

Digitalizing Healthcare To Deliver Value-based Care And Improve The Patient Journey

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Disclosures:

Nothing to disclose

How Smart is ChatGPT?

OpenAI's latest large language model, GPT-4, is capable of human-level performance in many professional and academic exams.

A percentile describes how an examinee's score ranks in comparison to others.

For example

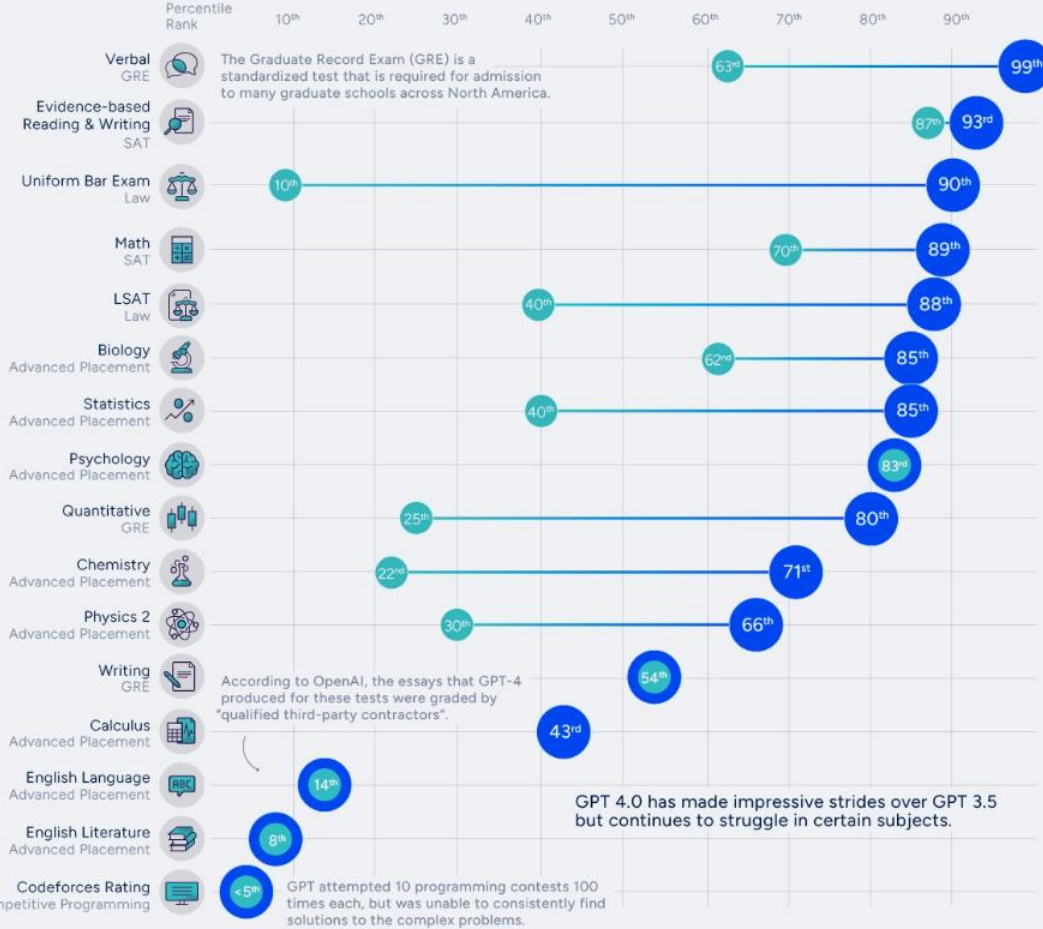


60% of examinees scored lower than ChatGPT

40% scored higher than ChatGPT

Exam Results

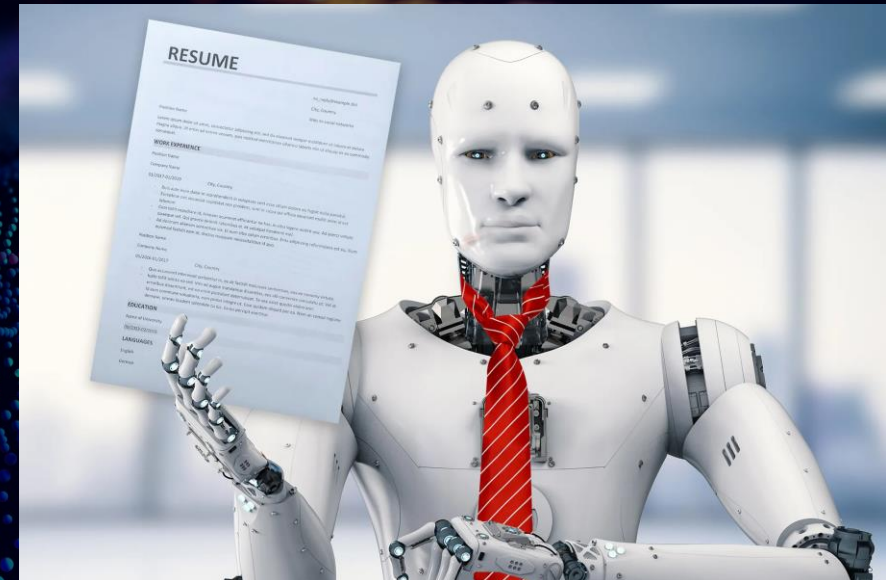
● ChatGPT 3.5 ● ChatGPT 4.0



According to OpenAI, the essays that GPT-4 produced for these tests were graded by "qualified third-party contractors".

GPT 4.0 has made impressive strides over GPT 3.5 but continues to struggle in certain subjects.

90% In Bar Exam, 88% In LSAT: GPT-4 Beats 90% Of Humans In World's Toughest Exams



How Smart Is That Compared to Humans?

GPT-4 Exam Performance

CREATED BY


- GPT-3
- GPT-4
- Average Student

Uniform Bar Exam (MBE+MEE+MPT)



LSAT



SAT Math + Evidence Based Reading & Writing combined



GRE Verbal + Quantitative Reasoning combined



USA Biology Olympiad 2020 Semifinal exam



US National Chemistry Olympiad 2022 Local exam



Source: OpenAI

More charts: genuineimpact.substack.com

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Will We Lose Our Jobs?

85 Million Workers Replaced Globally by 2025 – World Economic Forum Projects

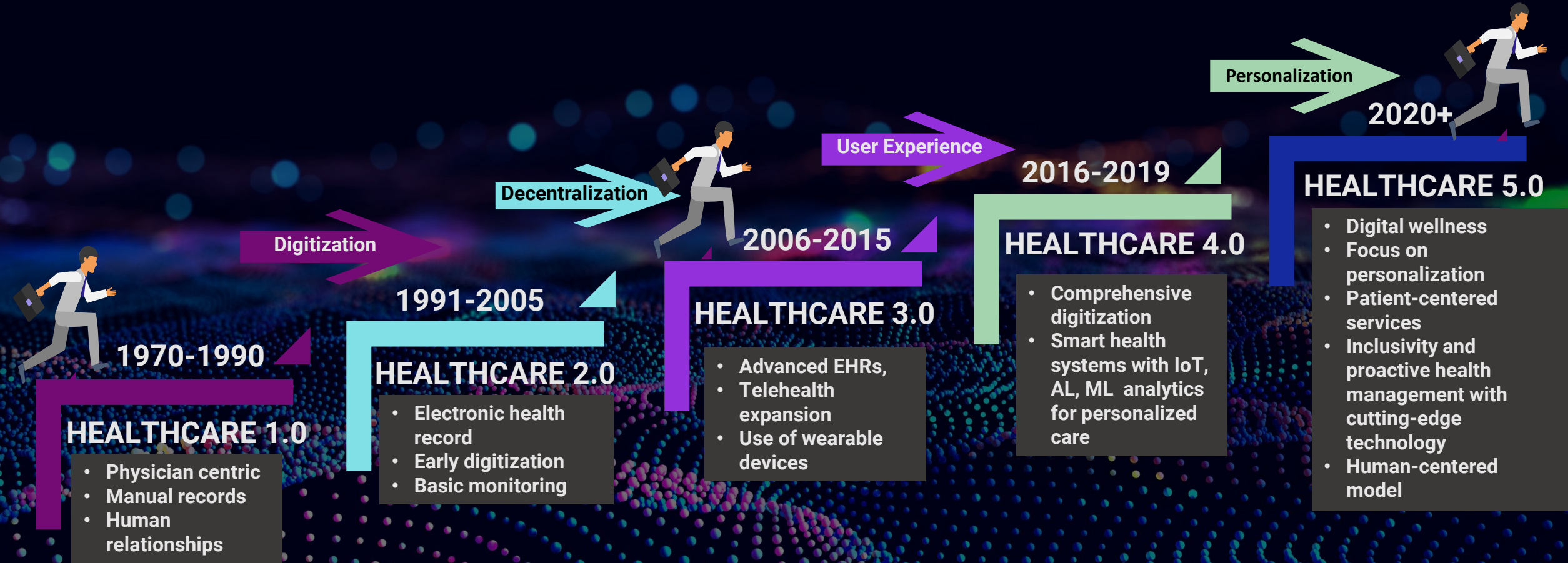
Generative AI Likely To Influence & Reshape Not Destroy Jobs

85 Million Workers Replaced Globally by 2025 – World Economic Forum Projects

97 Million Jobs Created Globally – World Economic Forum Projects

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Evolution Of The Healthcare Industry From Healthcare 1.0 to 5.0



The New Era of Healthcare

Reactive & Fragmented > Proactive & Integrated



Reactive

One Size Fits All

Institutional Centered

Paternalistic

Volume Based

Proactive

Personalized

Decentralized

Empowered

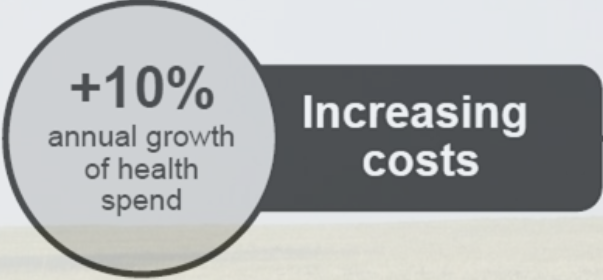
Value Based

Improve
d
Citizens
Health

Efficient
Health
System

Vibrant
Health
Economy


Persistent Challenges in KSA: Access To Quality Care, Rising Chronic Diseases, And An Aging Population



Definition of Value-Based Care and Emphasis on Population Health Strategies

Institute of Medicine “Quadruple Aim”:

- Improving the health of populations
- Improving the patient experience of care
- Reducing the per capita cost of health care
- As well as improving clinician experience

A man and a woman are sitting on a light-colored sofa outdoors. The man, on the left, is wearing a white thobe and has a grey beard. The woman, on the right, is wearing a white hijab and a blue and white patterned dress. They are both looking at a tablet computer held by the woman. The background is a textured, light-colored wall. There are some green leaves in the foreground, slightly out of focus.

Integration of Population Health Initiatives into Value-Based Care Models

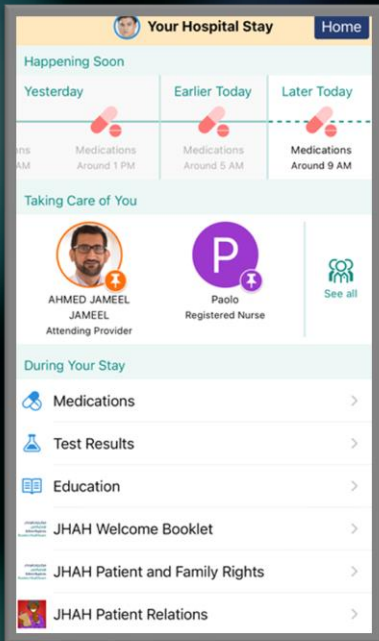


Data's Role in Shaping Preventive Healthcare Measures To Deliver Coordinated Care Efficiently

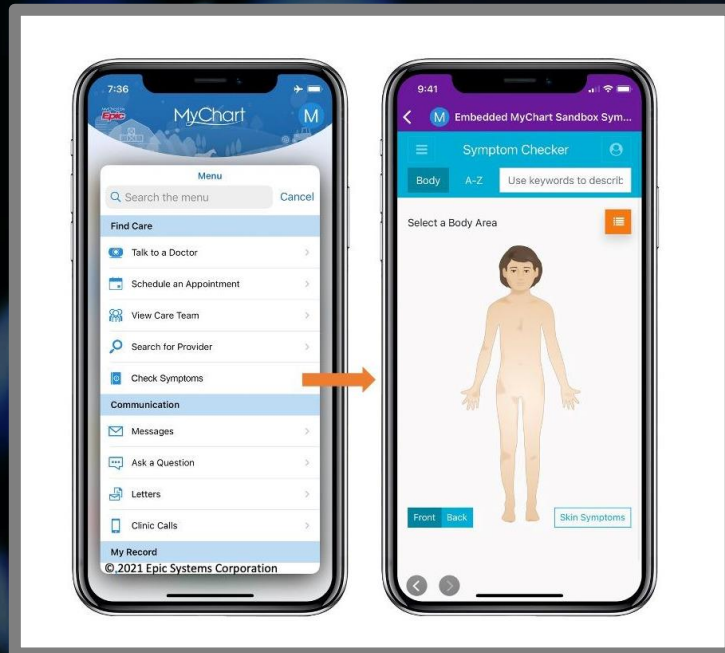


Leveraging Technology and Data Data for Proactive Population Health

Empowering Patient As Partners In Care



**Patient Portals
& Bedside**



**Self-Triage
Symptom Checker**

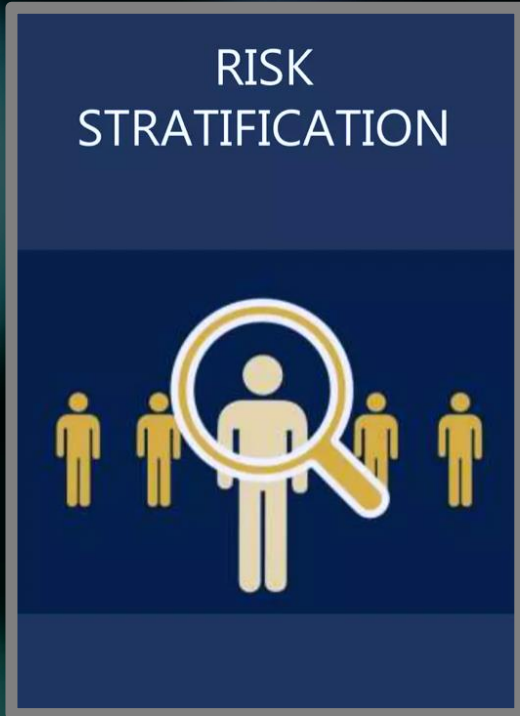


**Patient
Questionnaires**

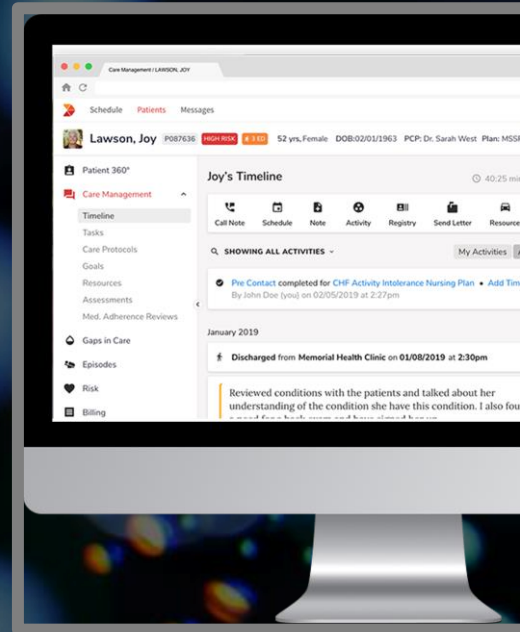


**Wearables & Remote
Monitoring**

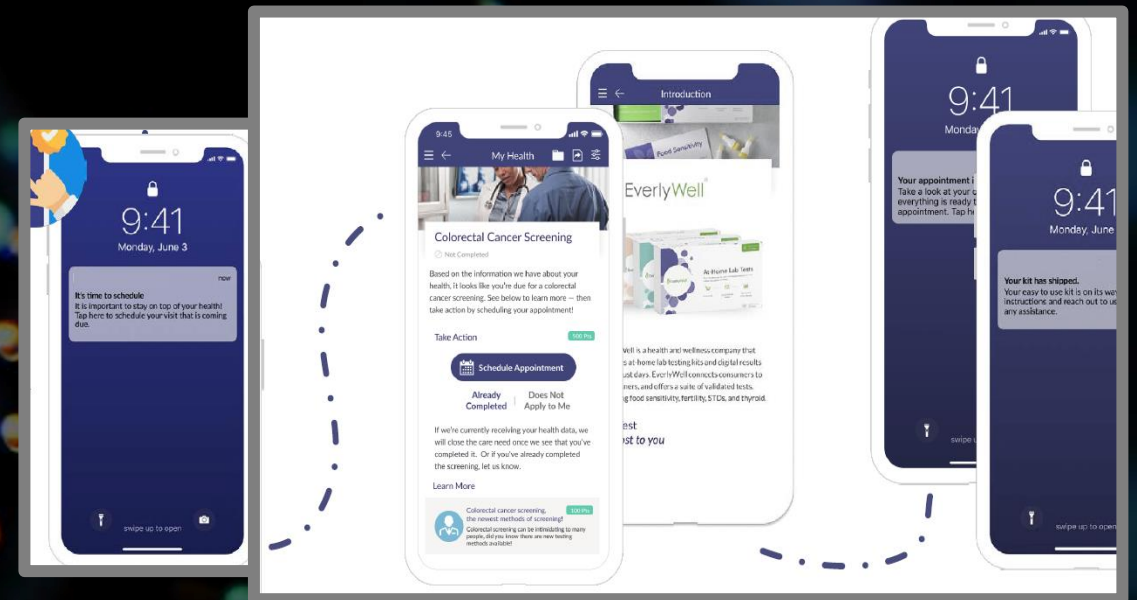
Prevention Before Intervention



Risk Stratification



Care & Risk Scoring

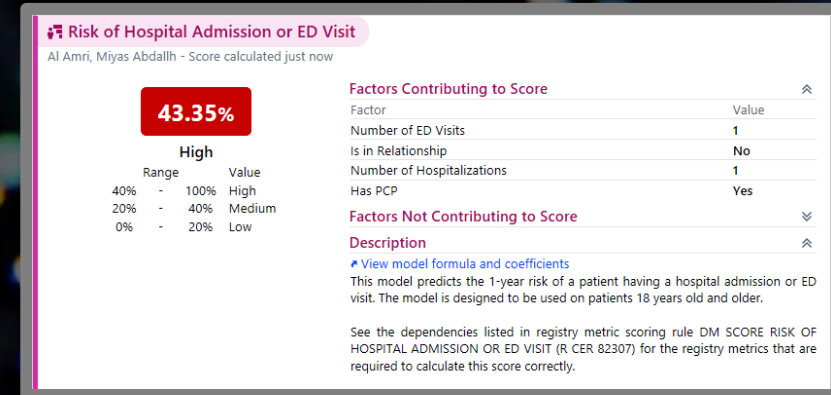


Actionable Care Gaps

Clinical Decision Support Delivering Safer Care

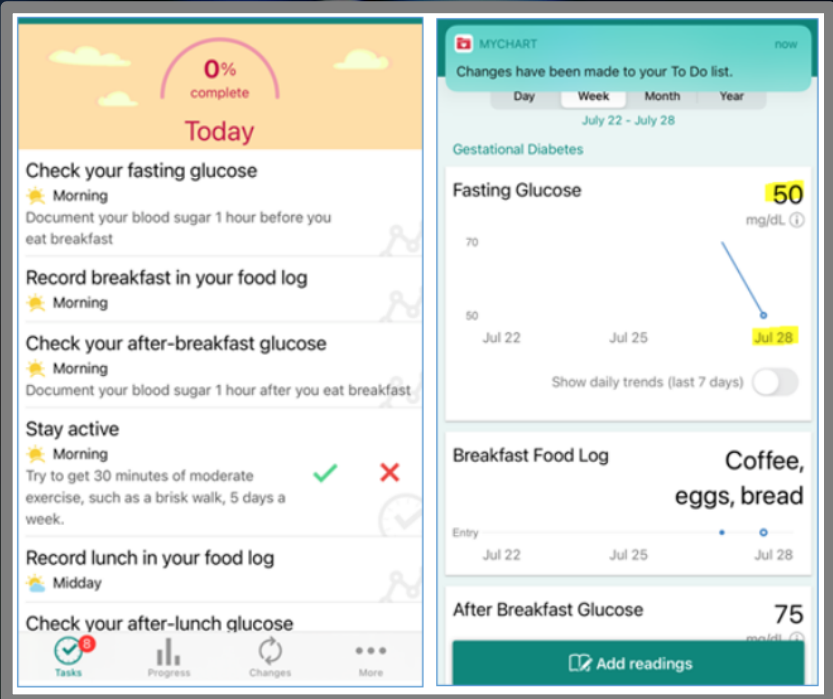


**Closed Loop
Medication, Specimen
Extraction, Milk &
Blood Administration**

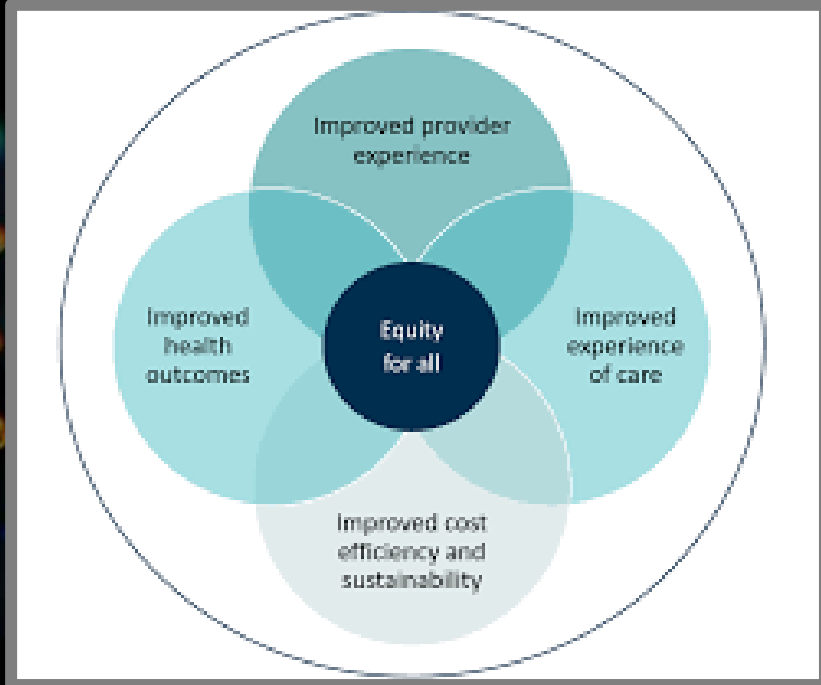


**AI & Cognitive
Computing Models**

Reducing Clinical Variation And Care Standardization



Pathways (Caregivers & Patients)
And Evidence Based Order Sets



Measuring Evidence Based
Outcomes

Technologies Empowering Safer Care: AI's Application in Harm Reduction

Healthcare-Associated
Infections

Venous
Thromboembolism

Surgical
Complications

Adverse Drug Events
(ADEs)

Pressure Ulcers

Falls

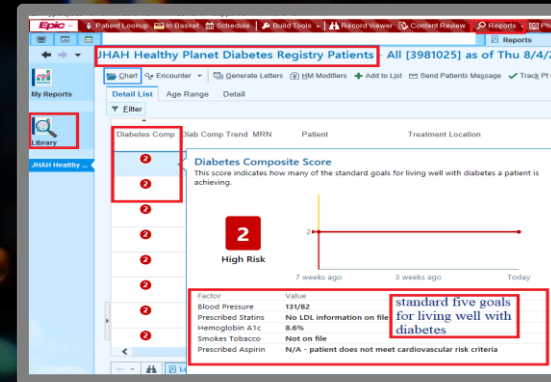
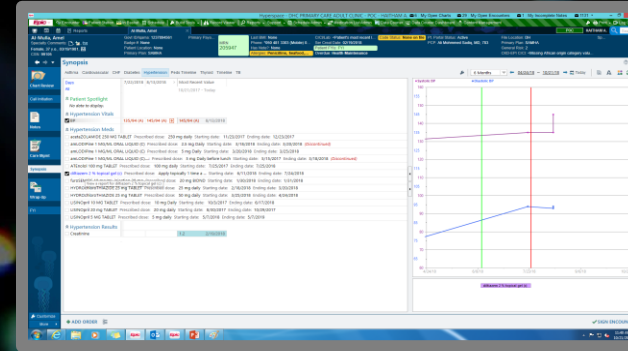
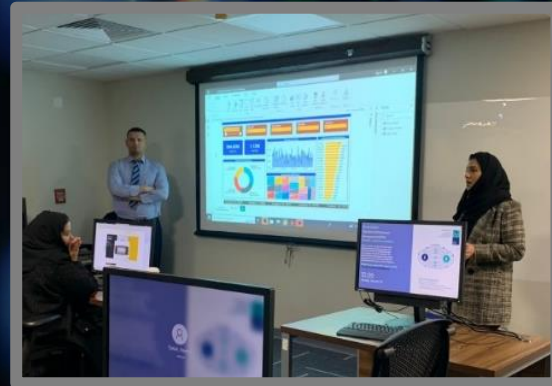


Democratization Of Data

nphies

Because every connection matters

nphies.sa



07:36 4G

Back MyChart MyChart by Epic

Share My Record

Share Your Health Record

Grant one-time, limited access to the health information you can see in MyChart, which may include:

- Medications
- Allergies
- Health Issues
- Immunizations

The person accessing your record will also be able to write a clinical note to your care team.

HIE

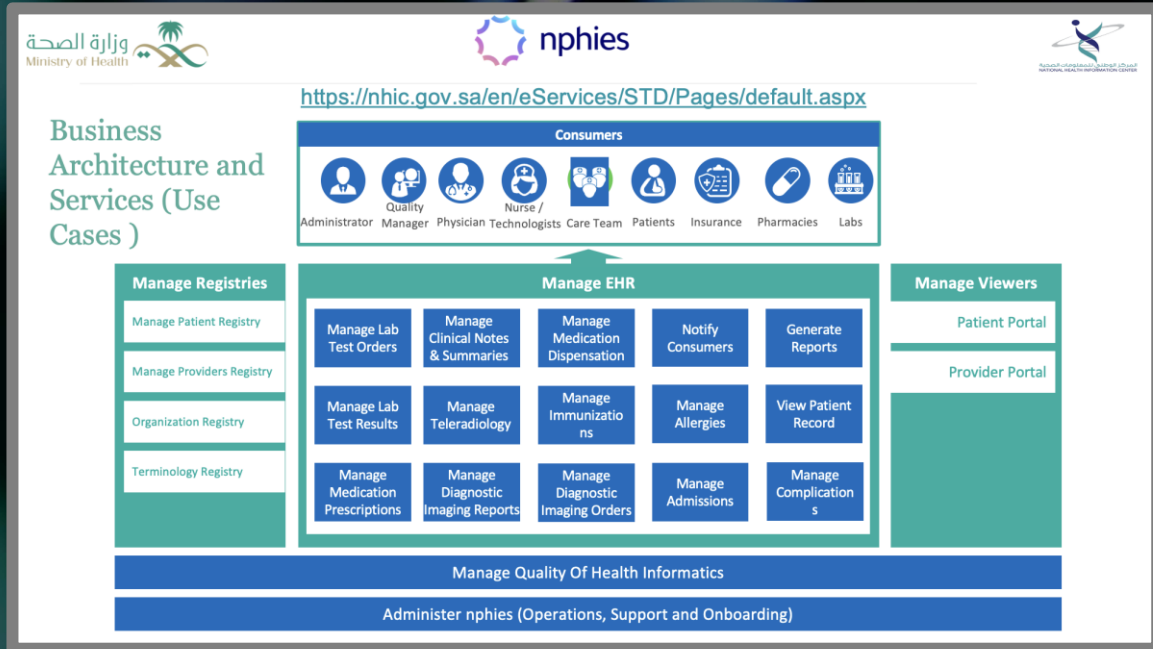
Self service Reporting for Data Driven Decisions

Actionable Data at Point of care

Open Notes & Sharable Records

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Democratization Of Data



NPHIES -HIE



Command And Control Center

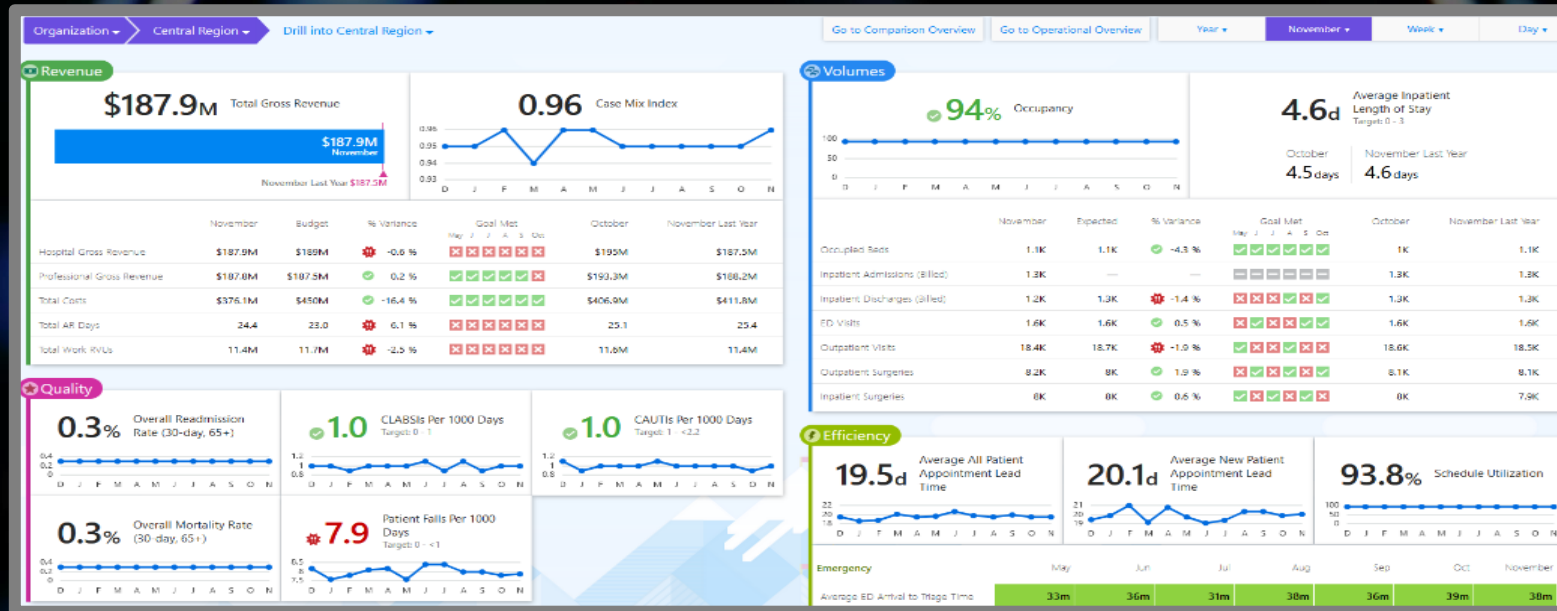
Cross Border Democratization Of Data

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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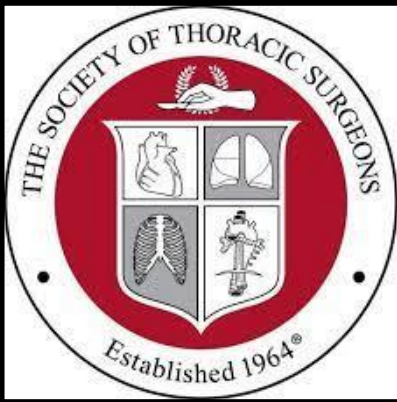
Dashboards Powering Utilization Optimization



Utilization & Demand
Management

Pay for Performance
& Value Based Care

Registry Measurement & Benchmarking



Improving Access Through Telehealth



**Telehealth B2C
Synchronous &
Asynchronous e-visits**



**Remote ICU &
Patient
Monitoring**



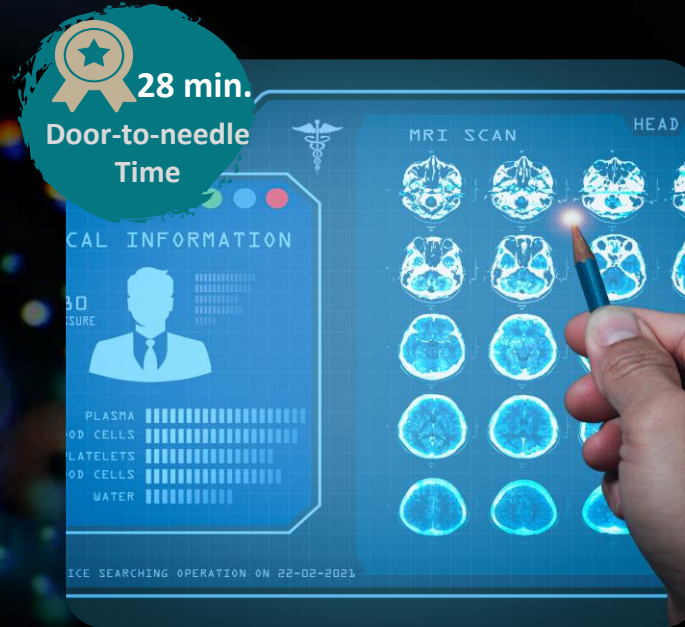
Telehealth B2B



Improving Access Through Telehealth



**Virtual ICU
Rounds**



Telestroke



Tele-EEG

Automation Allowing Staff Augmentation & Care Givers To Practice At Top Of Their Licenses



Pharmacy Robotic Automation



Chatbots



NLP & Ambient

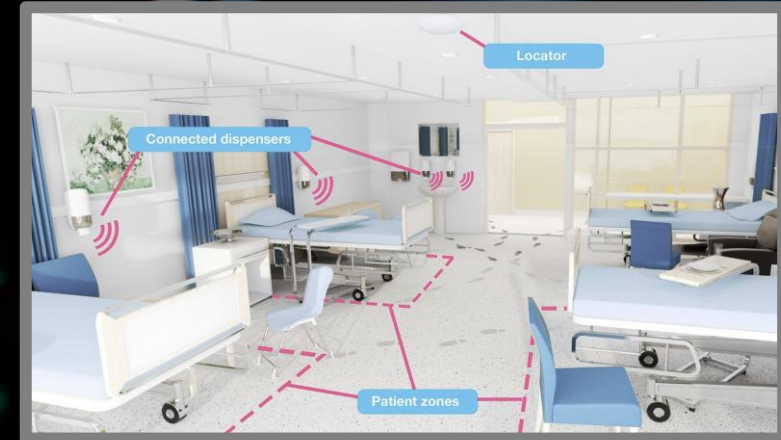
Robotics, Mixed Reality & RTLS



Surgical Robots

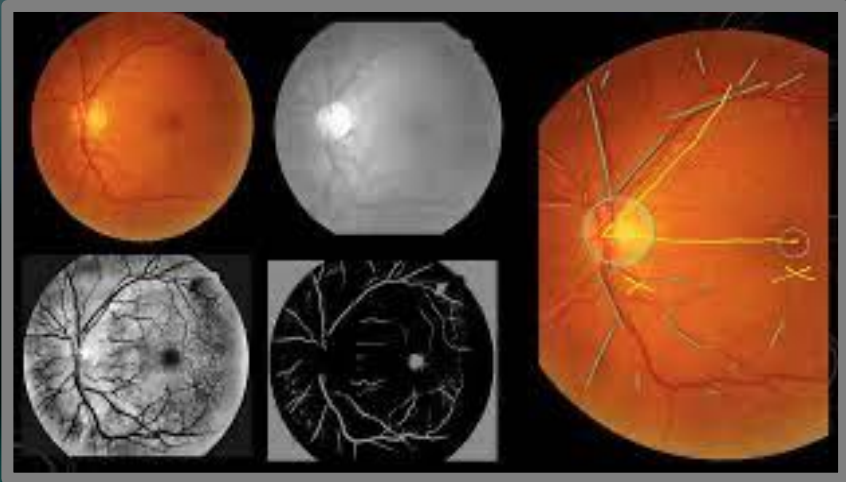


Mental Health

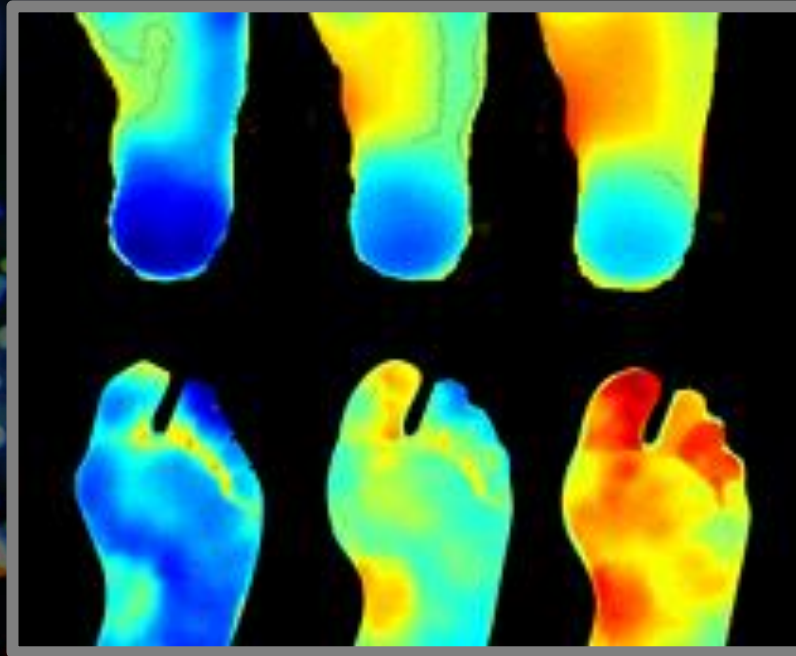


RTLS For Infection Control

“PB4I”: Early Detection of Disease



AI Assisted Retinopathy Screening



AI Assisted Peripheral Vascular Disease Screening



AI Enabled Wearable Sensors

Identification & Alarming



Smart Socks



Smart Alarms



**Biometric
Identification Systems**

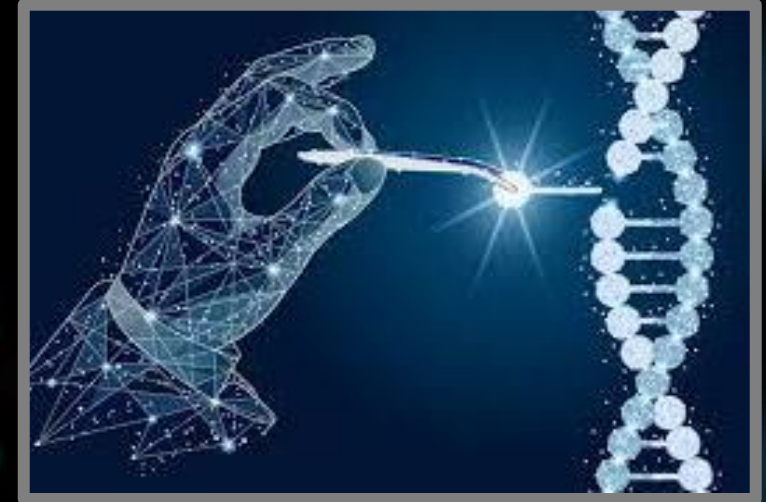
Moving into the future Precision Medicine & Gene Editing



**Genomics & Precision
Medicine- Saudi
Genome Project**



**Digital Twins
“Ask the Algorithm”**



**Digital Diagnostics &
Therapeutics**

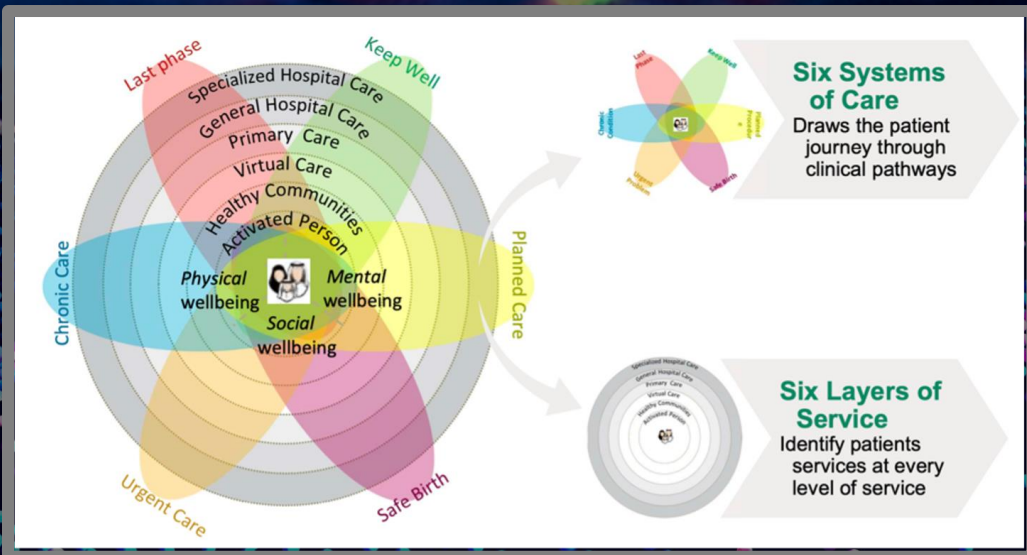


Collaboration and Partnerships for Value-Based Care Models

A man in traditional Arab attire, including a white thobe and ghutra, is walking through a long, white-walled corridor. The corridor is lined with a series of columns and arches, creating a sense of depth and perspective. The lighting is soft, and the overall atmosphere is serene and historical.

Developing Policy and Regulatory Frameworks as Well as Revising & Aligning Payment Structures

Showcasing JHAH Care Plus Program: Impactful Initiatives in Value-Based Population Health:



Complex Elderly	60+ Managing Multiple conditions	Diabetic or Pre-Diabetic	50+ Generally well with Hidden Conditions	<50 years and Healthy	Mother or Mum to be
Retiree or Dependent	Retiree	Active Employee	Active Employee (Soon to be Retiree)	Active Employee	Spouse Dependent of Employee

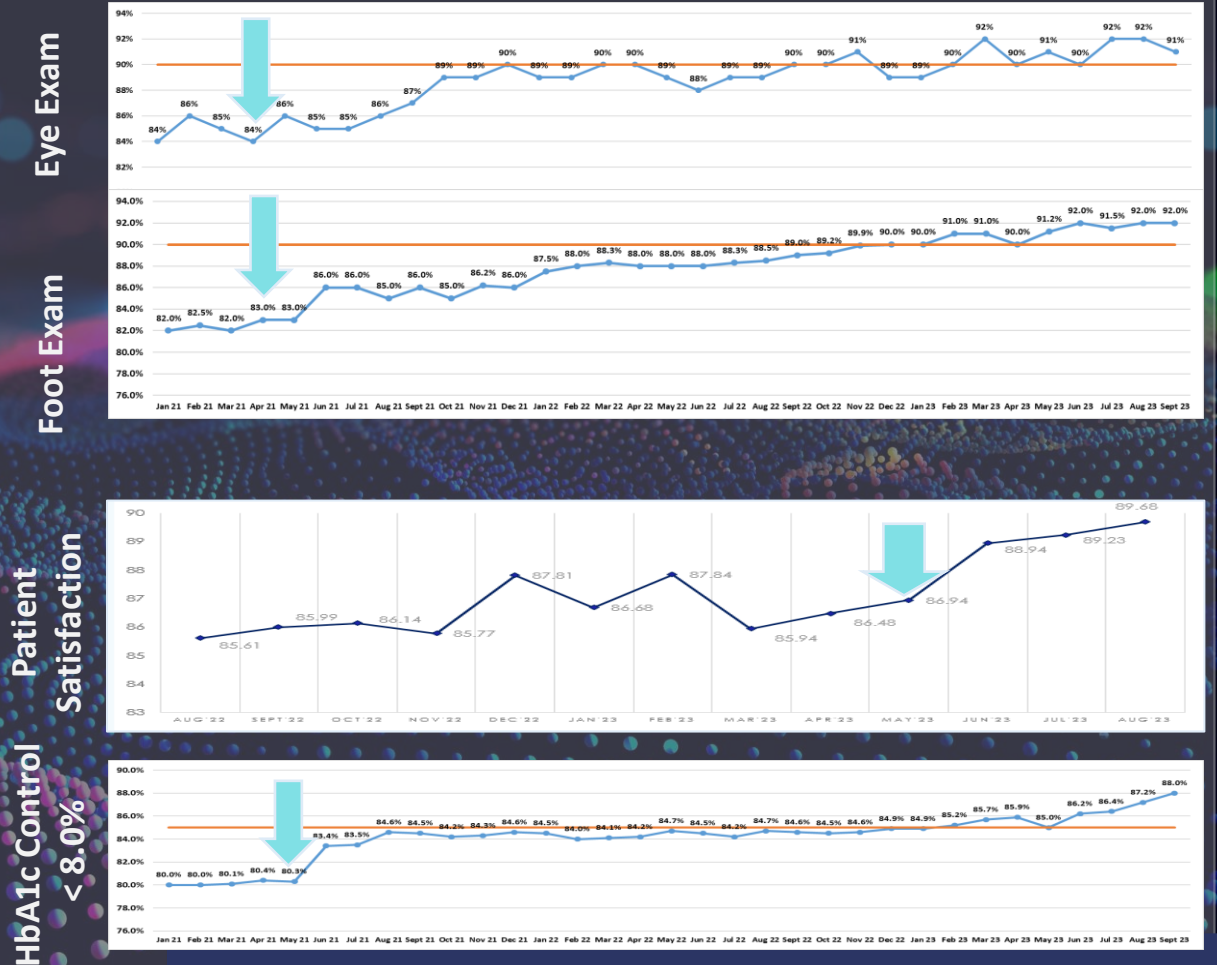
Data-Driven Decisions for Population Health: JHAH Care+ Program

ACO Diabetes And Prediabetes Archetypes Case Study

WHAT WAS THE PROBLEM?

- Patient Experience: Low customer satisfaction rate and experience rate
- Health Outcomes: Declined overall population health & individual health outcomes from long inpatient stays, recurrent emergency visits
- Aligning With JHAH Strategy to choose the first archetype that would provide the most impact and be aligned with JHAH strategy

WHAT WAS THE OUTCOME?



A photograph of a field of tall, feathery grasses in the foreground. In the background, there are palm trees and a building under a blue sky with many birds flying. The text is overlaid on a semi-transparent white box in the center.

Call To Action: Continued Collaborative Efforts in the Healthcare Landscape



“Coming together is a beginning, staying together is progress, & working together is success.” Henry Ford