

Generative AI in the Healthcare Industry

Addressing the Adoption
of Generative AI in
FQHCs

bluenovo

your **HEALTHCARE**  **TECHNOLOGY** experts

CELEBRATING OUR COMMITMENT TO COMMUNITY
HEALTH ORGANIZATIONS OVER THE PAST 15 YEARS



Introduction to Presenter:

Roopak Manchanda

CEO of BlueNovo; Experienced CIO of community-based healthcare organizations nationwide (VCHA, CPCA, etc.).



Objective: As organizations increasingly recognize the benefits of incorporating AI technologies into healthcare delivery, it becomes imperative to establish a robust framework governing their use among staff in internal and external contexts. This presentation will address the responsible adoption of Generative AI within the healthcare industry and share strategies and best practices which peer FQHCs can consider and incorporate into their practice.

Agenda:

1. Introduction to Generative AI
2. Current Challenges in FQHCs & CHCs
3. Generative AI Applications-Benefits & Challenges
4. Future Outlook
5. Q&A

Generative AI: A Brief Overview Across Industries

Generative AI refers to a subset of artificial intelligence that focuses on creating new context, be it text, images, music, or even complex data patterns. It's powered primarily by neural networks, especially Generative Adversarial Networks (GANs), which consist of two parts: a generator, which creates images, and a discriminator, which elevates them.



CURRENT CHC CHALLENGES

Provider
Burnout &
Turnover

Productivity
Challenges

EHR User
Dissatisfaction

Poor Vendor
Support

IT Staff
Retention

Lack of IT
Strategic Plan

Preparing for
APM

Managing
Population
Health

Reporting &
Grants
Management

Disaster
Recovery

Cyber Security
& Breaches

Policy &
Procedures



Benefits of Generative AI in Healthcare

- 1. Improved Efficiency**
- 2. Enhanced Accuracy**
- 3. Cost Savings**

Healthcare Use Cases:



Diagnostic Assistance



Predictive Analytics



Treatment Recommendations



Drug Interactions and Side Effects



Genomic Medicine and Personalized Care

Healthcare Use Cases:



Clinical Trial
Matching



Natural Language
Processing (NLP)



Remote Patient
Monitoring



Synthesizing
Research Data



Resource
Allocation

Additional Applications:



Appointment
Scheduling and
Reminders



Triage and Preliminary
Diagnosis



Patient Education and
Follow-Up



Medication and Refill
Queries



Feedback and
Satisfaction Surveys



Billing and Insurance
Inquiries



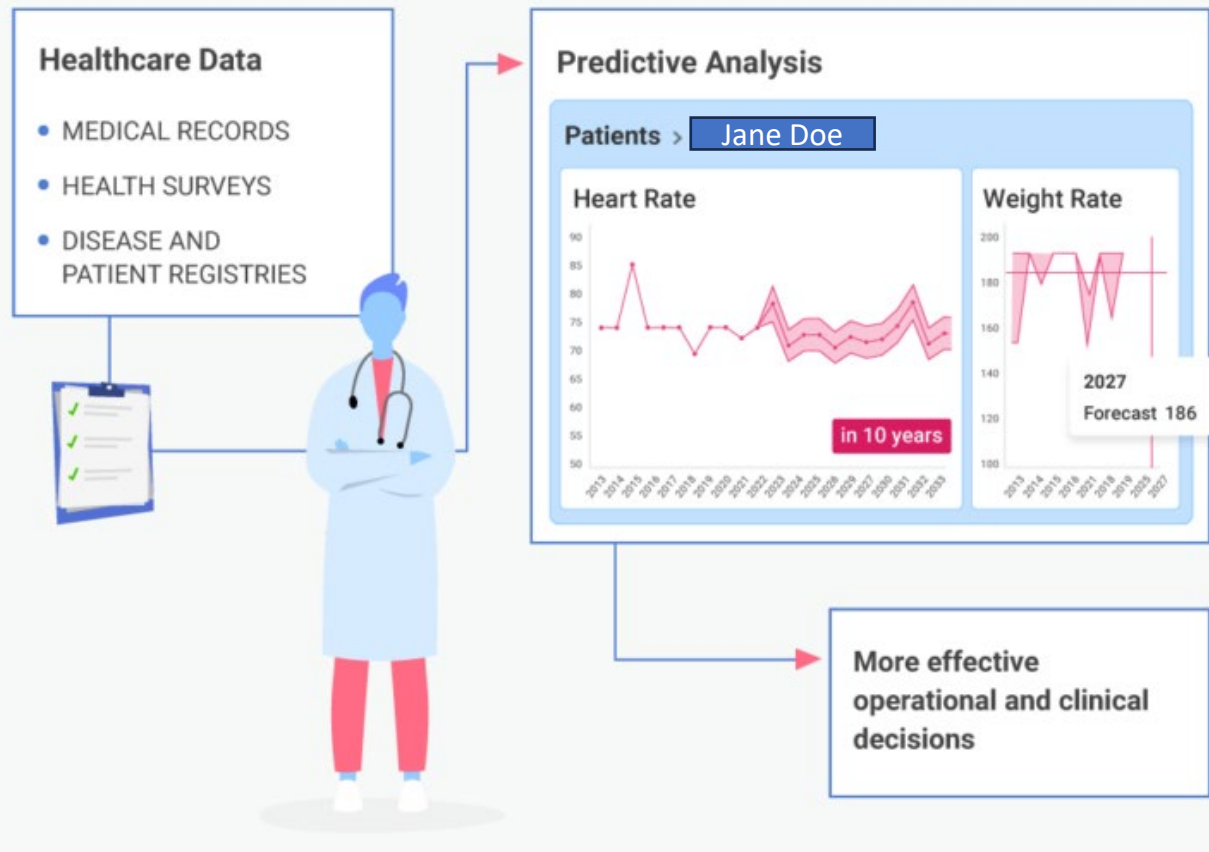
Health Promotion and
Preventative Care



Mental Health Check-
ins

Predictive Analytics for Patient Care

Predictive Analytics in Healthcare



www.revealbi.io

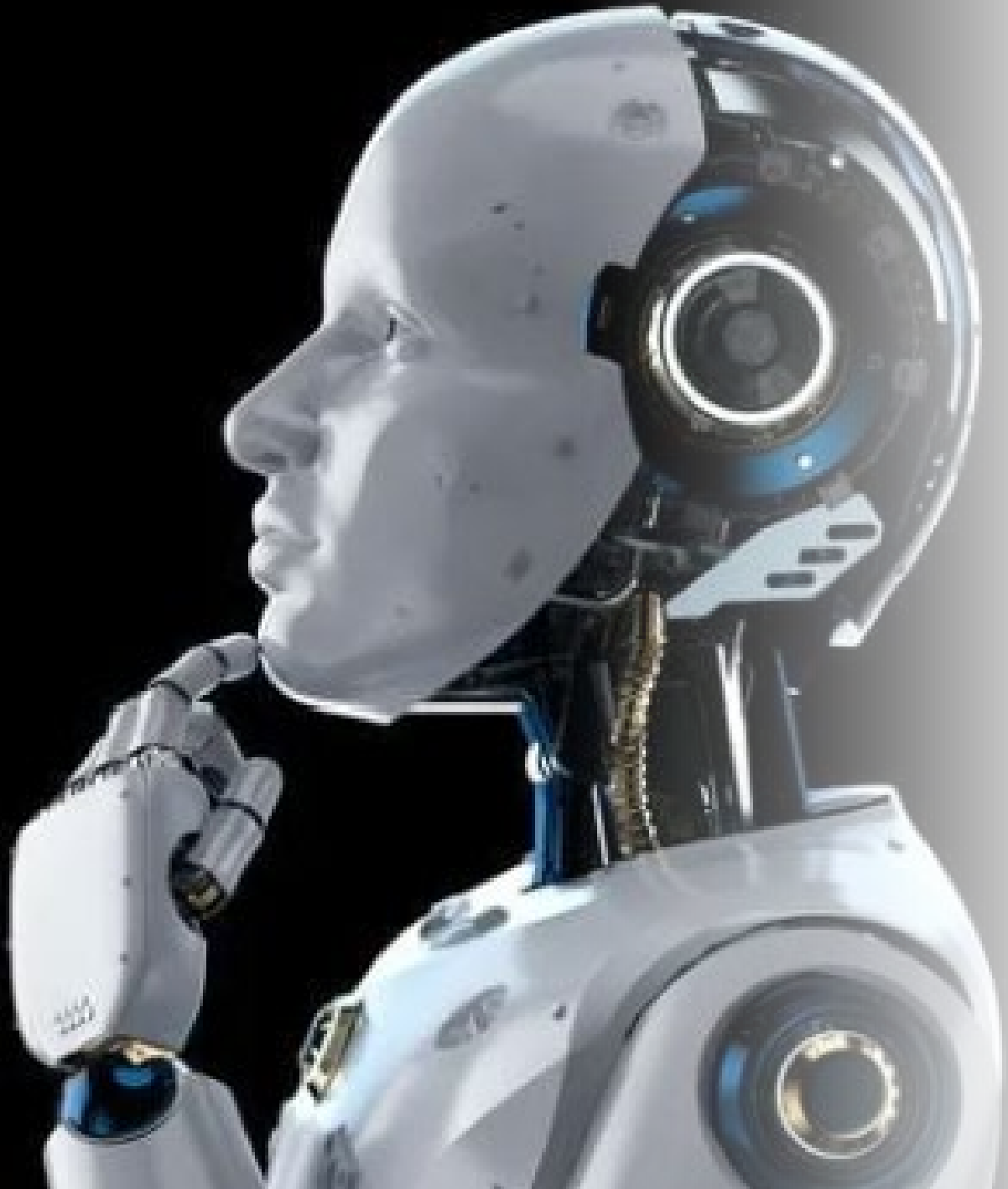


Cost Savings

A recent Accenture report estimated that the top 10 healthcare applications where AI could deliver the “greatest near-term impact” could save the US healthcare system alone \$ 150 billion per year by 2026.

Top AI healthcare applications by 2026

	Potential annual value by 2026	Key drivers for adoption
	Robot-assisted surgery US\$ 40bn	Advances in robotic technology
	Virtual nursing assistants US\$ 20bn	Increased labor shortages
	Administrative workflow assistance US\$ 18bn	Easier integration with existing systems
	Fraud detection US\$ 17bn	Increasingly complex fraud attempts
	Dosage error reduction US\$ 16bn	Prevalence of medical errors
	Connected machines US\$ 14bn	Increase in connected devices
	Clinical trial participation US\$ 13bn	Amount of data available
	Preliminary diagnosis US\$ 5bn	Enhanced accuracy through better data architecture
	Automated image diagnosis US\$ 3bn	Storage capacity and increased trust
	Cybersecurity US\$ 2bn	Increase in breaches



Considerations of adopting Generative AI in Healthcare

- **Privacy Concerns:** Generative AI raises privacy concerns, as the technology may involve the use of sensitive patient data. It is important to ensure proper data anonymization and secure data handling practices.
- **Bias and Fairness in AI:** Generative AI systems can be influenced by biases in the training data, leading to biased or unfair outcomes. It is crucial to address and mitigate these biases to ensure fairness and equity in healthcare.
- **Transparency:** Transparency in generative AI systems is essential to build trust and enable accountability. Healthcare organizations should strive for transparency in the design, training, and deployment of generative AI systems.

Risks of Augmenting Clinical Judgement

- The Value of Human Touch
- Human intuition, experience, and empathy in healthcare are irreplicable
- AI as a Supplement, Not a substitute
- Potential Risks of Over-Reliance
 - Misdiagnoses or overlooking nuances
 - AI is Powerful but not infallible



Establishing AI Policies

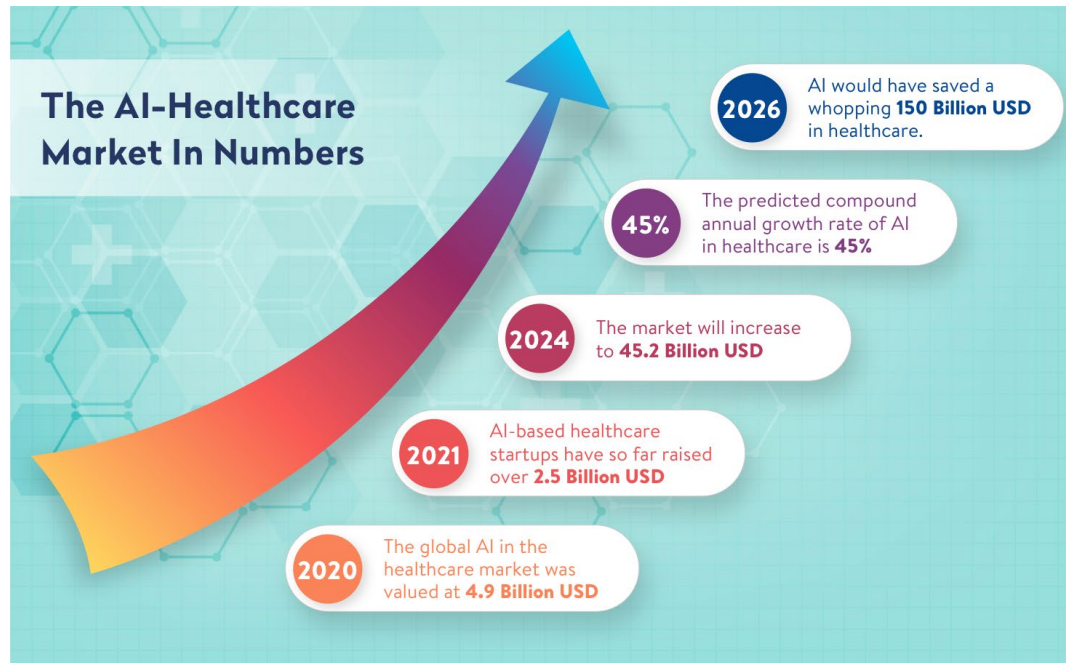


Source: GAO Forum on Artificial Intelligence. | GAO-18-644T



What does the future hold?

100 Artificial Intelligence Startups Transforming Healthcare



The Evolution of AI in Healthcare | CodeGlo Journal

Clinical Trials & Drug Discovery
 Accutar Biotech, ADAPSYN, BIOAGE, FINCH THERAPEUTICS, ENVISAGENICS, CYCLICA, engine, Exscientia, inato, BenevolentAI, GTN, Mendel.ai, RECURSION, Notable Labs, ReverieLabs, JUVENESCENCE.AI, teckro, twoXAR, XtalPi, SPRING DISCOVERY, PathAI, Atomwise, Crativ

Insights & Risk Analytics
 eko, ensodata, Genelife, KenSci, GNS HEALTHCARE, HealthReveal, PRECISION HEALTH.AI, MedAware, OMI, 森亿智能, TeleMD, prognos, TEMPUS, 康天子

Nutrition
 WHOLE BIOME, NURITAS

Connected Devices
 BIIBEATS, biofourmis, ContinUse, phusIQ, TOUCHKIN, SENSOME, SIGNATURE MEDICAL, BRAINWAVEBANK

Genetic Research
 COFACTOR, WuXiNextCODE, LabGenius, GENOME^{DX}

Imaging & Diagnostics
 izsigma, aidence, aidoc, ARTERYS, Athelas, DEEPBIO, Cardilogs, Quantib, Veeva, zebra, Corti, COMBINOSTICS, freenome, DAYZERO, 理想科技, Cerenion, maxwellmri, 浙睿医疗, nucleal, PAIGE, QED Technique, 眼专家, Cambridge Cancer Genomics, deep genomics, INSIGHT 眼视界, SIG(TUPLE)

Lifestyle Mgmt & Monitoring
 AiCure, amiko, SkinVision, Optolexia, Wellframe, Welltok

Mental Health
 cognoa, ALTOIDA, Woebot, spring

Virtual Assistants
 babylon, BrightLmd, buoy, Suki, ada, SENSELY, CARECRU, YouMD, MEMORA HEALTH

ER & Hospital Management
 LeanTaaS

Created by You. Powered by **CBINSIGHTS**

*The map is not exhaustive of all the startups in the space, and only includes companies that raised a VC or corporate-backed equity deal after January 2017

[The 130+ AI startups reinventing healthcare \(cbinsights.com\)](https://www.cbinsights.com)



Questions



bluenovo
your **HEALTHCARE**  **TECHNOLOGY** experts

CELEBRATING OUR COMMITMENT TO COMMUNITY
HEALTH ORGANIZATIONS OVER THE PAST 15 YEARS

