
Harnessing the power
of platform thinking to
transform healthcare
MAYO CLINIC
PLATFORM

Mayo Clinic
by the numbers

No. 1

Ranked healthcare organization in the world

53M
People reached through Mayo Clinic Platform

85K+
Staff

50 States **135** Countries

320+
AI algorithms in the Practice

$1.3B
Research funding

150K
Surgeries a year

1 Mayo Clinic Platform

Mayo Clinic Platform is a critical embodiment of the Mayo Clinic **Bold. Forward.** vision

Cure

Developing more cures for acute and chronic diseases – by deliberately interlinking discovery, translation and delivery to produce new diagnoses and treatments.

Connect

Connecting people with data to generate new knowledge and deliver scalable, end-to-end solutions.

Transform

Transforming healthcare by creating the first, scalable, AI-enabled health care platform.

Integrated deep multimodal and longitudinal **data**

15.4 Million patients

36 Petabytes of clinical data

30 Years of patient history

Imaging Data

3.9B MRI images
3M Eye images
128M Echo images
99M X-ray images
8.1B CT scan images
2.6M GI Endo images
630M PET scan images
325M Ultrasound images
26M Mammography images
19M Pathology images

Omics Data

Genetic Variants
Multi-Omics
RNA Seq.
Raw VCF & BAM

Waveform Data

121K Electroencephalogram (EEG)
10M Electrocardiogram (ECG)
11M Electromyography (EMG)

Research Data

Whole Exome Seq.
BioBank
Brain Bank
Research Registries
Prospective Trials

Structured

4.9B Lab tests
255M Appointments
826M Medications
2B Procedures
21B Flowsheets
9.5B Vitals
705M Encounters
Many More

Unstructured

1.7B Clinical Notes
ECG Reports
50M Radiology Reports
20M Pathology Reports
280K Cardiac Cath Reports

Admin Data

152M Claims
Safety and Quality

Device Data

Med Devices
Supplies
Wearable Devices
Patient Monitoring

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Protecting patient privacy and intellectual property

Privacy is embedded in platform architecture

Integrated discovery to deployment to **impact**

Platform Capabilities

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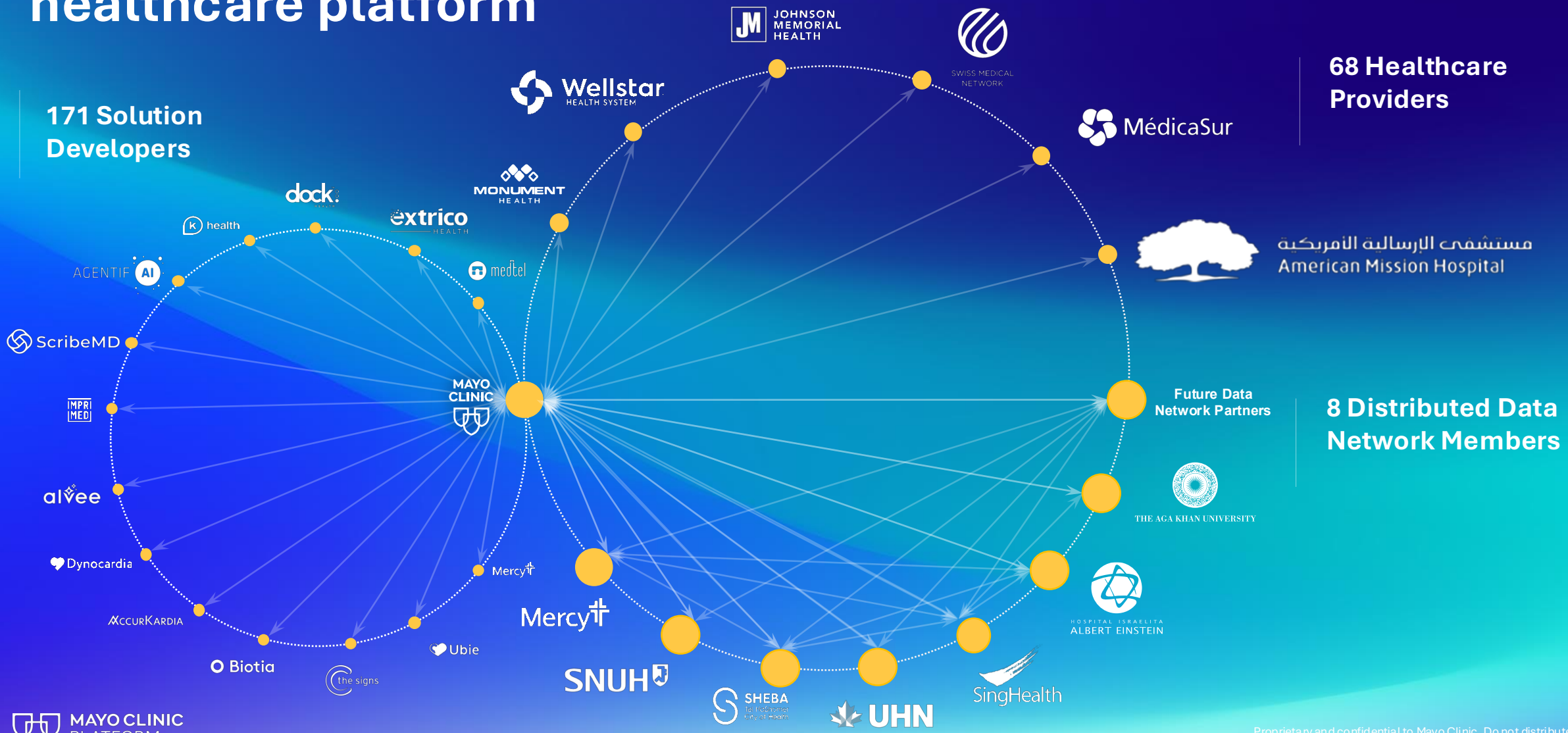
The first comprehensive **healthcare platform**

171 Solution Developers

68 Healthcare Providers

8 Distributed Data Network Members



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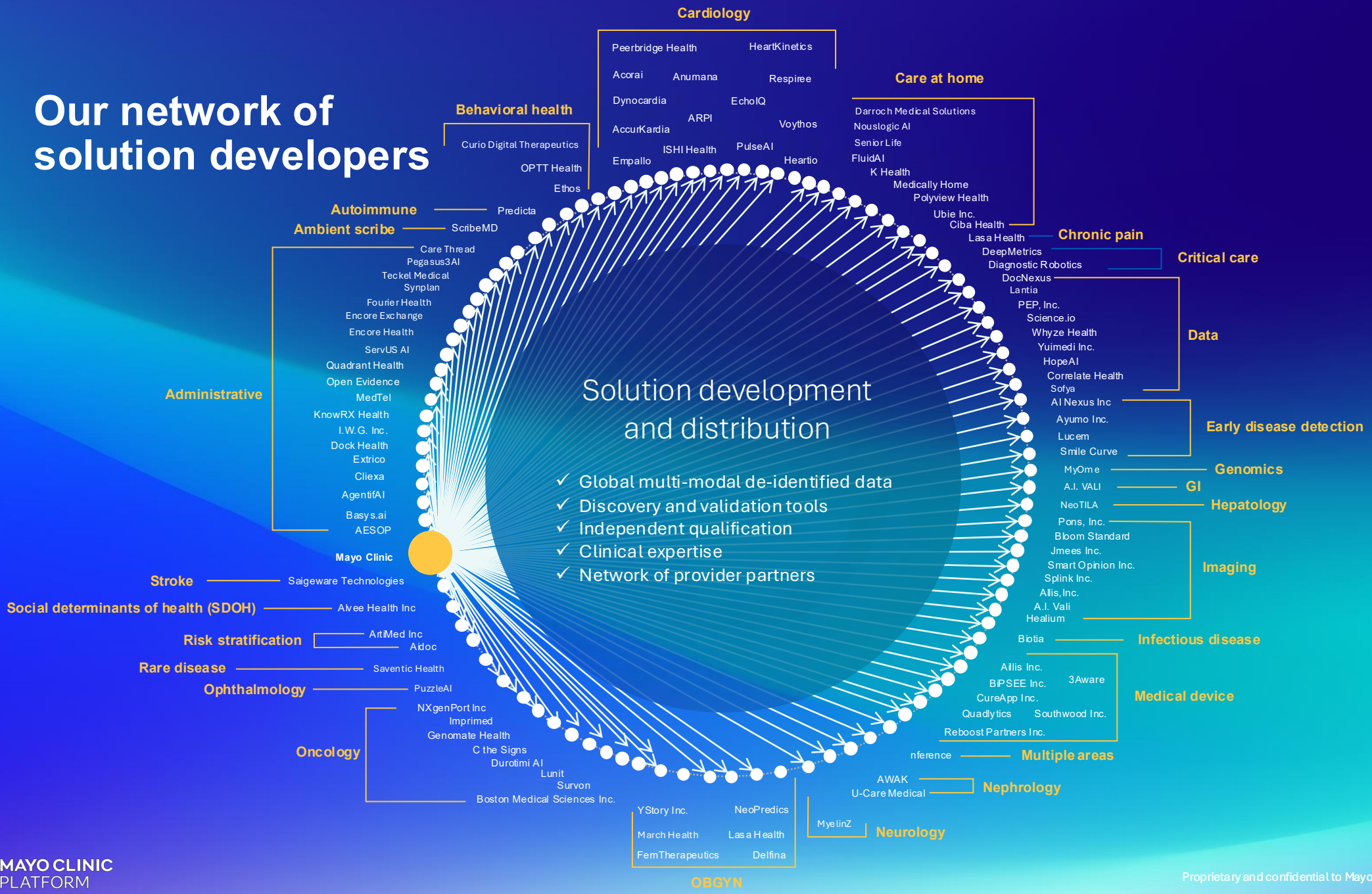
Our network of solution developers



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Collaboration at **global scale**

30M
De-identified lives

50K
Staffed hospital beds

19M
Patients seen annually

Mayo Clinic campus · Mayo Clinic Care Network members · Mayo Clinic Platform_Connect partners · Mayo Clinic Platform_Insights collaborators

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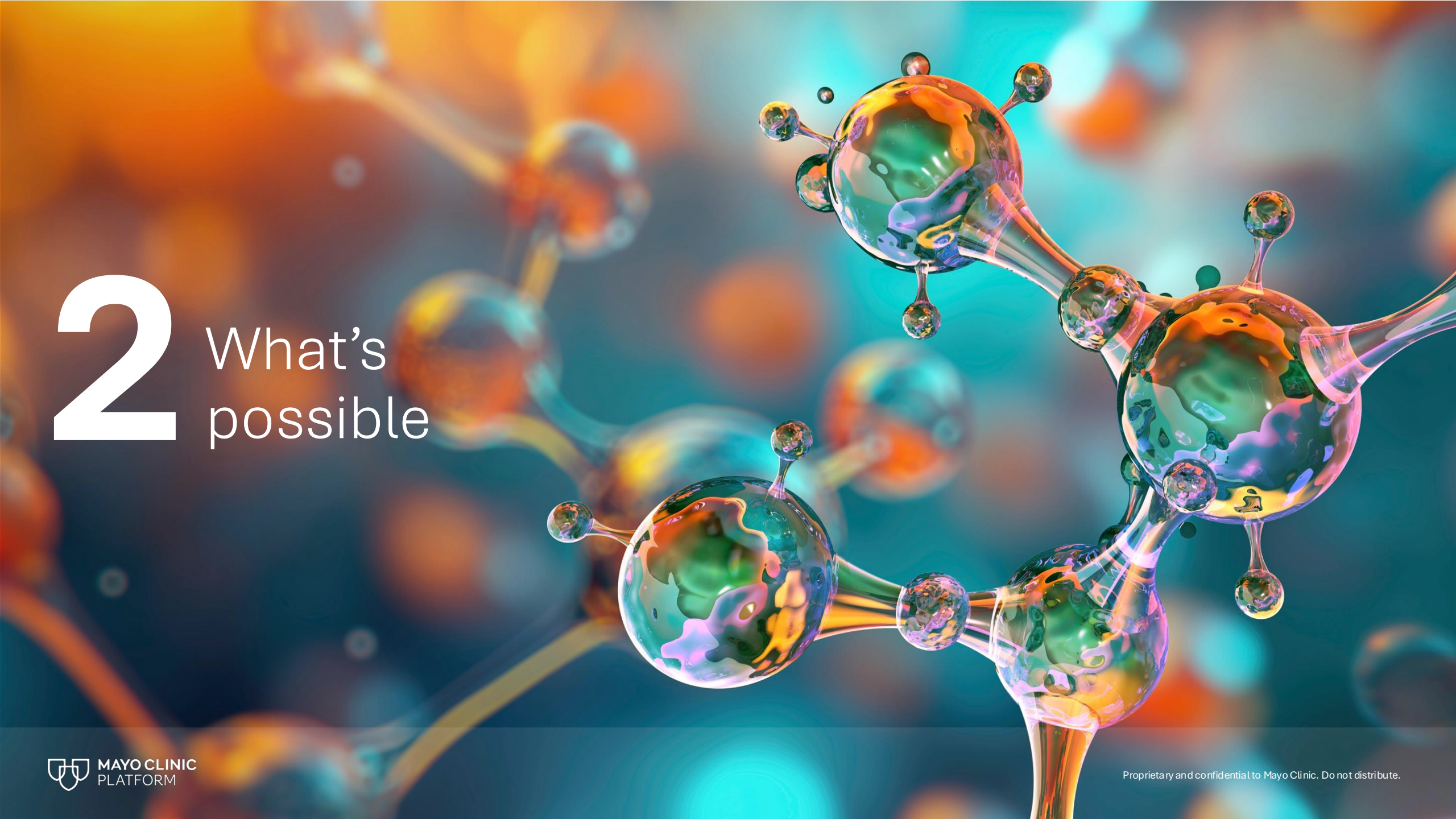
2 What's possible



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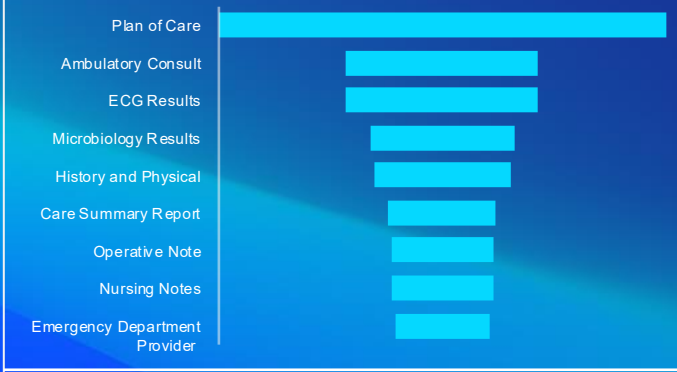
Heart disease data snapshot

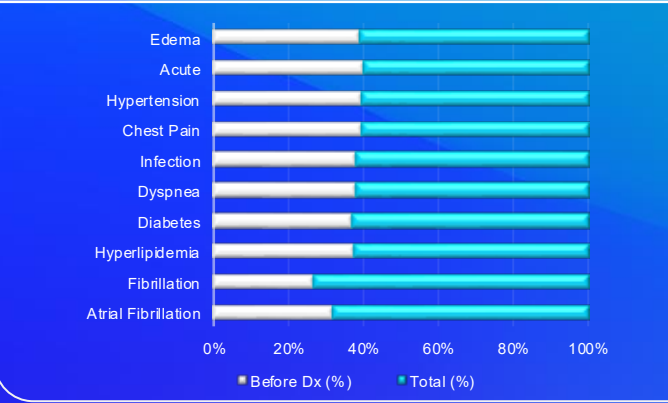
Rich clinical real-world data across cohort

Datasets: MAYO CLINIC | Mercy

Domain > Cardiology > Heart Failure

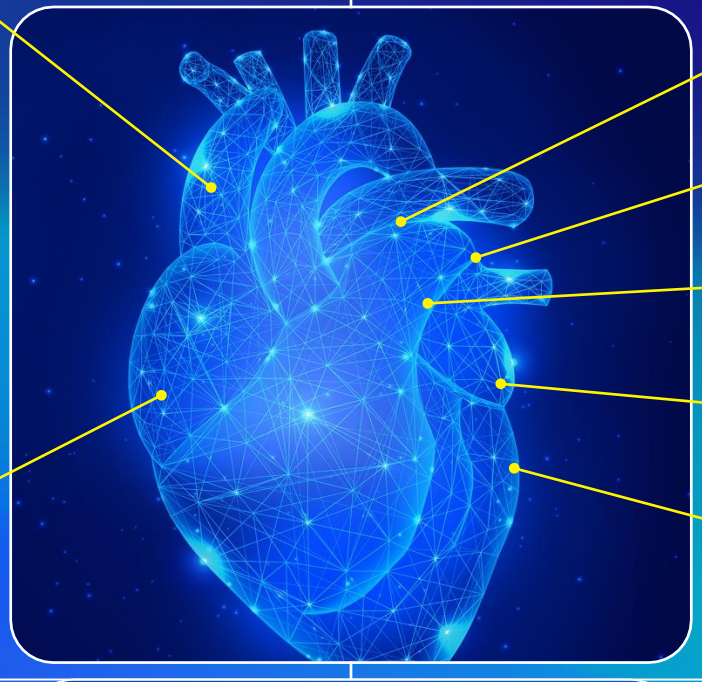
Clinical Notes





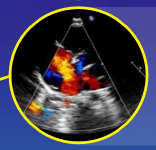
Patient Population

240,209



Procedures and Labs

Electrocardiograms
220,186



Echocardiograms
200,781

Chest X-Rays
180,201

CT Scans
145,998

Angiograms
71,362

Average time pre-diagnosis

12.9 years

Average duration

19.5 years

Average time post-diagnosis

8.4 years

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Detect atrial fibrillation risk ahead of any event

using AI-ECG

ECG Date	Main Rhythm	Heart Rate	QT/QTc	PR/QRS	Real/ECG Age	P of Low EF (%)	P of AF (%)
2021-Dec-07 08:16:08	Normal sinus rhythm	66	408/427	146/96	91.44/72.66	1.36	90.57
2019-May-31 09:20:02	Normal sinus rhythm	69	428/458	150/104	88.91/71.44	2.44	96.49
2017-Dec-18 16:46:42	Normal sinus rhythm	62	436/442	146/102	87.47/76.90	0.55	84.77
2016-Mar-29 13:33:44	Sinus bradycardia	56	438/422	152/100	85.74/71.80	1.30	65.99
2014-Nov-06 08:41:53	Normal sinus rhythm	62	428/434	158/100	84.35/72.10	1.63	40.57
2013-Dec-09 11:27:06	Normal sinus rhythm	62	430/436	150/98	83.44/73.60	1.07	39.37
2011-Nov-09 09:38:44	Normal sinus rhythm	63	420/429	148/96	81.36/70.23	0.77	26.99
2009-Oct-28 07:49:46	Sinus bradycardia	59	454/450	154/96	79.33/70.46	3.44	36.84

Although all ECGs showed a normal rhythm, the AI-ECG indicated a clear trend toward an increased risk of atrial fibrillation.

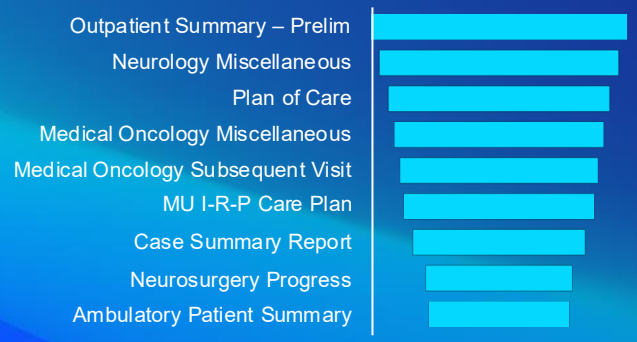
Glioblastoma data snapshot

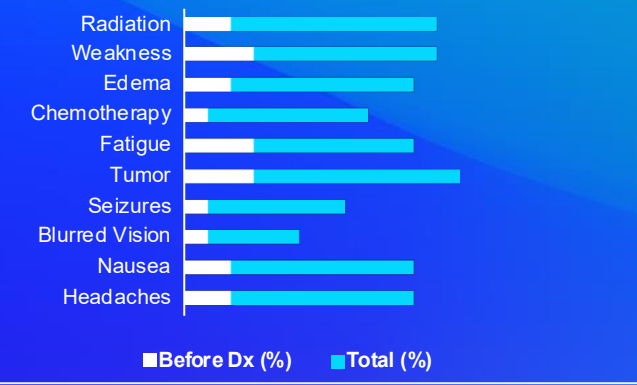
Rich clinical real-world data across cohort

Datasets: MAYO CLINIC | Mercy

Domain > Neurology > Glioblastoma

Clinical Notes

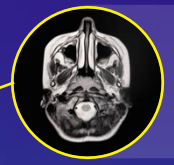




Patient Population

8,673

Procedures and Labs

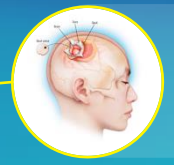


MRI of the Brain

14,667

Immunohistochemistry

8,001



Craniotomy

5,390

C-Reactive Protein (CRP)

3,436

Average time pre-diagnosis

6.0 years

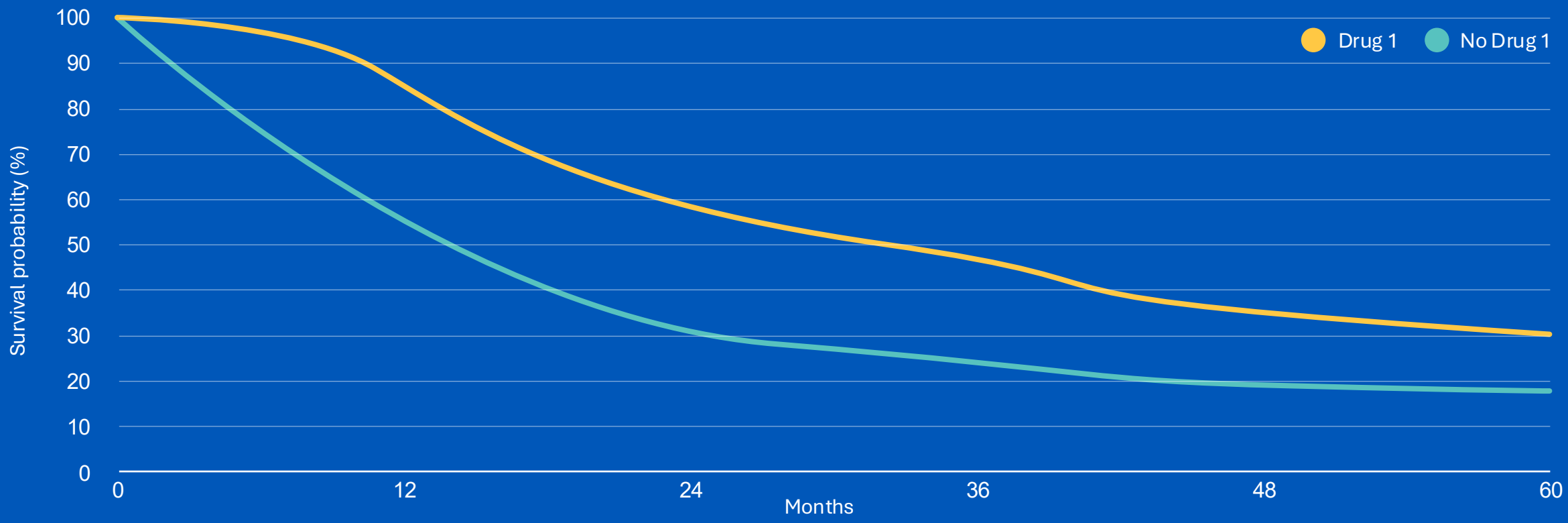
Average duration

15.9 years

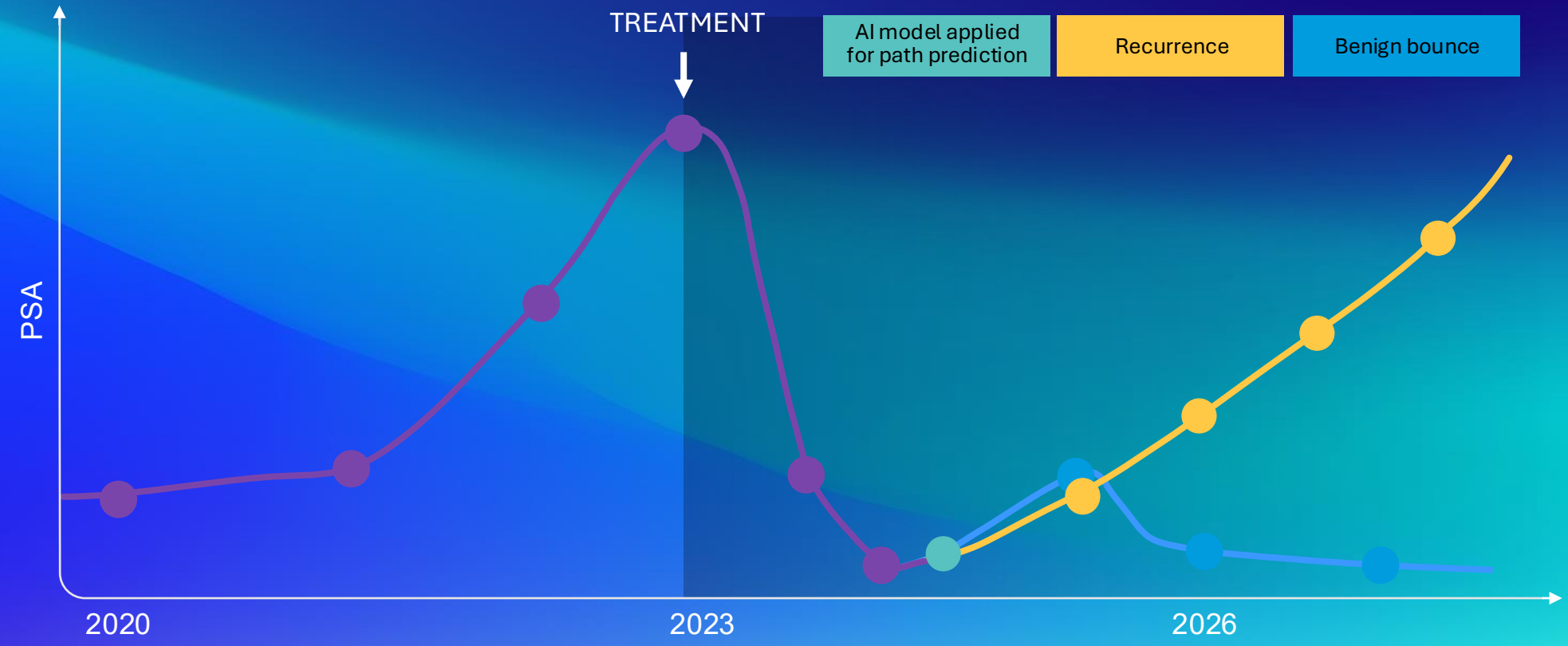
Average time post-diagnosis

9.9 years

Platform Insights: What influences survival in patients diagnosed with glioblastoma



Improving prostate cancer follow-up care using AI to a predict recurrence from rising PSA



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Application to Oncology: Cancer screening tool

Exemplar for Mayo Clinic Platform discovery and validation capabilities

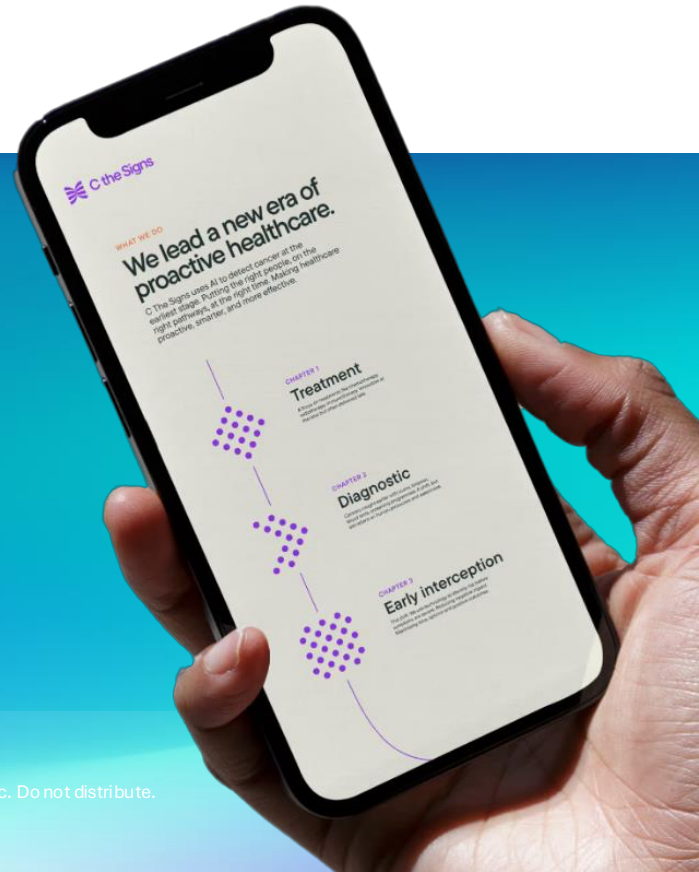
Can an AI screening tool detect cancer at the early, more treatable stage?

Democratize access to early cancer screening enabling rapid and accurate identification of patients who at higher risk.

30K

Patients with cancer identified

In 2024, C the Signs completed over 400,000 risk assessments, identifying **30,000 patients across 50 types of cancer.**



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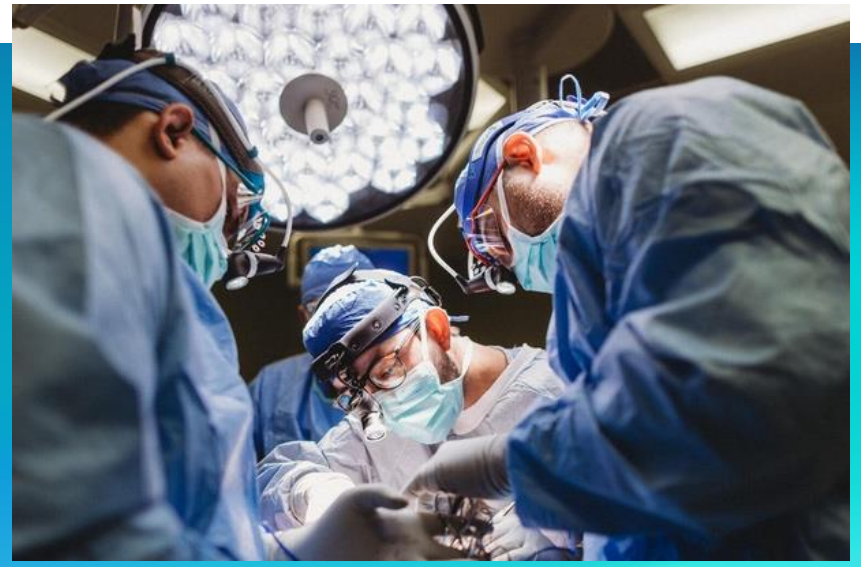
Turning Surgical Safety Markers
Into Diagnostic Breakthroughs and Cures

Exemplar for Mayo Clinic Platform discovery and validation capabilities

Can multimodal data and machine learning pinpoint predictive insights from SSIs (surgical sight infections)?

SSIs may serve as sentinel events signaling underlying systemic illness, particularly malignancy, well before clinical manifestation.

Unprecedented data integration positions Mayo Clinic to discover hidden patterns that could transform SSI prevention from reactive treatment to predictive intervention.



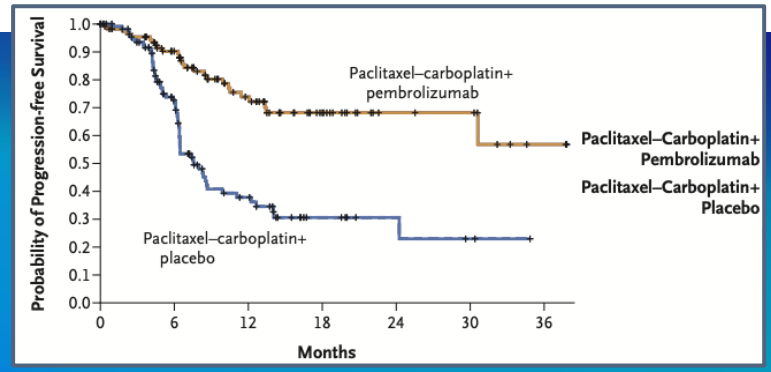
Synthetic Reconstruction of **Landmark Clinical Trials**

Exemplar: Reconstruction Phase 3 Pembrolizumab + Chemo trial

Endometrial Cancer: Using Mayo Clinic Platform data, a published Phase 3 randomized trial of pembrolizumab plus chemotherapy in advanced endometrial cancer (NEJM, 2023) was synthetically reconstructed by mirroring eligibility criteria, treatment arms, endpoints, and follow-up.

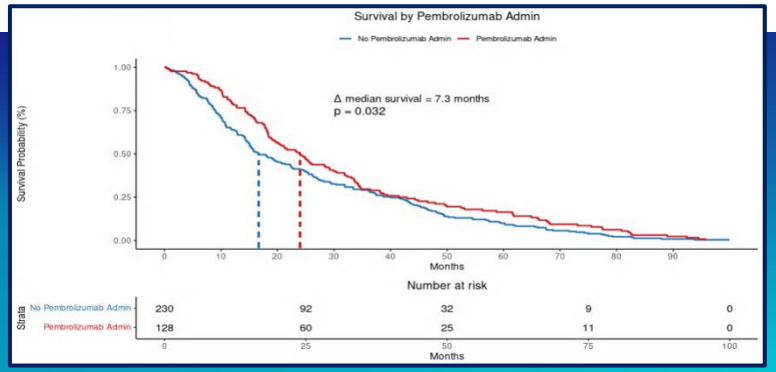
Independent Validation of Pivotal Trial Evidence

- Independent real-world reproduction of a landmark Phase 3 oncology trial
- Balanced synthetic cohorts (SMD < 0.1) preserved trial intent and comparability
- Survival benefit directionally consistent with NEJM results
- Platform enables scalable validation and contextualization of pivotal evidence



N=816, 1:1 split between arms

Original trial reported a 12-month progression-free survival benefit



N= 128 Paclitaxel-carboplatin + Pembrolizumab
N =228 Paclitaxel-Carboplatin excl. Pembrolizumab

Synthetic trial suggests an 8.7-month progression-free survival benefit

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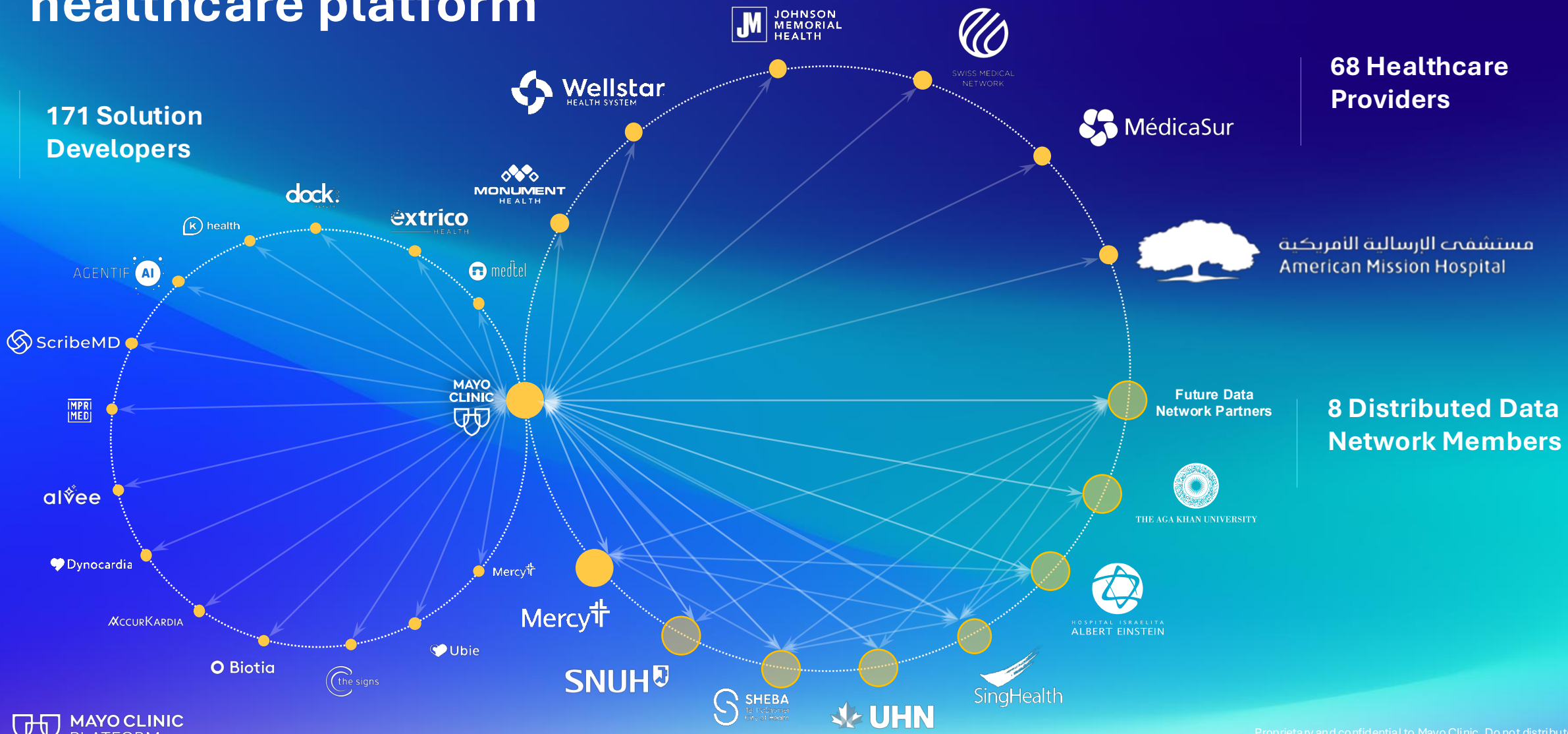

8 Distributed Data Network Members

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The future of healthcare **is now**