# Ethics and Strategy: Managing AI in Healthcare for a Resilient, Innovative Future

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# Key Takeaways

This presentation seeks to provide some key insights in four key areas

DEVELOP AN AI GOVERNANCE STRATEGY

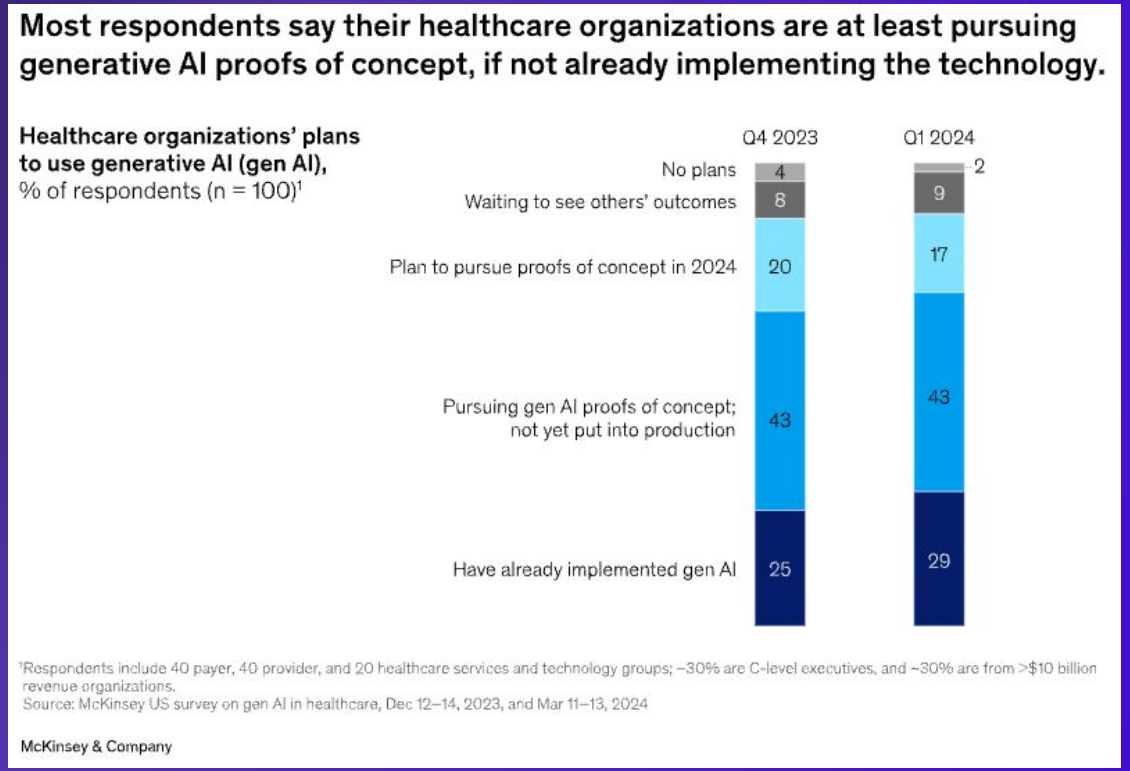
LEARN HOW TO MINIMIZE BIAS AND RISK

BALANCE INNOVATION AND TRUST

PROVIDE CASE STUDIES

# The AI Moment In Healthcare

Adoption with AI in Healthcare is Growing



# Defining AI in Plain Language

- AI Is
  - A system designed to learn patterns and make predictions
- AI Is Not
  - Magic-Algorithms trained on data to enhance decision making

The Goal of AI is to augment human intelligence, not replace it

# The Promise vs The Peril



# Physicians Vs AI Chatbots: A Case Study

Comparing Physician and Artificial Intelligence Chatbot Responses to Patient Questions Posted to a Public Social Media Forum (JAMA Internal Medicine, 183(6), 589-596), 2023

## Study Overview

- Asked the question: Can AI Chatbots potentially aid in creating answers to the patients' questions by drafting responses that could be reviewed by clinicians
- Chatbots (Using ChatGPT) & physicians crafted responses then reviewers evaluated them

## Results

- 78.6% of the evaluators prefered chatbot responses above physician responses.
  - Chatbot responses were longer and higher quality
  - Chatbot responses were also rated more empathetic than physician responses

AI may outshine us in empathy and efficiency, but without ethics, it cannot outlast us in trust.

# The Ethical Imperative

Every Move with AI Should Start With Ethics

## Transparency

If people don't understand how AI reaches conclusions, they won't trust it. Worse, they will blindly trust it

## Accountability

AI supports decisions, but it does not replace clinical judgement. Leadership must define who is responsible when things go wrong

## Bias Mitigation

Data always carries bias. Our role is to recognize it and reduce harm through continuous testing and auditing

## Patient Autonomy and Trust

AI should enhance, not replace, informed consent, shared decision making and patient dignity

# Failure vs Success

Just because it works, does not mean that it follows ethical principles

## Failure: Population Health Risk Algorithm

**What Happened:**

- Algorithm used future healthcare cost as a proxy for patient need

**Outcome:**

- At the same risk score, black patients were significantly sicker than white patients
  - The algorithm only flagged **17.7%** of high-need black patients, vs **46.6** if the risk was illness based

**Ethical Breakdown**

- **Transparency:** Hidden target variable (cost) obscured inequities
- **Accountability:** No governance caught proxy issue before scaling
- **Bias Mitigation:** No subgroup audits led to systemic algorithm racial bias
- **Trust:** Undermined equitable access to care

**Reference:**


- Obermeyer, Z., Powers, B., Vogeli, C., & Mullainathan, S. (2019). Dissecting racial bias in an algorithm used to manage the health of populations. Science (New York, N.Y.), 366(6464), 447–453. https://doi.org/10.1126/science.aax2342

# Failure vs Success

Just because it works, does not mean that it follows ethical principles

## Success: Viz.ai Stroke Triage (LVO Detection)

**What Happened:**

- AI Platform for stroke triage identification for Large Vessel occlusions (LVOs) and alerted stroke team in real time

**Outcome:**

- At once center, **door-to-groin time dropped 39% off-hours** and **32% overall**, accelerating lifesaving treatment

**Ethical Breakdown**

- **Transparency:** Clear workflow metrics (time to treatment)
- **Accountability:** Clinicians remained decision-makers; AI served as a communication tool
- **Bias Mitigation:** Monitored process times across direct vs transfer patients
- **Trust:** Improved outcomes strengthened both patient and provider confidence

**Reference:**


- Figurelle, M. E., Meyer, D. M., Perrinez, E. S., Paulson, D., Pannell, J. S., Santiago-Dieppa, D. R., Khalessi, A. A., Bolar, D. S., Bykowski, J., & Meyer, B. C. (2023). Viz.ai Implementation of Stroke Augmented Intelligence and Communications Platform to Improve Indicators and Outcomes for a Comprehensive Stroke Center and Network. AJNR. American journal of neuroradiology, 44(1), 47–53. https://doi.org/10.3174/ajnr.A7716

# AI Governance



# What is AI Governance?

Ethics are the why, Governance is the how



# Governance Structures: Who's at the Table?



## Oversight Committee

Cross-functional team with representation from clinical, supply chain/value analysis, IT, compliance, and leadership




## Defined Roles

Clear accountability for approving AI tools, monitoring outcomes, and reporting back to leadership.



## Leadership Accountability

Executive sponsor ensures AI governance has visibility and authority at the highest level of the organization.

# Governance in Action: Policies & Processes

How do we practically win when it comes to governance and not simply create another committee



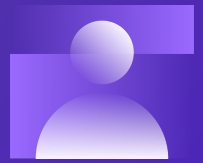
### Create Committees

Establish set governance and oversight groups in relation to artificial intelligence initiatives



### Monitor Bias and Privacy

Use Subject Matter Experts to ensure that bias is avoided at all costs. Also monitor for privacy concerns



### Align with the HHS AI Playbook

Establish Strategies that align with the guiding principles from HHS on using AI in a trustworthy way

# Tools to Support AI Governance

Put Theory Into Practice



### AI Implementation Checklist

Use a stepwise framework to guide adoption through objectives, cross-functional teams, guardrails, training and scaling



### Risk Assessment Matrix

Use a structures scoring system across all domains



### AI Position Statements and Toolkits

Align your procedures with foundational frameworks from accepted documents and tools

# Balancing Innovation and Trust

Resilience lives where innovation meets ethics




## Encourage Innovation

Be curious and willing to evaluate AI through pilot programs and safe testing environments

## Build Trust

Transparency with patients, clinical staff, physicians, administrators and the public

## Maintain Accountability

Establish governance and encourage participation as well as celebrating wins and acknowledging shortfalls. Ensure rapid identification of issues and address risk quickly

# AI in Infection Surveillance

Assisting the infection preventionist: Use of artificial intelligence for health care–associated infection surveillance
Wiemken, Timothy L. et al.
American Journal of Infection Control, Volume 52, Issue 6, 625 - 629

## Study Overview

- Asked the question: Can Large Language Models (LLMs) like ChatGPT assist infection preventionist in identifying healthcare-associated infections (HAIs)?
- Researchers tested ChatGPT-4 and a local Mixtral model using six NHSN infection scenarios (CLABSI and CAUTI cases)

## Results

- Both AI tools correctly classified all six cases when data were complete and clearly written
- Errors occurred only when information was ambiguous or missing (e.g., unclear device dates)
- Authors concluded AI can augment, not replace, human infection preventionist

# AI in Antimicrobial Stewardship

Tang S, Shepard S, Clark R, et al. Guiding *Clostridioides difficile* Infection Prevention Efforts in a Hospital Setting With AI. *JAMA Netw Open.* 2025;8(6):e2515213. doi:10.1001/jamanetworkopen.2025.15213

## Study Overview

- Asked the question: Can an AI-Based prediction model improve antibiotic stewardship and reduce risk for C. difficile infection (CDI) in hospitalized patients?
- Researchers implemented an AI-driven risk model within an academic medical center's stewardship program to flag patients at elevated CDI risk and guide antibiotic decision-making

## Results

- Implementation of the AI tool led to a 16.8% reduction in broad-spectrum antibiotic use among flagged patients
- No significant change in CDI rates
- Authors suggested that AI can enhance stewardship precision, but clinical engagement is essential for impact

# AI in Operations and Supply Chain

Fardin Sabahat Khan, Abdullah Al Masum, Jamaldeen Adam, Md Rashidul Karim, & Sadia Afrin. (2024). AI in Healthcare Supply Chain Management: Enhancing Efficiency and Reducing Costs with Predictive Analytics. *Journal of Computer Science and Technology Studies*, *6*(5), 85-93. https://doi.org/10.32996/jcsts.2024.6.5.8

## Study Overview

- Asked the question: Can artificial intelligence improve hospital supply chain efficiency and reduce cost through predictive inventory management?
- Researchers examined AI-driven forecasting and automation tools used to predict demand, optimize reorder points, and prevent stock-outs for critical medical supplies

## Results

- Predictive AI systems demonstrated significant reductions in supply waste and improved readiness for infection prevention materials
- Reported efficiency gains included 20% fewer expired items and projected cost savings exceeding $2M annual in modeled hospital operations

# Integrating AI Across Departments

**Shen, J., Bu, F., Ye, Z., Zhang, M., Ma, Q., Yan, J., & Huang, T. (2024).** *Management of drug supply chain information based on "artificial intelligence + vendor managed inventory" in China: Perspective based on a case study. Frontiers in Pharmacology, 15.* https://doi.org/10.3389/fphar.2024.1373642

## Study Overview

- Asked the question: How can healthcare organizations maximize AI's value by integrating it across multiple departments rather than isolated pilots?
- Reviewed use cases connecting infection prevention, pharmacy, IT, and operations through shared data pipelines and governance models
- Draws for system-level analyses of hospital AI adoption

## Results

- Cross-Departmental AI integration improved communication and data accuracy across clinical and ops teams
- Hospitals with integrated governance reported high staff trust, fewer workflow interruptions and faster response times to infection alerts or supply issues

# How are you currently using AI in your infection prevention or clinical work?

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# Bringing AI to Your IP Program

Starter Discussion Prompts for Internal Teams

## What to ask within your organization?

- How can AI Support, but not replace, our infection prevention expertise?
- Which data sources could we safely use to train or inform AI models?
- What are our current gaps in manual reporting or surveillance that AI could enhance?
- How will we measure success?
- Who will own accountability for data governance and model oversight?

# Making it Real

Monday Morning To Do List

## What can you do Monday Morning?

- Form an AI Governance Working Group
  - Include IT, VA, Clinical, Compliance, etc
- Review current AI tools/industry partners for bias, transparency, and accountability
- Introduce an AI Implementation Checklist to Standardize Adoption
- Education your teams with a 30 minute AI Ethics Primer
- Ensure your team is aligned with national frameworks if you are using AI in any current workflows

Artificial Intelligence will not save healthcare. Leaders will.

**ETHICS + STRATEGY = RESILIENCE**

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