

# Cover Letter for JMIR Medical Informatics Submission

**Date:** January 2026

**To:** Editor-in-Chief, JMIR Medical Informatics

**Re:** Manuscript Submission - Review Article

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Dear Editor,

I am pleased to submit the manuscript titled “**Healthcare Analytics Challenges: A Three-Pillar Framework Connecting Analytics Maturity, Workforce Agility, and Technical Enablement**” for consideration as a Review article in JMIR Medical Informatics.

## Background and Significance

Healthcare organizations face three interconnected challenges that create a compounding cycle threatening data-driven transformation: low analytics maturity (only 39 organizations globally have achieved HIMSS AMAM Stage 6-7), systemic workforce instability, and technical barriers in natural language to SQL generation. This review identifies a critical gap in the literature: while single-domain studies exist for each challenge, few analyze how they interconnect to create institutional memory loss.

## Methodology

This narrative review synthesizes peer-reviewed studies and industry reports from Crossref, PubMed, arXiv, and Semantic Scholar. Grey literature sources were assessed using the AACODS checklist. Evidence was integrated through an original three-pillar analytical framework examining how these challenges interconnect and compound each other.

## Principal Findings

The review contributes an original three-pillar analytical framework revealing a self-reinforcing cycle: (1) **Analytics Maturity**: Low maturity leaves clinical decisions unsupported, correlating with higher turnover; (2) **Workforce Impact**: Turnover (~34% implied annual rate) causes institutional memory loss that further degrades capabilities; and (3) **Technical Enablement**: Technical barriers prevent the capture of this knowledge, blocking recovery. The review also identifies **Governance Necessity** as a critical finding, arguing that democratization through NL2SQL requires stricter governance (“Golden Queries”) to move from ad-hoc reporting to trusted AI deployment.

## **Conflicts of Interest**

The author declares competing interests: Samuel T Harrold is a contract product advisor at Yuimedi, Inc., which develops healthcare analytics software, and is employed as a Data Scientist at Indiana University Health. This paper presents an analytical framework derived from published literature and does not evaluate or recommend specific commercial products.

## **Generative AI Disclosure**

Gemini CLI (Gemini 3, Google) assisted with manuscript editing and refinement. The author takes full responsibility for the final content.

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## **Article Processing Fee**

I acknowledge the applicable article processing fee (APF) if this manuscript is accepted after peer review.

## **Transfer Preference**

If this manuscript is not suitable for JMIR Medical Informatics, I would welcome consideration for transfer to JMIR AI or JMIR Formative Research.

Thank you for considering this manuscript. I believe it will be of significant interest to JMIR Medical Informatics readers working in healthcare informatics, clinical decision support, and healthcare analytics.

Sincerely,

Samuel T Harrold

Yuimedi, Inc.