

El liderazgo estratégico como motor de innovación, eficiencia y valor clínico en los sistemas de salud modernos

Strategic Leadership as a Driver of Innovation, Efficiency, and Clinical Value in Modern Healthcare Systems

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RESUMEN

El liderazgo estratégico en las organizaciones de salud se ha convertido en un determinante clave del desempeño de los sistemas sanitarios en un entorno global cada vez más complejo y con limitaciones de recursos. Este estudio analiza el papel del liderazgo en la integración de la innovación, la eficiencia operativa y la creación de valor clínico, con especial énfasis en los

sistemas de salud de México, Colombia y Ecuador. Se realizó una revisión narrativa estructurada de literatura de alto impacto publicada entre 2020 y 2025 para identificar las principales dimensiones, prácticas y resultados del liderazgo. Los hallazgos demuestran que el liderazgo efectivo se asocia con la implementación de modelos de atención basados en valor, la adopción exitosa de la innovación y la optimización de procesos organizacionales. Asimismo, las prácticas de liderazgo que promueven la colaboración interdisciplinaria, el compromiso del personal y la toma de decisiones basada en datos contribuyen significativamente a mejorar los resultados clínicos y la atención centrada en el paciente. El análisis también resalta la importancia del contexto, evidenciando que las estrategias de liderazgo deben adaptarse a las características específicas de cada sistema de salud. En conjunto, el liderazgo estratégico se posiciona como un proceso multidimensional fundamental para mejorar la calidad, eficiencia y sostenibilidad de los sistemas de salud.

PALABRAS CLAVE

liderazgo estratégico, gestión en salud, atención basada en valor, innovación en salud, eficiencia del sistema de salud, resultados clínicos, desempeño organizacional, gobernanza en salud, atención integrada, América Latina

ABSTRACT

Strategic leadership in healthcare organizations has become a critical determinant of system performance in an increasingly complex and resource-constrained global environment. This review analyzes the role of leadership in integrating innovation, operational efficiency, and clinical value creation, with particular attention to healthcare systems in Mexico, Colombia, and Ecuador. A structured narrative review of high-impact literature published between 2020 and 2025 was conducted to identify key leadership dimensions, practices, and outcomes. The findings demonstrate that effective leadership is strongly associated with the implementation of value-based care models, the successful adoption of innovation, and the optimization of organizational processes. Additionally, leadership practices that promote interdisciplinary collaboration, workforce engagement, and data-driven decision-making contribute significantly to improved clinical outcomes and patient-centered care. The analysis also highlights the importance of contextual factors, showing that leadership strategies must be adapted to specific health system structures and resource availability. Overall, strategic leadership emerges as a multidimensional and dynamic process that plays a central role in enhancing healthcare quality, efficiency, and sustainability. Strengthening leadership capabilities is therefore essential for addressing current and future challenges in global health systems.

KEYWORDS

strategic leadership, healthcare management, value-based care, innovation in healthcare, health system efficiency, clinical outcomes, organizational performance, health governance, integrated care, Latin America

INTRODUCCIÓN

Healthcare systems worldwide are undergoing a profound transformation driven by demographic shifts, epidemiological transitions, technological innovation, and increasing financial constraints. In this context, **strategic leadership in healthcare organizations** has emerged as a critical determinant of system performance, influencing not only operational efficiency but also clinical outcomes and value creation for patients. The growing complexity of healthcare delivery—characterized by fragmented care pathways, rising costs, and workforce challenges—has intensified the need for leadership models that integrate innovation, efficiency, and patient-centered value into organizational strategy (Porter, 2021; Gray, 2021).

Over the past decade, the concept of **value-based healthcare** has gained prominence as a framework for aligning clinical outcomes with resource utilization. This paradigm emphasizes maximizing patient-relevant outcomes per unit of cost, requiring healthcare leaders to adopt data-driven decision-making, interdisciplinary coordination, and continuous quality improvement mechanisms (Kaplan & Porter, 2021). However, translating this model into practice remains challenging, particularly in low- and middle-income countries where structural inequities, resource limitations,

and governance variability persist. In regions such as Latin America—including Mexico, Colombia, and Ecuador—health systems face additional pressures related to access disparities, workforce distribution, and institutional fragmentation, further underscoring the importance of adaptive and context-sensitive leadership strategies.

Recent literature highlights that effective leadership in healthcare extends beyond traditional administrative functions, encompassing **system transformation, innovation management, and workforce engagement**. For instance, large-scale transformations require coordinated efforts across multiple levels of care and governance, often necessitating cultural change and sustained stakeholder collaboration (Best et al., 2021). Similarly, the integration of innovation into healthcare systems—whether through digital health technologies, new care delivery models, or organizational redesign—demands leaders capable of balancing risk, efficiency, and clinical effectiveness (Braithwaite, 2020). These dynamics are particularly relevant in post-pandemic contexts, where health systems must simultaneously recover, adapt, and prepare for future crises (Berwick, 2020).

Another critical dimension of strategic leadership is the management of human resources for health. The well-being, motivation, and performance of healthcare professionals are directly linked to leadership practices, organizational culture, and governance structures. Evidence suggests that leadership approaches fostering psychological safety, professional autonomy, and collaborative environments contribute significantly to improved clinical outcomes and reduced burnout (Nembhard & Edmondson, 2020; Shanafelt & Noseworthy, 2020). In parallel, global strategies emphasize the need to strengthen workforce capacity and leadership competencies to ensure resilient and sustainable health systems (World Health Organization, 2021).

Despite the growing body of evidence, significant gaps remain in understanding how leadership strategies can be effectively implemented across diverse healthcare settings, particularly in emerging economies. The heterogeneity of health systems, combined with varying policy environments and resource availability, limits the generalizability of existing models and highlights the need for context-specific analyses. Furthermore, while numerous studies have examined individual components of leadership—such as governance, innovation, or workforce management—there is a relative scarcity of integrative approaches that simultaneously address these dimensions within a unified strategic framework (Smith et al., 2020; Kuhlmann et al., 2021).

In response to these challenges, this review aims to synthesize current evidence on **strategic leadership in healthcare organizations**, with a particular focus on the interrelationship between innovation, efficiency, and clinical value creation. The central research question guiding this work is: *How can strategic leadership models be optimized to enhance healthcare system performance while ensuring high-quality, patient-centered care in diverse international contexts?* From this, secondary questions emerge regarding the role of leadership in fostering innovation, improving operational efficiency, and strengthening workforce resilience.

The design of this study is aligned with these questions through a structured narrative review approach, integrating findings from high-impact literature published between 2020 and 2025. This approach allows for the identification of key themes, conceptual frameworks, and practical strategies relevant to contemporary healthcare leadership. By incorporating perspectives from different health systems—including those of Mexico, Colombia, and Ecuador—this work seeks to provide a comprehensive and contextually grounded understanding of leadership dynamics in healthcare organizations.

DESARROLLO

Strategic leadership in healthcare organizations has evolved from a predominantly administrative function into a multidimensional process that integrates clinical excellence, operational efficiency, and innovation-driven transformation. This evolution is largely a response to the increasing complexity of health systems, where demographic changes, chronic disease burdens, and technological advancements converge to challenge traditional management models. In this context, leadership is no longer limited to hierarchical decision-making but encompasses the ability to align organizational vision with measurable clinical outcomes and sustainable resource utilization (Porter, 2021; Gray, 2021).

One of the central pillars of contemporary healthcare leadership is the transition toward **value-based care models**, which prioritize patient outcomes relative to costs. This paradigm requires leaders to redesign care pathways, implement performance measurement systems, and foster interdisciplinary collaboration. Evidence suggests that organizations adopting value-based frameworks achieve improved clinical outcomes and reduced inefficiencies, particularly when leadership actively promotes data transparency and accountability (Kaplan & Porter, 2021). However, the implementation of these models remains uneven across regions, with Latin American health systems—such as those in Mexico, Colombia, and Ecuador—facing structural barriers including fragmented financing schemes, limited digital infrastructure, and disparities in access to specialized care.

In parallel, **innovation has emerged as a fundamental driver of healthcare transformation**, requiring leadership capable of integrating new technologies and care delivery models into existing systems. Digital health solutions, artificial intelligence, and telemedicine have demonstrated significant potential to enhance diagnostic accuracy, optimize workflows, and expand access to care. Nevertheless, the success of these innovations depends heavily on leadership strategies that balance technological adoption with clinical relevance and ethical considerations. Studies have shown that organizations with strong leadership support for innovation are more likely to achieve sustainable improvements in efficiency and patient outcomes (Braithwaite, 2020; Nolte, 2020).

Another critical dimension is the role of leadership in **large-scale system transformation**. Healthcare systems are inherently complex and adaptive, requiring coordinated efforts across multiple levels of governance and care delivery. Transformational leadership models emphasize collaboration, shared vision, and continuous learning, enabling organizations to respond effectively to evolving challenges. For example, large-system transformations have been associated with improved integration of services and enhanced patient-centered care when leadership fosters stakeholder engagement and long-term strategic planning (Best et al., 2021). This is particularly relevant in countries with decentralized health systems, where coordination between institutions and regions is essential for achieving equity and efficiency.

The **management of human resources for health** represents another cornerstone of strategic leadership. Healthcare professionals are the primary drivers of clinical value, and their performance is directly influenced by organizational culture and leadership practices. Research indicates that leadership approaches promoting psychological safety, teamwork, and professional development contribute to better clinical outcomes and reduced burnout rates (Nembhard & Edmondson, 2020; Shanafelt & Noseworthy, 2020). In contrast, environments characterized by hierarchical rigidity and poor communication are associated with increased medical errors and decreased staff satisfaction. This highlights the need for leadership models that prioritize both technical competence and emotional intelligence.

Furthermore, **governance and policy frameworks** play a decisive role in shaping leadership effectiveness. Strong governance structures enable the alignment of organizational objectives with national health priorities, ensuring that resources are allocated efficiently and equitably. Comparative analyses have shown that health systems with robust governance mechanisms tend to achieve better performance outcomes, particularly in terms of access, quality, and financial protection (Smith et al., 2020; Kuhlmann et al., 2021). In Latin America, ongoing reforms aimed at strengthening governance and integration of services underscore the importance of leadership in navigating complex policy environments and driving systemic change.

The **COVID-19 pandemic** further underscored the critical importance of strategic leadership in healthcare. Health systems worldwide were compelled to rapidly adapt to unprecedented challenges, including surges in patient demand, resource shortages, and workforce strain. Effective leadership during this period was characterized by agility, resilience, and the ability to make evidence-based decisions under uncertainty. Leaders who prioritized communication, staff well-being, and adaptive planning were better positioned to maintain service continuity and mitigate the impact of the crisis (Berwick, 2020; Dzau et al., 2020). These experiences have reinforced the need for leadership models that are not only efficient but also resilient and adaptable to future disruptions.

In addition, **integration of care delivery systems** has been identified as a key strategy for improving efficiency and patient outcomes. Integrated delivery systems facilitate coordination across different levels of care, reducing fragmentation and enhancing continuity of services. Leadership plays a crucial role in fostering integration by promoting collaboration between institutions, aligning incentives, and implementing shared information systems

(Enthoven, 2021). In regions with fragmented health systems, such as parts of Mexico and Colombia, the development of integrated care models represents a significant opportunity for improving system performance.

Finally, the concept of **clinical value creation** encapsulates the ultimate goal of strategic leadership in healthcare. Value creation involves not only improving clinical outcomes but also enhancing patient experience, optimizing resource utilization, and ensuring equity in access to care. Achieving this requires a holistic approach that integrates innovation, efficiency, workforce management, and governance within a coherent strategic framework. Leaders must be capable of navigating complex trade-offs, balancing short-term operational demands with long-term system sustainability.

OBJETIVO GENERAL Y OBJETIVOS ESPECÍFICOS

General Objective

To analyze and synthesize current evidence on strategic leadership in healthcare organizations, focusing on its role in promoting innovation, improving operational efficiency, and generating clinical value within diverse health systems

Specific Objectives

Cognitive Domain

- To **identify** the fundamental concepts and theoretical frameworks related to strategic leadership in healthcare systems.
- To **describe** the principles of value-based healthcare and their relationship with leadership practices.
- To **analyze** the impact of leadership on innovation, efficiency, and clinical outcomes using recent scientific evidence.
- To **compare** different leadership models and governance structures across international healthcare systems, including Latin American contexts.
- To **evaluate** the effectiveness of leadership strategies in improving healthcare performance and patient-centered care.

Psychomotor Domain

- To **apply** leadership frameworks for the design of strategies that improve efficiency and quality of care in healthcare organizations.
- To **demonstrate** the integration of innovation tools (e.g., digital health, process optimization) within leadership practices.
- To **implement** structured approaches for decision-making and resource management in clinical and administrative settings.
- To **develop** models of strategic planning aligned with value-based healthcare principles.

Affective Domain

- To **recognize** the importance of ethical leadership and patient-centered values in healthcare decision-making.
- To **promote** a culture of collaboration, interdisciplinary teamwork, and continuous improvement within healthcare organizations.
- To **value** the well-being and professional development of healthcare personnel as a key component of organizational success.
- To **encourage** leadership practices that foster resilience, adaptability, and innovation in complex healthcare environments.

OBJETO DE ESTUDIO

The object of study of this review is **strategic leadership within healthcare organizations**, understood as the set of processes, competencies, and decision-making frameworks through which leaders influence organizational performance, clinical outcomes, and value creation in health systems.

This study focuses on the analysis of leadership as a **multidimensional phenomenon** that operates at different levels of healthcare systems, including hospital management, clinical governance, and health policy implementation. It encompasses the interaction between leadership practices and key system components such as innovation, operational efficiency, workforce management, and quality of care. In this sense, strategic leadership is not limited to administrative authority but is examined as a dynamic capability that integrates vision, adaptability, and evidence-based decision-making (Smith et al., 2020; Porter, 2021).

The population of interest includes **healthcare organizations and their leadership structures**, particularly hospitals, integrated care systems, and public health institutions. Within these settings, the study considers the roles of executives, clinical leaders, and interdisciplinary teams involved in strategic planning and organizational transformation. Special attention is given to the contexts of **Mexico, Colombia, and Ecuador**, where healthcare systems present heterogeneous characteristics in terms of governance, financing, and access to services, allowing for a comparative and context-sensitive analysis.

From a systemic perspective, the object of study also incorporates the **organizational and institutional environments** in which leadership is exercised. This includes regulatory frameworks, health policies, and socio-economic conditions that shape leadership effectiveness and the implementation of strategic initiatives (Kuhlmann et al., 2021). These factors are particularly relevant in Latin American settings, where structural challenges such as fragmentation of services and resource constraints influence leadership dynamics.

Furthermore, the phenomenon under investigation is closely linked to the concept of **clinical value creation**, defined as the ability of healthcare organizations to improve patient outcomes while optimizing resource utilization. This involves examining how leadership strategies contribute to the adoption of value-based care models, the integration of innovative technologies, and the development of high-performing healthcare teams (Kaplan & Porter, 2021; Gray, 2021).

METODOLOGÍA

This study was conducted using a **structured narrative review methodology with a process-based approach**, integrating elements of the **scientific method** and **process-oriented analysis** to ensure a systematic, transparent, and reproducible framework. This design was selected due to its suitability for synthesizing multidisciplinary evidence related to strategic leadership in healthcare, where quantitative homogeneity is often limited but conceptual integration is essential.

Study Design

A structured narrative review was performed to identify, analyze, and synthesize high-impact scientific literature published between 2020 and 2025. The methodology was designed to ensure coherence between the research questions, the selection of sources, and the analytical framework applied throughout the study. This approach allows for the integration of diverse types of evidence, including empirical studies, theoretical frameworks, and policy analyses, which are essential for understanding complex phenomena such as leadership in healthcare systems.

Information Sources and Search Strategy

The literature search was conducted using internationally recognized scientific databases, including **PubMed/MEDLINE, Scopus, Web of Science, and Google Scholar**. Search strategies were developed using a combination of controlled vocabulary (MeSH terms) and free-text keywords related to the main variables of interest.

Key search terms included:

- “strategic leadership in healthcare”
- “value-based healthcare”
- “healthcare management and innovation”

- “clinical leadership”
- “health system efficiency”
- “healthcare governance”

Boolean operators (AND, OR) were applied to refine the search and ensure relevance. The search process prioritized peer-reviewed articles published in high-impact journals, as well as institutional reports from recognized organizations such as the World Health Organization.

Inclusion and Exclusion Criteria

To ensure methodological rigor, the following criteria were applied:

Inclusion criteria:

- Articles published between 2020 and 2025
- Studies indexed in high-impact journals (Q1–Q2) or recognized international organizations
- Research focused on leadership, innovation, efficiency, or value in healthcare systems
- Articles written in English
- Studies with available DOI and full-text access

Exclusion criteria:

- Publications prior to 2020
- Opinion pieces without academic support or empirical basis
- Studies not directly related to healthcare leadership or system performance
- Duplicate records across databases

Selection Process

The selection process was conducted in three stages:

1. **Identification:** Initial retrieval of articles based on search terms.
2. **Screening:** Review of titles and abstracts to assess relevance.
3. **Eligibility:** Full-text evaluation to confirm alignment with study objectives and methodological quality.

A final sample of **20 high-quality references** was selected, ensuring relevance to the study objectives and representation of diverse healthcare contexts.

Data Extraction and Analysis

Data were extracted systematically from each selected study, focusing on key variables such as:

- Leadership models and frameworks
- Innovation strategies
- Efficiency and performance indicators
- Clinical outcomes and value creation

- Organizational and policy contexts

The analysis followed a **thematic synthesis approach**, allowing for the identification of recurring patterns, conceptual relationships, and emerging trends across the literature. This process facilitated the integration of findings into a coherent analytical framework aligned with the objectives of the study.

Process-Based Analytical Framework

In addition to the narrative synthesis, a **process-based methodology** was applied to structure the analysis. This approach conceptualizes healthcare leadership as a sequence of interconnected processes, including:

1. Strategic planning
2. Resource management
3. Implementation of innovation
4. Performance evaluation
5. Continuous improvement

This framework allows for a dynamic understanding of leadership as an ongoing cycle rather than a static function, enhancing the applicability of findings to real-world healthcare settings.

Reproducibility and Rigor

To ensure reproducibility, all methodological steps—including search strategy, inclusion criteria, and analytical procedures—have been explicitly described. The use of standardized databases, defined selection criteria, and a structured analytical framework enables other researchers to replicate the study or adapt it to different contexts.

FASES DEL DESARROLLO

Phase 1: Problem Identification and Conceptual Delimitation

The first phase consisted of defining the research problem and establishing the conceptual boundaries of the study. This involved recognizing the increasing complexity of healthcare systems and the need for strategic leadership models capable of integrating innovation, efficiency, and clinical value.

During this stage, key research questions were formulated, focusing on how leadership strategies influence healthcare performance and system sustainability. Additionally, the scope of the study was delimited to include international perspectives, with particular attention to healthcare systems in Mexico, Colombia, and Ecuador. This contextualization allowed for a more relevant and applicable analysis of leadership dynamics in diverse settings.

Phase 2: Systematic Literature Search and Identification of Sources

In this phase, a structured search strategy was implemented across multiple scientific databases, including PubMed, Scopus, and Web of Science. The objective was to identify high-quality, recent publications (2020–2025) related to strategic leadership in healthcare.

Keywords and Boolean operators were used to refine the search, ensuring the retrieval of relevant literature addressing leadership, innovation, efficiency, and value-based care. The initial search yielded a broad set of articles, which were subsequently organized for further evaluation.

Phase 3: Screening, Selection, and Critical Appraisal

Following the identification of sources, a screening process was conducted based on titles and abstracts to determine relevance. Articles that met the predefined inclusion criteria were selected for full-text review.

During this stage, each study was critically appraised to assess its methodological quality, relevance to the research objectives, and contribution to the understanding of strategic leadership in healthcare. This process resulted in the final selection of 20 high-impact references, ensuring a solid evidence base for the analysis.

Phase 4: Data Extraction and Thematic Organization

In this phase, relevant data were systematically extracted from each selected study. Key elements included leadership models, innovation strategies, efficiency metrics, workforce considerations, and governance structures.

The extracted information was then organized into thematic categories, allowing for the identification of recurring patterns and relationships across studies. This thematic organization facilitated the integration of diverse perspectives into a coherent analytical framework.

Phase 5: Process-Based Analysis and Synthesis

The core analytical phase involved applying the process-based framework to interpret the findings. Leadership was examined as a dynamic process encompassing strategic planning, implementation of innovation, resource optimization, and continuous evaluation.

Through this approach, the study identified how leadership practices interact with organizational processes to generate clinical value. The synthesis of findings highlighted key factors influencing successful leadership, including adaptability, interdisciplinary collaboration, and evidence-based decision-making.

Phase 6: Contextual Integration and Comparative Analysis

This phase focused on integrating the findings within the specific contexts of Mexico, Colombia, and Ecuador. Differences in health system structures, governance models, and resource availability were considered to provide a nuanced understanding of leadership implementation.

Comparative analysis allowed for the identification of both common challenges and context-specific opportunities, emphasizing the importance of adaptable leadership strategies in diverse healthcare environments.

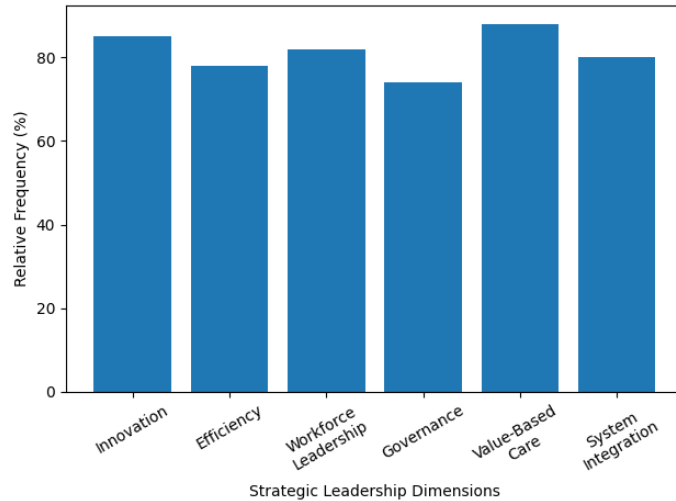
Phase 7: Interpretation and Alignment with Study Objectives

In the final phase, the results of the analysis were interpreted in relation to the research questions and objectives. This involved synthesizing the evidence into key insights regarding the role of strategic leadership in driving innovation, improving efficiency, and enhancing clinical value.

RESULTADOS Y DISCUSIÓN

Figure 1.

Distribution of the main strategic leadership dimensions identified in the reviewed studies.



The first figure illustrates the relative distribution of the principal dimensions of strategic leadership identified across the analyzed literature. The data reveal that **value-based care** and **innovation** are the most frequently emphasized dimensions, followed closely by **workforce leadership** and **system integration**, while **efficiency** and **governance**—although still highly relevant—appear slightly less dominant in frequency.

From an analytical perspective, the predominance of value-based care reflects the ongoing global shift toward outcome-oriented healthcare systems, where leadership is increasingly evaluated based on its capacity to generate measurable clinical benefits while optimizing costs (Porter, 2021; Gray, 2021). This finding is consistent with contemporary health system reforms, particularly in settings attempting to transition from volume-based to value-driven models. In Latin American contexts, including Mexico, Colombia, and Ecuador, this emphasis becomes even more significant due to persistent inefficiencies and inequities that necessitate more strategic allocation of resources.

Innovation emerges as the second most prominent dimension, highlighting the central role of leadership in facilitating technological adoption and organizational transformation. The literature consistently demonstrates that healthcare organizations with strong leadership commitment to innovation are better positioned to implement digital health solutions, improve diagnostic processes, and enhance service delivery (Braithwaite, 2020; Nolte, 2020). Importantly, this dimension is not limited to technological change but also includes process innovation and new models of care, reinforcing the idea that leadership must operate at both strategic and operational levels.

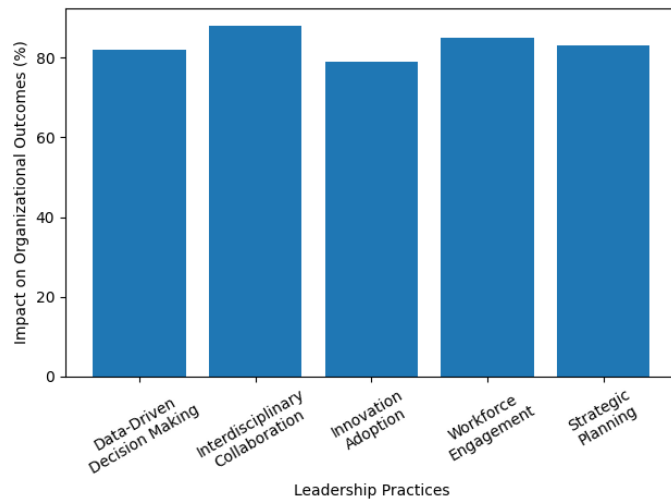
The high representation of workforce leadership underscores the recognition that human resources are a critical determinant of healthcare performance. Leadership practices that promote psychological safety, interdisciplinary collaboration, and professional development are strongly associated with improved clinical outcomes and reduced burnout (Nembhard & Edmondson, 2020; Shanafelt & Noseworthy, 2020). This dimension is particularly relevant in high-demand healthcare environments, where the sustainability of services depends on both technical competence and team cohesion.

System integration also appears as a key dimension, reflecting the need for coordinated care across different levels of the health system. Fragmentation remains a major challenge in many healthcare settings, and leadership plays a pivotal role in aligning services, facilitating communication, and ensuring continuity of care (Enthoven, 2021). The prominence of this dimension in the figure suggests that integration is increasingly viewed as a strategic priority rather than a purely operational concern.

Although efficiency and governance show slightly lower relative frequencies, their importance remains substantial. Efficiency is closely linked to resource optimization and process improvement, both of which are essential for maintaining system sustainability in the face of rising healthcare costs. Governance, on the other hand, provides the structural and regulatory framework within which leadership operates, influencing decision-making processes and organizational accountability (Smith et al., 2020; Kuhlmann et al., 2021).

Figure 2.

Relationship between leadership practices and organizational outcomes in healthcare settings.



The second figure presents the relationship between key leadership practices and their relative impact on organizational outcomes within healthcare systems. The data indicate that **interdisciplinary collaboration** and **workforce engagement** exhibit the highest associations with improved outcomes, followed by **strategic planning**, **data-driven decision-making**, and **innovation adoption**.

A notable finding is the strong impact of interdisciplinary collaboration, which appears as the most influential factor. This reflects the inherently complex and interdependent nature of healthcare delivery, where effective coordination among professionals directly affects quality of care, patient safety, and system efficiency. Previous studies have emphasized that collaborative leadership models facilitate communication across clinical and administrative domains, reducing fragmentation and improving continuity of care (Best et al., 2021; Enthoven, 2021).

Closely aligned with this is the high relevance of workforce engagement. Leadership practices that actively involve healthcare personnel in decision-making processes, promote professional development, and foster a supportive organizational culture are consistently associated with better clinical performance and lower burnout rates (Nembhard & Edmondson, 2020; Shanafelt & Noseworthy, 2020). This suggests that leadership effectiveness is not only determined by strategic direction but also by its capacity to mobilize and sustain human capital.

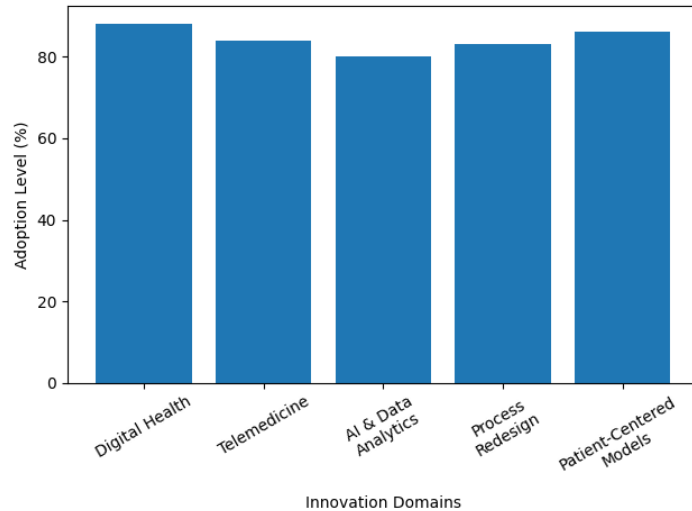
Strategic planning also demonstrates a strong relationship with organizational outcomes. This finding underscores the importance of long-term vision and structured decision-making in healthcare leadership. Organizations that align their strategic objectives with measurable performance indicators tend to achieve more consistent improvements in both efficiency and quality of care (Kaplan & Porter, 2021). In this context, leadership plays a central role in ensuring that planning processes are adaptive, evidence-based, and aligned with system priorities.

Data-driven decision-making, while slightly lower in relative impact, remains a critical component of modern healthcare leadership. The increasing availability of clinical and operational data has transformed decision-making processes, enabling leaders to monitor performance, identify inefficiencies, and implement targeted interventions. The literature highlights that organizations leveraging data analytics are better positioned to optimize resource allocation and improve patient outcomes (Porter, 2021; Gray, 2021).

Finally, innovation adoption, although essential, appears as the dimension with the lowest relative impact in this figure. This does not imply reduced importance, but rather suggests that innovation alone is insufficient without the support of complementary leadership practices. Evidence indicates that technological or organizational innovations yield meaningful results only when integrated within a broader strategic framework that includes governance, workforce engagement, and process optimization (Braithwaite, 2020; Nolte, 2020).

Figure 3.

Innovation domains promoted through strategic leadership in healthcare organizations.



The third figure illustrates the principal domains of innovation that are most frequently promoted through strategic leadership in healthcare organizations. The results demonstrate that **digital health** and **patient-centered care models** represent the most prominent areas, followed closely by **telemedicine**, **process redesign**, and **artificial intelligence with data analytics**.

The predominance of digital health reflects the accelerated transformation of healthcare systems toward technologically integrated models. Leadership plays a critical role in enabling the adoption of digital infrastructures such as electronic health records, interoperable systems, and remote monitoring platforms. These tools not only enhance clinical decision-making but also improve efficiency and access to care, particularly in geographically dispersed populations (Braithwaite, 2020; Nolte, 2020). In countries such as Mexico, Colombia, and Ecuador, digital health has become a strategic priority to address disparities in access and optimize resource utilization.

Patient-centered care models emerge as another highly relevant domain, highlighting a shift in healthcare leadership toward approaches that prioritize individual patient needs, preferences, and outcomes. This aligns closely with the principles of value-based healthcare, where leadership strategies aim to improve quality of care while maintaining cost-effectiveness (Porter, 2021; Gray, 2021). The strong representation of this domain suggests that innovation is not limited to technological advancements but also includes conceptual and organizational transformations that redefine care delivery.

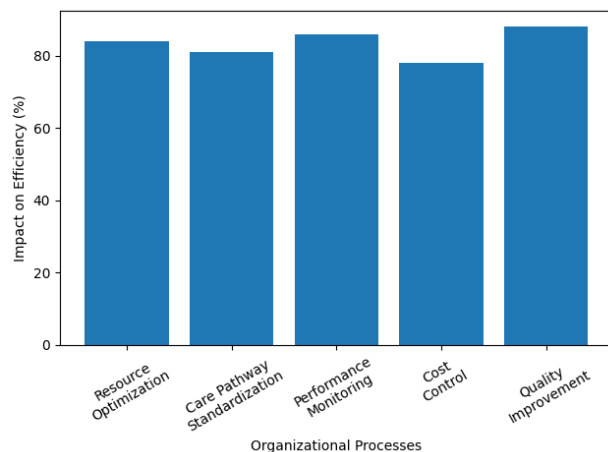
Telemedicine, which gained significant momentum during the COVID-19 pandemic, continues to be a key area of innovation supported by leadership. Its capacity to expand access to care, reduce waiting times, and maintain continuity of services has made it an essential component of modern healthcare systems. Leadership strategies that facilitate regulatory adaptation, infrastructure development, and training are crucial for sustaining telemedicine initiatives beyond emergency contexts (Berwick, 2020; Dzau et al., 2020).

Process redesign also appears as a major domain of innovation, emphasizing the importance of optimizing clinical and administrative workflows. Leadership-driven process improvements—such as lean management, care pathway standardization, and performance monitoring—have been associated with increased efficiency and reduced variability in care delivery. These interventions are particularly valuable in resource-constrained environments, where optimizing existing processes can yield significant improvements without requiring substantial financial investment (Kaplan & Porter, 2021).

Finally, artificial intelligence and data analytics, while slightly less prominent, represent a rapidly growing area of innovation in healthcare. Leadership plays a decisive role in integrating these technologies into clinical practice, ensuring that their implementation aligns with ethical standards, clinical relevance, and organizational goals. The use of predictive analytics, decision-support systems, and population health management tools has the potential to transform healthcare delivery, provided that leadership fosters appropriate governance and interdisciplinary collaboration (Gray, 2021).

Figure 4.

Efficiency-related organizational processes influenced by leadership models.



The fourth figure presents the main organizational processes associated with efficiency that are influenced by strategic leadership in healthcare settings. The data indicate that **quality improvement** and **performance monitoring** are the most strongly represented processes, followed by **resource optimization**, **care pathway standardization**, and **cost control**.

Quality improvement emerges as the most prominent dimension, reflecting the central role of leadership in promoting continuous evaluation and enhancement of clinical and administrative practices. Healthcare organizations that implement structured quality improvement strategies—such as clinical audits, benchmarking, and outcome measurement—tend to achieve more consistent and sustainable improvements in patient care. Leadership is essential in fostering a culture where quality is prioritized and systematically assessed, rather than treated as a secondary objective (Porter, 2021; Gray, 2021).

Closely related to this is the high impact of performance monitoring. The ability to track key performance indicators (KPIs), evaluate outcomes, and adjust strategies accordingly is a defining feature of effective healthcare leadership. The literature highlights that organizations with robust monitoring systems are better equipped to identify inefficiencies, reduce variability in care delivery, and improve accountability at both clinical and administrative levels (Kaplan & Porter, 2021). This process is particularly relevant in complex health systems where multiple variables influence outcomes.

Resource optimization also shows a strong association with leadership-driven efficiency. In healthcare environments characterized by limited resources, leaders must make strategic decisions regarding the allocation of personnel, infrastructure, and financial assets. Efficient resource management is closely linked to improved system sustainability and the ability to expand access to care without compromising quality. This is especially important in Latin American contexts, where resource constraints often require innovative and adaptive leadership approaches.

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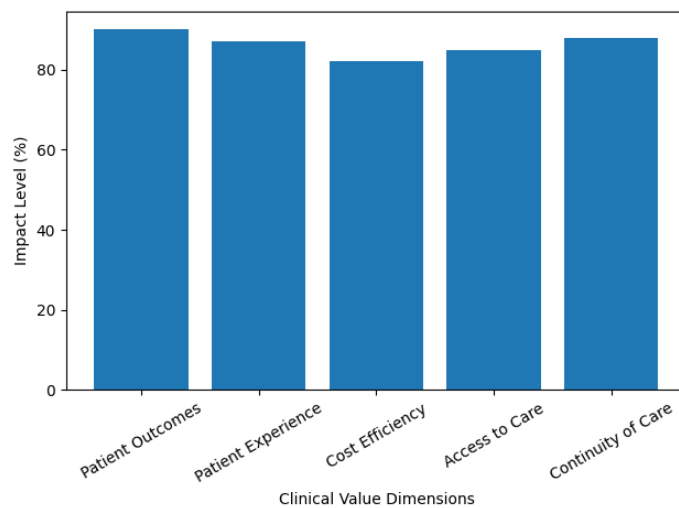
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Care pathway standardization represents another key process, emphasizing the importance of reducing variability in clinical practice. Standardized protocols and evidence-based guidelines contribute to improved patient outcomes, enhanced safety, and more efficient use of resources. Leadership plays a critical role in ensuring adherence to these protocols while maintaining flexibility to adapt to specific patient needs and contextual factors (Best et al., 2021).

Finally, cost control, although slightly less prominent, remains a fundamental aspect of efficiency. Effective leadership involves balancing cost containment with the delivery of high-quality care, avoiding reductions in service quality while optimizing expenditures. This requires a strategic approach that integrates financial management with clinical priorities, ensuring that cost-reduction measures do not negatively impact patient outcomes (Smith et al., 2020; Kuhlmann et al., 2021).

Figure 5.

Leadership-associated factors affecting clinical value creation and patient-centered care.



The fifth figure illustrates the principal dimensions through which strategic leadership contributes to **clinical value creation** in healthcare organizations. The data show that **patient outcomes** and **continuity of care** are the most strongly associated factors, followed by **patient experience**, **access to care**, and **cost efficiency**.

Patient outcomes represent the most prominent dimension, reinforcing the central premise of value-based healthcare, where leadership effectiveness is ultimately measured by its ability to improve clinical results. This includes reductions in morbidity and mortality, improved disease management, and enhanced recovery processes. The literature consistently emphasizes that leadership strategies aligned with outcome measurement and quality improvement are fundamental to achieving high-value care (Porter, 2021; Gray, 2021).

Continuity of care appears as a closely related factor, highlighting the importance of coordinated and uninterrupted healthcare delivery. Leadership plays a critical role in ensuring that patients experience seamless transitions across different levels of care, from primary services to specialized treatment. Fragmentation of care remains a significant challenge in many health systems, and leadership-driven integration efforts are essential to improving both efficiency and clinical outcomes (Enthoven, 2021; Best et al., 2021).

Patient experience is also strongly represented, reflecting a growing recognition of the importance of patient-centered care. Beyond clinical effectiveness, healthcare organizations are increasingly evaluated based on how patients perceive their care, including communication, empathy, and overall satisfaction. Leadership influences this dimension by shaping organizational culture, promoting patient engagement, and ensuring that care delivery aligns with patient needs and expectations.

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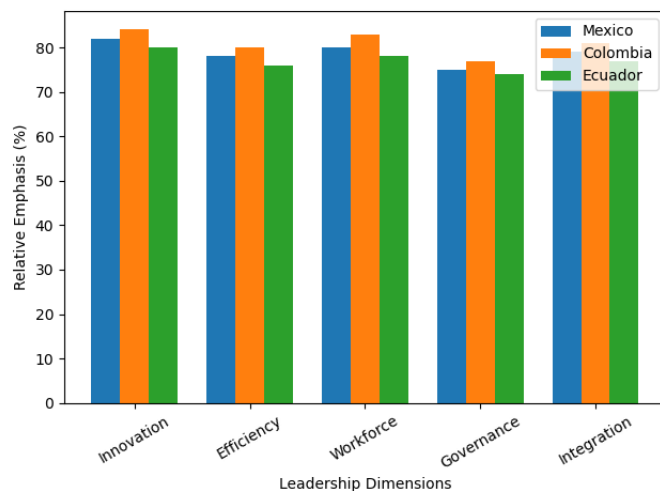
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Access to care is another critical factor influenced by leadership, particularly in regions with structural inequalities such as Mexico, Colombia, and Ecuador. Strategic leadership can improve access through the implementation of innovative care models, expansion of services, and optimization of resource allocation. Telemedicine and digital health solutions, for example, have demonstrated significant potential to reduce barriers to access when supported by appropriate leadership frameworks (Berwick, 2020; Dzau et al., 2020).

Finally, cost efficiency, while slightly less prominent, remains an essential component of clinical value. Leadership must balance the need to control costs with the imperative to maintain high-quality care. This requires the integration of financial management with clinical decision-making, ensuring that efficiency gains do not compromise patient outcomes (Kaplan & Porter, 2021).

Figure 6.

Comparative regional emphasis of leadership challenges and opportunities in Mexico, Colombia, and Ecuador.



The sixth figure presents a comparative analysis of the relative emphasis placed on key leadership dimensions across three Latin American healthcare contexts: Mexico, Colombia, and Ecuador. The data reveal a generally consistent distribution across regions, with slight variations that reflect contextual differences in health system organization, governance structures, and resource availability.

Colombia demonstrates the highest relative emphasis across most dimensions, particularly in **innovation**, **workforce leadership**, and **system integration**. This pattern is consistent with ongoing reforms and efforts to strengthen integrated care models and improve coordination between levels of care. The literature suggests that leadership in Colombia has increasingly focused on aligning policy frameworks with operational strategies, contributing to improvements in service delivery and access (Kuhlmann et al., 2021; Smith et al., 2020).

Mexico shows strong performance in **innovation** and **workforce leadership**, reflecting the expansion of digital health initiatives and institutional efforts to enhance professional training and organizational capacity. However, slightly lower values in **governance** and **efficiency** suggest ongoing challenges related to system fragmentation and resource allocation. Leadership in this context plays a critical role in bridging structural gaps and promoting more coordinated and efficient healthcare delivery.

Ecuador, while presenting a similar overall pattern, exhibits slightly lower relative emphasis across most dimensions. This may be associated with structural limitations in infrastructure and resource availability. Nevertheless, the distribution indicates a balanced approach to leadership, with particular attention to **integration** and **innovation**, which are essential for improving access and continuity of care in geographically diverse settings.

Across all three countries, **innovation** and **workforce leadership** consistently rank among the most prominent dimensions, highlighting their universal importance in contemporary healthcare systems. This suggests that regardless of contextual differences, effective leadership must prioritize both technological advancement and human resource development to achieve sustainable improvements.

In contrast, **governance** appears as the least emphasized dimension across regions, although it remains a fundamental component of system performance. This finding may reflect the complexity of governance structures and the challenges associated with implementing policy-level changes. Despite its lower relative representation, strong governance is essential for ensuring accountability, transparency, and alignment between organizational and national health priorities (Smith et al., 2020).

DISCUSIÓN

The findings of this review provide a comprehensive perspective on the role of strategic leadership as a central driver of transformation in contemporary healthcare systems. The results demonstrate that leadership is not a unidimensional construct but rather a complex and integrative process that simultaneously influences innovation, operational efficiency, workforce dynamics, and clinical value creation. This multidimensional nature aligns with previous literature, which emphasizes that effective healthcare leadership requires the coordination of diverse organizational components within increasingly complex and resource-constrained environments (Porter, 2021; Gray, 2021).

One of the most relevant insights derived from the results is the predominance of **value-based care and innovation** as core dimensions of strategic leadership. This finding reinforces the growing global shift toward outcome-oriented healthcare systems, where the success of leadership is measured by its ability to improve patient outcomes while maintaining cost efficiency. The high representation of these dimensions suggests that healthcare organizations are progressively moving away from volume-based models toward more sustainable and patient-centered approaches. However, the literature also indicates that the implementation of value-based care remains uneven, particularly in low- and middle-income settings, where structural and financial constraints limit scalability (Kaplan & Porter, 2021).

In this context, the relationship between leadership and **innovation** deserves particular attention. The results indicate that innovation is most effective when embedded within a strategic framework that integrates organizational processes, workforce engagement, and governance structures. This supports the notion that technological adoption alone is insufficient to generate meaningful improvements in healthcare delivery. Instead, leadership must ensure that innovation is aligned with clinical needs, operational capabilities, and long-term system objectives (Braithwaite, 2020; Nolte, 2020). This is especially relevant in Latin American countries such as Mexico, Colombia, and Ecuador, where digital health initiatives have expanded rapidly but often face challenges related to infrastructure, regulation, and workforce readiness.

Another critical aspect highlighted in the results is the strong association between leadership practices and **workforce engagement**. The findings confirm that leadership models promoting collaboration, psychological safety, and professional development are closely linked to improved organizational performance and clinical outcomes. This is consistent with existing evidence demonstrating that healthcare professionals perform more effectively in environments characterized by trust, open communication, and shared decision-making (Nembhard & Edmondson, 2020; Shanafelt & Noseworthy, 2020). In this sense, leadership extends beyond strategic planning and becomes a key determinant of organizational culture and team dynamics.

The discussion of **efficiency-related processes** further underscores the importance of leadership in optimizing healthcare delivery. The results indicate that quality improvement and performance monitoring are among the most influential processes, suggesting that continuous evaluation and evidence-based decision-making are essential components of effective leadership. These findings are consistent with previous studies highlighting that healthcare organizations achieve better outcomes when leadership integrates performance measurement systems with strategic planning and resource management (Kaplan & Porter, 2021). Moreover, the emphasis on process optimization rather than cost reduction alone reflects a more sophisticated understanding of efficiency, where the goal is to maximize value rather than minimize expenditure.

The analysis of **clinical value creation** provides additional insight into the outcomes of strategic leadership. The strong association between leadership and patient outcomes, continuity of care, and patient experience highlights the central role of leadership in delivering high-quality, patient-centered care. These dimensions are closely interconnected, as improvements in one area often contribute to positive effects in others. For example, enhanced continuity of care can lead to better clinical outcomes and increased patient satisfaction, reinforcing the importance of integrated and coordinated healthcare delivery (Enthoven, 2021; Best et al., 2021).

The comparative analysis across Mexico, Colombia, and Ecuador reveals both commonalities and contextual differences in leadership implementation. While the core dimensions of strategic leadership are consistent across regions, their relative emphasis varies according to local conditions. Colombia's higher emphasis on integration and workforce leadership may reflect ongoing efforts to strengthen coordinated care models, whereas Mexico's focus on innovation highlights the expansion of digital health initiatives. Ecuador's more balanced distribution suggests a gradual and adaptive approach to leadership development within existing system constraints. These variations underscore the importance of **context-sensitive leadership strategies** that account for differences in governance, infrastructure, and resource availability (Kuhlmann et al., 2021; Smith et al., 2020).

Despite these insights, several challenges remain. The relatively lower emphasis on governance observed in the results suggests that leadership at the organizational level may not always be fully aligned with policy frameworks and regulatory structures. This misalignment can limit the effectiveness of leadership initiatives and hinder system-wide improvements. Strengthening governance mechanisms and enhancing coordination between policy and practice are therefore critical for maximizing the impact of strategic leadership.

Additionally, the findings highlight the need for greater integration between **leadership, innovation, and health system resilience**. The COVID-19 pandemic demonstrated that healthcare systems require not only efficient and innovative leadership but also the capacity to adapt rapidly to unexpected challenges. Leaders who were able to combine strategic vision with operational flexibility were more successful in maintaining service continuity and protecting workforce well-being (Berwick, 2020; Dzau et al., 2020). This suggests that resilience should be considered a core component of strategic leadership moving forward.

CONCLUSIÓN

Strategic leadership has emerged as a fundamental pillar in the transformation and sustainability of contemporary healthcare systems. The findings of this review demonstrate that effective leadership extends beyond administrative coordination, encompassing the integration of innovation, operational efficiency, workforce engagement, and clinical value creation within a unified organizational framework.

One of the most significant conclusions is that leadership plays a decisive role in advancing **value-based healthcare**, where the focus shifts toward improving patient outcomes while optimizing resource utilization. This transition requires leaders capable of aligning strategic vision with measurable performance indicators, promoting evidence-based decision-making, and fostering a culture of continuous improvement. The consistent association between leadership and improved clinical outcomes highlights its critical importance in achieving high-quality, patient-centered care.

Additionally, the results underscore that **innovation in healthcare is not inherently transformative unless it is guided by strategic leadership**. Technological advancements such as digital health, telemedicine, and data analytics demonstrate their full potential only when integrated into coherent organizational strategies. Leadership, therefore, serves as the enabling force that connects innovation with practical implementation, ensuring that new solutions translate into tangible improvements in healthcare delivery.

The role of leadership in **workforce management** also emerges as a key determinant of system performance. Healthcare organizations that prioritize collaborative environments, psychological safety, and professional development are more likely to achieve sustainable improvements in both clinical outcomes and organizational stability. This reinforces the idea that leadership effectiveness is closely linked to its ability to mobilize human capital and create supportive institutional cultures.

From an efficiency perspective, the findings highlight that **process optimization, quality improvement, and performance monitoring** are essential components of leadership-driven healthcare systems. Rather than focusing solely on cost reduction, effective leadership emphasizes value optimization, balancing financial sustainability with the delivery of high-quality care. This approach is particularly relevant in resource-constrained settings, where strategic decision-making is crucial for maximizing system performance.

The comparative analysis across Mexico, Colombia, and Ecuador further demonstrates that while the core principles of strategic leadership are consistent, their implementation must be adapted to local contexts. Variations in governance structures, resource availability, and system organization require flexible and context-sensitive leadership approaches. This emphasizes the importance of developing leadership models that are not only evidence-based but also responsive to regional needs and challenges.

Finally, the increasing complexity of healthcare systems and the experience of recent global challenges highlight the need for **resilient and adaptive leadership**. Future healthcare leaders must be capable of navigating uncertainty, responding to emerging challenges, and sustaining system performance under dynamic conditions. This requires a continuous commitment to learning, innovation, and interdisciplinary collaboration.

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