformative reforms. This is in line with Giacaman et al. (2003), who indicates that financial dependence depletes the autonomy of the healthcare system, and Keelan (2016), who points out constrained budgets and limited access to essential medical supplies as direct impediments to advanced healthcare models.

The fragmentation within the healthcare system complicates VBHC implementation even further, specifically between the West Bank and Gaza. As the participants discussed, political divisions and lack of coordination cause inefficiencies and redundancies that create hurdles to cohesive reform. This fragmentation, undergirded by external donor-driven agendas and control over key resources by Israel, has been very clearly documented in an article by Giacaman et al. (2003), with noted challenges in standardization across such fragmented policymaking systems. These are compounded by resource constraints: severe shortages in medical equipment and specialized human resources were underlined by participants.

Systemic inadequacies in the absence of radiotherapy units, delays in the importation of life-sustaining supplies, and logistics to maintain high-end machinery represent lingering concerns and were similarly raised by (Clarfield & Dechtman, 2018). Keelan (2016)further corroborates this, describing diagnostic equipment shortages and lack of training for health professionals that further constrict the system's ability to provide specialized, value-based care.

Restrictions to mobility through checkpoints, roadblocks, and the separation wall further complicate, not only emergency responses but also the maintenance of care continuity. Such participant reports of ambulance delays and obstacles to accessing health services tally with (Clarfield & Dechtman, 2018), who outline the consequences of restricted mobility on health. Indeed, in similar discussions, Giacaman et al. (2009) reflect on how such barriers to access exacerbate health inequalities and inequities for those from vulnerable groups.

Added to this complexity is the violence against medical professionals and unsafe working conditions. Stories of attacked or detained ambulance crews further bring into view the precarious environment in which health workers operate. Giacaman et al. (2009) underline that such unsafe conditions contribute to workforce attrition and reduce service capacity, undermining the stability of the system. External interference and donor-driven programs only serve to hinder VBHC even more, focusing on short-term emergency responses rather than systemic reforms. According to the participants, health innovation has been delayed by logistical challenges and misaligned priorities of the donors. Keelan (2016)discusses how donors' agendas do not align with local needs, and Giacaman et al. (2003) highlight the failure of external interventions to address systemic development. This takes away attention from very important reforms that need to be made, such as VBHC.

These are the accumulated problems: financial instability, lack of resources, restrictions on mobility, and external interference that have created a vicious cycle of dependency and underperformance, which has made it unable to modernize itself. Conflict, infrastructure damage, and limited mobility, as Giacaman et al. (2009), pointed out, have contributed to

increased inequity and impede progress. These are deep-seated problems that need an approach that is multi-pronged in nature, providing local autonomy, fair distribution of resources, and donor support in congruence with the local priorities for meaningful reforms to take place in health.

4.3.2 Financial Barriers to Implementing Value-Based Health Care in Palestine

The financial challenges to adopting VBHC in Palestine relate to reliance on international aid, declining donor contribution, and low fiscal autonomy. Donor aid, after maintaining 26% of GDP at one point, declined to 8% in 2014, thereby reducing the resource availability for VBHC investments considerably (World Bank, 2016). Further, the prescription of donor aid, such as the engagement of expensive international consultants, reduces the effectiveness of donor aid itself (World Bank, 2023b). This dependency leads to a limitation of flexibility, hence undermining sustainability and making long-term planning and innovation vulnerable ground on which VBHC stands.

The difficulties of severe budget constraints and inefficiencies only add to these challenges. For example, public health expenditure in this region is more than 12 percent of GDP, among the highest in the world (World Bank, 2016), Salaries and maintenance-the major operational costs-dominate the budget, leaving next to nothing for strategic reforms. The share of the wage bill stands at 83 percent of the public revenue and symptomatic of inefficiency(World Bank, 2016). Partially completed development projects further delay progress enormously and constrain the capacity of this system for transformative change.

These are further compounded by the pressure of debts. Very indebted by over $800 million, it disrupts supply chains-including the halting of deliveries of essential medications, a category that includes anticoagulants-the Ministry of Health undermines VBHC goals, timely care is impeded, ensured (Mosleh et al., 2020; World Bank, 2023b). Such shortages in medication have a ripple effect in terms of patient outcomes and erosion of confidence in the system and complicate further VBHC adoption.

Other notable leakages involve external medical referrals that are estimated at more than 1.1 billion shekels yearly (World Bank, 2023b). It is due to insufficient infrastructure locally to undertake various special treatments like oncology and cardiovascular-related illnesses that there are so many costly referrals to Israeli hospitals (Ministry of Health, 2023). This kind of inefficiency deflects money away from investing in the development of local structures and is absolutely opposite to VBHC tenets in relation to cost-effectiveness and being centered on patients' needs.

Out-of-pocket payments account for 40-45% of health expenditures and disproportionately affect poor families, often pushing them below the poverty line (Mataria et al., 2010). Most households spend more than 10% of their income on healthcare, usually by either forgoing treatment or being pushed into catastrophic spending (Mataria et al., 2010; WHO, 2018). Transportation expenses to access care further marginalize vulnerable populations and reflect systemic inequities (Mosleh et al., 2020; World Bank, 2023b).

The health insurance model exacerbates the financial barriers. While it offers broad coverage for low fees, it is financially unsustainable. Non-contributory enrollments outnumber contributors, revenues are lowered while costs are increased (World Bank, 2016), this without income-adjusted pricing disproportionately affects marginalized groups, and the system cannot support outcome-based payments or integrated care pathways required for VBHC.

These financial constraints cumulatively make VBHC difficult to implement by limiting resources available for workforce development, data infrastructure, and patient outcome monitoring. The debilitating cycle of indebtedness, misallocated resources, and inequitable access further leads to systemic malfunction and delayed improvements in VBHC. Therefore, fiscal reforms, investment in health capacity at the local level, and financing mechanisms on a sustainable basis have to be attended to to enable conditions for VBHC adoption in Palestine.

4.3.3 Barriers to Implementing Value-Based Healthcare (VBHC) in Palestine: Expertise, Resources, Workforce, and Systemic Constraints

The implementation of Value-Based Health Care in Palestine faces critical challenges due to gaps in health quality management expertise, as the primary data shows and is supported by WHO (2018) itself, stating that strategic capacity in public health was a major barrier. Similarly, Keelan (2016) emphasized the lack of professional development opportunities for healthcare providers to equip them with preparation for carrying out advanced health analysis and evidence-based strategies. These limitations point to the difficulty in aligning healthcare delivery with patient-centered outcomes requisite for VBHC.

Inequality in educational background, insufficient clinical training, and few opportunities for professional development, as identified in the study, match the literature showing these barriers. Differences in educational frameworks, based on Eastern and Western models, have led to fragmented healthcare delivery practices, according to Abuzerr et al. (2021) and AlKhaldi et al. (2018). Such unified practices are essential for VBHC. The traditional educational systems of Palestine do not encourage interdisciplinary training; hence, cross-

sectoral collaboration in the effective implementation of VBHC is limited, as observed by Abuzerr et al. (2021).

A wide gap between theoretical knowledge and clinical skills also contributes to the inefficiencies. Most of the graduates have never received practical training; thus, they feel incompetent in clinical practices upon employment (Khatib et al., 2009). Such gaps in capacity building are reiterated by AlKhaldi et al. (2018), who cite the resultant inadequacies in the workforce of healthcare providers as unable to respond to patient needs. The overproduction of healthcare graduates compounds this problem by the fact that the training infrastructure is also limited and not able to cater to growing demand; thus, resulting in bottlenecks in training and employment while compromising the quality of healthcare services (Abuzerr et al., 2021; AlKhaldi, Abed, et al., 2018).

Most of the postgraduate medical specialization programs in Palestine are predominantly theoretically oriented, with negligible emphasis on imparting practical skills, research experience and teaching ability-which is needed to establish modern healthcare (Abuzerr et al., 2021; Khatib et al., 2009). More importantly, many of the mentioned issues coexist without specific supervisory mechanisms or professional support (AlKhaldi, Abed, et al., 2018). Moreover, professional education faces some logistical challenges: a lack of institutional support for continuous learning and barriers to accessing global knowledge restrictions being one of hinder the assimilation of innovative practices in line with the principles of VBHC (Abuzerr et al., 2021; Khatib et al., 2009).

Structural inefficiencies, physician behaviors, and systemic communication gaps impede cost-effectiveness in the Palestinian healthcare system. Inefficient integration between diagnostic services and physicians leads to redundant testing, echoing Mosleh et al. (2020), who highlights that communication barriers diminish provider coordination and patient trust, exacerbating inefficiencies. Limited provider awareness of cost-effectiveness principles further aggravates this, with arbitrary diagnostic approaches, such as the "shotgun" method, driving unnecessary costs and care delays. Literature consistently underscores the necessity of training and professional development to instill evidence-based practices (Mosleh et al., 2020) .Additionally, the absence of performance-based evaluation systems impedes streamlined care pathways.

Resource and infrastructural deficiencies are important obstacles too. Medical supply chains have been disrupted in chronically interruptive ways, placing limits on the availability of certain medications and equipment; this fact has been documented by Mosleh et al. (2020). WHO (2018) also drew attention to inadequate health infrastructure: there is a limitation in

hospital beds, standing at 13.2 per 10,000 of the population, hindering the system from responding even to the basic health needs of the population. Overcrowding, as reported in the primary data and reflected by Mosleh et al. (2020), further delays treatment and compromises the care of patients, hence making VBHC adoption even more cumbersome. The overwhelming patient loads in public hospitals, as noted in results, limit the speed and depth of quality improvement initiatives. Addressing these barriers requires significant investments in workforce training and capacity-building. The literature suggests that inadequate staffing levels and burnout among healthcare professionals are critical factors contributing to inefficiencies and poor service delivery Giacaman et al. (2009).

These challenges are increased by workforce shortages, with just 17.7 physicians per 10,000 people, while critical deficits persist in many key subspecialties, such as psychiatry and radiology, and are documented in C. Further, low salaries and career limitations have resulted in the migration of professionals, increasing these gaps (Keelan, 2016b; World Bank, 2023b). Such deficits lead to delayed and incomplete care, in direct opposition to VBHC's central tenets that rely on timely, specialized, and efficient services.

Finally, underinvestment in IT and data management presents additional challenges. Gaps in digital health systems, as noted in WHO (2018), impede data-driven decision-making key component of VBHC. The reliance on limited IT staff slows down innovation and resource optimization, as seen from the primary data.

The final list of factors seriously hampering VBHC implementation in Palestine includes lack of expertise, resource shortages, workforce gaps, and systemic financial and geopolitical constraints. Evidence from Keelan (2016), Mosleh et al.(2020), WHO (2018), and the World Bank (2023)all support that wide and comprehensive focused efforts should be performed in this regard.

Taken together, these various barriers reinforce each other in negative ways, preventing VBHC implementation efficiency.

4.3.4 Challenges and Barriers to Value-Based Healthcare Implementation in Palestine: Challenges in Primary Care and Non-Communicable Disease Management

The deficiencies within the primary level of care in Palestine, such as a lack of strong early detection and prevention, completely contradict the very foundation of VBHC, which calls for proactive, efficient, and cost-effective care. Weaknesses in primary healthcare have resulted in over-reliance on secondary and tertiary care facilities, leading to inefficiency in resource utilization and overwhelming hospital capacities. According to Sharif and Imam

(2021), fragmented health services and scarcity of resources heighten the challenge of diabetes management, leading to avoidable complications and increased healthcare expenditure. These systemic inefficiencies are a reflection of high hospitalization rates for conditions that are manageable at the level of primary care, which also further exemplifies the absence of VBHC-aligned practices.

The system of preventive care is still nascent, with very low public participation in routine checkups and screenings. This has made health care very reactive, thus raising the burden of disease and costs because most patients attend hospitals at advanced stages of illness. The increasing number of non-communicable diseases, particularly cancer, diabetes, and cardiovascular conditions, call for urgent attention in terms of prevention. Collier and Kienzler 2018 emphasize that such socio-political barriers to movement restrictions and scarcity amplify health-seeking delays and, further, compromise the process of early detection and VBHC goals. Beyond this, distrust of and access limitations to primary care facilities result in shifting the care for patients at emergency and hospital levels for non-critical conditions, adding pressure on emergency resources. This trend reflects the inefficiencies that exist in the system underlined by the World Bank (2023), citing a poor investment in primary care and resulting in increasing costs with external medical referrals.

An aging population and shifting demographics only heighten the challenges of the healthcare system, as more people are suffering from chronic diseases that require ongoing and specialized care. It is observed that the rates of cancer are expected to double by 2040, with long wait times for key diagnostic services such as mammograms, which point to severe gaps in diagnostic capacity. These gaps point to the dire need for focused investment in diagnostic technologies with specially trained human resources to meet the demand for quality care, as indicated by Khatib et al. (2017).

Chronic underfunding and a high reliance on external medical referrals, due to limited capacity within the country itself, place substantial financial burdens on the health system. High smoking and sedentary life habits add further to the prevalence of non-communicable diseases. Cultural and socioeconomic realities deeply embed these behavioral risk factors and are reflected in the rising burden of NCDs.

In a nutshell, the challenges identified care weaknesses, socio-political constraints, resource limitations, and systemic inefficiencies are direct deterrents to VBHC adoption in Palestine. Such barriers require comprehensive reforms in improving primary care infrastructure, investment in strategies for prevention, better resource allocation, and integration of care pathways.

4.3.5 Challenges and Barriers to Value-Based Healthcare Implementation in Palestine: Information Technology (IT) Barriers

The challenge in IT infrastructure within the Palestinian healthcare system is that it is a mix of public and private sectors. The public has something to act upon in terms of IT, like the Ibn Sina system, which enhances data retention and also gives a unique number for patient records. Its implementation is nevertheless not uniform, and most of the primary care facilities are still with paper-based systems that maintain inappropriate connectivity to secondary care. These are also in concurrence with the works of Ballout et al. (2018) regarding financial constraints and fragmented policies in ICT serving as a barrier to e-health initiatives. Discussion of the non-availability of integrated systems by El Jabari et al. (2020) contributes to inefficiency and acts against interoperability.

These are further exacerbated by a set of technical limitations. For example, the setting up of new servers and updating is highly restricted due to political interference; hence, the system operates on obsolete technology. This is in tune with the assertion made by Ballout et al. (2018), in which infrastructural insufficiency has been highlighted as a serious deterring factor that has affected the efficiency of operational performance. Resistance to technological change by the senior management is also identified, which aligns with the results reported by El Jabari et al. (2020), who highlighted cultural resistance as one of the main obstacles toward ICT adoption in Palestine.

Data quality issues include lots of gaps in data entry and inconsistent coding practices that greatly limit decision-making capabilities. According to the results, such inconsistencies reduce the usefulness of IT systems for analytics and performance monitoring. Similarly, Ballout et al. (2018) found that data migration challenges coupled with a lack of standardization hamper the effectiveness of electronic health systems in resource-limited contexts. Additionally, not having IT leadership and relying on imported solutions only, reveals systemic failures to consider technology a strategic asset, as indicated by El Jabari et al. (2020).

The technological barrier further constrains VBHC implementation; although PROMs and PREMs might prove handy tools in providing insights, they are little used because prioritization and infrastructure are lacking. This makes Participant 9's call for electronic systems to continuously monitor the rise in performance, tremendously aligned with findings by Mosleh et al. (2020), which emphasizes the transformative potentials of technology in collecting data that is actionable. While this is the case, too little investment in both digital health solutions and the training of the workforce restricts the system's full use of such tools.

4.3.6 Challenges and Barriers to Value-Based Healthcare Implementation in Palestine: Aging Infrastructure

A highly critical barrier to VBHC implementation in Palestinian healthcare, and which affects the great majority of participants, is related to infrastructure, especially medical devices. Participant 7 noted the reliance on the donation of used equipment, often after years of use by the donor, thus making the equipment outdated and unreliable upon receipt. This finding is supported by a study conducted by Ballout et al. (2018), which documented insufficient resources and a funding model reliant on donors as threats to infrastructure. Repair delays, sometimes lasting months, disrupt workflows and degrade service quality (Participant 7), mirroring the infrastructural gaps described by Ballout et al. (2018).

Another challenge that hinders VBHC is the use of highly outdated technologies, which restrictively prevents making use of other much-needed advanced IT solutions. Results showed that hardware shortage is the actual barrier to using new systems, thus supporting prior research done by El Jabari et al. (2020) on technological capabilities as one of the major barriers to modernization.

4.3.7 Structural and Operational Barriers to Value-Based Healthcare in the Palestinian Context

The absence of an integrated system of governance exacerbates the impact of fragmentation among the Palestinian health care system since it is shared by the PNA, UNRWA, NGOs, and private providers. This presents a context which creates inefficiency and duplication of effort emanating from the execution of overlapping functions among the involved institutions through the delivery of similar services on top of the disparity in distribution among geographical areas. Moreover, as Giacaman et al. (2003) emphasized, these were accentuated by institutional weaknesses along with the general absence of regulatory frameworks within the MoH.

Outdated and superficial healthcare policies hinder any development in the field since the emphasis was on accreditation rather than implementation. This agrees with Abuzerr et al. (2021), who observe that current policies lack cohesion; thus, there is fragmentation of efforts at all levels, leading to priorities being misaligned. abs The absence of updated policies hinders the inclusion of performance measures necessary for VBHC and blocks the process of offering value-based outcomes.

Poor management of the contract further weakens systemic efficiency; the lack of sufficient agreements on the maintenance of medical equipment translates into outdated technologies and resource shortages. Mosleh et al.(2020)noted that, in most cases, public hospitals have poor resources, posing a challenge in the management of complex cases. Poor management of medication supply contracts interferes with the continuity of care and further exacerbates inefficiencies.

Bureaucratic inefficiencies pose another challenge to VBHC. Delays in procurement and also non-transparency in budget utilization mean that resources are not utilized at the right time, and the people's trust is eroded. Giacaman et al. (2003) report that such inefficiencies place financial burdens on individuals due to high out-of-pocket expenditures and inadequate government oversight, which strain the ability of the system to address urgent needs in healthcare

Geographical and governance fragmentations are against the cohesive adoption of VBHC. Also, the autonomous operation of hospitals and regions undermines the coordination of care delivery; this is a challenge as pointed out by Abuzerr et al. (2021), with most public health crises. More often than not, there are conflicting priorities amongst donors themselves, which further destabilize resource allocations and coordination.

The absence of standardized protocols and performance indicators further disrupts the circle of consistent care. Without measurable outcomes to gauge the quality and efficiency of healthcare, efforts remain fragmented. Mosleh et al. (2020) cite the inability of public hospitals to put in place uniform policies as part of the contributing factors to the resultant congestion and suboptimal care. In the absence of a standardized framework, the capacity of the system to achieve value-based outcomes is curtailed.

All these challenges, in turn, require strategic coordination, updated policies, and strong governance frameworks to bring about systemic efficiency. It is for this reason that such a synchronized approach will go a long way towards steering the Palestine healthcare system with the principles of VBHC aimed at ensuring access, equity, and quality of care.

4.3.8 Systemic Inequities, Trust Deficit, and Challenges to Value-Based Healthcare Implementation in Palestine

Systemic inequities in the healthcare system of Palestine create an essential barrier to the implementation of Value-Based Health Care. Inequity in access, financial barriers, and inefficiency in governance arrangements all work against the realization of VBHC's core principles of equity in outcomes and efficient use of resources. Access to care is notably better,

comparing wealthier populations in the West Bank with poor families, and socioeconomic inequities adversely affect health outcomes. Khatib et al., 2009. This situation is further exacerbated by the inadequacy of healthcare infrastructure, particularly the underdevelopment of primary and often inaccessible tertiary care due to restricted mobility and lower local capacity.

These are further exacerbated by governance issues: Gaps in policy and practice are leading to inequity. For instance, the Public Health Law indicates that anyone should have access to care in Palestine; due to the weakness in enforcement mechanisms, service access is currently dictated by socioeconomic factors and personal relations. These reduce public trust in the services and further lead to lower efficiency. This systemic gap repeats itself in operation inefficiencies related to overcrowding, shortage, and lack of maintenance. Overcrowding reduces privacy and personalization of care, which is a very critical aspect of VBHC. In addition, the misuse of equipment necessitates frequent repairs, draining already limited budgets and taking resources away from quality improvement efforts (Mosleh et al., 2020; WHO, 2018).

The erosion of trust in public hospitals has also been contributed by perceptions of poor quality, cleanliness, and high infection rates. Patients often prefer non-medical amenities provided by private facilities over the substantive expertise of public institutions. This agrees with Qtait (2018), who emphasizes that environmental factors such as cleanliness and quietness affect patient satisfaction. Furthermore, the resource constraints faced by public hospitals regarding inequitable distribution and supply of essential consumables further affect their ability to meet patient expectations or uphold the quality of care, which goes directly against VBHC's focus on high-quality, patient-centered care.

Resource imbalances between the public and private sectors are important limits to VBHC implementation. Private hospitals enjoy greater patient satisfaction, usually at a higher quality of care compared to resource-constrained public facilities. This further creates an adverse cycle in that private hospitals will refer cases to government hospitals that are beyond their capacity and worsen the inefficiency in the system. Giacaman et al. (2009) discuss how economic disparities and structural inequities undermine healthcare quality, emphasizing the need for equitable resource allocation to bridge the gap between sectors.

These challenges can be addressed through clear mechanisms of service delivery, such as digitalized appointment systems that reduce favoritism and put need-based care first. Health financing reforms must be comprehensive, reducing out-of-pocket expenses and introducing universal health insurance, among other measures, in order for the system to respond to VBHC

principles. Without them, systemic changes in resource disparities, operational inefficiencies, and socioeconomic determinants will keep VBHC implementation severely constrained. The aforementioned challenges denote that broader political and structural commitments are required for equity and efficiency in Palestinian healthcare.

4.3.9 Barriers to Public-Private Partnerships in the Implementation of Value-Based Healthcare

Public-private partnerships have been identified as a promising strategy to address systemic inefficiencies and resource constraints in the Palestinian healthcare sector. However, the primary results from stakeholder analyses and sectoral assessments show that there are considerable barriers to effective implementation; one of the most critical challenges concerns financial sustainability. The Ministry of Health relies heavily on external referrals because of the lack of infrastructure locally. These referrals accounted for 37.5% of MoH expenditure in 2021. This dependence has also created arrears of over $345 million, thus putting severe fiscal pressure on the healthcare system (World Bank, 2023; WHO, 2023).

These participants emphasized that new financing mechanisms, like national insurance systems, should be developed to take this burden off while allowing for equity of access through private providers. This is corroborated by earlier literature calling for insurance models that pool resources from the public and private sectors in ways that advance equity and efficiency in accessing and utilizing care (Abuzerr et al., 2021; Mosleh et al., 2020).

Governance challenges emerged prominently in the findings, with weak regulatory frameworks and fragmented oversight identified as major barriers to PPP success. The absence of robust monitoring and evaluation mechanisms undermines accountability and transparency, as corroborated by prior studies highlighting similar gaps in regulatory oversight in low-resource settings (Abuzerr et al., 2021; Giacaman et al., 2003). Participants called for a centralized regulatory body to standardize practices, ensure equitable service delivery, and optimize resource allocation. Literature on PPPs in countries like Turkey and the UK supports this approach, demonstrating how centralized governance can balance public oversight with private sector efficiency (Abuzerr et al., 2021; World Bank, 2023b).

Governance challenges came strongly in the findings-weak regulatory frameworks and fragmented oversight being major obstacles to successful PPPs. Accountability and, to some extent, transparency are compromised when robust mechanisms for monitoring and evaluation do not exist; a fact confirmed in earlier studies also reporting such gaps in regulatory oversight in resource-poor environments (Abuzerr et al., 2021; Giacaman et al., 2003). Participants called

for a centralized regulatory body to standardize practices, ensure equitable service delivery, and optimize resource allocation. Literature on PPPs in countries like Turkey and the UK supports this approach, demonstrating how centralized governance can balance public oversight with private sector efficiency (Abuzerr et al., 2021; World Bank, 2023b).

Effective PPPs rely on smooth coordination between the public and private provision of health care, which is greatly hampered by fragmentation in the Palestinian healthcare system. This often creates conflicts where the independence of private operators must respond to the bureaucratic processes for decision-making in the public sector, leading to wasted opportunities and inefficiency in such collaborations (Giacaman et al., 2003; World Bank, 2023b). The participants emphasized decisions made through shared processes and optimization of resources because duplication would be avoided and efficiency enhanced by leveraging accumulated capabilities in another area. Moreover, this supports the arguments expressed by Mosleh et al.(2020) and World Bank (2023).

To achieve VBHC, huge investments by healthcare providers will be needed in workforce training and adoption of the EHR. It would, therefore, cultivate models such as family medicine that reflect VBHC through comprehensive and efficient care provision (Giacaman et al., 2003; WHO, 2018). Lack of investment in such critical areas is thus a limiting factor toward the potential for PPPs in the delivery of cohesive, value-based healthcare.

The study further highlighted a number of localized successes, including the development of radiotherapy services at Al-Istishari Hospital and the planned Khaled Hassan Cancer Hospital. These initiatives have shown how PPPs could help fill critical service gaps when structured appropriately. However, scaling these initiatives requires addressing financial, governance, and integration challenges. International experience, including successful PPPs in countries all over the world, further strengthens this view that PPPs require strategic reform initiatives together with the adoption of international best practices if they are to realize their intended effects as providers of accessible, efficient, and sustainable health services. Indeed, (Abuzerr et al., 2021; Mosleh et al., 2020; World Bank, 2023b)

Drawing on primary results and linking them with robust evidence from the literature, this analysis underlines the transformative potential that PPPs have within the Palestinian healthcare sector. Addressing these systemic barriers through strategic reforms and targeted investments can allow these partnerships to realize their full potential in advancing VBHC principles and fostering an equitable healthcare system.

4.3.10 Systemic Barriers in the Current Payment Model to Value-Based Healthcare (VBHC) Implementation

The transition from a fixed payment system to a VBHC model in Palestine is, however, beset with systemic challenges related to inefficiencies in the payment structure, workforce retention issues, and institutional weaknesses. Fixed salaries, as identified by Mosleh et al. (2020), do not encourage health providers to prioritize patient outcomes, since poor wages, coupled with an absence of performance-based incentives, translate into poor adherence to clinical guidelines. These challenges are further exacerbated by the disparity between public and private sector remunerations. Giacaman et al. (2003) identified that low salaries within the public sectors promote workforce attrition and further stretch the capacity of government healthcare facilities. Systemic inefficiencies in fee-for-service models, where volume is rewarded over quality, also inflate costs without improving outcomes. This represents a basic misalignment with VBHC principles(Hines et al., 2021; Porter & Lee, 2013b).

These financial challenges are further entrenched through cultural and institutional barriers. Furthermore, weak accountability mechanisms, according to Keelan (2016), impede systemic improvement due to cultural resistance to recognizing and addressing medical errors, perceived as punitive rather than corrective. Poor governance structures, typical of a lack of transparency and without regulatory oversight, further weaken the possibility for the implementation of VBHC, given that accountability forms one of the basic elements needed for continuous quality improvement. Accordingly, other constraints to more improved clinical performances relate to a lack of appropriate evaluation mechanisms and limited training, as by Giacaman et al. (2003) and Mosleh et al. (2020); favoritism and patronage also act against the adoption of merit-based systems with reform efforts being compromised therein.

Together with the lack of mechanisms for monitoring and evaluating clinical outcomes, such as readmission rates and mortality statistics, this compromises the success of VBHC initiatives. These deficiencies reflect the broader inability of the healthcare system to measure and reward quality care effectively, further entrenching inefficiencies (McNeely et al., 2014).

These barriers in Palestine need systemic reforms to be pursued. This is where reconsideration towards implementing risk-adjusted payment models should be pursued, along with strong governance frameworks with a heightened sense of transparency and stakeholder engagement, as assert Porter & Lee (2013). In addition, competitive remuneration linked with performance, similar to private sector models, might reduce workforce attrition and increase morale, as stated by Hines et al. (2021), and the (World Bank, 2016). Such reforms are realized through investments in digital infrastructure that track clinical outcomes and better

documentation practices in measuring quality to inform policy decisions supported by evidence.

4.3.11 Cultural-Structural Barriers to Healthcare Transformation

The financial constraints, resource limitations, and weak governance mechanisms underpin the structural challenges of moving towards VBHC in Palestine. These issues reflect the findings of Mosleh et al. (2020) which indicate the lack of coherent coordination among the different stakeholders in the health sector as one of the main obstacles. One good example of such costly systemic reform is introducing an integrated approach to family health, which needs huge investments in human and financial resources. Moreover, an increase in the aging population and the demand for geriatric care put additional pressure on meager resources, making the effective implementation of VBHC quite a challenge.

Inadequate infrastructure and governance frameworks also spur resistance to VBHC. According to Mosleh et al. (2020), poor technical capacity in most health institutions inhibits the diffusion of digital tools that are essential for the measurement of performance. Furthermore, the absence of performance-based incentives along with outdated labor laws hampers the incentive of healthcare providers in embracing efficiency-oriented practices. Poor incentives on the part of health professionals are related to low wages and lack of training. Thus, these barriers, particularly with regard to healthcare transformation, tend to illustrate the interwoven nature of resources, governance, and cultural factors.

Such structural and cultural issues are likely to be resolved only through targeted intervention at more than one level. Improved communication among stakeholders, according to Mosleh et al. (2020), would build trust and grease collective efforts. This should be complemented with an investment in training programs and reforming the governance system to align physician incentives to patient outcomes, driving the principles of VBHC. Again, this requires sustaining the financial and political will for health care reform.

4.4 Policy Actions and Strategic Recommendations for Integrating Value-Based Healthcare (VBHC) in Palestine

4.4.1 Development of an Evidence-Based VBHC Model for Palestine

Institutionalizing VBHC in Palestine requires a comprehensive, evidence-based model that addresses systemic inefficiencies, resource misallocation, and fragmented care pathways. Inspired by international best practices, this model should focus on balancing emergency responses with long-term systemic reforms tailored to local needs (Giacaman et al., 2003;

Porter & Lee, 2013b). The model must integrate insights from successful pilots and global innovations, emphasizing scalable, patient-centered solutions to improve equity, quality, and resilience.

4.4.2 Strategic Vision and Governance

A unified strategic vision is critical for aligning Palestine's health system with VBHC principles. The governance framework should prioritize preventive care, early diagnosis, and integration of primary and secondary services. Drawing lessons from the Health Master Plan and TAPIC governance principles (Transparency, Accountability, Participation, Integrity, and Capacity), Palestine must develop a centralized coordination body to ensure alignment among public, private, and non-governmental stakeholders (WHO, 2020).

Governance reforms should also address political and economic constraints, improve fiscal transparency, and enhance public participation. For instance, aligning donor support with local priorities can facilitate long-term stability and reduce reliance on emergency funding (Giacaman et al., 2009; Mataria et al., 2010).

4.4.3 Strengthening Primary Healthcare (PHC) as the Cornerstone

Primary healthcare (PHC) should be the foundation of VBHC in Palestine. Investments in PHC infrastructure, such as community-based services, family medicine approaches, and preventive care initiatives, are crucial for reducing hospital burdens and improving population health outcomes (Hersh et al., 2015; WHO, 2020). Enhancing PHC systems through telemedicine, health education, and outreach programs can improve access and engagement, especially in underserved areas.

4.4.4 Stakeholder Engagement and Education

Achieving VBHC in Palestine necessitates robust stakeholder engagement. Educational campaigns targeting policymakers, healthcare professionals, and the public must emphasize VBHC principles and the importance of aligning healthcare delivery with patient outcomes. Integrating VBHC and One Health (OH) principles into academic curricula and professional training programs will build the capacity for interdisciplinary collaboration (Abuzerr et al., 2021).

4.4.5 Collaborative Governance and Institutional Partnerships

Cross-sectoral partnerships are critical for fostering systemic coherence in Palestine. Lessons from Spain, Korea, and the Netherlands demonstrate the importance of centralized procurement systems, strategic public-private partnerships, and interdisciplinary governance structures to enhance healthcare delivery (Hurh et al., 2017; Kokshagina & Keränen, 2022).

The establishment of formal governing bodies, such as the Palestinian Agency for Health Information, can centralize data collection and promote transparency. This aligns with global standards for health information systems that support benchmarking and decision-making (WHO, 2020).

4.4.6 Enhancing Patient Awareness and Engagement

The public awareness campaigns are significant in reshaping health-seeking behaviors, and Nutbeam (2008) pointed out that improved health literacy enhances patient engagement. Evidence also exists to suggest the use of multi-channel strategies to effectively reach diverse populations. The result suggestion to embed health education into broader strategies supports frameworks for tackling non-communicable diseases through education and policy interventions. Educating patients and providers improves shared understanding of the main principles of VBHC and enhances efficiency.

Results emphasized that VBHC involves collaboration between patients and providers. Shared decision-making builds trust and is a method for enhancing outcomes, according to Elwyn et al. (2012). The participatory governance highlighted by results refers to a set of studies that have identified transformational leadership with collaboration and change (Bass & Riggio, 2006). Cross-sector collaboration and civil institutions complex healthcare challenges and introduce more trust into the system (Shortell et al., 2010).

Clear communication, as emphasized by results, builds trust and dispels patient fears, as further supported by Steinmann et al. (2021). Poor communication acts as a barrier to progress, especially in culturally resistant environments like Palestine. Proactive communication that aligns the patient and provider goals is considered vital for VBHC as stated by Steinmann et al. (2021).

4.4.7 Incremental Implementation Through Pilot Programs

Incremental reforms, such as pilot programs for managing high-burden diseases like diabetes and hypertension, are essential to testing and scaling VBHC initiatives. Drawing from the experiences of Martini-Klinik in Germany and Diabetes in the Netherlands, these programs

should integrate patient-reported outcome measures (PROMs) and clinician-reported outcomes (CROMs) to monitor progress and refine strategies (G. Katz & Martens, 2020.).

4.4.8 Integration of Digital Tools and Health Information Systems

A robust health information system (HIS) is indispensable for VBHC in Palestine. Inspired by Victoria's digitalization phase and NHS Wales' integration of PROMs, Palestine should invest in interoperable platforms that enable data sharing, outcome monitoring, and real-time decision-making (G. Katz & Martens, 2020; Kokshagina & Keränen, 2022). Leveraging digital tools such as dashboards, telemedicine platforms, and predictive analytics can enhance transparency, efficiency, and patient satisfaction.

4.4.9 Human Resources Development and Capacity Building

Addressing workforce shortages and enhancing staff capacity are critical for VBHC's success in Palestine. Tailored training programs and career progression mechanisms aligned with VBHC principles can empower healthcare professionals across all levels (McNeely et al., 2014; World Bank, 2023b). Programs that promote leadership development, multidisciplinary collaboration, and alignment with VBHC goals are necessary to ensure operational success.

4.4.10 Enhancing Patient-Centered Care and Addressing Inequities

VBHC initiatives in Palestine must prioritize equity and patient-centered care. Integrating PROMs and PREMs into care pathways ensures alignment with patient needs, improving satisfaction and outcomes. Addressing barriers such as mobility restrictions, resource disparities, and healthcare inequities requires targeted interventions and international accountability mechanisms (WHO, 2023; McNeely et al., 2014).

4.4.11 Hybrid Payment Models for Sustainable Healthcare Financing

A hybrid payment model combines various payment mechanisms to align incentives with VBHC principles while addressing the complexities of healthcare delivery. This approach blends the strengths of multiple systems, such as fee-for-service, capitation, and bundled payments, to promote efficiency, equity, and patient-centered care.

- Fee-for-Service for Basic Services: This component ensures that providers are reimbursed for delivering essential services, incentivizing availability and responsiveness in underserved areas.

- Capitation for Chronic and Preventive Care: Capitation involves prepaying providers a fixed amount per patient for a defined period, encouraging proactive management of chronic diseases and preventive care. This model shifts the focus from treatment to prevention, reducing long-term healthcare costs.
- Bundled Payments for Episodic Care: For acute or procedure-specific cases, such as surgeries or childbirth, bundled payments provide a single payment covering all services within a defined care episode. This encourages coordination among providers, reduces redundancies, and ensures cost efficiency.
- Outcome-Based Incentives: Integrating performance-based components rewards providers for achieving superior patient outcomes, such as improved survival rates, enhanced quality of life, or reduced readmission rates.
- Community-Based Insurance: In Palestine, where socioeconomic disparities are prevalent, introducing community-based insurance schemes ensures equitable access to care. Risk-pooling mechanisms protect vulnerable populations from catastrophic health expenditures.

The hybrid payment model creates a balanced framework that aligns provider incentives with VBHC goals. It fosters a culture of accountability and collaboration while addressing the financial sustainability of healthcare systems (Mjåset et al., 2020; World Bank, 2023b). Palestine's adoption of such a model would require careful design, stakeholder engagement, and phased implementation to overcome operational and cultural challenges.

4.4.12 Fiscal Reforms and Financial Sustainability

Comprehensive fiscal reforms are vital for VBHC implementation. Palestine should adopt enhanced risk-pooling arrangements and align service delivery costs across providers. Transitioning donor support to development-focused projects will strengthen the financial resilience of the health sector (Mataria et al., 2010; World Bank, 2023b).

4.4.13 Leadership and Continuous Improvement

Strong leadership ensures that VBHC principles are embedded in Palestine's healthcare culture. Leaders must act as champions of VBHC, fostering trust, alignment, and accountability. Drawing from the successes of Uppsala Academic Hospital and New Karolinska Hospital, Palestine should integrate structured audits, feedback loops, and

benchmarking tools to drive continuous improvement and foster a culture of excellence (G. Katz & Martens, 2020; Van Veghel et al., 2020).

4.4.14 Addressing Broader Determinants of Health and Resilience

Long-term health improvements require addressing broader determinants, including political stability, socioeconomic growth, and human rights(Giacaman et al., 2009). Investments in public infrastructure, community resilience programs, and integrated mental health services are necessary to mitigate the compounded effects of conflict, occupation, and systemic inefficiencies (WHO, 2017).

4.5 VBHC Implementation Roadmap: A Comprehensive Guide from Preparation to Continuous Improvement

Therefore, VBHC needs to be established in Palestine, a process requiring appropriate phasing around strategic planning and iterative improvement with key stakeholders involved in the process. Based on the best available experience and evidence-based knowledge, five decisive critical steps were identified that ensure structuring and thus sustainable transition into value-driven care; actionable suggestions were provided based on each of those five phases, as shown in Figure 5.1 in the presented VBHC Roadmap to Cossio-Gil et al. (2022; Heijsters et al. (2022).

- **Phase 1: Preparing the Organization for VBHC**

There are several key levers along the road to fruitfully implementing VBHC: strong leadership and organizational alignment. The leadership needs to align the institution's goals with the principles of VBHC through informed maturity and gap analysis to recognize barriers and prioritize readiness interventions (Heijsters et al., 2022). A Central Support Team (CST) ensures cohesion in operations, making expert advance leaders in VBHC integration, training, and cross-departmental collaboration (Nilsson et al., 2018). Engagement with stakeholders is important, through means such as stakeholder mapping and effective communication strategies, to secure broad support and foster understanding (Cossio-Gil et al., 2022).

- **Phase 2: Developing Clinical Pathways**

This phase aims at prioritizing high-burden conditions in Palestine, like diabetes and cardiovascular diseases, where standardized care delivery shall be implemented for improved

outcomes (Starfield, Shi, & Macinko, 2005). Multidisciplinary teams composed of clinicians and representatives of patients are formed to bridge identified gaps in care and to incorporate PROMs into care protocols (Heijsters et al., 2022). Clinical leadership and training programs focus on accountability and teamwork in line with the principles of VBHC (Cossio-Gil et al., 2022).

- **Phase 3: Building Data and IT Infrastructure**

VBHC puts a lot of emphasis on interoperable health information systems for the integration of PROMs and clinician-reported outcomes into the electronic health record. Real-time dashboards facilitate better outcome monitoring, while interoperability ensures seamless exchange of data (Cossio-Gil et al., 2022). It allows comprehensive performance analysis, from clinical and financial to outcome metrics, which provide insights in driving improvements through standardized data collection and centralized data warehouses (Heijsters et al., 2022).

- **Phase 4: Implementing VBHC in Care Delivery**

Healthcare professionals must be trained in VBHC principles, focusing on shared decision-making and aligning care with patient needs (Nilsson et al., 2018). Shared decision-making embedded into workflows enhances patient-centered care and satisfaction. Multidisciplinary teams implement data-driven care pathways, addressing silos and refining processes collaboratively to achieve systemic improvements (Cossio-Gil et al., 2022).

- **Phase 5: Continuous Improvement and Feedback Loops**

Continuous improvement is founded on regular evaluation through Plan-Do-Check-Act (PDCA) cycles to fine-tune the delivery of care. Annual verification of PROMs and process indicators is performed to identify their gaps (Cossio-Gil et al., 2022). Also, feedback from stakeholders provides another source for making adjustments to policies and sustains the alignment of VBHC (Heijsters et al., 2022). The leaders support the clear communication and recognition that embed VBHC into the organizational culture. Thereby, it has created a learning environment where the main focus was on patient outcomes (Nilsson et al., 2018).

This is a phased approach that ensures an orderly transition towards VBHC, meeting immediate healthcare needs while building a sustainable, value-driven system.

4.6 Recommendations for Institutional Success: Integrating Meso-level Hospitals into VBHC

- **Strong governance structures:** should be created that allow for centralized coordination of VBHC and align the efforts of all stakeholders.
- **Comprehensive Data Systems:** Developing interoperable platforms for the integration of clinical, financial, and patient-reported data.
- **Targeted Clinical Pathways:** Focus on high-burden conditions and standardize care through collaborative design.
- **Capacity Building:** Empower health professionals with knowledge and tools that will enable the effective delivery of VBHC.

Iterative Improvement: Establish feedback loops to sustain momentum and unleash creativity. This roadmap thus charts the course for transformation in Palestine toward a health system that creates value for the patient in measurable terms, conforms to global best practices, and has a long-term sustainable perspective.

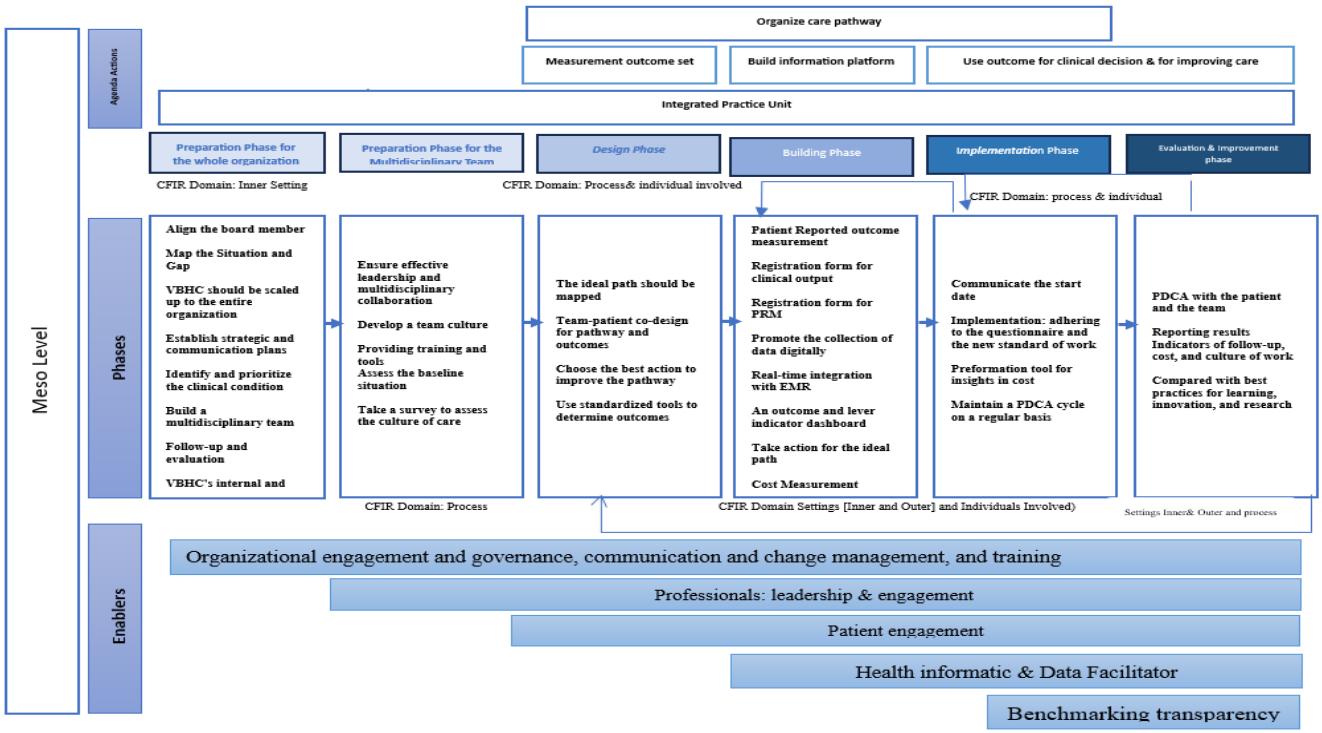

Figure 5.1" VBHC Roadmap "

In conclusion, by integrating these recommendations, Palestine can transition toward a sustainable, equitable, and patient-centered healthcare system. Drawing from international best

practices and adapting them to local contexts, Palestine has the opportunity to institutionalize VBHC and achieve transformative improvements in health outcomes, system efficiency, and societal well-being.

4.7 Conclusion

The systemic challenges and fragmented adoption of Value-Based Healthcare (VBHC) in Palestine underscore a complex interplay of resource limitations, governance inefficiencies, and sociopolitical barriers. Quantitative findings reveal low levels of VBHC implementation, particularly in Integrated Practice Units (IPUs), data analytics, and community collaboration, which are critical for achieving comprehensive, patient-centered care. This aligns with global evidence that highlights similar struggles in low- and middle-income countries (Keswani et al., 2016; Porter & Lee, 2013).

Qualitative insights from stakeholders emphasize systemic barriers such as inadequate leadership accountability, resource shortages, and fragmented care models. These findings reflect the literature on leadership-driven healthcare reforms in Sweden and the Netherlands, where governance and strategic alignment have successfully fostered VBHC principles (Steinmann et al., 2022; Nilsson et al., 2017). However, in Palestine, governance gaps, coupled with cultural resistance, further exacerbate these challenges.

The financial sustainability of VBHC remains a critical impediment, with a significant portion of resources directed toward outdated payment models, high out-of-pocket expenses, and inefficient external medical referrals. These issues are consistent with global observations on the limitations of fee-for-service models in transitioning to value-based financial systems (Nijagal et al., 2018; Porter & Kaplan, 2016). Moreover, the lack of robust IT infrastructure and data-driven decision-making systems significantly hampers VBHC adoption, reflecting challenges observed in other resource-constrained settings (Bauer, 2018b; Meinert, Fellow In Healthcare, et al., 2018).

Despite these barriers, there are opportunities to address these systemic challenges. Targeted reforms in leadership development, capacity-building initiatives, and investments in interoperable IT systems could align Palestinian hospitals with global VBHC standards. Pilot programs, inspired by Dutch and Swedish models, can serve as foundational steps to demonstrate the tangible benefits of VBHC and foster cultural and systemic shifts toward integrated, patient-centered care (van Staalduinen et al., 2022).

By leveraging international best practices and addressing unique contextual challenges, Palestine can progress toward a healthcare system that embodies the core principles of VBHC.

Strategic investments in leadership, technology, and capacity-building will be essential to overcoming systemic barriers and achieving sustainable, high-value healthcare delivery. These efforts must also prioritize equity and access, ensuring that healthcare reforms benefit all segments of the population, particularly the most vulnerable.

5.7.1 Stakeholder Perspectives and Study's Contribution

The importance of this study lies in its unique contribution to addressing critical gaps in healthcare policy through the lens of Value-Based Healthcare (VBHC), particularly in the challenging context of Palestine. Participant perspectives underscore the transformative potential of this research. As Participant stated, "What makes your doctoral thesis so unique and significant is that it throws light on an invisible or neglected area in health policies, which I consider highly important political enlightenment. It constitutes a qualitative addition in the field, since it opens the door to discussion about inclusive health policies, highlighting areas not previously focused on." This recognition aligns with the study's dual focus on theoretical and practical advancements, particularly in politically and economically constrained environments.

Practically, the study's contribution is rooted in its actionable insights for implementing VBHC in resource-constrained settings. It identifies strategies for overcoming barriers such as resource shortages, fragmented governance, and cultural resistance. Participant 4 highlighted the necessity of engaging decision-makers in this process: "It is very important to clearly explain the significance of this topic, especially to policymakers and decision-makers. Raising their awareness about the importance of implementing this strategy is a fundamental step, as it serves as the basis for securing genuine and effective adoption of this strategy in the short and long term." This reflects the study's emphasis on pilot programs, stakeholder engagement, and multidisciplinary training as foundational components of VBHC adoption, which are directly applicable to healthcare administrators and policymakers seeking reform in similar contexts.

The integration of technological advancements, such as interoperable IT systems for patient outcome tracking, is another practical contribution that aligns with global best practices. By proposing scalable solutions for improving healthcare quality and efficiency, the study positions itself as a vital resource for reform in low- and middle-income countries (LMICs). As Participant 3 noted, "If this system is successfully implemented, it will significantly improve the performance of the healthcare system, motivate healthcare providers to work diligently to achieve the best outcomes for patients, and ultimately fulfill the fundamental goal

of healthcare, which is improving the overall health of society." This underscores the study's potential to catalyze systemic change and drive patient-centered care.

Theoretically, the research advances the understanding of VBHC by contextualizing its principles within Palestine's unique sociopolitical and economic landscape. It bridges a significant gap in the literature by examining the interplay between geopolitical constraints, governance inefficiencies, and cultural resistance. Participant 8's assertion, "As Palestinians, we aspire to and deserve a value-based healthcare model, especially given the many challenges we face," reflects the aspiration to align healthcare reforms with both local needs and international benchmarks. This adds depth to the theoretical framework of VBHC, integrating the impact of external aid dependency and mobility restrictions into its conceptualization.

Additionally, the mixed-method approach employed in the study enhances its theoretical contribution by capturing the multifaceted dynamics of VBHC implementation. By synthesizing quantitative and qualitative data, the research provides a nuanced understanding of how VBHC frameworks can be adapted to diverse global contexts, enriching the foundation for comparative studies. This integration is critical for advancing both practical application and theoretical knowledge, as evidenced by the study's focus on leadership development, community partnerships, and systemic reforms tailored to resource-limited environments.

This dual lens—practical and theoretical—underscores the study's broader significance in transforming healthcare systems in LMICs and advancing VBHC as a global framework adaptable to various sociopolitical landscapes. The reflections of stakeholders, as captured in their testimonies, validate the study's relevance and reinforce its capacity to inspire meaningful policy and systemic change.

5.7.2 Practical Implications and Recommendations for Future Studies

Valuable practical insights are derived from this study, especially for the healthcare sector within resource-constrained and socio-politically complex contexts like Palestine.

- **Extending Comparative Research on VBHC in Various Contexts**: Future studies shall explore the approach and strategies toward VBHC adopted in different socioeconomic and political environments. The systemic and organizational challenges underlined in this Palestinian healthcare landscape may be explored in comparison to other LMICs for sharing solutions and contextual adjustment.
- **Exploring the Role of Technology and Data Analytics in Resource-Constrained Settings:** It would be indicative to explore sophisticated IT systems-integrated

interoperable EMRs, predictive analytics, and others-into LMICs to derive some insight into how technological innovation could surmount such barriers to VBHC, especially in fragmented systems.

- **Longitudinal Analysis of VBHC Impact:** Longitudinal studies investigating outcomes from VBHC interventions for their cost-effectiveness and quality of care will provide insights on long-term feasibility and scalability for under-resourced settings.
- **Capacity Building and Training Initiatives:** The impact that comprehensive training programs have on the improvement of knowledge and practices of VBHC principles among health professionals in resource-constrained settings could be examined to yield actionable insights that may help in scaling up such efforts. Reform of educational curricula and greater investment in training infrastructure form the basis upon which interdisciplinary collaboration becomes effective in supporting person-centered and sustainable healthcare.

These recommendations align with the need for targeted research into systemic, technical, and contextual barriers, emphasizing varied global contexts in which VBHC frameworks are adapted.

References

Abdulla, A., Ituarte, PhilipH. G., Wiggins, R., Teisberg, E., Harari, A., & Yeh, M. (2012). Endocrine surgery as a model for value-based health care delivery. *Surgical Neurology International*, *3*(1), 163. https://doi.org/10.4103/2152-7806.105102

Abicalaffe, C., & Schafer, J. (2020). Opportunities and Challenges of Value-Based Health Care: How Brazil Can Learn from U.S. Experience. In *Journal of Managed Care & Specialty Pharmacy* (Vol. 26, Issue 9). www.jmcp.org

Abu Al-Halawa, D., Sarama, R., Abdeen, Z., & Qasrawi, R. (2019). Knowledge, attitudes, and practices relating to antibiotic resistance among pharmacists: a cross-sectional study in the West Bank, Palestine. *The Lancet*, *393*, S7. https://doi.org/10.1016/s0140-6736(19)30593-8

Abukmail, E., & Albarqouni, L. (2021). Postgraduate training abroad and migration intentions of medical doctors and students in Gaza: a cross-sectional survey. *Lancet (London, England)*, *398*, S6. https://doi.org/10.1016/S0140-6736(21)01492-6

Abuzerr, S., Zinszer, K., & Assan, A. (2021). Implementation challenges of an integrated One Health surveillance system in humanitarian settings: A qualitative study in Palestine. *SAGE Open Medicine*, *9*. https://doi.org/10.1177/20503121211043038

Adjerid, A. (2024). COVID-19 in Palestine. *The Lancet Infectious Diseases*, *24*(5), 462. https://doi.org/10.1016/s1473-3099(24)00212-3

Ahluwalia, R., Cook, J., Raheman, F., Karuppaiah, K., Colegate-Stone, T., Tavakkolizadeh, A., Kavarthapu, V., & Sinha, J. (2021). Improving the efficiency of ankle fracture care through home care and day-surgery units: Delivering safe surgery on a value-based healthcare model. *Surgeon*, *19*(5), e95–e102. https://doi.org/10.1016/j.surge.2020.08.004

Ahmed, Z., Sarvepalli, S., Garber, A., Regueiro, M., & Rizk, M. K. (2019). Value-Based Health Care in Inflammatory Bowel Disease. *Inflammatory Bowel Diseases*, *25*(6), 958–968. https://doi.org/10.1093/ibd/izy340

Al Muammar, A. M., Ahmed, Z., & Aldahmash, A. M. (2018). Public Health and Community Medicine Paradigm Shift in Healthcare through Technology and Patient-Centeredness. In *Int Arch Public Health Community Med* (Vol. 2).

Albarqouni, L., Elessi, K., & Abu-Rmeileh, N. (2018). The relation between health research output and burden of disease in Palestine: a systematic review. *Lancet (London, England)*, *391*, S23. https://doi.org/10.1016/S0140-6736(18)30389-1

AlKhaldi, M., Abed, Y., Pfeiffer, C., Haj-Yahia, S., Alkaiyat, A., & Tanner, M. (2018). Understanding the concept and importance of the health research system in Palestine: A qualitative study. *Health Research Policy and Systems*, *16*(1). https://doi.org/10.1186/s12961-018-0315-z

AlKhaldi, M., Alkaiyat, A., Abed, Y., Pfeiffer, C., Halaseh, R., Salah, R., Idries, M., Abueida, S., Idries, I., Jeries, I., Meghari, H., Shaar, A., Tanner, M., & Haj-Yahia, S. (2018a). The Palestinian health research system: Who orchestrates the system, how and based on what? A

qualitative assessment. *Health Research Policy and Systems*, *16*(1). https://doi.org/10.1186/s12961-018-0347-4

AlKhaldi, M., Alkaiyat, A., Abed, Y., Pfeiffer, C., Halaseh, R., Salah, R., Idries, M., Abueida, S., Idries, I., Jeries, I., Meghari, H., Shaar, A., Tanner, M., & Haj-Yahia, S. (2018b). The Palestinian health research system: Who orchestrates the system, how and based on what? A qualitative assessment. *Health Research Policy and Systems*, *16*(1). https://doi.org/10.1186/s12961-018-0347-4

AlKhaldi, M., Najjar, S., Al Basuoni, A., Abu Obaid, H., Mughnnamin, I., Falana, H., Sultan, H., Hafez, S., & Aljeesh, Y. (2022). National health workforce accreditation and regulation in Palestine: a qualitative assessment. *The Lancet*, *399*, S23. https://doi.org/10.1016/s0140-6736(22)01158-8

Al-Thani, H., El-Menyar, A., Khan, N. A., Consunji, R., Mendez, G., Abulkhair, T. S., Mollazehi, M., Peralta, R., Abdelrahman, H., Chughtai, T., & Rizoli, S. (2023). Trauma Quality Improvement Program: A Retrospective Analysis from A Middle Eastern National Trauma Center. *Healthcare (Switzerland)*, *11*(21). https://doi.org/10.3390/healthcare11212865

Alvarnas, J. (2017). *Halt and Catch Fire: Can the Digital Revolution Empower the Move Toward Value-Based Cancer Care?* (Vol. 13). https://www.ajmc.com/view/halt-and-catch-fire-can-the-digital-revolution-empower-the-move-toward-valuebased-cancer-care

Amini, M., Oemrawsingh, A., Verweij, L. M., Lingsma, H. F., Hazelzet, J. A., Eijkenaar, F., & van Leeuwen, N. (2021). Facilitators and barriers for implementing patient-reported outcome measures in clinical care: An academic center's initial experience. *Health Policy*, *125*(9), 1247–1255. https://doi.org/10.1016/j.healthpol.2021.07.001

Anderson, G. H., Jenkins, P. J., McDonald, D. A., Van Der Meer, R., Morton, A., Nugent, M., & Rymaszewski, L. A. (2017). Cost comparison of orthopaedic fracture pathways using discrete event simulation in a Glasgow hospital. *BMJ Open*, *7*(9). https://doi.org/10.1136/bmjopen-2016-014509

Andersson, A. E., Bååthe, F., Wikström, E., & Nilsson, K. (2015). Understanding value-based healthcare-an interview study with project team members at a Swedish university hospital. *Journal of Hospital Administration*, *4*(4). https://doi.org/10.1111/j.1741-6787.2006.00067

Annabathula, R., Dugan, A., Bhalla, V., Davis, G. A., Smyth, S. S., & Gupta, V. A. (2021). Value-based assessment of implementing a Pulmonary Embolism Response Team (PERT). *Journal of Thrombosis and Thrombolysis*, *51*(1), 217–225. https://doi.org/10.1007/s11239-020-02188-3

Aroh, D., Colella, J., Douglas, C., & Eddings, A. (2015). An Example of Translating Value-Based Purchasing Into Value-Based Care. *Urologic Nursing*, *35*(2), 61–74. https://doi.org/10.7257/1053-816x.2015.35.2.61

Asbu, E. Z., Masri, M. D., & Kaissi, A. (2017). Health status and health systems financing in the MENA region: roadmap to universal health coverage. *Global Health Research and Policy*, *2*(1). https://doi.org/10.1186/s41256-017-0044-9

Asi, Y. (2019). *The Conditional Right to Health in Palestine*. www.al-shabaka.org

Azad, T. D., Kalani, M., Wolf, T., Kearney, A., Lee, Y., Flannery, L., Chen, D., Berroya, R., Eisenberg, M., Park, J., Shuer, L., Kerr, A., & Ratliff, J. K. (2016). Building an electronic health record integrated quality of life outcomes registry for spine surgery. *Journal of Neurosurgery: Spine*, *24*(1), 176–185. https://doi.org/10.3171/2015.3.SPINE141127

Baggaley, M. R. (2020). Value-based healthcare in mental health services. *BJPsych Advances*, *26*(4), 198–204. https://doi.org/10.1192/bja.2019.82

Ballout, G., Al-Shorbaji, N., Zeidan, W., Shahin, Y., Hababeh, M., Saleh, S., Albeik, S., & Seita, A. (2021). The impact of e-health system implementation on UNWRA health services: an observational study. *Lancet (London, England)*, *398*, S17. https://doi.org/10.1016/S0140-6736(21)01503-8

Bass, B. M., & Riggio, R. E. (2005). *TRANSFORMATIONAL LEADERSHIP, Second Edition*. Psychology Press.

Bates, D. W., Saria, S., Ohno-Machado, L., Shah, A., & Escobar, G. (2014). Big data in health care: Using analytics to identify and manage high-risk and high-cost patients. *Health Affairs*, *33*(7), 1123–1131. https://doi.org/10.1377/hlthaff.2014.0041

Bauer, G. (2018a). Delivering Value-Based Care With E-Health Services. *Journal of Healthcare Management*, *63*(4), 251–260. https://doi.org/10.1097/JHM-D-18-00077

Beard, J. A., Franco, D. L., & Click, B. H. (2020). The Burden of Cost in Inflammatory Bowel Disease: A Medical Economic Perspective and the Future of Value-Based Care. In *Current Gastroenterology Reports* (Vol. 22, Issue 2). Springer. https://doi.org/10.1007/s11894-020-0744-z

Berwick, D. M., Nolan, T. W., & Whittington, J. (2008). The Triple Aim: Care, Health, And Cost. *Health Affairs*, *27*(3), 759–769. https://doi.org/10.1377/hlthaff

Black, E. M., Higgins, L. D., & Warner, J. J. P. (2013). Value-based shoulder surgery: Practicing outcomes-driven, cost-conscious care. In *Journal of Shoulder and Elbow Surgery* (Vol. 22, Issue 7, pp. 1000–1009). https://doi.org/10.1016/j.jse.2013.02.008

Bonde, M., Bossen, C., & Danholt, P. (2018). Translating value-based health care: an experiment into healthcare governance and dialogical accountability. *Sociology of Health and Illness*, *40*(7), 1113–1126. https://doi.org/10.1111/1467-9566.12745

Bozic, K. J. (2013). Improving value in healthcare. *Clinical Orthopaedics and Related Research*, *471*(2), 368–370. https://doi.org/10.1007/s11999-012-2712-x

Braithwaite, J., Churruca, K., Long, J. C., Ellis, L. A., & Herkes, J. (2018). When complexity science meets implementation science: A theoretical and empirical analysis of systems change. *BMC Medicine*, *16*(1). https://doi.org/10.1186/s12916-018-1057-z

Brown, M., Ofili, E. O., Okirie, D., Pemu, P., Franklin, C., Suk, Y., Quarshie, A., Mubasher, M., Sow, C., Rice, V. M., Williams, D., Brooks, M., Alema-Mensah, E., Mack, D., & Dawes, D. (2019). Morehouse choice accountable care organization and education system (MCACO-ES): Integrated model delivering equitable quality care. *International Journal of Environmental Research and Public Health*, *16*(17). https://doi.org/10.3390/ijerph16173084

Bruch, R. (2016). A sea change in medicine: current shifts in the delivery and payment of medical care. *North Carolina Medical Journal*, *77*(4), 261–264. http://www.gao.gov/assets/650/648988.pdf.

Burnhope, E., Waring, M., Guilder, A., Malhotra, B., Cardoso, J. M., Razavi, R., & Carr-White, G. (2022). A systematic approach towards implementing value-based health care in heart failure: Understandings from retrospective analysis methods in South London. *Health Services Management Research*, *35*(1), 37–47. https://doi.org/10.1177/0951484820971442

Byrne, G. (2007). *Evidence Based Library and Information Practice* (Vol. 2).

Clarfield, A. M., & Dechtman, I. D. (2018). Access to medical care for palestinians in Israel: Delays in a difficult historical context. In *American Journal of Public Health* (Vol. 108, Issue 1, pp. 15–16). American Public Health Association Inc. https://doi.org/10.2105/AJPH.2017.304196

Conrad, D. A., Vaughn, M., Grembowski, D., & Marcus-Smith, M. (2016). Implementing Value-Based Payment Reform. *Medical Care Research and Review*, *73*(4), 437–457. https://doi.org/10.1177/1077558715615774

Cossio, M., & Gilardino, R. E. (2021). Would the Use of Artificial Intelligence in COVID-19 Patient Management Add Value to the Healthcare System? *Frontiers in Medicine*, *8*. https://doi.org/10.3389/fmed.2021.619202

Cossio-Gil, Y., Omara, M., Watson, C., Casey, J., Chakhunashvili, A., Gutiérrez-San Miguel, M., Kahlem, P., Keuchkerian, S., Kirchberger, V., Luce-Garnier, V., Michiels, D., Moro, M., Philipp-Jaschek, B., Sancini, S., Hazelzet, J., & Stamm, T. (2022). The Roadmap for Implementing Value-Based Healthcare in European University Hospitals—Consensus Report and Recommendations. *Value in Health*, *25*(7), 1148–1156. https://doi.org/10.1016/j.jval.2021.11.1355

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Crowson, M. G., & Chan, T. C. Y. (2020). Machine Learning as a Catalyst for Value-Based Health Care. In *Journal of Medical Systems* (Vol. 44, Issue 9). Springer. https://doi.org/10.1007/s10916-020-01607-5

Da Silva Etges, A. P. B., Cardoso, R. B., Marcolino, M. S., Ruschel, K. B., Coutinho, A. P., Pereira, E. C., Anschau, F., Aranha, F., Carrilho, F., Vietta, G., Bastos, G. A. N., Batista, J. D. A. L., Chatkin, J. M., Da Silva Nogueira, J., Moreira, L. B., Haddad, L., Kopittke, L., Floriani, M., De Siqueira, M. T., … Polanczyk, C. A. (2021). The economic impact of COVID-19 treatment at a hospital-level: Investment and financial registers of Brazilian hospitals. *Journal of Health Economics and Outcomes Research*, *8*(1), 36–41. https://doi.org/10.36469/jheor.2021.22066

Daniels, K., Rouppe van der Voort, M. B. V., Biesma, D. H., & van der Nat, P. B. (2022). Five years' experience with value-based quality improvement teams: the key factors to a successful implementation in hospital care. *BMC Health Services Research*, *22*(1). https://doi.org/10.1186/s12913-022-08563-5

De Savigny, D., & Adam, T. (2009). *Systems thinking for health systems strengthening*. World Health Organization.

Dixon-Woods, M., Mcnicol, S., & Martin, G. (2012). Ten challenges in improving quality in healthcare: lessons from the Health Foundation's programme evaluations and relevant literature. *BMJ Quality & Safety*, *21*(10). https://doi.org/10.1136/bmjqs-2011

Dorney, K. M., Rao, S. K., Sisodia, R. C., & del Carmen, M. G. (2019). Gynecologic oncology care in the world of accountable care organizations. *Gynecologic Oncology Reports*, *30*. https://doi.org/10.1016/j.gore.2019.100507

Douglas, C., Aroh, D., Colella, J., & Quadri, M. (2016). The HackensackUMC Value-Based Care Model: Building Essentials for Value-Based Purchasing. *Nursing Administration Quarterly*, *40*(1), 51–59. https://doi.org/10.1097/NAQ.0000000000000136

Dronkers, E. A. C., Baatenburg de Jong, R. J., van der Poel, E. F., Sewnaik, A., & Offerman, M. P. J. (2020). Keys to successful implementation of routine symptom monitoring in head and neck oncology with "Healthcare Monitor" and patients' perspectives of quality of care. *Head and Neck*, *42*(12), 3590–3600. https://doi.org/10.1002/hed.26425

Economist Intelligence Unit. (2016). *Value-based healthcare: A global assessment. Findings and methodology*.

Eijkenaar, F., Emmert, M., Scheppach, M., & Schöffski, O. (2013). Effects of pay for performance in health care: A systematic review of systematic reviews. In *Health Policy* (Vol. 110, Issues 2–3, pp. 115–130). https://doi.org/10.1016/j.healthpol.2013.01.008

El Aour, I., Teima, A. A., & Jomah, I. (2017). Assessment of diabetic care and patients' satisfaction: an exploratory study. *The Lancet*, *390*, S6. https://doi.org/10.1016/s0140-6736(17)32007-x

El Jabari, C., Macedo, M., & Al-Jabari, M. O. (2020). Towards a New Paradigm of Federated Electronic Health Records in Palestine. *Informatics*, *7*(4). https://doi.org/10.3390/informatics7040041

El-Jardali, F., Bou-Karroum, L., Jabbour, M., Bou-Karroum, K., Aoun, A., Salameh, S., Mecheal, P., & Sinha, C. (2023). Digital health in fragile states in the Middle East and North Africa (MENA) region: A scoping review of the literature. *PLoS ONE*, *18*(4 APRIL). https://doi.org/10.1371/journal.pone.0285226

Elwyn, G., Frosch, D., Thomson, R., Joseph-Williams, N., Lloyd, A., Kinnersley, P., Cording, E., Tomson, D., Dodd, C., Rollnick, S., Edwards, A., & Barry, M. (2012). Shared decision making: A model for clinical practice. In *Journal of General Internal Medicine* (Vol. 27, Issue 10, pp. 1361–1367). https://doi.org/10.1007/s11606-012-2077-6

Eriksson, T., Tropp, H., Wiréhn, A. B., & Levin, L. Å. (2020). A pain relieving reimbursement program? Effects of a value-based reimbursement program on patient reported outcome measures. *BMC Health Services Research*, *20*(1). https://doi.org/10.1186/s12913-020-05578-8

Etges, A. P. B. da S., Polanczyk, C. A., & Urman, R. D. (2020). A standardized framework to evaluate the quality of studies using TDABC in healthcare: the TDABC in Healthcare

Consortium Consensus Statement. *BMC Health Services Research*, *20*(1). https://doi.org/10.1186/s12913-020-05869-0

Featherall, J., Brigati, D. P., Arney, A. N., Faour, M., Bokar, D. V., Murray, T. G., Molloy, R. M., & Higuera Rueda, C. A. (2019). Effects of a Total Knee Arthroplasty Care Pathway on Cost, Quality, and Patient Experience: Toward Measuring the Triple Aim. *Journal of Arthroplasty*, *34*(11), 2561–2568. https://doi.org/10.1016/j.arth.2019.06.011

Ferguson, C. M., Rocha, J. L., Lalli, T., Irrgang, J. J., Hurwitz, S., & Hogan, M. C. V. (2016). Developing Performance and Assessment Platforms in Foot and Ankle Surgery. In *Foot and Ankle International* (Vol. 37, Issue 6, pp. 670–679). SAGE Publications Inc. https://doi.org/10.1177/1071100716649169

Friedman, L. S., Sitapati, A. M., Holland, J., Gaylis, F., Kraus, D., Rufo, M., Pan, J., Campbell, D., & Longhurst, C. A. (2021). A Path to Clinical Quality Integration Through a Clinically Integrated Network: The Experience of an Academic Health System and Its Community Affiliates. *Joint Commission Journal on Quality and Patient Safety*, *47*(1), 31–37. https://doi.org/10.1016/j.jcjq.2020.09.004

Fürstenau, D., Klein, S., Vogel, A., & Auschra, C. (2021). Multi-sided platform and data-driven care research: A longitudinal case study on business model innovation for improving care in complex neurological diseases. *Electronic Markets*, *31*(4), 811–828. https://doi.org/10.1007/s12525-021-00461-8

Gabriel, L., Casey, J., Gee, M., Palmer, C., Sinha, J., Moxham, J., & Colegate-Stone, T. J. (2019). Value-based healthcare analysis of joint replacement surgery for patients with primary hip osteoarthritis. *BMJ Open Quality*, *8*(2). https://doi.org/10.1136/bmjoq-2018-000549

Gálvez, A. C. M., Sánchez, F. J., Moreno, C. A., Pérez Fernández, A. J., García, R. B., López, M. C., Ramírez, M. P. B., López, M. C., Burrero, L. V., Berja, P. J., García, R. S., Cebrián, J. M., García, M. L. H., Fernández, R. L., Jiménez, C. P., Vico, M. A. R., Villegas, A. B. V., Soler, N. G. A., & García Ruiz, A. J. (2020). Value-based healthcare in ostomies. *International Journal of Environmental Research and Public Health*, *17*(16), 1–15. https://doi.org/10.3390/ijerph17165879

Gaynor, M., Moreno-Serra, R., & Propper, C. (2010). *Death by Market Power: Reform, Competition and Patient Outcomes in the National Health Service*.

Giacaman, R., Abdul-Rahim, H. F., & Wick, L. (2003). Health sector reform in the Occupied Palestinian Territories (OPT): targeting the forest or the trees? *Health Policy and Planning*, *18*(1), 1460–2237.

Giacaman, R., Khatib, R., Shabaneh, L., Ramlawi, A., Sabri, B., Sabatinelli, G., Khawaja, M., & Laurance, T. (2009). Health status and health services in the occupied Palestinian territory. *The Lancet*, *373*, 837–849. https://doi.org/10.1016/S0140

Goretti, G., Marinari, G. M., Vanni, E., & Ferrari, C. (2020). Value-Based Healthcare and Enhanced Recovery After Surgery Implementation in a High-Volume Bariatric Center in Italy. *Obesity Surgery*, *30*(7), 2519–2527. https://doi.org/10.1007/s11695-020-04464-w

Griffiths, E. A., Odelade, O. E., Gostkorzewicz, J., & Cordero, L. (2023). Demonstrating proof of concept for value-based agreements in Europe: two real-world cases. *International Journal of Technology Assessment in Health Care*, *39*(1). https://doi.org/10.1017/S0266462323000260

Groeneveld, I. F., Goossens, P. H., van Meijeren-Pont, W., Arwert, H. J., Meesters, J. J. L., Rambaran Mishre, A. D., Van Vree, F., & Vliet Vlieland, T. P. M. (2019). Value-Based Stroke Rehabilitation: Feasibility and Results of Patient-Reported Outcome Measures in the First Year After Stroke. *Journal of Stroke and Cerebrovascular Diseases*, *28*(2), 499–512. https://doi.org/10.1016/j.jstrokecerebrovasdis.2018.10.033

Gunawan, E., Nadjib, M., & Soraya, S. (2022). Key Success in The Transformation from Volume-Based to Value-Based Healthcare: A Scoping Review. *Journal of Sosial Science*, *3*(5), 986–1002. https://doi.org/10.46799/jss.v3i5.414

Gupta, D., Karst, I., & Mendelson, E. B. (2016). Value-based reimbursement: Impact of curtailing physician autonomy in medical decision making. In *American Journal of Roentgenology* (Vol. 206, Issue 2, pp. 276–279). American Roentgen Ray Society. https://doi.org/10.2214/AJR.15.15370

Hammarberg, K., Kirkman, M., & De Lacey, S. (2016). Qualitative research methods: When to use them and how to judge them. In *Human Reproduction* (Vol. 31, Issue 3, pp. 498–501). Oxford University Press. https://doi.org/10.1093/humrep/dev334

Harrison, R., Fischer, S., Walpola, R. L., Chauhan, A., Babalola, T., Mears, S., & Le-Dao, H. (2021). Where do models for change management, improvement and implementation meet? A systematic review of the applications of change management models in healthcare. In *Journal of Healthcare Leadership* (Vol. 13, pp. 85–108). Dove Medical Press Ltd. https://doi.org/10.2147/JHL.S289176

Heijsters, F. A. C. J., van Breda, F. G. F., van Nassau, F., van der Steen, M. K. J., ter Wee, P. M., Mullender, M. G., & de Bruijne, M. C. (2022). A pragmatic approach for implementation of value-based healthcare in Amsterdam UMC, the Netherlands. *BMC Health Services Research*, *22*(1). https://doi.org/10.1186/s12913-022-07919-1

Hersh, L., Salzman, ; Brooke, & Snyderman, D. (2015). *Health Literacy in Primary Care Practice* (Vol. 92, Issue 2). www.aafp.org/afp.

Hewett, D. G., & Rex, D. K. (2010). Improving colonoscopy quality through health-care payment reform. In *American Journal of Gastroenterology* (Vol. 105, Issue 9, pp. 1925–1933). https://doi.org/10.1038/ajg.2010.247

Hibbard, J. H., & Greene, J. (2013). What the evidence shows about patient activation: Better health outcomes and care experiences; fewer data on costs. *Health Affairs*, *32*(2), 207–214. https://doi.org/10.1377/hlthaff.2012.1061

Hines, K., Mouchtouris, N., Getz, C., Gonzalez, G., Montenegro, T., Leibold, A., & Harrop, J. (2021). Bundled Payment Models in Spine Surgery. *Global Spine Journal*, *11*(1_suppl), 7S-13S. https://doi.org/10.1177/2192568220974977

Horn, M. E., Reinke, E. K., Mather, R. C., O'Donnell, J. D., & George, S. Z. (2021). Electronic health record–integrated approach for collection of patient-reported outcome measures: a

retrospective evaluation. *BMC Health Services Research*, *21*(1). https://doi.org/10.1186/s12913-021-06626-7

Hurh, J., Ko, Y. H., & Lee, S. S. (2017). Value-based healthcare: Prerequisites and suggestions for full-fledged implementation in the Republic of Korea. *Journal of the Korean Medical Association*, *60*(10), 826–840. https://doi.org/10.5124/jkma.2017.60.10.826

Ishii, L., Demski, R., Ken Lee, K. H., Mustafa, Z., Frank, S., Wolisnky, J. P., Cohen, D., Khanna, J., Ammerman, J., Khanuja, H. S., Unger, A. S., Gould, L., Wachter, P. A., Stearns, L., Werthman, R., & Pronovost, P. (2017). Improving healthcare value through clinical community and supply chain collaboration. *Healthcare*, *5*(1–2), 1–5. https://doi.org/10.1016/j.hjdsi.2016.03.003

J. Morrice, D., F. Bard, J., & M. Koenig, K. (2020). Designing and scheduling a multi-disciplinary integrated practice unit for patient-centred care. *Health Systems*, *9*(4), 293–316. https://doi.org/10.1080/20476965.2019.1569481

Jayakumar, P., Grogan Moore, M. L., Hill, A. D., & Koenig, K. M. (2019). Integrated Practice Units: What Are They and How Can They Be Applied to Orthopaedic Trauma? *Journal of Orthopaedic Trauma*, *33*, S43–S48. https://doi.org/10.1097/BOT.0000000000001618

Johnson, J., Fritz, J., Brooke, B., LaStayo, P., Thackeray, A., Johnson, J. K., Fritz, J. M., Brooke, B. S., LaStayo, P. C., Thackeray, A., Stoddard, G., & Marcus, R. L. (2020). *Physical Function in the Hospital Is Associated With Patient-Centered Outcomes in an Inpatient Rehabilitation Facility* (Vol. 100). https://academic.oup.com/ptj

Jørgensen, T. S., Lykkegaard, J. J., Hansen, A., Schrøder, H. M., Stampe, B., Sweeney, A. M. T., Appel Esbensen, B., Bech, B., Christensen, K., Friis-Mikkelsen, E., Røgind, H., Lundbak, T., Taylor, P. C., Petersson, I. F., Wæhrens, E. E., Kjellberg, J., Gudbergsen, H., & Kristensen, L. E. (2018). Protocol for evaluating and implementing a pragmatic value-based healthcare management model for patients with inflammatory arthritis: A Danish population-based regional cohort and qualitative implementation study. *BMJ Open*, *8*(10). https://doi.org/10.1136/bmjopen-2018-023915

Kadakia, K. T., Fleisher, L. A., Stimson, C. J., Aloia, T. A., & Offodile, A. C. (2020). Charting a Roadmap for Value-based Surgery in the Post-pandemic Era. *Annals of Surgery*, *272*(2), E43–E44. https://doi.org/10.1097/SLA.0000000000004034

Kaplan, R. S. (2014). Improving value with TDABC. *Healthcare Financial Management*, *68*(6), 76–84.

Kaplan, R. S., & Porter, M. E. (2011). How-to-Solve-the-Cost-Crisis-in-Health-Care. *Harvard Business Review* .

Kaplan, R. S., Witkowski, M., Abbott, M., Guzman, A. B., Higgins, L. D., Meara, J. G., Padden, E., Shah, A. S., Waters, P., & Weidemeier, M. (2014). Using Time-Driven Activity-Based Costing to Identify Value Improvement Opportunities in Healthcare. *Journal of Healthcare Management*, *59*(6), 399–412.

Karhade, A. V., Bono, C. M., Makhni, M. C., Schwab, J. H., Sethi, R. K., Simpson, A. K., Feeley, T. W., & Porter, M. E. (2021). Value-based health care in spine: where do we go from here? *Spine Journal*, *21*(9), 1409–1413. https://doi.org/10.1016/j.spinee.2021.04.006

Katz, D. R., & Sim, F. (2023). A zero tolerance policy for racism in the NHS. In *The Lancet* (Vol. 402, Issue 10413, p. 1619). Elsevier B.V. https://doi.org/10.1016/S0140-6736(23)02352-8

Katz, G., & Martens, H. (2020). *IMPLEMENTING VALUE-BASED HEALTH CARE IN EUROPE HANDBOOK FOR PIONEERS Academic director Special contributions*.

Kawamoto, K., Martin, C. J., Williams, K., Tu, M. C., Park, C. G., Hunter, C., Staes, C. J., Bray, B. E., Deshmukh, V. G., Holbrook, R. A., Morris, S. J., Fedderson, M. B., Sletta, A., Turnbull, J., Mulvihill, S. J., Crabtree, G. L., Entwistle, D. E., McKenna, Q. L., Strong, M. B., … Lee, V. S. (2015). Value driven outcomes (VDO): A pragmatic, modular, and extensible software framework for understanding and improving health care costs and outcomes. *Journal of the American Medical Informatics Association*, *22*(1), 223–235. https://doi.org/10.1136/amiajnl-2013-002511

Keel, G., Savage, C., Rafiq, M., & Mazzocato, P. (2017). Time-driven activity-based costing in health care: A systematic review of the literature. In *Health Policy* (Vol. 121, Issue 7, pp. 755–763). Elsevier Ireland Ltd. https://doi.org/10.1016/j.healthpol.2017.04.013

Keelan, E. (2016a). Medicine outside the Comfort Zone Medical Care in Palestine: Working in a Conflict Zone. In *Ulster Med J* (Vol. 85, Issue 1). www.ums.ac.uk

Keelan, E. (2016b). Medicine outside the Comfort Zone Medical Care in Palestine: Working in a Conflict Zone. In *Ulster Med J* (Vol. 85, Issue 1). www.ums.ac.uk

Keswani, A., Koenig, K. M., & Bozic, K. J. (2016). Value-based Healthcare: Part 1—Designing and Implementing Integrated Practice Units for the Management of Musculoskeletal Disease. *Clinical Orthopaedics and Related Research*, *474*(10), 2100–2103. https://doi.org/10.1007/s11999-016-4999-5

Keswani, A., Sheikholeslami, N., & Bozic, K. J. (2018). Value-based healthcare: Applying time-driven activity-based costing in orthopaedics. *Clinical Orthopaedics and Related Research*, *476*(12), 2318–2321. https://doi.org/10.1097/CORR.0000000000000552

Khatib, R., Mataria, A., Khatib, R., Donaldson, C., Bossert, T., Hunter, D. J., Alsayed, F., & Moatti, J.-P. (2009). Health in the Occupied Palestinian Territory 5 The health-care system: an assessment and reform agenda. *The Lancet*, *373*, 1207–1217. https://doi.org/10.1016/S0140

Kim, J. Y., Farmer, P., & Porter, M. E. (2013). Redefining global health-care delivery. In *The Lancet* (Vol. 382, Issue 9897, pp. 1060–1069). Elsevier B.V. https://doi.org/10.1016/S0140-6736(13)61047-8

Kim, L. S. (2011). How Will Accreditation of Your Ambulatory Endoscopy Center Be an Essential Component of Showing Value-Based Health Care? *Clinical Gastroenterology and Hepatology*, *9*(1), 21–23. https://doi.org/10.1016/j.cgh.2010.09.028

Kirby, J. S., Silva, C. F., Ferguson, S. B., Shupp, D., Marks, J. G., & Miller, J. J. (2019). Bundled payment for actinic keratosis management: Pilot evaluation of developed models. *Journal of the American Academy of Dermatology*, *80*(3), 679–684. https://doi.org/10.1016/j.jaad.2018.09.012

Kissam, S. M., Beil, H., Cousart, C., Greenwald, L. M., & Lloyd, J. T. (2019). States Encouraging Value-Based Payment: Lessons From CMS's State Innovation Models Initiative. *Milbank Quarterly*, *97*(2), 506–542. https://doi.org/10.1111/1468-0009.12380

Kokshagina, O., & Keränen, J. (2022). Institutionalizing value-based healthcare in a service system: a policy and document analysis over three decades. *Journal of Business and Industrial Marketing*, *37*(8), 1607–1622. https://doi.org/10.1108/JBIM-08-2020-0380

Krebs, F., Engel, S., Vennedey, V., Alayli, A., Simic, D., Pfaff, H., & Stock, S. (2023). Transforming Health Care Delivery towards Value-Based Health Care in Germany: A Delphi Survey among Stakeholders. *Healthcare (Switzerland)*, *11*(8). https://doi.org/10.3390/healthcare11081187

Kruk, M. E., Gage, A. D., Arsenault, C., Jordan, K., Leslie, H. H., Roder-DeWan, S., Adeyi, O., Barker, P., Daelmans, B., Doubova, S. V., English, M., Elorrio, E. G., Guanais, F., Gureje, O., Hirschhorn, L. R., Jiang, L., Kelley, E., Lemango, E. T., Liljestrand, J., … Pate, M. (2018). High-quality health systems in the Sustainable Development Goals era: time for a revolution. In *The Lancet Global Health* (Vol. 6, Issue 11, pp. e1196–e1252). Elsevier Ltd. https://doi.org/10.1016/S2214-109X(18)30386-3

Kumar, R. V. (2024). Cronbach's Alpha: Genesis, Issues and Alternatives. *IMIB Journal of Innovation and Management*. https://doi.org/10.1177/ijim.241234970

Kurt, P., Onyedi, B., Üniversitesi, E., Saban, M., & Çankaya, F. (2019). Time-Driven activity-based costing in the ophthalmology department of state Hospital: a case study. *Fresenius Environmental Bulletin*, *28*(4), 2754–2770. https://www.researchgate.net/publication/332170957

Lansdaal, D., Van Nassau, F., Van Der Steen, M., Bruijne, M. De, & Smeulers, M. (2022). Lessons learned on the experienced facilitators and barriers of implementing a tailored VBHC model in a Dutch university hospital from a perspective of physicians and nurses. *BMJ Open*, *12*(1). https://doi.org/10.1136/bmjopen-2021-051764

Lauri, M. A. (2011). Triangulation of Data Analysis Techniques. In *Papers on Social Representations* (Vol. 20). http://www.psych.lse.ac.uk/psr/]

Lee, V. S., Kawamoto, K., Hess, R., Park, C., Young, J., Hunter, C., Johnson, S., Gulbransen, S., Pelt, C. E., Horton, D. J., Graves, K. K., Greene, T. H., Anzai, Y., & Pendleton, R. C. (2016). Implementation of a value-driven outcomes program to identify high variability in clinical costs and outcomes and association with reduced cost and improved quality. *JAMA - Journal of the American Medical Association*, *316*(10), 1061–1072. https://doi.org/10.1001/jama.2016.12226

Lee, W. J., Peng, L. N., Lin, C. H., Lin, S. Z., Loh, C. H., Kao, S. L., Hung, T. S., Chang, C. Y., Huang, C. F., Tang, T. C., & Chen, L. K. (2020). First insights on value-based healthcare of elders using ICHOM older person standard set reporting. *BMC Geriatrics*, *20*(1). https://doi.org/10.1186/s12877-020-01734-1

Liang, M. I., Aviki, E. M., Wright, J. D., Havrilesky, L. J., Boyd, L. R., Moss, H. A., Jewell, E. L., Cohn, D. E., Apte, S. M., Timmins, P. F., Alvarez, R. D., Rathbun, J., Lipinski, E., White, S., Siverio-Minardi, D., & Ko, E. M. (2020). Society of gynecologic oncology future of

physician payment reform task force: Lessons learned in developing and implementing surgical alternative payment models. In *Gynecologic Oncology* (Vol. 156, Issue 3, pp. 701–709). Academic Press Inc. https://doi.org/10.1016/j.ygyno.2019.12.036

Lin, P. F., Naveed, H., Eleftheriadou, M., Purbrick, R., Zarei Ghanavati, M., & Liu, C. (2021). Cataract service redesign in the post-COVID-19 era. In *British Journal of Ophthalmology* (Vol. 105, Issue 6, pp. 745–750). BMJ Publishing Group. https://doi.org/10.1136/bjophthalmol-2020-316917

Marotta, C., Di Gennaro, F., Pisani, L., Pisani, V., Senesie, J., Bah, S., Koroma, M. M., Caracciolo, C., Putoto, G., Amatucci, F., & Borgonovi, E. (2020). Cost-utility of intermediate obstetric critical care in a resource-limited setting: A value-based analysis. *Annals of Global Health*, *86*(1), 1–8. https://doi.org/10.5334/aogh.2907

Martin, J. A., Mayhew, C. R., Morris, A. J., Bader, A. M., Tsai, M. H., & Urman, R. D. (2018). Using Time-Driven Activity-Based Costing as a Key Component of the Value Platform: A Pilot Analysis of Colonoscopy, Aortic Valve Replacement and Carpal Tunnel Release Procedures. *Journal of Clinical Medicine Research*, *10*(4), 314–320. https://doi.org/10.14740/jocmr3350w

Mataria, A., Raad, F., Abu-Zaineh, M., & Donaldson, C. (2010). Catastrophic healthcare payments and impoverishment in the occupied palestinian territory. *Applied Health Economics and Health Policy*, *8*(6), 393–405. https://doi.org/10.2165/11318200-000000000-00000

McClellan, M. B., & Leavitt, M. O. (2016). Competencies and tools to shift payments from volume to value. In *JAMA - Journal of the American Medical Association* (Vol. 316, Issue 16, pp. 1655–1656). American Medical Association. https://doi.org/10.1001/jama.2016.14205

McNeely, C., Barber, B. K., Spellings, C., Giacaman, R., Arafat, C., Daher, M., El Sarraj, E., & Abu Mallouh, M. (2014). Human insecurity, chronic economic constraints and health in the occupied Palestinian territory. *Global Public Health*, *9*(5), 495–515. https://doi.org/10.1080/17441692.2014.903427

Meinert, E., Alturkistani, A., Brindley, D., Knight, P., Wells, G., & De Pennington, N. (2018). Weighing benefits and risks in aspects of security, privacy and adoption of technology in a value-based healthcare system 15 Commerce, Management, Tourism and Services 1503 Business and Management 08 Information and Computing Sciences 0806 Information Systems. In *BMC Medical Informatics and Decision Making* (Vol. 18, Issue 1). BioMed Central Ltd. https://doi.org/10.1186/s12911-018-0700-0

Meinert, E., Fellow In Healthcare, D. C., Alturkistani, M. A., & Brindley, D. (2018). No 6 Symposium on Value-Based Health Care Downloaded from magonlinelibrary. In *British Journal of Hospital Medicine* (Vol. 79).

Miettinen, S., & Tenhunen, H. (2020). Digital follow-up application for cancer patients - Value mechanisms regarding health professionals' work. *Studies in Health Technology and Informatics*, *270*, 572–576. https://doi.org/10.3233/SHTI200225

Ministry of Health. (2023). *Health Annual Report Palestine 2022*.

Mjåset, C., Ikram, U., Nagra, N. S., & Feeley, T. W. (2020). Value-Based Health Care in Four Different Health Care Systems. *NEJM Catalyst Innovations in Care Delivery*, *1*(16). https://doi.org/10.1056/CAT.20.0530

Mohan, S., Nandi, D., Stephens, P., M'Farrej, M., Vogel, R. L., & Bonafide, C. P. (2018). Implementation of a clinical pathway for chest pain in a pediatric emergency department. *Pediatric Emergency Care*, *34*(11), 778–782. https://doi.org/10.1097/PEC.0000000000000861

Mosleh, M., Al Jeesh, Y., Dalal, K., Eriksson, C., Carlerby, H., & Viitasara, E. (2020). Barriers to managing and delivery of care to war-injured survivors or patients with non-communicable disease: A qualitative study of Palestinian patients' and policy-makers' perspectives. *BMC Health Services Research*, *20*(1). https://doi.org/10.1186/s12913-020-05302-6

Najjar, A., Warasna, B., Kitaneh, I., Abu-Sharar, S., Sawalha, M., Jamous, A., Qiq, M., Amro, W., Makharzeh, E., Amro, Y., Subb Laban, B., & Amro, A. (2021). Prevalence of chronic diseases in older Palestinian adults and common pharmacological interventions: a cross-sectional study. *Lancet (London, England)*, *398*, S40. https://doi.org/10.1016/S0140-6736(21)01526-9

Ng, S. M. (2022). A qualitative study on relationships and perceptions between managers and clinicians and its effect on value-based healthcare within the national health service in the UK. *Health Services Management Research*, *35*(4), 251–258. https://doi.org/10.1177/09514848211068624

Nici, L., & ZuWallack, R. (2018). Integrated Care in Chronic Obstructive Pulmonary Disease and Rehabilitation. In *COPD: Journal of Chronic Obstructive Pulmonary Disease* (Vol. 15, Issue 3, pp. 223–230). Taylor and Francis Ltd. https://doi.org/10.1080/15412555.2018.1501671

Nijagal, M. A., Shah, N. T., & Levin-Scherz, J. (2018). Both patients and maternity care providers can benefit from payment reform: four steps to prepare. *American Journal of Obstetrics and Gynecology*, *218*(4), 411.e1-411.e6. https://doi.org/10.1016/j.ajog.2018.01.014

Nilsson, K., Bååthe, F., Andersson, A. E., Wikström, E., & Sandoff, M. (2017). Experiences from implementing value-based healthcare at a Swedish University Hospital - an longitudinal interview study. *BMC Health Services Research*, *17*(1), 169. https://doi.org/10.1186/s12913-017-2104-8

Nilsson, K., Bååthe, F., Erichsen Andersson, A., & Sandoff, M. (2017). Value-based healthcare as a trigger for improvement initiatives. *Leadership in Health Services*, *30*(4), 364–377. https://doi.org/10.1108/LHS-09-2016-0045

Nilsson, K., Bååthe, F., Erichsen Andersson, A., & Sandoff, M. (2018). The need to succeed – learning experiences resulting from the implementation of value-based healthcare. *Leadership in Health Services*, *31*(1), 2–16. https://doi.org/10.1108/LHS-08-2016-0039

Niñerola, A., Hernández-Lara, A. B., & Sánchez-Rebull, M. V. (2021). Improving healthcare performance through Activity-Based Costing and Time-Driven Activity-Based Costing. In *International Journal of Health Planning and Management* (Vol. 36, Issue 6, pp. 2079–2093). John Wiley and Sons Ltd. https://doi.org/10.1002/hpm.3304

Nojszewska, E., & Sielska, A. (2022). Macroeconomic and Social Indicators to Launch the PM-Based VBHC Model in the Healthcare System in Poland. *International Journal of Environmental Research and Public Health*, *19*(3). https://doi.org/10.3390/ijerph19031712

Nutbeam, D. (2008). The evolving concept of health literacy. *Social Science and Medicine*, *67*(12), 2072–2078. https://doi.org/10.1016/j.socscimed.2008.09.050

Oliver-Baxter, J., Brown, L., & Dawda, P. (2017). Should the healthcare compass in Australia point towards value-based primary healthcare? In *Australian Health Review* (Vol. 41, Issue 1, pp. 98–103). CSIRO. https://doi.org/10.1071/AH15104

Palestinian Health Information Center (PHIC). (2023). *Health Annual Report, Palestine 2022*. http://www.pcbs.gov.ps

PCBS. (2023). *Health services in Palestine*.

Pelt, C. E., Anderson, M. B., Erickson, J. A., Gililland, J. M., & Peters, C. L. (2018). Adding Value to Total Joint Arthroplasty Care in an Academic Environment: The Utah Experience. *Journal of Arthroplasty*, *33*(6), 1636–1640. https://doi.org/10.1016/j.arth.2018.01.028

Phillips, R. A., Cyr, J., Keaney, J. F., Messina, L. M., Meyer, T. E., Tam, S. K. C., Korenda, K., Darrigo, M., Kumar, P., & Challapalli, S. (2015). Creating and Maintaining a Successful Service Line in an Academic Medical Center at the Dawn of Value-Based Care: Lessons Learned From the Heart and Vascular Service Line at UMass Memorial Health Care. *Academic Medicine*, *90*(10), 1340–1346. https://doi.org/10.1097/ACM.0000000000000839

Porter, & Kaplan. (2016). How to pay for health care. *Harvard Business Review*, *94*(7–8), 88–98.

Porter, M. E. (1989). *From Competitive Advantage to Corporate Strategy*. Springer.

Porter, M. E. (2010). *What Is Value in Health Care?*

Porter, M. E., & Guth, C. (2012). Guiding principles of a value-based health care system. *Guiding Principles of a Value-Based Health Care System*, *25*(52).

Porter, M. E., Larsson, S., & Lee, T. H. (2016). Standardizing Patient Outcomes Measurement. *New England Journal of Medicine*, *374*(6), 504–506. https://doi.org/10.1056/nejmp1511701

Porter, M. E., & Lee, T. H. (2013). Providers must lead the way in making value the overarching goal. *Harvard Business Review*, *53*.

Porter, M. E., & Teisberg, E. O. (2006). *Redefining health care : creating value-based competition on results*. Harvard business press.

Porter, M. E., & Teisberg, E. O. (2007). How physicians can change the future of health care. In *JAMA* (Vol. 297, Issue 10, pp. 1103–1111). American Medical Association. https://doi.org/10.1001/jama.297.10.1103

Porter, M. E., Teisberg, E. O., Kaplan, R. S., Huckman, R., Lee, T. H., Gottlieb, G., Deerberg-Wittram, J., Bozic, K., Associate, I., Jain, S., Manager, S. P., Fellow, K. B., Witkowski, M., Researcher, S., Stowell, C., Associate, R., Bachmann, J., & Wertheimer, S. (2012). *Value-Based Health Care Delivery*.

Ramos, P. (2020). Value-Based HealthCare. In *Bioethics in Medicine and Society*. IntechOpen. https://doi.org/DOI: http://dx.doi.org/10.5772/intechopen.93378

Ramos, P., Savage, C., Thor, J., Atun, R., Carlsson, K. S., Makdisse, M., Neto, M. C., Klajner, S., Parini, P., & Mazzocato, P. (2021). It takes two to dance the VBHC tango: A multiple case study of the adoption of value-based strategies in Sweden and Brazil. *Social Science and Medicine*, *282*. https://doi.org/10.1016/j.socscimed.2021.114145

Randazzo, G., & Brown, Z. (2016). Transitioning from volume to value: A strategic approach to design and implementation. *Nursing Administration Quarterly*, *40*(2), 130–136. https://doi.org/10.1097/NAQ.0000000000000153

Reilly, C. A., Doughty, H. P., Werth, P. M., Rockwell, C. W., Sparks, M. B., & Jevsevar, D. S. (2020). Creating a Value Dashboard for Orthopaedic Surgical Procedures. *Journal of Bone and Joint Surgery*, *102*(21), 1849–1856. https://doi.org/10.2106/JBJS.20.00270

Romaniuk, P., Jing, L., Fathelrahman, A. I., & Katoue, M. G. (2022). Healthcare system development in the Middle East and North Africa region: Challenges, endeavors and prospective opportunities. *Frontiers in Public Health*, *10*(Frontiers), 2296–2565.

Roski, J., & McClellan, M. (2011). Measuring health care performance now, not tomorrow: Essential steps to support effective health reform. *Health Affairs*, *30*(4), 682–689. https://doi.org/10.1377/hlthaff.2011.0137

RUPRI Center for Rural Health Research, R. H. V. (2023). *Value-Based Health Care Strategic Planning Tool, V3*.

Rutherford, C., Campbell, R., Tinsley, M., Speerin, R., Soars, L., Butcher, A., & King, M. (2021). Implementing Patient-Reported Outcome Measures into Clinical Practice Across NSW: Mixed Methods Evaluation of the First Year. *Applied Research in Quality of Life*, *16*(3), 1265–1284. https://doi.org/10.1007/s11482-020-09817-2

Saleh, S., & Fouad, F. M. (2022). Political Economy of Health in fragile and conflict-affected regions in the Middle East and North Africa region. *Journal of Global Health*, *12*. https://doi.org/10.7189/jogh.12.01003

Schwamm, L. H. (2014). Telehealth: Seven strategies to successfully implement disruptive technology and transform health care. *Health Affairs*, *33*(2), 200–206. https://doi.org/10.1377/hlthaff.2013.1021

Scott, I. (2014). Ten clinician-driven strategies for maximising value of Australian health care. *Australian Health Review*, *38*(2), 125–133. https://doi.org/10.1071/AH13248

Shakhshir, M., & Alkaiyat, A. (2023). Healthcare providers' knowledge, attitude, and practice on quality of nutrition care in hospitals from a developing country: a multicenter experience. *Journal of Health, Population and Nutrition*, *42*(1). https://doi.org/10.1186/s41043-023-00355-9

Sherman, R. E., Anderson, S. A., Dal, G. J., Gray, G. W., Gross, T., Hunter, N. L., Lavange, L., Marinac-Dabic, D., Marks, P. W., Robb, M. A., Shuren, J., Temple, R., Woodcock, J., Yue, L. Q., & Califf, R. M. (2016). Real-World Evidence-What Is It and What Can It Tell Us? *N Engl J Med*, *375*(23), 2293–2297.

Shortell, S. M., & for CDC, M. (2010). *Challenges and Opportunities for Population Health Partnerships*. http://www.cdc.gov/pcd/issues/2010/

Steinmann, G., Daniels, K., Mieris, F., Delnoij, D., van de Bovenkamp, H., & van der Nat, P. (2022). Redesigning value-based hospital structures: a qualitative study on value-based health care in the Netherlands. *BMC Health Services Research*, *22*(1). https://doi.org/10.1186/s12913-022-08564-4

Steinmann, G., Delnoij, D., Van De Bovenkamp, H., Groote, R., & Ahaus, K. (2021). Expert consensus on moving towards a value-based healthcare system in the Netherlands: A Delphi study. *BMJ Open*, *11*(4). https://doi.org/10.1136/bmjopen-2020-043367

Teisberg, E. O., & Wallace, S. (2009). Creating a High-Value Delivery System for Health Care. *Seminars in Thoracic and Cardiovascular Surgery*, *21*(1), 35–42. https://doi.org/10.1053/j.semtcvs.2009.03.003

Teisberg, E., Wallace, S., & O'Hara, S. (2020). Defining and Implementing Value-Based Health Care: A Strategic Framework. In *Academic Medicine* (Vol. 95, Issue 5, pp. 682–685). Wolters Kluwer Health. https://doi.org/10.1097/ACM.0000000000003122

Thaker, N. G., Sturdevant, L., Jhingran, A., Das, P., Delclos, M. E., Gunn, G. B., McAleer, M. F., Tereffe, W., Choi, S. L., Frank, S. J., Simeone, W. J., Martinez, W., Hahn, S. M., Famiglietti, R., & Kuban, D. A. (2016). Assessing the quality of a radiation oncology case-based peer-review program in an integrated academic and community cancer center network. *Journal of Oncology Practice*, *12*(4), e476–e486. https://doi.org/10.1200/JOP.2015.005983

Theunissen, L., Cremers, H. P., Dekker, L., Janssen, H., Burg, M., Huijbers, E., Voermans, P., Kemps, H., & Van Veghel, D. (2023). Implementing Value-Based Health Care Principles in the Full Cycle of Care: The Pragmatic Evolution of the Netherlands Heart Network. *Circulation: Cardiovascular Quality and Outcomes*, *16*(4), E009054. https://doi.org/10.1161/CIRCOUTCOMES.122.009054

Toyon, M. A. S. (2021). Explanatory sequential design of mixed methods research: Phases and challenges. *International Journal of Research in Business and Social Science (2147- 4478)*, *10*(5), 253–260. https://doi.org/10.20525/ijrbs.v10i5.1262

Tsevat, J., & Moriates, C. (2018). Value-based health care meets cost-effectiveness analysis. *Annals of Internal Medicine*, *169*(5), 329–332. https://doi.org/10.7326/M18-0342

van den Hoven, A. T., Bons, L. R., Dykgraaf, R. H. M., Dessens, A. B., Pastoor, H., de Graaff, L. C. G., Metselaar, M. R., Kneppers- Swets, A., Kardys, I., Mijnarends, H., Zweerus, F., Hazelzet, J. A., Utens, E. M. W. J., van den Bosch, A. E., & Roos-Hesselink, J. W. (2020). A value-based healthcare approach: Health-related quality of life and psychosocial functioning in women with Turner syndrome. *Clinical Endocrinology*, *92*(5), 434–442. https://doi.org/10.1111/cen.14166

van der Vlies, E., Smits, A. B., Los, M., van Hengel, M., Bos, W. J. W., Dijksman, L. M., van Dongen, E. P. A., & Noordzij, P. G. (2020). Implementation of a preoperative multidisciplinary team approach for frail colorectal cancer patients: Influence on patient selection, prehabilitation and outcome. *Journal of Geriatric Oncology*, *11*(8), 1237–1243. https://doi.org/10.1016/j.jgo.2020.04.011

van Egdom, L. S. E., Lagendijk, M., van der Kemp, M. H., van Dam, J. H., Mureau, M. A. M., Hazelzet, J. A., & Koppert, L. B. (2019). Implementation of Value Based Breast Cancer Care. *European Journal of Surgical Oncology*, *45*(7), 1163–1170. https://doi.org/10.1016/j.ejso.2019.01.007

van Staalduinen, D. J., van den Bekerom, P., Groeneveld, S., Kidanemariam, M., Stiggelbout, A. M., & van den Akker-van Marle, M. E. (2022). The implementation of value-based healthcare: a scoping review. *BMC Health Services Research*, *22*(1). https://doi.org/10.1186/s12913-022-07489-2

van Veghel, D., Daeter, E. J., Bax, M., Amoroso, G., Blaauw, Y., Camaro, C., Cummins, P., Halfwerk, F. R., Wijdh-Den Hamer, I. J., de Jong, J. S. S. G., Stooker, W., van der Wees, P. J., & van der Nat, P. B. (2020). Organization of outcome-based quality improvement in Dutch heart centres. *European Heart Journal - Quality of Care and Clinical Outcomes*, *6*(1), 49–54. https://doi.org/10.1093/ehjqcco/qcz021

van Veghel, D., Marteijn, M., & de Mol, B. (2016). First results of a national initiative to enable quality improvement of cardiovascular care by transparently reporting on patient-relevant outcomes. *European Journal of Cardio-Thoracic Surgery*, *49*(6), 1660–1669. https://doi.org/10.1093/ejcts/ezw034

Van Veghel, D., Soliman-Hamad, M., Schulz, D. N., Cost, B., Simmers, T. A., & Dekker, L. R. C. (2020). Improving clinical outcomes and patient satisfaction among patients with coronary artery disease: An example of enhancing regional integration between a cardiac centre and a referring hospital. *BMC Health Services Research*, *20*(1). https://doi.org/10.1186/s12913-020-05352-w

Varela-Rodríguez, C., García-Casanovas, A., Baselga-Penalva, B., & Ruiz-López, P. M. (2022). Value-based healthcare project implementation in a hierarchical tertiary hospital: lessons learned. *Frontiers in Public Health*, *9*, 2296–2565. https://doi.org/10.3389/fpubh.2021.755166

Venkateswaran, M., Ghanem, B., Abbas, E., Khader, K. A., Ward, I. A., Awwad, T., Baniode, M., Frost, M. J., Hijaz, T., Isbeih, M., Mørkrid, K., Rose, C. J., & Frøen, J. F. (2022). A digital health registry with clinical decision support for improving quality of antenatal care in Palestine (eRegQual): a pragmatic, cluster-randomised, controlled, superiority trial. *The Lancet Digital Health*, *4*(2), e126–e136. https://doi.org/10.1016/S2589-7500(21)00269-7

Wang, X., & Cheng, Z. (2020). Cross-Sectional Studies: Strengths, Weaknesses, and Recommendations. In *Chest* (Vol. 158, Issue 1, pp. S65–S71). Elsevier Inc. https://doi.org/10.1016/j.chest.2020.03.012

Weiner, B. J. (2009). A theory of organizational readiness for change. *Implementation Science*, *4*(1). https://doi.org/10.1186/1748-5908-4-67

WHO. (2017). *Country cooperation strategy for WHO and the Occupied Palestinian Territory Occupied Palestinian Territory*.

WHO. (2018). *Palestine: Health Systems Profile 2017*.

WHO. (2020). *HEALTH HEALTH SYSTEM Building on value-based health care Towards a health system perspective*. http://www.euro.who.int/en/about-us/partners/

Winegar, A. L., Moxham, J., Erlinger, T. P., & Bozic, K. J. (2018). Value-based healthcare: Measuring what matters-engaging surgeons to make measures meaningful and improve clinical practice. *Clinical Orthopaedics and Related Research*, *476*(9), 1701–1706. https://doi.org/10.1097/CORR.0000000000000406

Withers, K., Palmer, R., Lewis, S., & Carolan-Rees, G. (2021). First steps in PROMs and PREMs collection in Wales as part of the prudent and value-based healthcare agenda. *Quality of Life Research*, *30*(11), 3157–3170. https://doi.org/10.1007/s11136-020-02711-2

World Bank. (2016). *Public Expenditure Review of the Palestinian Authority Towards Enhanced Public Finance Management and Improved Fiscal Sustainability*.

World Bank. (2023). *Racing Against Time: World Bank Economic Monitoring Report to the Ad Hoc Liaison Committee*.

World Health Organization. (2007). *Everybody's business : strengthening health systems to improve health outcomes : WHO's frmaework for action.* World Health Organization.

World Health Organization. (2012). *Health System Profile Occupied Palestinian Territory*.

World Health Organization. (2017). *Country cooperation strategy for WHO and the Occupied Palestinian Territory Occupied Palestinian Territory*.

World Health Organization. (2018). *Palestine: Health Systems Profile*.

Wouters, E. F. (2009). Importance of integrated care for the chronic obstructive pulmonary disease patient. *Clinical Practice*, *6*(6), 831–835. https://doi.org/10.2217/thy.09.78

Yu, Y. R., Abbas, P. I., Smith, C. M., Carberry, K. E., Ren, H., Patel, B., Nuchtern, J. G., & Lopez, M. E. (2016). Time-driven activity-based costing to identify opportunities for cost reduction in pediatric appendectomy. *Journal of Pediatric Surgery*, *51*(12), 1962–1966. https://doi.org/10.1016/j.jpedsurg.2016.09.019

Yu, Y. R., Abbas, P. I., Smith, C. M., Carberry, K. E., Ren, H., Patel, B., Nuchtern, J. G., & Lopez, M. E. (2017). Time-driven activity-based costing: A dynamic value assessment model in pediatric appendicitis. *Journal of Pediatric Surgery*, *52*(6), 1045–1049. https://doi.org/10.1016/j.jpedsurg.2017.03.032

Zhu, D. T., Zinszer, K., & Abuzerr, S. (2024). Oral diseases in Palestine. In *The Lancet* (Vol. 404, Issue 10447, pp. 26–27). Elsevier B.V. https://doi.org/10.1016/S0140-6736(24)01249-2

Zipfel, N., Van Der Nat, P. B., Rensing, B. J. W. M., Daeter, E. J., Westert, G. P., & Groenewoud, A. S. (2019). The implementation of change model adds value to value-based healthcare: A qualitative study. *BMC Health Services Research*, *19*(1). https://doi.org/10.1186/s12913-019-4498-y

Appendices

Appendix (A) ANOVA Results for Group Comparisons

Table 1 Analysis of Variance (ANOVA): VBHC Implementation Scores and Hospital Ownership

Score_Type	Between_Groups_SS	df_Between	Mean_Square_Between	F_Value	Significance	Within_Groups_SS	df_Within	Mean_Square_Within	Total_SS
VBHC Overall_score	7.961	3	2.654	2.96	0.042	39.447	44	0.897	47.408
IPU_score	15.55	3	5.183	4.293	0.01	53.121	44	1.207	68.671
OUTCOME_COST_score	10.608	3	3.536	3.199	0.032	48.631	44	1.105	59.239
PAYMENT_score	5.256	3	1.752	1.93	0.139	39.932	44	0.908	45.187
MULTISITE_score	8.5	3	2.833	3.233	0.031	38.567	44	0.877	47.067
GEOGRAPHIC_score	14.619	3	4.873	5.38	0.003	39.854	44	0.906	54.473
INFORMATION TECH_score	11.444	3	3.815	3.333	0.028	50.364	44	1.145	61.808
GOVERNANCE_score	12.331	3	4.11	3.954	0.014	45.742	44	1.04	58.074

Appendix (B) Interview Questions

1. What is your assessment of the current healthcare system in Palestine, including its strengths and weaknesses? What challenges exist in implementing a value-based healthcare model?

2. How can partnerships between the public and private sectors, as well as international collaborations or partnerships with neighboring countries, contribute to solving healthcare system challenges and supporting value-based care?

3. What is the impact of the current payment models on the quality of healthcare? What reforms can be introduced to ensure alignment with the goals of value-based care?

4. How would you evaluate the current measurement of healthcare quality? What are the challenges in measuring and integrating patient-reported outcomes and experiences (PROMs and PREMs) into the healthcare system to improve services?

5. What are the challenges in changing the culture of healthcare institutions, and how can leadership enhance patient engagement in value-based healthcare?

Appendix (C) Questionnaire English Version

Questionnaire

Dear Participants,

You are invited to participate in a research study by a Ph.D. candidate in the Strategic Management program at the School of Graduate Studies, Arab American University of Palestine. This questionnaire is part of a study focused on evaluating the implementation of value-based healthcare in Palestine, identifying key challenges, and offering strategic recommendations for improvement.

The findings of this research are expected to enhance healthcare services in Palestine, benefiting healthcare professionals, policymakers, and the wider community. Your input is crucial to providing meaningful insights that will shape the future of healthcare in the region.

Completing the attached questionnaire will take approximately 15-20 minutes, and the interview will take about 45- 60 minutes. Please note that participation is entirely voluntary, and you have the right to withdraw at any stage. All information gathered will be kept confidential and used exclusively for academic purposes. No personal identifying information, such as your name, will be requested to ensure anonymity.

Thank you for your participation and support in this critical research.

Researcher:
Bara'a Samara
Ph.D. Candidate in Strategic Management
Arab American University of Palestine

If you have any questions or require further clarification, feel free to contact me at email b.samara2@student.aaup.edu or the provided mobile number +970598563595

Value-Based Healthcare Strategic Assessment Tool

The VHBC Tool will assess to what extent your healthcare organization implements the component of value-based care (VBC) to deliver high-quality patient outcomes. The Strategic Tool guides an assessment of 74 specific components or best practices under seven topic headings. The topic headings are interrelated and codependent; thus, capacities may fit under more than one heading.

For each statement, please rate the degree to which the element is developed and deployed in your organization. Alternately, some components may be better assessed by the degree of adoption (alternate response in parentheses). The seven response options are:

Scale	Level	Description
0	**Not sure**	The organization has no sufficient information to assess its development.
1	**Not considered**	The organization has not considered the VBC component in the last two years and has no plans for this capacity.
2	**Not applicable**	The organization has discussed the VBC component in the last two years but determined it is not applicable and does not plan to adopt this capacity.
3	**In discussion**	The VBC component has been discussed within the last two years, but no development activity has occurred yet. The organization is considering adopting this capacity.
4	**In development**	The VBC capacity is currently under development but has not yet been deployed within the organization. The organization has partially adopted this component.
5	**Developed but incompletely deployed**	The VBC capacity is developed but not fully deployed throughout the organization. The organization has nearly adopted this component.
6	**Fully developed and deployed**	The VBC capacity is fully developed and deployed throughout the organization. The organization has fully adopted this component

Not all capacities will perfectly match the response choices. Please select the closest or most appropriate response. Please complete the VBC Tool as a single healthcare entity. Do not complete it as a system of providers.

What is your Job title?

_____

What is your healthcare organization's name?

_____

1. **Governance**: This section assesses the organization's governance, focusing on leadership accountability, transparency in decision-making, and engagement in value-based care. It examines how senior leaders prioritize community health, clinical quality, and equity while ensuring clear communication and collaboration within the organization.

#	Questions	Fully developed and deployed	Developed but incompletely deployed	In development	In discussion	Not applicable	Not considered	Not Sure
1.	Has a framework been developed or implemented in the healthcare institution to regularly review and enhance strategies to meet identified community health needs, such as chronic diseases, mental health, public health and prevention, maternal and child health, and infectious diseases?							
2.	Has a dedicated leadership role been developed or implemented in the healthcare institution to oversee specific responsibilities for improving community health?							
3.	Has a mechanism been developed or implemented by the healthcare provider to collaborate with other community organizations in setting shared goals and executing initiatives addressing priority community health needs?							
4.	Have health programs, benefits, and incentives been developed or implemented for employees of the healthcare institution?							
5.	Has a structure been developed or implemented in the healthcare institution to promote transparency in macro-level decisions (e.g., hospital strategic planning, payment, and compensation) by clearly communicating responsibilities, decision-making criteria, relevant databases, and potential conflicts of interest?							
6.	Has a model been developed or implemented in the healthcare institution to enhance transparency in micro-level decisions and daily interactions, including effective communication between patients and physicians on treatment recommendations, presenting treatment options, engaging patients in							

	shared decision-making, and providing structured advice on self-managing health conditions?							
7.	Has an approach been developed or implemented in the healthcare institution to publicly announce its priorities for improving patient care, community health, and cost reduction?							
8.	Has a process been developed or implemented in the healthcare institution that demonstrates a commitment to providing equitable access, fair treatment, and health outcomes for all members of the community (e.g., through strategy, policy, and operations)?							
9.	Has a methodology been developed or implemented within the healthcare institution's governance body to regularly assess value-based performance metrics, including benchmarking (e.g., clinical quality, patient satisfaction, community health, and cost of care)?							
10.	Has a framework been developed or implemented in the healthcare institution that partially links the evaluation of leader performance and compensation to value-based care outcomes?							
11.	Has a governance structure been developed and implemented in the institution to ensure clear policies that support the sustainability and effectiveness of health information technology systems?							
12.	Has a strategy been developed or implemented by the healthcare institution to enhance institutional partnerships, such as collaborations with other hospitals, public health agencies, or health insurers, to support its participation in value-based care?							

Do you have any other comments about your Health Care Organization's governance?

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2. **Integrated Practice Unites**: This section assesses the organization's integrated care approach, focusing on multidisciplinary teams, organized treatment pathways, and care coordination. It examines how the HCO delivers comprehensive care, manages patient risks, and collaborates with community resources.

#	Questions	Fully developed and deployed	Developed but incompletely deployed	In development	In discussion	Not applicable	Not considered	Not Sure
13.	Has a framework been developed or implemented in the healthcare institution to ensure senior leadership's involvement of medical staff in							

	operational decision-making and shared accountability?							
14.	Has a framework been developed or implemented in the healthcare institution to hold leadership accountable for clinical care quality and patient safety, including conducting regular rounds to engage with frontline staff?							
15.	Has a framework been developed or implemented in the healthcare institution to organize healthcare delivery based on defined care pathways informed by clinical indicators, rather than offering isolated services?							
16.	Has a model been developed or implemented in the healthcare institution to structure healthcare around care pathways, planning comprehensively for prevention, diagnosis, treatment, rehabilitation, and palliative care within an integrated care network?							
17.	Has a system been developed or implemented in the healthcare institution to ensure the assignment of a single team leader to manage the care of each patient within the care network?							
18.	Has a process been developed or implemented in the healthcare institution to identify patients at risk of poor clinical outcomes or intensive resource utilization through data analysis and support them via specialized care coordinators?							
19.	Has a strategy been developed or implemented in the healthcare institution to collaborate with community resources (e.g., public health agencies, schools, human services agencies, religious organizations) to support care coordination by addressing determinants of health disparities?							
20.	Has a process been developed or implemented in the healthcare institution to refer patients and their families to community resources for non-medical needs, while ensuring physicians receive follow-up information?							
21.	Has a system been developed or implemented in the healthcare institution to establish a care coordination team that includes non-traditional health workers (e.g., community paramedics, health coaches), with clear accountability lines and effective communication among coordinators and case managers?							
22.	Has a framework been developed or implemented in the healthcare institution to provide specialized training programs for multidisciplinary teams, including training in diverse cognitive and behavioral techniques to enhance teamwork and coordination among healthcare staff?							

Do you have any other comments about your Health Care Organization's care coordination?

3. **Outcome and Cost Measurement**: It assesses treatment outcomes and costs by collecting valid data regarding measures of the health care organization, monitors patient-specific costs, utilizes information in decision-making, and optimizes care.

#	Questions	Fully developed and deployed	Developed but incompletely deployed	In development	In discussion	Not applicable	Not considered	Not Sure
23.	Has a framework been developed or implemented in the healthcare institution to collect meaningful patient outcome data (e.g., pain, functional capacity, relapse rates) using reliable and valid tools?							
24.	Has a process been developed or implemented in the healthcare institution to ensure data collection is indicator-driven and integrated into daily patient care?							
25.	Has a framework been developed or implemented in the healthcare institution to ensure that outcome data reflects both short-term and long-term effects of healthcare and is measured regularly throughout treatment?							
26.	Has a system been implemented in the healthcare institution to evaluate performance and healthcare outcomes over extended periods, ensuring continuous improvement and monitoring of long-term health developments?							
27.	Has a process been developed or implemented in the healthcare institution to publish or make available outcome data for each care provider?							
28.	Has a system been developed or implemented in the healthcare institution to collect and document financial resources spent on each patient's care, ensuring joint evaluation by the medical and administrative teams?							
29.	Has a framework been developed or implemented in the healthcare institution to hold regular team meetings for reviewing and discussing outcome data?							
30.	Has a framework been developed or implemented in the healthcare institution to enable senior leadership to use data on clinical care quality, patient satisfaction, community health, and costs to drive strategic decision-making?							
31.	Has a process been developed or implemented in the healthcare institution to share performance results benchmarked against standards widely across the institution?							
32.	Has a system been developed or implemented in the healthcare institution to publicly report data on clinical care, patient experience, cost performance, and health disparities?							

33.	Has a framework been developed or implemented in the healthcare institution to tailor performance data presentation to meet the needs of each target audience, ensuring the data is actionable?							
34.	Has a process been developed or implemented in the healthcare institution to reduce unnecessary utilization, such as hospital readmissions or emergency visits that could be managed in non-hospital settings?							
35.	Has continuous quality improvement methodology been developed or integrated into staff training and workflows within the healthcare institution?							
36.	Has a system been developed or implemented in the healthcare institution to enable effective participation in improvement initiatives and campaigns from external organizations aligned with its goals and needs?							
37.	Has a framework been developed in the institution to analyze internal processes and streamline workflows among the medical team to enhance efficiency and reduce costs?							

Do you have other comments about your Health Care Organization's cost and outcome measurement?

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4. **Payment Model**: This section addresses the organization's payment methods, focusing on managing financial risks, aligning costs with patient outcomes, and utilizing value-based incentives and payment models to improve efficiency and care quality.

#	Questions	Fully developed and deployed	Developed but incompletely deployed	In development	In discussion	Not applicable	Not considered	Not Sure
38.	Has a mechanism been developed or implemented in the healthcare institution to monitor market changes and market share for various services?							
39.	Does the healthcare institution have an integrated system to forecast profits and losses when evaluating alternative payment contracts?							
40.	Has a framework been developed or implemented in the healthcare institution to validate the costs determined by payers?							
41.	Has the healthcare institution developed direct expertise in managing financial and medical risks through self-insurance or contracting with self-insured employers?							
42.	Has the healthcare institution developed a structured approach to financial risk management, including							

	the use of financial safeguards such as stop-loss insurance or risk limits to mitigate potential losses?							
43.	Has the healthcare institution developed or implemented access to financial resources to fund and develop new value-based care initiatives?							
44.	Has a framework been developed or implemented in the healthcare institution for continuous monitoring of revenues compared to the cost of delivering services, including the use of alternative payment models to fee-for-service?							
45.	Has a cost accounting system been developed or implemented in the healthcare institution to determine the cost per encounter or service?							
46.	Has a system been developed or implemented in the healthcare institution to adjust for risks, considering the complexity of patient health conditions and ensuring equitable resource allocation?							
47.	Has a framework been developed or implemented in the healthcare institution to compare provider performance and incentivize improved outcomes through transparent and well-defined benchmarks?							
48.	Has a documented plan been developed or implemented in the healthcare institution to distribute shared savings or value-based incentives among medical staff based on treatment outcomes, ensuring alignment between financial rewards and the quality of care provided?							
49.	Has a budget been developed or allocated in the healthcare institution to address specific health indicators that require multidisciplinary treatment, such as chronic diseases?							
50.	Has a budgeting system been developed or implemented in the healthcare institution to allocate funds on an annualized basis?							
51.	Has a system been developed or implemented in the healthcare institution to provide additional compensation for unavoidable health outcomes?							

Do you have other comments about your Health Care Organization's Payment Model?

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5. **Multi-site Regional Integration**: This section evaluates the organization's strategy in optimizing care delivery by specializing in selected services, concentrating complex treatments with high-volume providers, offering routine care in cost-effective settings, and coordinating care through a central institution for efficiency.

#	Questions	Fully developed and deployed	Developed but incompletely deployed	In development	In discussion	Not applicable	Not considered	Not Sure
52.	Has an approach been developed and implemented in the healthcare institution to optimize care in specific areas while refraining from providing services of lower value or effectiveness?							
53.	Has a system been developed or implemented in the healthcare institution to perform scheduled or complex treatments, such as surgeries, through a limited number of care providers specialized in treating specific conditions and experienced in handling a large volume of such cases?							
54.	Has a system been developed or implemented to deliver less complex treatments and routine care at lower-cost settings outside of hospitals?							
55.	Has a system been developed or implemented in the healthcare institution to coordinate collaboration among all participating healthcare organizations through a central institution?							
56.	Has a system been developed or implemented in the healthcare institution to utilize telemedicine services for providing routine care or less complex treatments?							

Do you have other comments about your Health Care Organization's Multi-site Regional Integration component?

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6. **Geographic Expansion:** This section focuses on how the HCO promotes high-quality care by prioritizing care excellence over network expansion, fostering cooperation within care networks, and encouraging employee rotation across facilities to strengthen professional collaboration and cohesion.

#	Questions	Fully developed and deployed	Developed but incompletely deployed	In development	In discussion	Not applicable	Not considered	Not Sure
57.	Has a system been developed and implemented to focus the healthcare institution on expanding high-quality care offerings rather than expanding the coverage area of the care network?							
58.	Has a system been developed and implemented to expand the healthcare institution's geographic reach to provide healthcare services in new or underserved areas?							

59.	Have programs been developed and implemented in the healthcare institution to regularly exchange staff among participating healthcare facilities to enhance teamwork and share expertise?							
60.	Has a system been developed and implemented in the healthcare institution to consider local needs and geographic factors when applying a value-based healthcare model in different regions?							
61.	Has a system been developed and implemented in the healthcare institution to utilize advanced technology, such as telemedicine or mobile clinics, to expand care and reach patients in remote areas?							

Do you have other comments about your Health Care Organization's geographic expansion component?

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7. **Information Technology:** This section assesses the organization's use of health information technology (HIT), focusing on EHR interoperability, data exchange, clinical decision support, and predictive analytics. It evaluates how HIT supports value-based care, accurate diagnostic coding, and the accessibility of comprehensive digital patient records across care teams.

#	Questions	Fully developed and deployed	Developed but incompletely deployed	In development	In discussion	Not applicable	Not considered	Not Sure
62.	Has a comprehensive health information technology (HIT) strategy been developed in the institution to support value-based care, and is it fully implemented and evolving to meet diverse patient care needs?							
63.	Has a system been developed or implemented in the institution to ensure interoperability of the electronic health records (EHR) system, facilitating data exchange and standardizing digital record structures to enhance collaboration among healthcare institutions?							
64.	Has predictive analytics been applied in the institution to monitor service utilization and identify patients at risk of adverse outcomes, ensuring accurate and reliable outcome predictions?							
65.	Has a system been developed or implemented in the institution to ensure the presence of a comprehensive digital patient record covering the full continuum of care, including medical history, diagnosis, treatment, and a continuity-of-care document with key information?							

66.	Has a system been developed or implemented in the institution to enable physicians and care teams to receive electronic alerts about changes in a patient's condition, such as emergency visits or hospital admissions and discharges?							
67.	Has a system been developed or implemented in the institution's digital patient record to provide clinical guidelines and recommendations based on disease diagnoses to support clinical decision-making?							
68.	Has a system been developed or implemented in the institution to enable physicians to prescribe medications electronically?							
69.	Has a system been developed or implemented in the institution to allow physicians to use Prescription Drug Monitoring Programs (PDMPs) to track controlled substances?							
70.	Does the healthcare institution rely on a system to track partial care costs and routine procedures, ensuring resources are allocated proportionally to each activity to reduce waste and enhance efficiency?							
71.	Has a system been developed or implemented in the institution to conduct regular reviews of the health information technology system to ensure data accuracy and implement plans to correct discrepancies?							
72.	Has a system been developed or implemented to ensure comprehensive and accurate diagnostic coding to support risk adjustment, including hierarchical coding of health conditions based on severity and care needs?							
73.	Has a system been developed or implemented to ensure that the digital patient record is accessible to all healthcare providers involved in the patient's care?							
74.	Has a system been developed and implemented in the institution to enable patients to access their medical records and engage in shared decision-making regarding their health?							

Do you have other comments about your Health Care Organization's information technology system?

_____

Thanks for your cooperation and time

Appendix (D) Questionnaire English Version

الإستبيان

المشاركين الأعزاء،

ندعوكم للمشاركة في دراسة بحثية تجريها طالبة دكتوراه في برنامج الإدارة الاستراتيجية في كلية الدراسات العليا بالجامعة العربية الامريكية في فلسطين. هذا الاستبيان هو جزء من دراسة تهدف إلى تقييم تنفيذ الرعاية الصحية القائمة على القيمة في فلسطين، وتحديد التحديات الرئيسية، وتقديم توصيات استراتيجية لتحسين الرعاية الصحية.

نتوقع أن تساهم نتائج هذا البحث في تحسين خدمات الرعاية الصحية في فلسطين، مما سيعود بالفائدة على العاملين في مجال الرعاية الصحية، وواضعي السياسات، والمجتمع بشكل عام. مساهمتك مهمة للغاية لتوفير رؤى قيمة ستساهم في تشكيل مستقبل الرعاية الصحية في المنطقة.

ستستغرق الإجابة على هذا الاستبيان حوالي 30 دقيقة و المقابلة ستأخذ من 45 الى 60 دقيقة. نود أن نؤكد أن المشاركة اختيارية تمامًا، ويحق لك الانسحاب في أي وقت. سيتم الحفاظ على سرية جميع المعلومات المجمعة ولن تُستخدم إلا لأغراض أكاديمية فقط. لضمان عدم الكشف عن هويتك، لن يتم طلب أي معلومات تعريفية شخصية مثل اسمك.

شكرًا جزيلاً على مشاركتك ودعمك في هذا البحث المهم.

الباحثة : براءة سمارة
طالبة دكتوراه في الإدارة الاستراتيجية
الجامعة العربية الأمريكية – فلسطين

إذا كانت لديك أي استفسارات أو تحتاج إلى توضيح، فلا تتردد في الاتصال بي عبر البريد الإلكتروني: b.samara2@student.aaup.edu أو عبر الرقم: +970598563595

أداة التقييم الاستراتيجي للرعاية الصحية القائمة على القيمة

أداة التقييم ستقوم بتقييم مدى تنفيذ مؤسستك للرعاية الصحية لمكونات الرعاية المستندة إلى القيمة (VBC) بهدف تحقيق نتائج عالية الجودة للمرضى. الأداة الاستراتيجية توجه عملية التقييم لـ 74 مكونًا أو ممارسة مثلى محددة تحت سبعة عناوين رئيسية. هذه العناوين مترابطة وتعتمد على بعضها البعض، لذلك قد تنطبق القدرات على أكثر من عنوان.

بالنسبة لكل بيان، يُرجى تقييم مدى تطوير ونشر العنصر في مؤسستك. بدلاً من ذلك، يمكن تقييم بعض المكونات بشكل أفضل بناءً على درجة التبني (كبديل للاستجابة في الأقواس). خيارات الاستجابة السبعة هي:

المقياس	المستوى	الوصف
0	غير متأكد	المنظمة ليس لديها معلومات كافية لتقييم التطوير.
1	لم يُنظر فيه	المنظمة لم تنظر في مكون استراتيجية الرعاية الصحية القائمة على القيمة خلال العامين الماضيين ولا تخطط لهذا المكون.
2	غير قابل للتطبيق	المنظمة ناقشت مكون استراتيجية الرعاية الصحية القائمة على القيمة خلال العامين الماضيين ولكن قررت أنه غير قابل للتطبيق ولا تخطط لاعتماد هذا المكون.
3	قيد النقاش	تمت مناقشة مكون استراتيجية الرعاية الصحية القائمة على القيمة خلال العامين الماضيين، لكن لم يتم تنفيذ أي نشاط تطوير حتى الآن. المنظمة تفكر في تبني هذا المكون.
4	قيد التطوير	مكون استراتيجية الرعاية الصحية القائمة على القيمة قيد التطوير حاليًا لكنها لم تُنشر بعد في المنظمة. المنظمة تبنت هذا المكون جزئيًا.
5	تم التطوير ولكن لم يتم النشر بالكامل	مكون استراتيجية الرعاية الصحية القائمة على القيمة تم تطويره ولكن لم تُنشر بالكامل في جميع أنحاء المنظمة. المنظمة تبنت هذا المكون تقريبًا.
6	تم التطوير والنشر بالكامل	مكون استراتيجية الرعاية الصحية القائمة على القيمة تم تطويره و نشره بالكامل في جميع أنحاء المنظمة. المنظمة تبنت هذا المكون بالكامل.

ما هو المسمى الوظيفي الخاص بك؟

ما هو اسم مؤسستك الصحية؟

1- الحوكمة:

يقوم هذا القسم بتقييم حوكمة المؤسسة الصحية، مع التركيز على المساءلة القيادية، الشفافية في اتخاذ القرارات، والمشاركة في الرعاية الصحية القائمة على القيمة. كما يفحص كيفية تحديد القادة الكبار لأولويات الصحة المجتمعية، الجودة السريرية، والمساواة، مع ضمان التواصل الواضح والتعاون داخل المؤسسة.

#	الأسئلة	تم تطويره وتطبيقه بالكامل	تم تطويره ولكن لم يُطبق بالكامل	قيد التطوير	تم مناقشته	غير قابل للتطبيق	لم يُنظر فيها	غير متأكد
.1	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لمراجعة وتطوير استراتيجيات بانتظام لتلبية احتياجات الصحة التي تم تحديدها من خلال تقييم احتياجات صحة المجتمع كمثال " الأمراض المزمنة، الصحة النفسية ،الصحة العامة والوقاية صحة الأم والطفل و الأمراض المعدية و غيرها""؟							
.2	هل تم تطوير أو تطبيق دور لشخصية قيادية مخصصة في مؤسسة الرعاية الصحية، تتولى مهام محددة لتحسين صحة المجتمع؟							
.3	هل تم تطوير أو تطبيق نظام لدى مقدم الرعاية الصحية للتعاون مع منظمات أخرى في المجتمع لتحديد أهداف مشتركة وتنفيذ مبادرات تعالج احتياجات المجتمع الصحية ذات الأولوية؟							
.4	هل تم تطوير أو تطبيق برامج صحة ومزايا وحوافز لموظفي المؤسسة الصحية؟							
.5	هل تم تطوير أو تطبيق نظام في مؤسسة الرعاية الصحية لتعزيز الشفافية في القرارات على المستوى الكلي المؤسسة (مثل التخطيط الاستراتيجي للمستشفى، الدفع، التعويضات) من خلال التواصل بوضوح حول المسؤوليات، معايير اتخاذ القرار، قواعد البيانات ذات الصلة، وتضارب المصالح المحتمل؟							
.6	هل تم تطوير أو تطبيق نظام في مؤسسة الرعاية الصحية لتعزيز الشفافية في اتخاذ القرارات الصغيرة و التفاعلات اليومية من خلال، التواصل الفعال بين المرضى و الأطباء لتوصيات العلاج، عرض خيارات العلاج، إشراك المرضى في اتخاذ قرارات مشتركة، وتقديم نصائح منظمة حول إدارة الحالة الصحية بأنفسهم؟							
.7	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية للإعلان العلني عن أولوياتها لتحسين رعاية المرضى، وصحة المجتمع، وتخفيض التكاليف؟							
.8	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية يُظهر التزامها بتوفير وصول متكافئ، وعلاج عادل، ونتائج صحية للجميع في المجتمع (مثلاً، من خلال الاستراتيجية، السياسة، والعمليات)؟							
.9	هل تم تطوير أو تطبيق نظام في الهيئة الإدارية لمؤسسة الرعاية الصحية لتقييم مقاييس الأداء المبنية على القيمة بانتظام، مع إجراء مقارنات معيارية (مثل الجودة السريرية، رضا المرضى، صحة المجتمع، وتكلفة الرعاية)؟							
.10	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية يربط تقييم أداء وتعويضات القادة جزئيًا بأداء الرعاية المبنية على القيمة؟							

.11	هل تم تطوير وتطبيق نظام في المؤسسة يضمن وجود سياسات حوكمة واضحة لدعم استدامة أنظمة تكنولوجيا المعلومات الصحية وفعاليتها؟							
.12	هل تم تطوير أو تطبيق استراتيجية لدى مؤسسة الرعاية الصحية لتعزيز شراكات مؤسسية أخرى، مثل التعاون مع المستشفيات الأخرى، ووكالات الصحة العامة، أو شركات التأمين الصحي، لدعم مشاركتها في الرعاية المبنية على القيمة؟							

هل لديك أي تعليقات أخرى حول الحوكمة في مؤسستك الصحية؟

2- وحدات الممارسة المتكاملة:

يقوم هذا القسم بتقييم نهج الرعاية المتكاملة للمؤسسة الصحية، مع التركيز على الفرق متعددة التخصصات، مسارات العلاج المنظمة، وتنسيق الرعاية. كما يفحص كيفية تقديم المؤسسة الصحية للرعاية الشاملة، وإدارة مخاطر المرضى، والتعاون مع الموارد المجتمعية.

#	الأسئلة	تم تطويره وتطبيقه بالكامل	تم تطويره ولكن لم يُطبق بالكامل	قيد التطوير	تم مناقشته	غير قابل للتطبيق	لم ينظر فيها	غير متأكد
.13	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية يضمن مشاركة القيادة العليا للكوادر الطبية في اتخاذ القرارات التشغيلية وتحمل المسؤوليات؟							
.14	**هل تم تطوير أو تطبيق نظام في المؤسسة الصحية يضمن تحمل المناصب للمسؤولية عن جودة الرعاية السريرية وسلامة المرضى ، مع إجراء جولات منتظمة للتفاعل مع الموظفين في الصفوف الأمامية؟**							
.15	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لتنظيم الرعاية الصحية وفق مسارات علاجية محددة تستند إلى المؤشرات المرضية، بدلاً من تقديم خدمات منفردة؟							
.16	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية ينظم الرعاية الصحية بناءً على مسارات علاجية ، ويخطط بشكل شامل لتوفير خدمات الوقاية والتشخيص والعلاج والتأهيل والرعاية التلطيفية ضمن شبكة رعاية موحدة؟							
.17	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية يضمن وجود قائد فريق واحد لإدارة رعاية كل مريض داخل شبكة الرعاية؟							
.18	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لتحديد المرضى المعرضين لخطر تدني النتائج السريرية أو الاستخدام المكثف للموارد من خلال تحليل البيانات، وتقديم الدعم لهم عبر منسقين متخصصين للرعاية ؟							

.19	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية للتعاون مع الموارد المجتمعية (مثل وكالات الصحة العامة، المدارس، وكالات الخدمات الإنسانية، والمنظمات الدينية) لدعم تنسيق الرعاية من خلال معالجة المحددات المؤدية الى تفاوت في صحة الافراد ؟							
.20	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لإحالة المرضى وعائلاتهم إلى الموارد المجتمعية لتلبية احتياجاتهم غير الطبية، مع ضمان حصول الأطباء على معلومات حول المتابعة مع المرضى؟							
.21	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لإنشاء فريق لتنسيق الرعاية يشمل كوادر صحية غير تقليدية (مثل المسعفين المجتمعيين، ومدربي الصحة)، مع تحديد خطوط مسؤولية واضحة وتواصل فعال بين المنسقين، و مديري الحالات؟							
.22	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية يضمن تقديم برامج تدريبية متخصصة للفرق متعددة التخصصات، تشمل التدريب على تقنيات معرفية وسلوكية مختلفة لتحسين العمل الجماعي والتنسيق بين الكوادر الصحية؟							

هل لديك أي تعليقات أخرى حول تنسيق الرعاية في مؤسستك الصحية؟

3- قياس النتائج والتكاليف:

يقوم هذا القسم بتقييم النتائج العلاجية والتكاليف من خلال جمع بيانات صالحة حول مقاييس المؤسسة الصحية، ومراقبة التكاليف الخاصة بالمرضى، واستخدام المعلومات في اتخاذ القرارات، وتحسين الرعاية.

#	الأسئلة	تم تطويره وتطبيقه بالكامل	تم تطويره ولكن لم يُطبق بالكامل	قيد التطوير	تم مناقشته	غير قابل للتطبيق	لم يُنظر فيها	غير متأكد
.23	هل تم تطوير أو تطبيق نظام لدى المؤسسة الصحية لجمع نتائج علاج المرضى بطريقة ذات دلالة (مثل الألم، القدرة الوظيفية، حالات الانتكاس) باستخدام أدوات موثوقة وصحيحة؟							
.24	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية يضمن أن جمع البيانات محدد بالمؤشرات ومتكامل في الرعاية اليومية للمرضى؟							
.25	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية يضمن أن بيانات نتائج العلاج تعكس الآثار قصيرة وطويلة الأمد للرعاية							

	الصحية، ويتم قياسها بانتظام طوال فترة العلاج؟							
.26	هل تم تطبيق نظام في المؤسسة الصحية لتقييم الأداء ونتائج الرعاية الصحية على فترات طويلة، لضمان التحسين المستمر ومتابعة التطورات الصحية على المدى البعيد؟							
.27	هل تم تطوير أو تطبيق نظام لدى المؤسسة الصحية لنشر أو إتاحة بيانات نتائج العلاج من قبل كل مقدم رعاية؟							
.28	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لجمع وتوثيق الموارد المالية المنفقة على رعاية كل مريض، مع ضمان أن يقوم الفريق الطبي والإداري بتقييم هذه النفقات معاً؟							
.29	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لعقد اجتماعات منتظمة للفريق لمراجعة ومناقشة بيانات نتائج العلاج؟							
.30	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية يتيح للقيادة العليا استخدام بيانات جودة الرعاية السريرية، ورضا المرضى، والصحة العامة للمجتمع، والتكاليف لدفع عملية اتخاذ القرارات الاستراتيجية؟							
.31	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لمشاركة نتائج الأداء مقارنة بالمعايير المرجعية على نطاق واسع داخل المؤسسة؟							
.32	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية للإبلاغ العلني عن البيانات المتعلقة بالرعاية السريرية، وتجربة المرضى، وأداء التكاليف، والفوارق الصحية؟							
.33	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لتعديل عرض بيانات الأداء لتلبية احتياجات كل فئة مستهدفة، مع ضمان أن تكون هذه البيانات قابلة للتنفيذ؟							
.34	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية للحد من الاستخدام غير الضروري، مثل إعادة الدخول إلى المستشفى أو الزيارات الطارئة التي يمكن إدارتها في أماكن غير المستشفيات؟							
.35	هل تم تطوير أو دمج تقنيات التحسين المستمر للجودة في تدريب الموظفين وإجراءات العمل داخل المؤسسة الصحية؟							
.36	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية يتيح المشاركة الفعّالة في المبادرات والحملات التحسينية المقدمة من منظمات خارجية تتماشى مع أهدافها واحتياجات المؤسسة؟							

.37	هل تم تطوير نظام في المؤسسة لتحليل العمليات الداخلية وتبسيط إجراءات العمل بين أفراد الفريق الطبي، بهدف تحسين الكفاءة وتقليل التكاليف؟							

هل لديك تعليقات أخرى حول قياس التكاليف والنتائج في مؤسستك الصحية؟

4- نموذج الدفع:

يتناول هذا القسم طرق الدفع الخاصة بالمؤسسة الصحية، مع التركيز على إدارة المخاطر المالية، توافق التكاليف مع نتائج المرضى، واستخدام الحوافز ونماذج الدفع القائمة على القيمة لتحسين الكفاءة وجودة الرعاية.

#	الأسئلة	تم تطويره وتطبيقه بالكامل	تم تطويره ولكن لم يُطبق بالكامل	قيد التطوير	تم مناقشته	غير قابل للتطبيق	لم يُنظر فيها	غير متأكد
.38	هل تم تطوير أو تطبيق نظام لدى المؤسسة الصحية لمراقبة التغيرات في السوق وحصة السوق لخدمات مختلفة؟							
.39	هل لدى المؤسسة الصحية نظام متكامل لتوقع الأرباح والخسائر عند تقييم عقود الدفع البديلة؟							
.40	هل تم تطوير أو تطبيق نظام لدى المؤسسة الصحية للتحقق من صحة التكلفة التي تحددها الجهات الدافعة ؟							
.41	هل طورت المؤسسة الصحية خبرة مباشرة في إدارة المخاطر المالية والطبية من خلال التأمين الذاتي أو من خلال التعاقد مع أصحاب العمل المؤمنين ذاتيًا؟							
.42	هل تم تطوير نهج منظم لدى المؤسسة الصحية لإدارة المخاطر المالية، يشمل استخدام وسائل حماية مالية مثل تأمين وقف الخسارة أو حدود المخاطر لتقليل الخسائر المحتملة؟							
.43	هل تم تطوير أو تطبيق إمكانية وصول المؤسسة الصحية إلى موارد مالية لتمويل و تطوير مبادرات جديدة للرعاية القائمة على القيمة؟							
.44	هل تم تطوير أو تطبيق نظام لدى المؤسسة الصحية لمراقبة مستمرة للإيرادات مقارنةً بتكلفة تقديم الخدمات، ما في ذلك استخدام نماذج دفع مختلفة عن الدفع مقابل كل خدمة؟							
.45	هل تم تطوير أو تطبيق نظام محاسبة تكاليف لدى المؤسسة الصحية قادر على تحديد التكلفة لكل لقاء أو خدمة؟							
.46	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لتعديل المخاطر آخذة بعين الاعتبار تعقيد الحالات الصحية للمرضى وتضمن توزيع الموارد بشكل عادل؟							

.47	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لمقارنة أداء مقدمي الرعاية لتحفيز تحسين النتائج من خلال معايير شفافة ومحددة؟							
.48	هل تم تطوير أو تطبيق خطة موثقة لدى المؤسسة الصحية لتوزيع المدخرات المشتركة أو الحوافز المستندة إلى القيمة بين الكوادر الطبية بناءً على نتائج العلاج، لضمان توافق المكافآت المالية مع جودة الرعاية المقدمة؟							
.49	هل تم تطوير أو تخصيص ميزانية في المؤسسة الصحية لعلاج مؤشرات مرضية محددة تتطلب علاجًا متعدد التخصصات، مثل الأمراض المزمنة؟							
.50	هل تم تطوير أو تطبيق نظام لصرف الميزانية في المؤسسة الصحية على أساس معدل سنوياً؟							
.51	هل تم تطوير أو تطبيق نظام في المؤسسة الصحية لتقديم تعويضات إضافية للنتائج الصحية التي لا يمكن تجنبها؟							

هل لديك تعليقات أخرى حول نموذج الدفع في مؤسستك الصحية؟

5- التكامل الإقليمي متعدد المواقع:

يقوم هذا القسم بتقييم استراتيجية المؤسسة الصحية في تحسين تقديم الرعاية من خلال التخصص في خدمات محددة، تركيز العلاجات المعقدة مع مقدمي الرعاية ذوي الحجم الكبير، وتقديم الرعاية الروتينية في مواقع ذات تكاليف منخفضة، بالإضافة الى تنسيق الرعاية من خلال مؤسسة مركزية لتحقيق الكفاءة.

#	الأسئلة	تم تطويره وتطبيقه بالكامل	تم تطويره ولكن لم يُطبق بالكامل	قيد التطوير	تم مناقشته	غير قابل للتطبيق	لم يُنظر فيها	غير متأكد
.52	هل تم تطوير وتطبيق نهج تحسين الرعاية في مجالات معينة والامتناع عن تقديم خدمات أخرى داخل المؤسسة الصحية ذو أقل قيمة أو فعالية ؟							
.53	هل تم تطوير أو تطبيق نظام لدى المؤسسة الصحية لتنفيذ العلاجات المجدولة أو المعقدة، مثل العمليات الجراحية، من خلال عدد محدود من مقدمي الرعاية المتخصصين في علاج أمراض معينة، والذين يتمتعون بمعالجة أعداد كبيرة من هذه الحالات ؟							
.54	هل تم تطوير أو تطبيق نظام يتيح تقديم العلاجات الأقل تعقيدًا والرعاية الروتينية في مواقع أقل تكلفة خارج المستشفيات؟							
.55	هل تم تطوير أو تطبيق نظام لدى المؤسسة الصحية لتنسيق التعاون بين جميع المؤسسات الصحية المشاركة من خلال مؤسسة مركزية؟							

.56	هل تم تطوير أو تطبيق نظام لدى المؤسسة الصحية يتيح استخدام خدمات الطب عن بُعد لتقديم الرعاية الروتينية أو العلاجات الأقل تعقيدًا؟							

هل لديك أي تعليقات أخرى حول عنصر الاكتمال الإقليمي متعدد المواقع في مؤسستك الصحية؟

6- التوسع الجغرافي

يركز هذا القسم على كيفية تعزيز المؤسسة الصحية لجودة الرعاية من خلال التركيز على تميز الرعاية بدلاً من توسيع نطاق الشبكة، وتعزيز التعاون بين شبكات الرعاية، وتشجيع تبادل الموظفين بين المرافق الصحية لتعزيز العمل الجماعي والتعاون المهني.

#	الأسئلة	تم تطويره وتطبيقه بالكامل	تم تطويره ولكن لم يُطبق بالكامل	قيد التطوير	تم مناقشته	غير قابل للتطبيق	لم يُنظر فيها	غير متأكد
.57	هل تم تطوير و تطبيق نظام لتركيز المؤسسة الصحية على توسيع أشكال الرعاية الممتازة بدلاً من توسيع نطاق منطقة التغطية لشبكة الرعاية؟							
.58	هل تم تطوير وتطبيق نظام يهدف إلى توسيع انتشار المؤسسة الصحية جغرافيًا لتقديم خدمات الرعاية الصحية في مناطق جديدة أو غير مخدومة؟							
.59	هل تم تطوير وتطبيق برامج تشجيع المؤسسة الصحية لتبادل الموظفين بانتظام بين المرافق الصحية المشاركة لتعزيز العمل الجماعي وتبادل الخبرات؟							
.60	هل تم تطوير وتطبيق في المؤسسة الصحية نظام يأخذ في الاعتبار الاحتياجات المحلية والعوامل الجغرافية عند تطبيق نموذج الرعاية الصحية القائمة على القيمة في المناطق المختلفة؟							
.61	هل تم تطوير وتطبيق في المؤسسة الصحية نظام يستخدم التكنولوجيا المتقدمة، مثل الطب عن بعد أو العيادات المتنقلة، لتوسيع نطاق الرعاية والوصول إلى المرضى في المناطق النائية؟							

هل لديك أي تعليقات أخرى حول عنصر التوسع الجغرافي في مؤسستك الصحية؟

7- تكنولوجيا المعلومات:

يُقيّم هذا القسم استخدام المؤسسة الصحية لتكنولوجيا المعلومات الصحية، مع التركيز على التوافق بين السجلات الصحية الإلكترونية ، تبادل البيانات، دعم القرار السريري، والتحليلات التنبؤية. كما يقيم كيفية دعم تكنولوجيا المعلومات الصحية للرعاية القائمة على القيمة، الترميز التشخيصي الدقيق، وإمكانية الوصول إلى السجلات الرقمية الشاملة للمرضى عبر فرق الرعاية.

#	الأسئلة	تم تطويره وتطبيقه بالكامل	تم تطويره ولكن لم يُطبق بالكامل	قيد التطوير	تم مناقشته	غير قابل للتطبيق	لم يُنظر فيها	غير متأكد
.62	هل تم تطوير استراتيجية شاملة لتكنولوجيا المعلومات الصحية في المؤسسة لدعم الرعاية المستندة إلى القيمة، وهل يتم تطبيقها بالكامل وتطويرها لتلبية احتياجات رعاية المرضى المختلفة؟							
.63	هل تم تطوير أو تطبيق نظام في المؤسسة يضمن قابلية التشغيل البيني لنظام السجلات الطبية الإلكترونية، بهدف تسهيل تبادل البيانات وتوحيد هياكل السجلات الرقمية، مما يعزز التعاون بين المؤسسات الصحية؟							
.64	هل تم تطبيق التحليلات التنبؤية في المؤسسة لمراقبة استخدام الخدمات وتحديد المرضى المعرضين لمخاطر النتائج السلبية لضمان تنبؤات دقيقة وموثوقة للنتائج؟							
.65	هل تم تطوير أو تطبيق نظام في المؤسسة يضمن وجود سجل رقمي شامل للمرضى يغطي كامل مسار العلاج، ويشمل التاريخ الطبي، والتشخيص، والعلاج، مع وثيقة استمرارية الرعاية التي تحتوي على المعلومات الأساسية؟							
.66	هل تم تطوير أو تطبيق نظام في المؤسسة يتيح للأطباء وفِرَق الرعاية تلقي تنبيهات إلكترونية حول التغيرات في حالة المريض، مثل زيارات الطوارئ أو الدخول والخروج من المستشفى؟							
.67	هل تم تطوير أو تطبيق نظام في السجل الرقمي للمرضى في المؤسسة يوفر إرشادات سريرية وتوصيات بناءً على تشخيص الأمراض لدعم اتخاذ القرارات السريرية؟							
.68	هل تم تطوير أو تطبيق نظام في المؤسسة يتيح للأطباء وصف الأدوية إلكترونيًا؟							
.69	هل تم تطوير أو تطبيق نظام في المؤسسة يتيح للأطباء استخدام برامج مراقبة العقاقير الموصوفة							

	(PDMPs)لتتبع الأدوية الخاضعة للرقابة؟							
.70	هل تعتمد المؤسسة الصحية على نظام لتتبع تكاليف الرعاية الجزئية والإجراءات الروتينية، وضمان تخصيص الموارد بشكل يتناسب مع نشاط كل عملية لتقليل الهدر وزيادة الكفاءة؟							
.71	هل تم تطوير أو تطبيق نظام في المؤسسة لإجراء مراجعات دورية لنظام تكنولوجيا المعلومات الصحية لضمان دقة البيانات وتطبيق خطط لتصحيح أي تناقضات؟							
.72	هل تم تطوير أو تطبيق نظام يضمن الترميز التشخيصي الكامل والدقيق لدعم تعديل المخاطر، بما في ذلك الترميز الهرمي للحالات الصحية حسب شدتها وحاجتها للرعاية؟							
.73	هل تم تطوير أو تطبيق نظام يضمن إتاحة السجل الرقمي للمرضى لجميع مقدمي الرعاية الصحية المشاركين في الرعاية؟							
.74	هل تم تطوير وتطبيق نظام في المؤسسة يمكّن المرضى من الوصول إلى سجلاتهم الطبية وإشراكهم في اتخاذ القرارات الصحية؟							

هل لديك تعليقات أخرى حول نظام تكنولوجيا المعلومات في مؤسستك الصحية؟

شكرًا لتعاونكم ووقتكم

Appendix (E) IRB Approval

Arab American University
Institutional Review Board - Ramallah

الجامعة العربية الأمريكية
مجلس اخلاقيات البحث العلمي – رام الله

IRB Approval Letter

Study Title: "Value-Based Healthcare in Palestine: Strategic Assessment, Challenges and Recommendations".

Submitted by: Baraah Ahmad Samara

Date received: 30th October 2024

Date reviewed: 5th November 2024

Date approved: 6th November 2024

Your Study titled **"Value-Based Healthcare in Palestine: Strategic Assessment, Challenges and Recommendations"** with the code number **"R-2024/A/157/N"** was reviewed by the Arab American University Institutional Review Board - Ramallah and it was approved on the 6th of November 2024.

Sajed Ghawadra, PhD
IRB-R Chairman
Arab American University of Palestine

الجامعة العربية الأمريكية - فلسطين
مجلس اخلاقيات البحث العلمي - رام الله
IRB-R
ARAB AMERICAN UNIVERSITY-PALESTINE
INSTITUTIONAL REVIEW BOARD - RAMALLAH

General Conditions:

1. Valid for 6 months from the date of approval.
2. It is important to inform the IRB-R with any modification of the approved study protocol.
3. The Bord appreciates a copy of the research when accomplished.

الملخص

المقدمة: تهدف هذه الدراسة إلى تقييم تنفيذ الرعاية الصحية المبنية على القيمة (VBHC) في المستشفيات متوسطة المستوى في فلسطين، مع التركيز على إمكانيتها لتحسين نتائج المرضى مع تحسين تكاليف الرعاية الصحية. تؤكد VBHC على الرعاية المتكاملة، وقياس النتائج، والنهج المتمحورة حول المريض، مما يجعلها ذات صلة خاصة بمواجهة التحديات الفريدة التي يواجهها النظام الصحي الفلسطيني، والمتميزة بعدم الاستقرار السياسي، وندرة الموارد، والحكم المجزأ.

المنهجية: استخدمت الدراسة نهجًا متعدد الأساليب يجمع بين الاستبيانات الكمية والمقابلات النوعية مع المهنيين الصحيين وصانعي السياسات. تم تحليل البيانات التي تم تجميعها لتقييم مدى تبني نموذج الرعاية القائمة على القيمة .ركزت الدراسة على ستة مكونات رئيسية للرعاية الصحية المبنية على القيمة: وحدات الممارسة المتكاملة (IPUs) ، تتبع النتائج والتكاليف، نماذج الدفع المجمعة، التكامل متعدد المواقع، التوسع الجغرافي، واستخدام منصات تكنولوجيا المعلومات.

النتائج: كشفت الدراسة عن قصور كبير في تنفيذ VBHC في المستشفيات الفلسطينية، حيث بلغ متوسط النتيجة العامة 2.46. سجلت جميع مكونات VBHC نتائج منخفضة (2.12-2.8)، مما أبرز أطر الحوكمة غير الكافية، وضعف البنية التحتية لتكنولوجيا المعلومات، والمقاومة الثقافية كعوائق رئيسية. وعلى الرغم من إحراز بعض التقدم في تتبع النتائج وكفاءة التكاليف، فإن نقص أنظمة تقديم الرعاية المتكاملة وآليات الدفع المجمعة يعيق التبني الكامل. تزيد الفجوات الإقليمية في جودة الرعاية الصحية وإمكانية الوصول من تعقيد دمج .VBHC تشمل التوصيات تحسين الحوكمة، وتعزيز التعاون، والاستثمار في البنية التحتية لتكنولوجيا المعلومات لدعم شفافية البيانات والإصلاحات الموجهة خصيصًا لفلسطين.

الاستنتاج: تُظهر هذه الدراسة إمكانات VBHC لتحويل تقديم الرعاية الصحية في فلسطين من خلال معالجة أوجه القصور وتحسين النتائج المتمحورة حول المرضى. ومع ذلك، فإن تحقيق هذا الإمكان يتطلب التغلب على التحديات النظامية والثقافية والبنية التحتية. تقدم توصيات الدراسة رؤى عملية لصانعي السياسات ومقدمي الرعاية الصحية، مما يُسهم في النقاش العالمي حول جدوى VBHC في البيئات المتأثرة بالصراعات والمحدودة الموارد.

الكلمات المفتاحية: الرعاية الصحية المبنية على القيمة، وحدات الممارسة المتكاملة، النظام الصحي الفلسطيني، الرعاية المتمحورة حول المريض، حوكمة الرعاية الصحية، قياس النتائج، إصلاح الرعاية الصحية.