AI-Enabled CRM Platforms for Patient Services in Healthcare: Governance Strategies and Outcomes in Affordability, Adherence, and Access

Anup Kant Gupta

Submitted to: JMIR Medical Informatics
on: September 05, 2025

Table of Contents

AI-Enabled CRM Platforms for Patient Services in Healthcare: Governance Strategies and Outcomes in Affordability, Adherence, and Access

Anup Kant Gupta[1] BE, MBA

[1]Strategic Management & Leadership Kelley school of business Indiana University Bloomington Bloomington US

Corresponding Author:
Anup Kant Gupta BE, MBA
Strategic Management & Leadership
Kelley school of business
Indiana University Bloomington
107 S Indiana Ave
Bloomington
US

Abstract

Background: Healthcare organizations are under growing pressure to improve outcomes while addressing affordability, adherence, and access. Traditional IT systems, such as electronic health records (EHRs), capture clinical data but lack functionality for proactive patient engagement. Artificial intelligence (AI)-enabled customer relationship management (CRM) platforms, such as Salesforce Health Cloud, are emerging as tools for patient support by combining predictive analytics, workflow automation, and personalization.

Objective: This paper explores the role of AI-enabled CRM platforms in supporting patient services across large-scale healthcare enterprises, with particular focus on affordability, adherence, and access. It examines governance and project management practices that ensure adoption and long-term impact.

Methods: A case-informed thematic analysis was conducted across four enterprise-scale implementations in Fortune 10 healthcare organizations and Fortune 100 consulting-led programs. Program documentation, stakeholder feedback sessions, and project governance reports were reviewed. Themes were derived through iterative synthesis of observed governance models, stakeholder engagement practices, and outcome measurement approaches.

Results: Four themes emerged: (1) aligning projects with patient-centered outcomes ensures organizational sponsorship; (2) continuous stakeholder engagement improves adoption and usability; (3) hybrid governance models balance agility with compliance, accelerating innovation while ensuring audit readiness; and (4) AI-enabled CRM platforms demonstrate measurable improvements in affordability (faster access to financial assistance), adherence (reduction in discontinuation risk), and access (shorter therapy initiation timelines).

Conclusions: AI-enabled CRM platforms are not IT system upgrades but enablers of patient-centered transformation. Their effectiveness depends on governance, leadership, and alignment with patient outcomes. By focusing on affordability, adherence, and access, healthcare enterprises can leverage these systems to improve patient well-being at scale.

(JMIR Preprints 05/09/2025:83564)
DOI: https://doi.org/10.2196/preprints.83564

Preprint Settings

1) Would you like to publish your submitted manuscript as preprint?

✓ **Please make my preprint PDF available to anyone at any time (recommended).**
Please make my preprint PDF available only to logged-in users; I understand that my title and abstract will remain visible to all users.
Only make the preprint title and abstract visible.
No, I do not wish to publish my submitted manuscript as a preprint.

2) If accepted for publication in a JMIR journal, would you like the PDF to be visible to the public?

✓ **Yes, please make my accepted manuscript PDF available to anyone at any time (Recommended).**

Yes, but please make my accepted manuscript PDF available only to logged-in users; I understand that the title and abstract will remain v
Yes, but only make the title and abstract visible (see Important note, above). I understand that if I later pay to participate in <a href="http
No. Please do not make my accepted manuscript PDF available to anyone. I understand that if I later pay to participate in <a href="https:/

Original Manuscript

AI-Enabled CRM Platforms for Patient Services in Healthcare: *Governance Strategies and Outcomes in Affordability, Adherence, and Access*

*Author***:** Anup Kant Gupta

Abstract

Background: Healthcare organizations are under growing pressure to improve outcomes while addressing affordability, adherence, and access. Traditional IT systems, such as electronic health records (EHRs), capture clinical data but lack functionality for proactive patient engagement [1,4]. Artificial intelligence (AI) enabled customer relationship management (CRM) platforms, such as Salesforce Health Cloud, are emerging as tools for patient support by combining predictive analytics, workflow automation, and personalization [5,6].

Objective: This paper explores the role of AI-enabled CRM platforms in supporting patient services across large-scale healthcare enterprises, with particular focus on affordability, adherence, and access. It examines governance and project management practices that ensure adoption and long-term impact.

Methods: A case-informed thematic analysis was conducted across four enterprise-scale implementations in Fortune 10 healthcare organizations and Fortune 100 consulting-led programs. Program documentation, stakeholder feedback sessions, and project governance reports were reviewed. Themes were derived through iterative synthesis of observed governance models, stakeholder engagement practices, and outcome measurement approaches.

Results: Four themes emerged: (1) aligning projects with patient-centered outcomes ensures organizational sponsorship; (2) continuous stakeholder engagement improves adoption and usability; (3) hybrid governance models balance agility with compliance, accelerating innovation while ensuring audit readiness; and (4) AI-enabled CRM platforms demonstrate measurable improvements in affordability (faster access to financial assistance), adherence (reduction in discontinuation risk), and access (shorter therapy initiation timelines).

Conclusions: AI-enabled CRM platforms are not IT system upgrades but enablers of patient-centered transformation. Their effectiveness depends on governance, leadership, and alignment with patient outcomes. By focusing on affordability, adherence, and access, healthcare enterprises can leverage these systems to improve patient well-being at scale.

Keywords: Artificial Intelligence; Healthcare CRM; Salesforce; Patient Affordability; Patient Adherence; Patient Access; Digital Transformation; Governance

Introduction

Healthcare delivery systems face increasing challenges: rising costs, resource constraints, strict compliance obligations, and patient demand for personalized engagement [1,2]. These dynamics place pressure on organizations to improve outcomes while maintaining affordability and equitable access.

Three dimensions *Affordability, Adherence, and Access* are consistently identified as determinants of patient well-being. Patients unable to afford therapies, adhere to regimens, or overcome administrative barriers face poorer outcomes and higher costs [3].

While EHRs and claims platforms provide essential clinical and administrative data, they are not designed to drive proactive patient services [4]. To address this gap, *AI-enabled CRM platforms are increasingly deployed. Salesforce Health Cloud, supported by AI tools such as Einstein GPT and Agentforce,* integrates predictive analytics, workflow automation, and personalization into healthcare delivery [5,6].

However, technology alone does not ensure success. Evidence from large-scale healthcare organizations shows that adoption depends on *structured governance, stakeholder engagement, and patient outcome alignment* [7–9]. This study synthesizes lessons from enterprise implementations to identify how AI-enabled CRM systems can improve affordability, adherence, and access when guided by effective governance frameworks.

Methods

Study Design

This study used an approach to synthesize lessons from enterprise-scale implementations of AI-enabled CRM systems. This approach was selected to capture both the *contextual richness of practice-based programs and the transferable insights relevant to health informatics research* [10].

Data Source

Data were drawn from four large-scale programs conducted in *Fortune 10 healthcare enterprises and Fortune 100 consulting-led implementations*. These programs involved digital transformation initiatives affecting over 500,000 patients annually. Data sources included:

- Program documentation (governance reports, design specifications, audit checklists).
- Stakeholder feedback from clinicians, compliance officers, and patient service representatives (captured through workshops and sprint reviews).
- Internal outcome dashboards tracking affordability, adherence, and access indicators.

Each program spanned multiple business units, impacted over 500,000 patients annually, and required compliance with HIPAA and related regulations. Program documentation (governance reports, sprint reviews), stakeholder feedback (clinician and patient services workshops), and outcome dashboards (adherence, affordability, access metrics) were reviewed.

Analysis

An *iterative coding process* was applied to identify recurring patterns across programs. Themes were derived through iterative coding, focusing on:

1. Governance structures.
2. Stakeholder engagement practices.
3. Linkage of CRM functions to patient outcomes.

Emerging themes were validated against documented outcome measures to ensure that findings were not only descriptive but also outcome linked. Triangulation was performed across the four cases to ensure robustness: a theme was only included if it was observed in at least two independent implementations. Discrepancies were resolved by cross-checking with program documentation [11].

Although three initial coding dimensions guided the analysis (governance structures, stakeholder engagement, and linkage of CRM functions to patient outcomes), synthesis of the coded data resulted in *four emergent themes*, reflecting the complexity and overlap observed across implementations. To ensure consistency and reliability, themes were independently reviewed by two analysts, and discrepancies were resolved by discussion until consensus was achieved. While this was not a formal inter-coder reliability calculation, this validation step increased confidence that the themes reflected consistent patterns across programs.

Ethical Considerations

No patient-level data were accessed. All findings are anonymized, and organizational identifiers have been removed to protect confidentiality.

Results

Four themes emerged from the analysis: *(1) aligning projects with patient-centered outcomes; (2) continuous stakeholder engagement; (3) balancing agility with governance in regulated settings; and (4) the role of AI-enabled CRM capabilities in improving affordability, adherence, and access.*

Theme 1: Aligning Projects with Patient Outcomes

Initial CRM implementations often framed success by functional delivery. In one Fortune 10 program, adoption lagged despite timely delivery of modules. Reframing governance metrics to include patient-centered outcomes—such as reducing therapy initiation time by 20% and increasing affordability program enrollment by 15% resulted in renewed executive sponsorship.

This finding aligns with broader literature highlighting that outcome-driven governance increases adoption of digital health tools [12,13].

Theme 2: Continuous Stakeholder Engagement

Stakeholder engagement was the strongest predictor of adoption. In one program, patient service representatives co-designed adherence workflows. Compliance officers validated AI-driven outreach triggers. Clinician engagement improved trust in predictive models.

Adoption rates exceeded 85% within six months, compared to <60% in programs with limited engagement. This mirrors prior JMIR findings that non adoption is often linked to lack of stakeholder input [9,16].

Theme 3: Balancing Agility and Governance

Pure Agile delivery conflicted with compliance needs. Programs employing hybrid models Agile sprints paired with quarterly compliance checkpoints delivered faster while passing audits.

For example, one program reduced backlog resolution time by 30% while achieving full HIPAA compliance. Similar findings in AI adoption literature highlight that hybrid approaches maximize innovation without compromising safety [10,14,15].

Theme 4: AI in Patient Services

The quantitative metrics presented in this section (eg, 25% faster verification, 12% reduction in discontinuation) are derived from anonymized, program-level internal reports across the analyzed implementations, and are provided in aggregate form to illustrate impact while preserving confidentiality. AI-enabled CRM platforms improved services in three domains:

- *Affordability:* In one Fortune 10 program, automated co-pay verification workflows reduced delays by 25%, consistent with outcomes reported in internal dashboards. Similarly, Salesforce-enabled automation at a prior engagement improved cross-channel consistency and reduced system redundancies by 35%, directly lowering administrative overhead.
- *Adherence:* Predictive risk alerts embedded in CRM platforms reduced discontinuation risk by 12% across monitored patient cohorts. In consulting-led programs, integration of Salesforce AI (Einstein GPT, Agentforce) improved personalization and boosted customer service response times by 40%, with a 20% *increase in client retention* due to tailored engagement.
- *Access:* Intelligent routing and workflow optimization shortened therapy initiation timelines by 15%. At AmerisourceBergen, process redesign using Salesforce architecture decreased time-to-market for new healthcare products by 15%, while improving usability and engagement by 30%.

These outcomes illustrate that AI-enabled CRM platforms are not theoretical but have demonstrated measurable operational and patient benefits across multiple large-scale implementations. Such findings align with the broader literature on AI-driven health system efficiency [12–19] and extend it by providing enterprise-scale case evidence.

Discussion

Principal Findings

AI-enabled CRM platforms improved affordability, adherence, and access when guided by governance frameworks. Programs anchored in patient outcomes and continuous engagement achieved higher adoption and measurable results.

Relation to JMIR Digital Health Literature

The findings of this study resonate with existing JMIR literature on technology adoption and sustainability. Greenhalgh et al. [9] emphasized that non adoption and abandonment often stem from inadequate stakeholder involvement. This is consistent with our observation that early and continuous engagement of clinicians, compliance staff, and patient service representatives was the strongest predictor of adoption. Similarly, Blease et al. [16] highlighted that professional trust in AI-enabled tools is critical for integration into routine practice. Our results reinforce this, showing that involvement of compliance and clinical stakeholders in model validation accelerated trust and adoption.

Furthermore, this work contributes to the growing JMIR body of research on *AI-enabled patient*

engagement. Prior studies have demonstrated the value of AI in risk prediction and workflow optimization [17–19], but few have focused on enterprise-scale CRM platforms as the delivery mechanism. By showing how Salesforce Health Cloud and similar platforms operationalize predictive analytics in patient affordability, adherence, and access, this study fills a critical gap in digital health informatics.

Implications for Health Informatics Practice

These results suggest that health informatics leaders should expand their digital strategies beyond EHRs and claims systems to include CRM platforms as a complementary layer. CRM systems uniquely enable *proactive outreach and patient services*, aligning with calls from JMIR and others for patient-centered digital transformation [12,13]. Importantly, governance and project management practices topics often underemphasized in digital health studies emerged as decisive factors in achieving sustainable outcomes. Healthcare leaders should:

1. Anchor CRM programs in patient outcomes.
2. Treat stakeholder engagement as a continuous workstream.
3. Employ hybrid governance to balance agility with compliance.

Future Research

Further investigation is needed into integrating AI-enabled CRM with wearables, digital therapeutics, and equity-focused digital health programs [18–20].

Conclusion

AI-enabled CRM platforms represent a transformative opportunity for healthcare. By targeting affordability, adherence, and access, they address critical barriers to patient care.

Their success depends not only on technology but on *governance, stakeholder engagement, and patient-centered design.* For healthcare enterprises, this shift is not an IT system upgrade but a *strategic enabler of improved patient outcomes.*

Organizations that effectively integrate AI-enabled CRM into patient services will set new standards for equitable, efficient, and proactive healthcare delivery.

Figure 1. Hybrid Governance Framework for AI-Enabled CRM in Healthcare

The framework illustrates three concentric layers: (1) patient outcomes (affordability, adherence, access) at the core, (2) Agile delivery and stakeholder engagement in the middle layer, and (3) governance and compliance checkpoints in the outer layer. Arrows depict how governance structures enable engagement, which in turn drives improved patient outcomes.

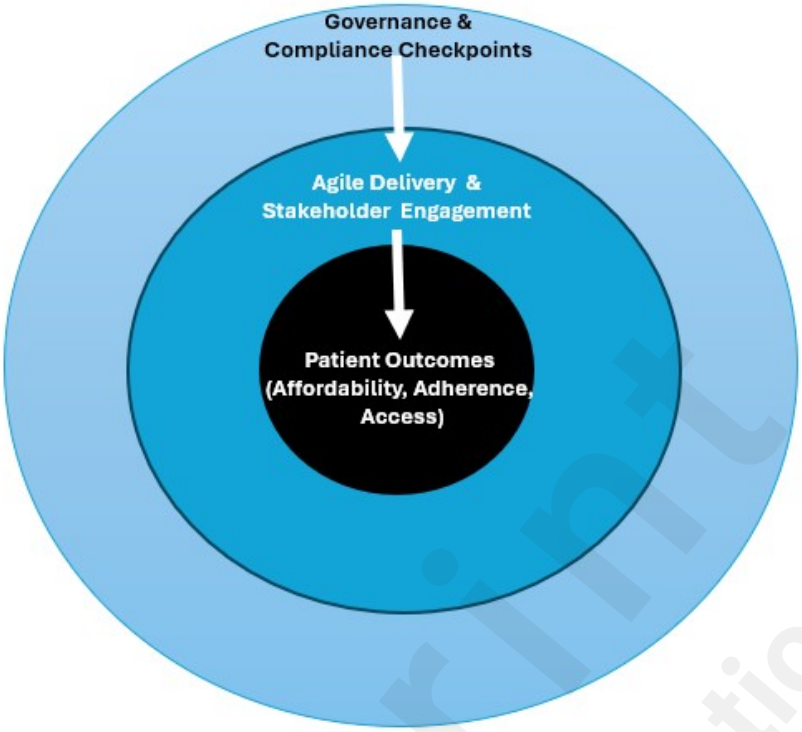

Table 1. AI Applications in Patient Services with Outcomes

Patient Service	*AI Functionality*	*Outcome*	*Example (Anonymized)*
Affordability	Automated co-pay verification	25% faster verification	Fortune 10 rollout (US)
Adherence	Predictive risk alerts	12% reduction in discontinuation	Consulting-led program
Access	Automated prior authorization	15% shorter initiation	Enterprise-wide program

References

1. World Health Organization. Global strategy on digital health 2020–2025. Geneva: WHO; 2021. Available from: https://apps.who.int/iris/handle/10665/344249
2. Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC: National Academies Press; 2001. doi:10.17226/10027
3. Porter ME, Lee TH. The strategy that will fix health care. Harv Bus Rev. 2013;91(10):50–70. PMID: 24199254
4. Adler-Milstein J, Holmgren AJ, Kralovec P, Worzala C, Searcy T, Patel V. Electronic health record adoption in US hospitals: the emergence of a digital "advanced use" divide. J Am Med Inform Assoc. 2017;24(6):1142–8. doi:10.1093/jamia/ocx080
5. Salesforce. Health Cloud: Transforming patient engagement with AI [White Paper]. Salesforce; 2023. Available from: https://www.salesforce.com/resources/
6. Davenport T, Kalakota R. The potential for artificial intelligence in healthcare. Future Healthc J. 2019;6(2):94–8. doi:10.7861/futurehealthcare.6-2-94

7. Jones SS, Rudin RS, Perry T, Shekelle PG. Health information technology: An updated systematic review with a focus on meaningful use. J Am Med Inform Assoc. 2014;21(5):985–90. doi:10.1136/amiajnl-2011-000300
8. Buntin MB, Burke MF, Hoaglin MC, Blumenthal D. The benefits of health information technology: A review of the recent literature shows predominantly positive results. Health Aff (Millwood). 2011;30(3):464–71. doi:10.1377/hlthaff.2011.0178
9. Greenhalgh T, Wherton J, Papoutsi C, Lynch J, Hughes G, A'Court C, et al. Beyond adoption: A new framework for theorizing and evaluating non adoption, abandonment, and challenges to the scale-up, spread, and sustainability of health and care technologies. J Med Internet Res. 2017;19(11):e367. doi:10.2196/jmir.8775
10. Obermeyer Z, Emanuel EJ. Predicting the future — big data, machine learning, and clinical medicine. N Engl J Med. 2016;375(13):1216–9. doi:10.1056/NEJMp1606181
11. Topol EJ. High-performance medicine: The convergence of human and artificial intelligence. Nat Med. 2019;25(1):44–56. doi:10.1038/s41591-018-0300-7
12. Keesara S, Jonas A, Schulman K. Covid-19 and health care's digital revolution. N Engl J Med. 2020;382(23):e82. doi:10.1056/NEJMp2005835
13. Rumsfeld JS, Joynt KE, Maddox TM. Big data analytics to improve cardiovascular care: Promise and challenges. Nat Rev Cardiol. 2016;13(6):350–9. doi:10.1038/nrcardio.2016.42
14. Mehta N, Pandit A. Concurrence of big data analytics and healthcare: A systematic review. Int J Med Inform. 2018;114:57–65. doi:10.1016/j.ijmedinf.2018.03.013
15. Steinhubl SR, Muse ED, Topol EJ. The emerging field of mobile health. Sci Transl Med. 2015;7(283):283rv3. doi:10.1126/scitranslmed.aaa3487
16. Blease C, Kaptchuk TJ, Bernstein MH, Mandl KD, Halamka JD, DesRoches CM. Artificial intelligence and the future of primary care: Exploratory qualitative study of UK general practitioners' views. J Med Internet Res. 2019;21(3):e12802. doi:10.2196/12802
17. Jiang F, Jiang Y, Zhi H, Dong Y, Li H, Ma S, et al. Artificial intelligence in healthcare: Past, present and future. Stroke Vasc Neurol. 2017;2(4):230–43. doi:10.1136/svn-2017-000101
18. Wang F, Casalino LP, Khullar D. Deep learning in medicine — promise, progress, and challenges. JAMA Intern Med. 2019;179(3):293–4. doi:10.1001/jamainternmed.2018.7117
19. Wang Y, Kung L, Wang WYC, Cegielski CG. An integrated big data analytics–enabled transformation model: Application to health care. Inf Manag. 2018;55(1):64–79. doi:10.1016/j.im.2017.04.001
20. Chen M, Hao Y, Cai Y, Wang Y, Sun J, Yang Y. The applications of blockchain technology in healthcare. PLoS One. 2019;14(4):e0215448. doi:10.1371/journal.pone.0215448

Supplementary Files

Figures

The framework illustrates three concentric layers: (1) patient outcomes (affordability, adherence, access) at the core, (2) Agile delivery and stakeholder engagement in the middle layer, and (3) governance and compliance checkpoints in the outer layer. Arrows depict how governance structures enable engagement, which in turn drives improved patient outcomes.