ACHSM Asia-Pacific Journal of Health Management

CONFAB 360 DEGREE 2026

THE ONE-SIZE-FITS-ALL FALLACY IN AI IMPLEMENTATION - WHY HOSPITALS AND PRIMARY CARE REQUIRE DIFFERENT STRATEGIES: COMMENTARY

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ABSTRACT

OBJECTIVE:

This viewpoint paper aimed to challenge the universal Artificial Intelligence (AI) implementation in healthcare, and based on empirical studies, ascertained that hospitals and primary care require context-sensitive implementation strategies.

ISSUE:

The one-size-fits-all AI implementation and adoption in healthcare adversely affects it comprehensive integration.

OUTCOMES:

AI implementation must consider varying governance structures, workflow dynamics, resource availability, and technical maturity in different healthcare settings.

CONCLUSION:

While usability, affordability, and workflow fit should be the focus of AI implementation in primary care, hospitals must emphasise governance, infrastructure, and integration.

KEYWORDS

Artificial Intelligence; AI Implementation; Hospitals; Primary Care; Context-Sensitive Strategies; Healthcare Governance.

INTRODUCTION

Healthcare industry is undergoing AI (Artificial Intelligence)-driven transformation, marked by accurate diagnosis, enhanced workflow efficiency, and better patient outcomes. This evolution in the last decade has guided considerable research concerning AI implementation in healthcare, particularly in the context of identifying barriers and enablers.

Recent systematic and scoping reviews have continued to document common challenges, including explainability issues, trust deficit, lack of workforce readiness, regulatory uncertainties, and data integration difficulties. While such syntheses have been valuable in consolidating knowledge, the problem lies in unclear understanding on how these challenges will manifest in various contexts of healthcare delivery [1, 2, 3]. To an extent, this gap has reinforced the assumption that similar strategies can be applied across diverse healthcare environments [4]. Moreover, AI adoption remains underdeveloped, with the dominant focus continuing to be on identifying barriers rather than understanding *how* and *why* they are being implemented across hospitals and primary care.

This viewpoint challenges this one-size-fits-all approach, simultaneously focusing on *why* hospitals and primary care need separate and specific AI implementation strategies, and not uniform models. Hospitals represent structured socio-technical systems offering specialised treatment for critical and complex diseases, whereas primary care systems are usually the first point of contact in community-based basic care, emphasising long-term well-being, disease prevention, and health management. Apparently, hospitals and primary care settings differ significantly in clinical complexity, governance, resource limitations, and workflow. While hospitals are characterised by coordinated multidisciplinary teams in high-pressure situations, primary care is organised around systems that are resource-constrained, time-limited, and focused primarily on the care of their patients. Such distinctions in two different care settings influence primary factors driving AI implementation, like trust, user-friendliness, cost, integration and governance [1,2,4,5]. This requires context-sensitive AI implementation across hospitals and primary care settings differently to pave the way for effective AI adoption. Having set this background, this viewpoint paper argues that the ongoing challenges in AI implementation can be partly attributed to a one-size-fits-all fallacy, whereby heterogeneous healthcare contexts are treated as functionally equivalent in implementation strategies. For effective implementation, there is a need to co-align strategies concerning AI and the contextual drivers of each care setting (hospitals and primary care). The paper, therefore, reconceptualises the challenges of AI adoption as one of context-strategy misalignment, rather than merely a list of known obstacles, to help fuel existing debates around AI implementation in healthcare.

THE PROBLEM WITH UNIVERSAL AI IMPLEMENTATION THINKING

Global research by Oleribe et al. [6] in hospitals and primary care shows a higher willingness to adopt AI in healthcare, with over 90% of respondents recognising its importance. Yet, the translation of these perceptions into hospitals and primary care is not differentiated in the study. This is reflected in the recent literature, including Allen et al. [7], who observed that the continuity, diversity, clinical time constraints and interactions with the patient are distinguishing features of primary care. The key considerations highlighted by Ranjbar et al. [8] are the need for dedicated resources in healthcare settings, effective financial management, and strict adherence to confidentiality principles in implementing AI in hospitals. Collectively, these results indicate that although many of the same barriers exist for using AI in healthcare, the implementation conditions vary widely depending on the setting. This is a reminder that studying AI in hospitals and primary care is important as separate areas of study, instead of bundling them into aggregate healthcare adoption.

AI IMPLEMENTATION GAPS IN HOSPITALS

Maimaitiaili et al. [9] proposed a five-layer architectural model for hospital AI deployment (across infrastructure, data, algorithm, application, security, and compliance) to assess its applicability. This multi-layered implementation is an institutionalised, organised attempt to embed AI into hospital systems, but it has a lack of coherence in governance and in relation to clinical workflow integration. For instance, even in the presence of more sophisticated information systems, a lack of robust governance can restrict clinician confidence and contribute to implementation challenges. Moreover,

integration issues in Electronic Health Records (EHR) systems also limit the operational deployment, reflecting the challenges in operationalising AI in complex socio-technical environments. Beyond this, Kamel Rahimi et al. [4] indicate that the success of AI implementation in hospitals relies on socio-technical systems that are interoperable, clinician and workflow-ready, and effectively integrated. Hence, hospitals may have built the structure but are still not mature in terms of operationalisation and smooth AI adoption. This echoes the previously made point that simply confirming the feasibility of tech is not enough; realising the benefits of AI within a hospital also needs to happen from multiple levels of organisation, one that involves governance, infrastructure, and clinical integration.

AI IMPLEMENTATION GAPS IN PRIMARY CARE

The use of AI in primary care is mostly limited to pilot studies, conceptual models, and restricted versions of decision support systems, and is not fully deployed in clinical practice [10]. Primary care is a very broad, time-limited, undifferentiated patient group in an environment where the structure of the relationship between the patient and primary care provider is of critical importance. On the contrary, as shown in Table 1, in hospital settings, to some extent, there is more differentiation in the patient group, a more hierarchical relationship, and there is generally a structure to the pathway of care. Furthermore, a study by Katonai et al. [11] indicates that the extent of algorithm sophistication is not as important as workflow, ease of use, and disruption of clinician-patient interactions in determining implementation success in primary care. This is supported by the concerns of Alamoudi et al. [12], who report inadequate real-world safety and continuity of care. In addition, primary care systems often lack the digital infrastructure, funding, or assistance to implement at scale.

TABLE 1: AI IMPLEMENTATION IN HOSPITALS AND PRIMARY CARE: WHY SEPARATE STUDY

Dimension	Hospitals	Primary Care	Why a Separate Study is Necessary
Implementation Stage	Structurally mature but operationally immature; it is supported by formal architectures (such as multi-layer AI systems) [9]	Primarily developmental; only used in pilots, prototypes, and small-scale deployment [10]	Evaluation frameworks and research concerns vary by stage of maturity.
Core Implementation Challenge	Multi-layered alignment – governance, infrastructure, integration and clinical workflows	The ability to fit into time-critical workflows shaped by relationships.	The challenges are driven by distinct system constraints, not common challenges
Primary Driver of Adoption	Governance, Accountability, Interoperability & Risk Management [8]	Continuity of care, usability, workflow fit and efficiency [11]	In other contexts, adoption is driven by different dominant factors that render unified models unenforceable
System Structure	Coordinated, hierarchical, and well-regulated systems	Decentralised, flexible and resource-constrained environments	Organisational designs influence the implementation and scale of AI.

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Data Environment	High volume clinical & diagnostic information (imaging, labs) is structured.	Unstructured, narrative, and context-rich patient data	Design & validation requirements for AI vary vastly
Workflow Characteristics	Coordinated multi-speciality approach: (aligned with defined clinical pathways and complex)	Rapid consultations, high variability, and continuity of care.	The challenges of workflow integration vary in type and impact
Resource Availability	Rigorous investment capacity, IT infrastructure, and technical support.	Lack of financial, digital and human resources.	Factors such as disparities in technical resources can affect the sustainability and scalability of AI solutions.
Governance Requirements	Formal governance structures, compliance with regulations and accountability systems	Few governance bodies; new challenges regarding safety, equity, and oversight.	Governance maturity varies and needs different governance policies and governance research.
Nature of AI Integration	System-level integration across departments and platforms	Tools within consultations for Point of Care (PoC).	There are different approaches to integration, scale vs. mode
Implementation Risk	A high clinical risk and medico-legal implications.	Risk is associated with disruptions in care, inequities in care, and disruptions in continuity of care.	Risk profiles vary, impacting adoption decisions and what is measured

Source: Compiled by Authors

ANALYSIS TOWARDS CONTEXT-SENSITIVE AI IMPLEMENTATION STRATEGIES

HOSPITAL IMPLEMENTATION STRATEGIES: GOVERNANCE-LED AND INTEGRATION-ORIENTED

The case study in the Canadian hospital underscored the importance of creating multidisciplinary governance committees, accountability measures and operational policies that can support the hospital's clinical workflows and existing team capacity [13, 14]. Hospitals should implement a robust digital infrastructure to maintain data privacy and security. Co-design with multidisciplinary teams, improved team communication, and defining design standards for AI output can make the implementation seamless in hospitals. Moreover, governance-led implementation can assist in restructuring the existing models using insights from AI analytics and leverage hospital leaders to drive AI adoption.

PRIMARY CARE IMPLEMENTATION STRATEGIES: WORKFLOW FIT AND LOW-FRICTION ADOPTION

The application of a "workflow-aligned" AI tool in "AI Consult" made in 15 primary care clinics in Kenya delivered a 16% reduction in diagnostic error, 13% reduction in treatment error, without reducing the autonomy of clinicians, and with continued trials [15]. Similar strategies can be applied in primary care to implement AI seamlessly. Clinicians in primary care should spend their time shortlisting AI tools that can be tested within a limited number of consultations before starting the adoption process in multiple areas together. Measurable workflow improvement must be focused on instead of spending excessive time on clinical notes and documentation. This example supports Katonai's perspective that AI tools must be strategically designed to integrate with workflows and minimise friction, fostering greater acceptance and usage.

TABLE 2: ACTION-ORIENTED STRATEGIES

Implementation Focus	Hospitals (Integration & Governance Oriented)	Primary Care (Workflow & Usability Oriented)
Starting Point	High risk / high impact use-cases (e.g., diagnostics, imaging)	Low risk / high frequency use-cases (e.g., documentation, triage support)
Implementation Approach	Requests that decisions be made in phases and as part of a broader department-based implementation	Incremental, practice-level implementation during consultations
Technology Integration	Significant integration with EHR / Hospital IT Systems	Plug-and-play tools that fit in with existing practice software.
Governance & Oversight	Formal governance structures, validation protocols, and accountability frameworks	Minimal but essential oversight focused on safety, usability, and continuity of care.
Workflow Strategy	Integrate AI into clinical workflows across multiple specialities	Ensure AI fits into the time-constrained consultation without disrupting the workflow
User Engagement	Clinician training, plus multidisciplinary collaboration	Co-design with clinicians, ease of use, and minimal training
Resource Strategy	Scalable infrastructure and data systems investments	Dedicated AI oversight teams that will fit a resource-constrained environment at low cost
Adoption Driver	Trust through governance, explainability, and reliability	Efficiency, usability, time saving
Scaling Strategy	Resources are scaled in a system-wide and standardised way	Resources are scaled by replication while localising the resources to meet local needs
Key Risk	There are a number of misalignments between governance, systems and workflow.	There are some key risks, including misalignments between governance, systems and workflow.

Source: Compiled by Authors

As shown in Table 2, AI applications in healthcare differ between hospitals and primary care, and the rationale behind them is distinct. Hospitals need integration through complex systems with established governance and robust infrastructure in place; primary care needs low-friction integration and interoperability with workflows. These variations highlight the importance of context-grounded approaches when implementing rather than standard approaches.

CONCLUSIONS

This paper addressed a burgeoning debate in healthcare: how should healthcare industry respond to AI evolution, and what should be the approach for effective AI implementation. The discussion centred on context-sensitive aspects of primary care and hospitals, explicitly suggesting and reinforcing the need to move beyond one-size-fits-all approach to AI integration across context-sensitive decision-making processes. Governance-led and workflow-aligned AI implementation strategies must be considered as key drivers of AI implementation in hospital and primary care clinical processes, respectively.

While this research sets the tone for effective AI implementation, further studies, guided by more comprehensive data-driven and primary approaches, are required to validate and reinforce this perspective further.

References

1. Hassan M, Kushniruk A, Borycki E. Barriers to and Facilitators of Artificial Intelligence Adoption in Health Care: Scoping Review. JMIR Hum Factors 2024; 11:e48633. https://doi.org/10.2196/48633
2. Scipion CE, Manchester MA, Federman A, Wang Y, Arias JJ. Barriers to and Facilitators of Clinician Acceptance and Use of Artificial Intelligence in Healthcare Settings: A Scoping Review. BMJ Open. 2025; 15(4):e092624. https://doi.org/10.1136/bmjopen-2024-092624
3. Tazkarji MY, Chou CH, Hamadeh G. Prioritizing Barriers to AI adoption in Healthcare Enterprise Systems: A Mixed-Methods Approach to Governance and Readiness. J Enterp Inf Manag 2026; 1-24. https://doi.org/10.1108/JEIM-12-2025-1253
4. Allen LN, Lin J, Segal BM, Ndlovu K, Bilardi D, Pettigrew LM. Artificial Intelligence in Primary Care: Frameworks, Challenges, and Guardrails. Lancet Prim Care. 2026; 2(3). https://doi.org/10.1016/j.lanprc.2025.100079
5. Kamel Rahimi A et al. Implementing AI in Hospitals to Achieve a Learning Health System: Systematic Review of Current Enablers and Barriers. J Med Internet Res 2024; 26:e49655. https://doi.org/10.2196/49655
6. Eltawil FA, Atalla M, Boulos E, Amirabadi A, Tyrrell PN. Analyzing Barriers and Enablers for the Acceptance of Artificial Intelligence Innovations into Radiology Practice: A Scoping Review. Tomography. 2023; 9(4):1443-55. https://doi.org/10.3390/tomography9040115
7. Oleribe OO et al. Global adoption, promotion, impact, and deployment of AI in Patient Care, Health Care Delivery, Management, and Health Care Systems Leadership: Cross-Sectional Survey. J Med Internet Res 2025; 27:e70805. https://doi.org/10.2196/70805
8. Ranjbar A et al. Managing Risk and Quality of AI in Healthcare: Are Hospitals Ready for Implementation? Risk Management and Healthcare Policy. 2024; 17: 877-82. https://doi.org/10.2147/RMHP.S452337
9. Maimaitiaili M et al. Artificial Intelligence Platform Architecture for Hospital Systems: Systematic Review. J Med Internet Res 2025; 27:e79788. https://doi.org/10.2196/79788
10. Iannone S, Kaur A, Johnson KB. Artificial Intelligence in Outpatient Primary Care: A Scoping Review on Applications, Challenges, and Future Directions. J Gen Intern Med 2025; 1-0. https://doi.org/10.1007/s11606-025-09938-0
11. Katonai G, Arvai N, Mesko B. AI and Primary Care: Scoping Review. J Med Internet Res 2025; 27:e65950. https://doi.org/10.2196/65950
12. Alamoudi A, Kontopantelis E, Zghebi SS, Brown B. AI Triage in Primary Care: Building Safer and More Equitable Real-World Evidence. J Med Internet Res 2026; 28:e88396. https://10.2196/88396
13. Kim JY et al. Establishing Organizational AI Governance in Healthcare: A Case Study in Canada. NPJ Digit Med 2025; 8(1):522. https://doi.org/10.1038/s41746-025-01909-3
14. Hussein R et al. Advancing healthcare AI governance through a Comprehensive Maturity Model Based on Systematic Review. NPJ Digit Med 2026. https://doi.org/10.1038/s41746-026-02418-7
15. Brodeur PG, Koshy JM, Palepu A, Saab K, Homiar A, Ruparel R, et al. A prospective clinical feasibility study of a conversational diagnostic AI in an ambulatory primary care clinic [preprint]. arXiv. 2026. doi:10.48550/arXiv.2603.08448.