



AI in CVS Health: Navigating Risks & Unlocking Value

February 19, 2025

PRESENTED BY: TEAM 17

**Daryn Imashev, Gillis Wang, Isabella Chen,
Nikita Suryawanshi, Jackson Sui**

Agenda

Most impactful AI considerations

- Data Privacy & Cybersecurity
- Bias in AI Models
- AI-Driven Drug Discovery & Clinical Insights

Mitigation & The Value of Each Approach

Conclusion



Data Privacy & Cybersecurity

CVS Health has already experienced cybersecurity incidents in 2021, highlighting the need for robust security measures.

Privacy Concerns

- In 2025, CVS Health's redesigned AI-powered app sparks privacy concerns over **sensitive health data handling**.
- Using AI to create more intuitive workflows and faster turnaround times, which involves processing **large amounts of patient and member data**.

Cybersecurity Risks

Learn from the past...

- The **database leak** exposed over 1 billion personal information, causing serious **reputation damage** and **customer trust issue**.
- The increasing reliance on AI may create **new attack vectors** for cybercriminals.

Bias in AI models

AI-driven Insurance & Claims Processing

- **Aetna's** AI may deny claims unfairly if trained on biased historical data, worsening healthcare disparities.
- In 2019, **UnitedHealthcare's** AI prioritized healthier patients, reducing care for Black patients with higher risks.

Pharmacy AI & Prescription Approvals

- AI may reinforce racial and gender disparities in medication access if trained on biased data.
- In 2021, AI monitoring disproportionately flagged **Black patients** as “**high-risk**” opioid users, limiting pain treatment.

Personalized Healthcare & Wellness Recommendations

- AI may unequally distribute preventive care recommendations, favoring certain groups.
- In 2020, an AI tool prioritized **white patients** over **Black patients** for healthcare recommendations.

AI-Driven Drug Discovery and Clinical Insights

Regulatory & Compliance Risks

- Models must adhere to strict FDA and healthcare regulations, which **may delay implementation**.
- IBM Watson** faced scrutiny when it was revealed that the AI system provided incorrect/unsafe treatment recommendations.

High Implementation Costs

- Deploying AI in drug discovery and medical practices **requires investment** in technology, personnel and infrastructure.
- BenevolentAI**, a biotech company using AI for drug discovery, faced major financial difficulties despite initial successes.

Disruption to Traditional Pharmacy & Provider Roles

- Automation may change the role of pharmacists and healthcare providers, leading to resistance.
- Walgreens** implemented AI-driven automation in its prescription fulfillment process which led to job cuts and resistance from staff

Strategies for Mitigation & The Value of Each Approach

1. ***Data Privacy & Cybersecurity:*** Require Multi-Factor Authentication (MFA) and Role-Based Access Control (RBAC) for AI systems handling sensitive data.
2. ***Bias on AI models:*** Regularly audit AI models to check for racial, gender, and socioeconomic disparities in claim approvals.
3. ***AI-Driven Drug Discovery and Clinical Insights:*** Partner with biotech firms, AI-driven pharma companies, and academic research institutions to share costs and accelerate AI drug research.



Thank you for listening!

Do you have any
questions?

