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Review Article

What Do Global Health Reports Tell Hospital Executives? An Analytical Review of International Digital Health Policy Documents

Ufuk Burak KARCIOĞLU¹

¹Istinye University, Faculty of Health Sciences, Department of Health Management İstanbul, TÜRKİYE, ORCID ID 0009-0006-9131-6407

Corresponding Author: Ufuk Burak KARCIOĞLU

ABSTRACT

Digital health transformation is rapidly reshaping healthcare systems worldwide, requiring hospital executives to align institutional strategies with evolving global policy frameworks. International organizations such as the World Health Organization (WHO), the Organisation for Economic Co-operation and Development (OECD), and the World Economic Forum (WEF) have produced comprehensive policy documents to guide this transformation. However, a gap remains in translating these high-level frameworks into actionable strategies for hospital-level decision-making. This study was conducted as a narrative analytical review. Core policy documents published between 2020 and 2025 by WHO, OECD, and WEF were purposively selected based on institutional authority, recency, and relevance to digital health transformation. Rather than applying a systematic search protocol, the study employed an interpretive thematic analysis, involving iterative reading, manual coding, and conceptual grouping of policy content to identify recurring strategic patterns. Supplementary peer-reviewed literature was used selectively to support interpretation. The analysis identified five core themes: interoperability and data governance, artificial intelligence adoption, workforce empowerment and digital literacy, equity and inclusion, and value-driven implementation. While WHO emphasizes ethical governance and equitable access, OECD focuses on measurable system performance and efficiency, and WEF promotes innovation-driven, value-based approaches. These frameworks exhibit both convergence in strategic priorities and divergence in implementation perspectives. Global digital health policy frameworks provide complementary but distinct strategic directions for hospital executives. Effective digital transformation requires a hybrid approach that integrates ethical governance, operational efficiency, and innovation. By aligning institutional strategies with these multidimensional frameworks, hospital leaders can enhance system resilience, improve patient outcomes, and support sustainable and equitable healthcare delivery.

Keywords: Artificial Intelligence, Digital Technology, Health Policy

Küresel Sağlık Raporlarının Hastane Yöneticilerine Söyledikleri: Uluslararası Dijital Sağlık Politika Belgelerinin Analitik İncelemesi

Ufuk Burak KARCIOĞLU¹

¹Istinye Üniversitesi, Sağlık Bilimleri Fakültesi, Sağlık Yönetimi Bölümü, İstanbul, TÜRKİYE, ORCID ID 0009-0006-9131-6407

Sorumlu Yazar: Ufuk Burak KARCIOĞLU

ÖZ

Dijital sağlık dönüşümü, sağlık sistemlerini küresel ölçekte yeniden şekillendirmekte ve hastane yöneticilerinin kurumsal stratejilerini uluslararası politika çerçeveleriyle uyumlu hale getirmesini zorunlu kılmaktadır. Dünya Sağlık Örgütü (WHO), Ekonomik İş Birliği ve Kalkınma Örgütü (OECD) ve Dünya Ekonomik Forumu (WEF) tarafından yayımlanan politika belgeleri bu dönüşüme yön vermektedir. Ancak bu üst düzey çerçevelerin hastane düzeyinde uygulanabilir stratejilere dönüştürülmesinde önemli bir boşluk bulunmaktadır. Bu çalışma analitik derleme olarak tasarlanmıştır. 2020–2025 yılları arasında WHO, OECD ve WEF tarafından yayımlanan temel politika belgeleri; kurumsal otorite, güncellik ve konuya uygunluk kriterlerine göre amaçlı örnekleme yöntemiyle seçilmiştir. Sistematik bir tarama yerine, belgeler üzerinde yorumlayıcı tematik analiz uygulanmış; tekrar eden kavramlar kodlanmış ve üst düzey temalar oluşturulmuştur. Bulgular, seçilmiş hakemli literatür ile desteklenmiştir. Analiz sonucunda beş temel tema belirlenmiştir: birlikte çalışabilirlik ve veri yönetimi, yapay zekâ ve teknoloji kullanımı, iş gücü güçlendirme ve dijital okuryazarlık, eşitlik ve kapsayıcılık ve değer temelli uygulama. WHO daha çok etik ve eşitlik odaklı bir yaklaşım benimserken, OECD performans ve verimlilik temelli bir perspektif sunmakta, WEF ise yenilik ve değer yaratımına odaklanmaktadır. Bu yaklaşımlar arasında hem örtüşen hem de ayrıyan yönler tespit edilmiştir. Küresel dijital sağlık politikaları, hastane yöneticileri için tamamlayıcı ancak farklı stratejik yönelimler sunmaktadır. Etkili bir dijital dönüşüm için etik yönetim, operasyonel verimlilik ve yenilikçi yaklaşımları bir araya getiren bütüncül bir strateji gereklidir. Bu çerçevede hastane yöneticileri, sağlık sistemlerinin dayanıklılığını artırabilir, hasta sonuçlarını iyileştirebilir ve sürdürülebilir, eşitlikçi sağlık hizmeti sunumunu destekleyebilir.

Anahtar Kelimeler: Dijital Teknoloji, Sağlık Politikası, Yapay Zekâ

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INTRODUCTION

The advent of digital technologies has profoundly disrupted traditional healthcare paradigms, ushering in an era where data-driven decision-making, artificial intelligence (AI), and interconnected systems promise to enhance patient outcomes, operational efficiency, and health equity on a global scale. As hospital executives navigate this transformation, they must grapple with the dual imperatives of adopting innovative tools while ensuring alignment with overarching policy frameworks that prioritize sustainability and inclusivity. This study employs a narrative analytical review approach to synthesize insights from key international digital health policy documents, focusing on reports from the World Health Organization (WHO), the Organisation for Economic Co-operation and Development (OECD), and the World Economic Forum (WEF), to distill actionable guidance for hospital leadership. By examining these sources, this study elucidates how global health reports can inform strategic planning, resource allocation, and visionary leadership in hospitals, ultimately positioning them as resilient hubs in a digitally empowered ecosystem.

Digital health encompasses a broad spectrum of technologies, including telemedicine, electronic health records (EHRs), wearable devices, and AI algorithms, which collectively aim to optimize healthcare delivery (WHO, 2021). The COVID-19 pandemic accelerated this shift, highlighting the vulnerabilities of analog systems and the potential of digital solutions to bridge gaps in access and care continuity. For instance, during the height of the crisis, telemedicine consultations surged by over 150% in many regions, demonstrating the scalability of digital interventions (OECD, 2023). Yet, this rapid evolution has exposed disparities: while high-income countries have advanced in AI-driven diagnostics, low- and middle-income settings often lag due to infrastructure deficits and digital literacy barriers (WEF, 2024). Hospital executives, as stewards of frontline care, are uniquely positioned to translate these global insights into localized strategies, fostering environments where technology amplifies human expertise rather than replacing it.

The WHO's Global Strategy on Digital Health 2020-2025 serves as a foundational pillar, articulating a

vision for "healthy lives and wellbeing for everyone, everywhere, at all ages" through the ethical and equitable deployment of digital tools (WHO, 2021). This strategy emphasizes four strategic objectives: promoting global collaboration, advancing knowledge and research, strengthening governance, and supporting implementation at scale. For hospital executives, this translates to prioritizing interoperable systems that facilitate data sharing across borders and sectors, thereby enhancing epidemic preparedness and chronic disease management. Complementary to this, the OECD's Health at a Glance 2023 report underscores the digital readiness of health systems, revealing that only 42% of OECD countries have comprehensive policies for patient data access and interoperability (OECD, 2023). The report highlights how digital transformation can address workforce shortages by empowering clinicians with AI-assisted tools, potentially reducing administrative burdens by up to 20% and improving diagnostic accuracy.

Building on these, the WEF's 2024 report, *Transforming Healthcare: Navigating Digital Health with a Value-Driven Approach*, advocates for a paradigm in which digital innovations are evaluated through a lens of value encompassing clinical efficacy, cost-effectiveness, and societal impact (WEF, 2024). It identifies key enablers such as robust data governance, public-private partnerships, and AI ethics frameworks, warning that without these, digital health risks exacerbating inequalities. For example, the report cites case studies where AI-integrated platforms in hospitals reduced readmission rates by 15-25% through predictive analytics, yet only when supported by inclusive policies that address the digital divide.

This review draws on these primary sources while integrating evidence from peer-reviewed literature to provide a nuanced analysis. Studies in *The Lancet Digital Health* emphasize the need for evidence-based digital interventions, noting that while AI tools show promise in predictive modeling for hospital resource allocation, their real-world efficacy depends on rigorous validation and policy alignment (The Lancet Digital Health, 2023). Similarly, systematic reviews on digital health management highlight organizational leadership as a critical factor, with executives needing competencies in change management and ethical

oversight to realize transformation benefits (Stoumpos et al., 2023). Research from PubMed-indexed journals further supports this, showing that hospitals with strong digital governance frameworks experience 10-30% improvements in operational efficiency (Khuntia et al., 2022). Accordingly, this review aims to synthesize major international digital health policy documents and critically examine their strategic implications for hospital executives.

Despite the growing body of global digital health policy documents, a critical gap remains in translating these high-level frameworks into actionable strategies for hospital executives. Current literature predominantly focuses either on macro-level policy analysis or on specific technological implementations, with limited integrative analyses that bridge global policy narratives and hospital-level managerial decision-making.

Therefore, the present study addresses this literature gap by systematically synthesizing key international digital health policy documents through an analytical lens focused on hospital leadership.

In this context, the study seeks to answer the following research question:

How do major international digital health policy frameworks (WHO, OECD, WEF) converge and diverge in their strategic implications for hospital executives?

Accordingly, the objectives of this study are:

- (i) to identify core themes across global digital health policy documents,
- (ii) to compare institutional approaches to digital health transformation, and
- (iii) to derive actionable strategic insights for hospital executive leadership.

MATERIALS AND METHODS

This study was conducted as a narrative analytical review aimed at interpreting and synthesizing major international digital health policy documents, with a focus on their implications for hospital executives. Unlike systematic reviews, this approach prioritized conceptual depth, interpretive analysis, and policy-

oriented synthesis rather than exhaustive literature coverage.

Data Sources and Selection Criteria

The selection of policy documents followed a purposive sampling strategy based on three predefined criteria:

- (i) global institutional authority,
- (ii) recency (published between 2020 and 2025), and
- (iii) direct relevance to digital health transformation and hospital-level implications.

Based on these criteria, a total of five core policy documents were included in the analysis:

WHO: Global Strategy on Digital Health (2020–2025)

OECD: Health at a Glance (2023)

OECD: Health at a Glance (2025)

OECD Policy Reports on Digital Health

WEF: Transforming Healthcare (2024)

Documents that did not directly address digital health strategy, lacked institutional authority, or were outdated (pre-2020) were excluded from the analysis.

To support the interpretation of policy documents, targeted literature searches were conducted in PubMed and Google Scholar. The search included combinations of keywords such as “digital health policy”, “hospital management”, “AI in healthcare”, and “health system digital transformation”.

Only peer-reviewed articles published between 2019 and 2025 and appearing in high-impact journals (e.g., The Lancet Digital Health, JAMIA) were considered. The purpose of this supplementary literature was not systematic inclusion but contextual reinforcement and triangulation of policy insights.

The analysis followed a thematic analytical approach consisting of three stages:

Familiarization: Each document was reviewed multiple times to identify recurring concepts related to digital health transformation.

Coding: Key statements and policy recommendations were coded manually, focusing on hospital-level implications.

Theme Development: Codes were grouped into higher-order themes based on conceptual similarity.

Through this process, five core themes were identified:

Interoperability and data governance

Artificial intelligence and technology adoption

Workforce empowerment and digital literacy

Equity and inclusion

Value-driven implementation

These themes formed the analytical backbone of the study and guided the comparative synthesis across WHO, OECD, and WEF documents.

MAIN DISCUSSION

Digital Health Policy Landscape: Insights From Who Reports

The World Health Organization (WHO) stands at the forefront of global health policy, providing normative guidance that shapes digital health ecosystems worldwide. Its reports and strategies offer hospital executives a blueprint for navigating the complexities of digital transformation, emphasizing the integration of technology to achieve universal health coverage (UHC), enhance system resilience, and promote equity. Central to this landscape is the WHO's Global Strategy on Digital Health 2020-2025, which envisions a future where digital tools are harnessed ethically and sustainably to improve health outcomes for all populations (WHO, 2021). This strategy, endorsed by the World Health Assembly, responds to the accelerating pace of technological innovation, amplified by the COVID-19 pandemic, and underscores the need for hospitals to evolve from siloed institutions into interconnected nodes in a global digital network. By synthesizing WHO insights, this section highlights strategic imperatives for hospital leadership, drawing on themes of governance, interoperability, AI adoption, and equitable implementation, while integrating corroborative evidence from peer-reviewed literature.

At its core, the Global Strategy articulates four interconnected objectives: fostering global collaboration, advancing national strategies, strengthening governance, and advocating for people-

centered health systems (WHO, 2021). For hospital executives, these objectives translate into actionable mandates. The emphasis on collaboration encourages partnerships with governments, tech firms, and international bodies to co-develop scalable solutions, such as AI-driven diagnostic platforms that can reduce diagnostic errors by up to 30% in resource-constrained settings (Topol, 2019). In the Turkish context, the strategy urges alignment with country-specific digital health roadmaps, prompting executives to invest in infrastructure that supports seamless integration with public health systems. This is particularly pertinent in post-pandemic recovery, where WHO reports highlight how digital tools facilitated a 50-100% increase in remote consultations during lockdowns, mitigating disruptions in care continuity (WHO, 2023a).

Governance emerges as a pivotal theme in WHO documents, advocating for robust frameworks to ensure data security, privacy, and ethical AI use. The strategy stresses the principle of "do no harm," recommending regulatory mechanisms that pseudonymize health data and establish accountability for cyber threats (WHO, 2021). Hospital executives must heed this by implementing comprehensive data governance policies, as evidenced by studies showing that poor governance can lead to data breaches affecting up to 20% of digitized health records annually (Kruse et al., 2017). Complementary to this, the WHO's Global Initiative on Digital Health (GIDH), launched in 2023 under the G20 presidency, builds on the strategy by creating a managed network for knowledge exchange and investment alignment (WHO, 2023b). GIDH's activities, including maturity assessments and regional hubs, provide executives with tools to benchmark hospital digital readiness, fostering environments where AI ethics frameworks prevent biases that could exacerbate health disparities.

Digital interventions for UHC form another cornerstone, with WHO advocating for evidence-based tools like telemedicine, wearable sensors, and big data analytics to extend care beyond hospital walls (WHO, 2021). These interventions promise to optimize resource allocation, such as through predictive modeling that anticipates patient surges, potentially cutting operational costs by 15-25% (Bates et al., 2014). For hospitals, this means shifting toward

proactive models, where digital platforms enable personalized medicine and chronic disease management. A systematic review in *The Lancet Digital Health* reinforces this, noting that digital hospitals integrating WHO-recommended interoperability standards improve patient satisfaction by 20% and clinician efficiency through reduced administrative burdens (Pearce et al., 2023). However, WHO cautions against over-reliance on technology without addressing equity, highlighting how digital divides in low- and middle-income countries (LMICs) could widen gaps if not mitigated through inclusive policies.

Data interoperability is time and again mentioned as essential to integrated health ecosystems. The implementation of international standards, such as ICD-11 and HL7 FHIR, should be implemented to the greatest extent possible, as that would make data exchange seamless, according to the plan (World Health Organization, 2021). The leaders of hospitals must, therefore, pay much attention to interoperable EHRs if they want to help cross-border collaboration in responding to epidemics. According to the summary of studies analyzed in PubMed, the benefit of high interoperability in hospitals includes about 10-15% better care coordination and fewer readmissions (Adler-Milstein et al., 2021). The challenge to interoperability demanded by legacy systems and fragmented national regulations the WHO offers recommendations for semantic interoperability based on open-source platforms.

WHO materials create a forward-looking understanding of AI adoption, framing the technology as a transformative driver in enabling precision diagnostics and workforce support. The strategy urges capacity building through curricula and pre-qualification procedures to ensure AI tools are safe and effective (WHO, 2021). This implementation for leaders targets ethical oversight; analyses by *Lancet* have warned that unregulated AI will dredge in biases with disproportional impacts on marginal groups. Updates after 2023 introduced by GIDH add AI ethics toolkits, which support hospitals in deploying algorithms that enhance decision-making while protecting human rights.

Equity remains a cross-cutting priority, with WHO urging investments in digital literacy and infrastructure to prevent technology from aggravating inequalities (WHO, 2021). In LMICs, where only 35% of hospitals have basic digital capabilities, executives must advocate for targeted funding, as supported by OECD collaborations referenced in WHO frameworks (OECD 2023). A qualitative study on digital health barriers highlights the role of leadership in fostering inclusive adoption, reducing gender and socioeconomic divides (Jacob et al., 2022).

In summary, WHO reports paint a visionary path for hospital executives, urging a transition to resilient, equitable digital ecosystems. By embedding these into governance fortification, interoperable innovations, ethical AI, and inclusive strategies hospitals can not only comply with global directives but pioneer advancements that redefine healthcare delivery. This foundation sets the stage for complementary perspectives from the OECD, which further illuminate economic and operational dimensions of digital health transformation.

From an analytical perspective, WHO documents predominantly adopt a normative and equity-driven approach, emphasizing ethical governance, universal access, and system-wide coordination. Compared to other institutions, WHO places stronger emphasis on public health values and inclusivity, sometimes at the expense of operational specificity. While this provides a critical ethical foundation, it also means that hospital executives may require complementary sources to translate these principles into measurable performance strategies. This study contributes to the literature by offering a structured comparative analysis of major global digital health policy frameworks and translating them into actionable insights for hospital-level strategic decision-making.

OECD Perspectives on Digital Health Transformation

The Organisation for Economic Co-operation and Development (OECD) provides a pragmatic, evidence-based lens on digital health, emphasizing measurable impacts on system performance, efficiency, and equity across member countries. Unlike the normative guidance of the WHO, OECD reports adopt a

comparative, indicator-driven approach that equips hospital executives with benchmarks, policy checklists, and economic rationales for digital investments. Key documents, including *Health at a Glance 2023* and the more recent *Health at a Glance 2025*, highlight how digital transformation can address persistent challenges such as workforce shortages, rising costs, and fragmented care delivery (Organisation for Economic Co-operation and Development, 2023; Organisation for Economic Co-operation and Development, 2025). These reports position digital health not as an optional enhancement but as a critical lever for sustainable healthcare, offering hospital leaders data-informed strategies to optimize operations, empower staff, and improve patient-centered outcomes in an increasingly resource-constrained environment.

A central theme in OECD analyses is the acceleration of digital readiness post-COVID-19. The special focus on digital health in the 2023 edition reveals that the pandemic catalyzed widespread adoption of telemedicine and electronic tools, with many OECD countries reporting surges in online consultations and digital prescribing (OECD, 2023). By 2024, average availability of online digital health services reached 82% across comparable countries, up from 79% the previous year, signaling sustained momentum (OECD, 2025). For hospital executives, this underscores the urgency of scaling digital infrastructure to maintain care continuity during crises. Evidence from OECD indicators shows that digitally mature systems experience fewer disruptions, with teleconsultations reducing unnecessary hospital visits by 10-20% in several nations, thereby alleviating emergency department overcrowding and optimizing bed utilization.

Workforce empowerment emerges as a priority, with digital tools positioned to alleviate administrative burdens and augment clinical decision-making. The OECD's *Health in the 21st Century* report and related working papers argue that technologies like AI-assisted diagnostics and automated documentation can free clinicians for high-value interactions, potentially reducing burnout and improving retention (OECD, 2019). Empirical data support this: in digitally advanced OECD countries, health professionals report

up to 25% less time on paperwork, enabling greater focus on patient care (OECD 2023). Hospital executives are encouraged to invest in training programs and user-centered design to maximize these benefits, as poorly implemented tools can exacerbate workload if they lack interoperability or intuitive interfaces. Complementary studies in high-impact journals reinforce that leadership commitment to digital upskilling correlates with 15-30% gains in operational efficiency and staff satisfaction (Stoumpos et al., 2023).

Interoperability and data governance receive rigorous attention, with OECD reports advocating for standardized policies to unlock the full value of health data. The *Health at a Glance (2023)* includes a policy checklist proposing frameworks for patient data access, secure sharing, and cross-border exchange elements often underdeveloped, as only about 42% of OECD countries had comprehensive interoperability policies at the time (OECD, 2023). By 2025, progress is noted in expanding digital services, yet fragmentation persists, particularly in integrating hospital EHRs with primary and public health systems (OECD Development, 2025). Executives must champion adoption of global standards (e.g., FHIR) to enable predictive analytics for resource planning and population health management. Research corroborates that high-interoperability hospitals achieve better care coordination, with reductions in duplicate testing and adverse events ranging from 10-18% (Adler-Milstein et al., 2021).

Economic and performance dimensions further illuminate digital health's transformative potential. OECD analyses link digitalization to improved outcomes, such as lower avoidable hospitalizations through remote monitoring and enhanced chronic disease management. In 2025 indicators, digitally enabled systems demonstrate cost efficiencies, with telehealth contributing to moderated health expenditure growth despite aging populations (OECD, 2025). For hospital leaders, this translates to Return on Investment (ROI) focused strategies: prioritizing high-impact interventions like AI for triage or predictive discharge planning, which can decrease length of stay by 5-15% in validated implementations. However, the OECD cautions against inequities, noting that digital

divides, driven by socioeconomic factors or rural-urban gaps, risk widening disparities if not addressed through targeted policies.

Ethical and regulatory considerations round out the OECD perspective, emphasizing trust-building through transparent governance. Reports stress the need for robust cybersecurity, patient consent mechanisms, and bias mitigation in AI applications to sustain public confidence (OECD, 2023). Hospital executives play a pivotal role here, fostering cultures of accountability and collaboration with regulators. A qualitative synthesis of managerial experiences highlights those successful transformations hinge on organizational agility, stakeholder engagement, and alignment with national digital agendas.

In essence, OECD perspectives offer hospital executives a roadmap grounded in comparative data and policy pragmatism. By leveraging these insights scaling proven digital services, empowering the workforce, enforcing interoperability, pursuing economic value, and upholding ethical standards leaders can drive measurable improvements in performance and resilience. This evidence-based foundation complements the visionary equity focus of WHO reports and paves the way for the value-driven innovations articulated by the World Economic Forum, enriching the multifaceted policy landscape guiding hospital strategy in the digital era.

In contrast to WHO's normative orientation, OECD adopts a data-driven and performance-focused approach, providing measurable indicators and comparative benchmarks. This makes OECD reports particularly valuable for hospital executives seeking operational guidance and performance evaluation tools. However, compared to WHO and WEF, OECD places relatively less emphasis on ethical considerations and long-term societal implications, focusing instead on system efficiency and economic sustainability.

World Economic Forum (WEF) Contributions to Global Health Strategies

The World Economic Forum (WEF) distinguishes itself in the digital health discourse by convening multi-stakeholder coalitions and championing pragmatic, innovation-oriented frameworks that bridge

public and private sectors. Its contributions emphasize value creation defined not merely as financial returns but as maximized health outcomes, equitable access, efficiency gains, and societal resilience through accelerated adoption of digital tools, data ecosystems, and artificial intelligence (AI). Central to this perspective is the 2024 insight report *Transforming Healthcare: Navigating Digital Health with a Value-Driven Approach* produced in collaboration with Boston Consulting Group, which serves as a foundational blueprint for the Forum's Digital Healthcare Transformation (DHT) Initiative launched in January 2024 (WEF, 2024). This report, along with related publications and ongoing initiatives, provides hospital executives with strategic imperatives for scaling digital innovations responsibly, fostering cross-sector partnerships, and embedding value assessment into technology deployment decisions.

The core thesis of the WEF's 2024 report is that digital health's transformative potential remains underrealized due to fragmented ecosystems, misaligned incentives, and insufficient focus on measurable value (WEF, 2024). It identifies healthcare's primary challenges rising costs, workforce strain, chronic disease burden, and inequitable Access and positions digital solutions as enablers of a shift toward value-based care models. For hospital executives, this means reorienting investments from isolated pilot projects to integrated platforms that deliver demonstrable improvements in clinical, financial, and experiential outcomes. The report highlights how data-driven tools, when scaled thoughtfully, can reduce costs while boosting outcomes; for instance, predictive analytics and remote monitoring have been shown in case studies to decrease hospital readmissions by 15-25% and lower per-patient expenses in chronic care management (WEF, 2024). Executives are urged to adopt a "value-driven" lens, evaluating technologies against criteria such as clinical impact, cost-effectiveness, accessibility, and sustainability before widespread rollout.

A key pillar of the WEF approach is the promotion of collaborative ecosystems. The DHT Initiative creates global platforms for knowledge exchange, policy alignment, and investment mobilization, emphasizing public-private partnerships to overcome barriers like regulatory silos and funding shortfalls (WEF, 2024).

Hospital leaders are positioned as pivotal actors in these ecosystems, collaborating with technology providers, payers, and governments to co-design interoperable solutions. Complementary insights from related WEF publications reinforce this: digital tools and data collaboration are essential for inclusive healthcare, enabling secure health data sharing that powers population-level insights while protecting privacy (WEF, 2024a). In practice, this translates to hospital strategies that prioritize federated data models and governance frameworks compliant with emerging standards, reducing fragmentation and enabling AI applications that benefit underserved populations.

AI integration receives prominent attention as a catalyst for efficiency and precision. The report and subsequent Forum discussions outline how AI can augment diagnostics, personalize treatment pathways, and optimize resource allocation potentially alleviating clinician workloads and improving diagnostic accuracy (WEF, 2024). However, it stresses responsible deployment: ethical guidelines, bias mitigation, transparency, and continuous validation are non-negotiable to build trust and avoid exacerbating disparities. For executives, this implies establishing internal AI governance committees, investing in clinician-AI co-design processes, and aligning implementations with value metrics. Evidence from high-impact sources supports these recommendations; systematic reviews indicate that AI-assisted tools in hospital settings can enhance decision-making when embedded in supportive organizational cultures, yielding 10-30% improvements in workflow efficiency (Rajkomar et al., 2019; Topol, 2019).

Equity and inclusion form a recurring motif, with the WEF warning that unchecked digital acceleration risks widening gaps between high- and low-resource settings. The value-driven framework explicitly calls for solutions that address digital divides through affordable technologies, digital literacy programs, and targeted infrastructure investments (WEF, 2024). Hospital executives in diverse contexts are encouraged to advocate for inclusive scaling such as hybrid care models combining digital and in-person services and to participate in global exchanges that share best practices from exemplar transformations. Recent Forum white papers, including explorations of regional leaps in

digital health intelligence, illustrate how localized yet globally informed strategies can accelerate progress while maintaining equity (WEF, 2026).

Sustainability and long-term resilience round out the WEF's visionary contributions. By linking digital health to broader goals of planetary health and economic stability, the reports advocate for technologies that reduce environmental footprints (e.g., through reduced travel via telehealth) and build adaptive systems capable of withstanding future shocks (WEF, 2024). Executives are called upon to integrate these considerations into capital planning, ensuring digital investments contribute to resilient, future-proof hospitals.

The WEF differs from both WHO and OECD by promoting a market-oriented and innovation-driven perspective, emphasizing value creation, public-private partnerships, and scalable technological solutions. While this approach offers practical pathways for rapid transformation, it may also introduce risks related to commercial prioritization and unequal access, particularly in low-resource settings. Therefore, its recommendations require careful alignment with equity-focused frameworks such as those proposed by WHO.

Analytical Synthesis: Key Themes for Hospital Executives

The preceding examinations of reports from the World Health Organization (WHO), the Organisation for Economic Co-operation and Development (OECD), and the World Economic Forum (WEF) reveal a convergent yet complementary global policy landscape for digital health. While the WHO prioritizes normative, equity-driven governance and universal access (World Health Organization, 2021), the OECD offers empirical benchmarking and performance metrics focused on efficiency and readiness (OECD, 2023; 2025), and the WEF advances a pragmatic, multi-stakeholder model centered on value creation through innovation and collaboration (WEF, 2024). Together, these sources distill a set of cross-cutting themes that hospital executives can leverage to inform strategic decision-making, resource prioritization, and organizational transformation. This synthesis identifies five core themes interoperability and data governance,

AI and technology adoption, workforce empowerment and digital literacy, equity and inclusion, and value-driven implementation each with implications for hospital leadership in building resilient, future-oriented systems. Importantly, these themes do not emerge with equal emphasis across institutions. WHO prioritizes ethical governance and equity, OECD emphasizes measurable system performance, and WEF focuses on innovation and value generation. This divergence highlights that no single framework is sufficient on its own; rather, hospital executives must adopt a hybrid strategic approach that integrates ethical, operational, and innovation-oriented dimensions of digital health transformation.

Interoperability and data governance stand out as foundational enablers across all three frameworks. The WHO's Global Strategy stresses the adoption of global standards to facilitate seamless data exchange and support epidemic preparedness (WHO, 2021). The OECD complements this with comparative indicators showing that fragmented systems hinder care coordination, advocating policy checklists for secure sharing and patient access. The WEF reinforces the need for trusted data ecosystems as prerequisites for AI scaling and value realization (WEF, 2024). For hospital executives, this convergence signals the imperative to invest in interoperable electronic health records (EHRs) and federated architectures, which research links to reduced duplicate testing and improved outcomes (Adler-Milstein et al., 2021).

AI and broader technology adoption emerge as transformative forces, with each organization highlighting responsible integration. The WHO calls for ethical frameworks and capacity building to ensure AI augments rather than displaces human care (WHO, 2021). OECD reports emphasize AI's role in alleviating administrative burdens and enhancing diagnostics, supported by data on efficiency gains (OECD, 2025). The WEF positions AI as central to value-based models, urging governance to mitigate biases and maximize clinical-financial benefits (WEF 2024). Executives must therefore establish AI oversight mechanisms, pilot high-impact applications like predictive analytics, and align deployments with evidence-based validation to achieve measurable improvements in resource allocation and patient safety.

Workforce empowerment and digital literacy represent a shared priority for sustaining digital transformation. The OECD underscores how digital tools can reduce clinician burnout by automating routine tasks, with indicators pointing to time savings and retention benefits (OECD, 2023). The WHO advocates for training curricula and people-centered approaches to build digital competencies (WHO, 2021), while the WEF highlights clinician involvement in co-design to foster adoption and trust (WEF, 2024). Hospital leaders should prioritize upskilling programs and user-centric implementation to harness these gains, as organizational culture strongly influences digital maturity outcomes (Stoumpos et al., 2023).

Equity and inclusion cut across the reports as non-negotiable imperatives. The WHO explicitly frames digital health as a tool for universal coverage, warning against exacerbation of divides (WHO, 2021). The OECD analyses reveal persistent gaps in digital readiness between urban-rural and socioeconomic groups (OECD, 2025), and the WEF calls for inclusive scaling to ensure value benefits all populations (WEF, 2024). Executives are thus challenged to design hybrid models, invest in accessible technologies, and advocate for targeted infrastructure in underserved areas to prevent digital health from widening health inequities.

Finally, value-driven implementation provides a unifying lens for evaluation and scaling. The WEF's framework explicitly defines value in terms of outcomes, costs, and sustainability (WEF, 2024), echoed in OECD's emphasis on cost-effectiveness and performance metrics (OECD, 2023) and the WHO's focus on evidence-based, scalable interventions (WHO, 2021). This encourages hospital executives to adopt rigorous assessment criteria for digital initiatives, prioritizing those with demonstrated ROI in clinical efficacy and system resilience.

To crystallize these synergies, Table 1 presents a comparative overview of the key themes, drawing from the primary reports and illustrating their implications for hospital strategy.

Table 1. Comparative Digital Health Priorities and Strategic Implications for Hospital Executives (WHO–OECD–WEF)

Theme	WHO Focus (2021)	OECD Focus (2023; 2025)	WEF Focus (2024)	Implications for Hospital Executives
Interoperability & Data Governance	Global standards, secure sharing, ethical frameworks	Policy checklists, comparative readiness indicators	Trusted data ecosystems for AI scaling	Prioritize FHIR/HL7 adoption, federated models, cybersecurity investments
AI & Technology Adoption	Ethical AI, capacity building, augmentation of care	Efficiency gains, workload reduction	Value creation through responsible AI	Establish governance committees, pilot predictive tools, ensure bias mitigation
Workforce Empowerment & Digital Literacy	People-centered systems, training curricula	Time savings, retention via digital tools	Clinician co-design, trust-building	Implement upskilling programs, user-centric design, change management
Equity & Inclusion	Universal coverage, bridging divides	Addressing digital divides in readiness	Inclusive scaling, accessible solutions	Develop hybrid care models, target underserved populations, advocate for infrastructure equity
Value-Driven Implementation	Evidence-based, scalable interventions	Cost-effectiveness, performance metrics	Multi-dimensional value assessment	Apply ROI frameworks, scale high-impact pilots, align with outcome metrics

This table underscores the synergistic nature of the reports: WHO provides the ethical and equity foundation, OECD the empirical benchmarks, and WEF the innovation-driven roadmap. By internalizing these themes, hospital executives can orchestrate cohesive strategies that transcend siloed adoption, positioning their institutions as proactive contributors to a globally aligned, digitally empowered health ecosystem. The subsequent sections build on this synthesis to explore implementation challenges and visionary pathways forward.

Challenges in Implementing Digital Health Policies

Despite the compelling vision articulated in WHO, OECD, and WEF reports, hospital executives encounter substantial barriers when translating global digital health policies into operational reality. These challenges span technical, organizational, ethical, and socioeconomic domains, often amplifying existing health system vulnerabilities and risking uneven transformation.

Fragmentation and interoperability deficits remain paramount. The OECD analyses reveal that outdated and siloed technologies hinder data exchange, with many countries lacking comprehensive policies for seamless integration across care settings (OECD, 2023). Hospitals frequently grapple with legacy EHR systems incompatible with emerging standards, leading to duplicate testing, care delays, and suboptimal resource use.

Workforce-related obstacles compound these issues. Resistance to change, coupled with inadequate digital health literacy among clinicians and administrators, impedes adoption (WHO, 2023). The OECD reports highlight that without targeted upskilling, digital tools

can exacerbate burnout rather than alleviate administrative burdens (OECD, 2021). In parallel, the digital divide exacerbated by uneven infrastructure and literacy gaps threatens equity, particularly in low-resource settings where access to reliable connectivity and devices remains limited (WEF, 2024).

Ethical and regulatory hurdles further complicate implementation. Concerns over data privacy, cybersecurity vulnerabilities, and AI biases demand robust governance frameworks that many hospitals lack capacity to develop independently (WEF, 2024; OECD, 2024). WEF insights note that fragmented incentives and misaligned stakeholder priorities slow scaling, while WHO emphasizes the risk of widening inequalities if technologies favor high-income contexts (WHO, 2021).

Financial constraints and change management demands add pressure. Initial investments in infrastructure, training, and compliance often strain budgets, especially amid competing priorities post-pandemic. Organizational culture shifts require visionary leadership to overcome inertia, yet many executives face short-term performance metrics that discourage long-term digital commitments.

Collectively, these barriers underscore the need for strategic mitigation to prevent digital health from becoming an unfulfilled promise.

Opportunities and Visionary Pathways Forward

Amid these challenges lie transformative opportunities that enable hospital executives to lead proactive, resilient, and equitable digital futures. Global reports converge on pathways that harness digital health to enhance outcomes, efficiency, and inclusivity.

Scaling interoperable, AI-augmented systems offers immediate gains. By prioritizing standards-compliant platforms, hospitals can enable predictive analytics for better resource allocation, reduced readmissions, and personalized care potentially yielding 15-25% efficiency improvements (World Economic Forum, 2024). Telemedicine and remote monitoring expand access, bridging geographic and capacity gaps while supporting chronic disease management (OECD, 2025).

Empowering the workforce through targeted digital literacy and user-centered design unlocks clinician potential, reducing administrative loads and fostering innovation (OECD, 2021). Multi-stakeholder partnerships public-private, cross-border accelerate progress by pooling resources, sharing best practices, and aligning incentives for value-driven adoption (WEF, 2024).

Visionary leadership entails embedding equity from the outset: investing in inclusive infrastructure, digital literacy programs, and ethical AI governance to ensure benefits reach marginalized populations (WHO, 2021). Forward pathways include hybrid care models that blend digital and human elements, building adaptive systems resilient to future disruptions.

By championing these opportunities interoperability at scale, workforce enablement, collaborative ecosystems, and equity-focused innovation hospital executives can evolve from policy implementers to architects of intelligent, sustainable healthcare. This proactive stance not only addresses current barriers but positions hospitals as catalysts for global health advancement in the digital era.

DISCUSSION AND CONCLUSION

In an era defined by rapid technological convergence and evolving global health imperatives, hospital executives stand at the intersection of policy vision and frontline execution. This analytical review has illuminated how landmark international digital health frameworks from the WHO's emphasis on equitable, people-centered systems, to the OECD's data-driven benchmarks for efficiency and workforce empowerment, and the WEF's value-oriented push for collaborative, AI-augmented ecosystems collectively offer a coherent roadmap for transformation.

These reports converge on a shared understanding: digital health is no longer an adjunct innovation but a foundational architecture for resilient, inclusive, and sustainable care delivery. Interoperability, ethical governance, workforce enablement, and deliberate equity measures emerge as non-negotiable pillars. When hospital leaders embrace these principles, they unlock the capacity to shift from reactive, fragmented models toward proactive, intelligence-led paradigms that anticipate needs, optimize resources, and personalize care at scale.

Yet the path forward is neither automatic nor uniform. Persistent challenges: legacy infrastructure silos, digital literacy gaps, privacy and bias risks, financial pressures, and uneven global readiness demand strategic foresight, sustained investment, and adaptive leadership. The opportunity lies in viewing these obstacles not as deterrents but as catalysts for deliberate evolution: building hybrid care environments that blend human empathy with digital precision, forging multi-stakeholder alliances that align incentives, and embedding continuous learning to keep pace with accelerating innovation.

Ultimately, hospital executives who internalize and act upon these global insights can reposition their institutions as pivotal nodes in a worldwide digital health network. They become architects of systems that not only withstand future shocks but actively reduce inequities, lighten professional burdens, and elevate outcomes for every patient, everywhere. The reports surveyed here do not prescribe a single blueprint; instead, they issue a collective invitation to lead with ambition, responsibility, and humanity ensuring that

the promise of digital health translates into tangible, widespread well-being in the decades ahead.

Based on the findings of this analytical review, several strategic recommendations can be proposed for hospital executives, including prioritizing interoperability investments to enable integrated and data-driven care systems, establishing robust AI governance frameworks to ensure ethical, transparent, and accountable implementation, investing in workforce digital literacy to enhance adoption and minimize resistance, developing hybrid care models that effectively combine digital and in-person services to improve accessibility, and adopting value-based evaluation frameworks when implementing digital health technologies. Collectively, these recommendations translate global policy insights into actionable, hospital-level strategies, thereby strengthening the practical contribution of this study.

DECLARATION OF CONTRIBUTION RATE OF RESEARCHERS

Authors' contribution rates to the study are equal.

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CONFLICT OF INTEREST DECLARATION

There is no conflict of interest between any institution, person, or author within the scope of the study.

ETHICAL STATEMENT

Ethical approval was not required.

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