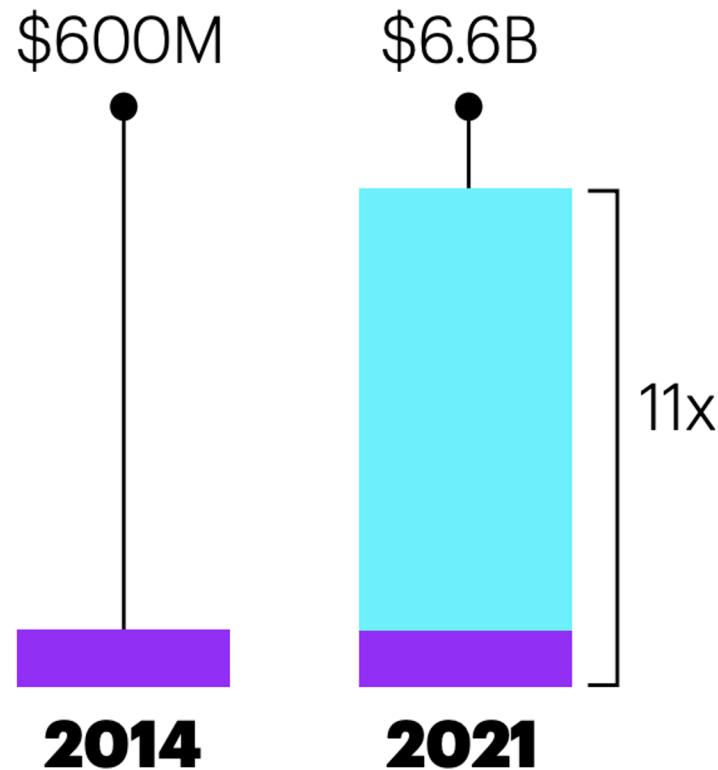


AI for Healthcare

HEALTH AI MARKET SIZE 2014-2021

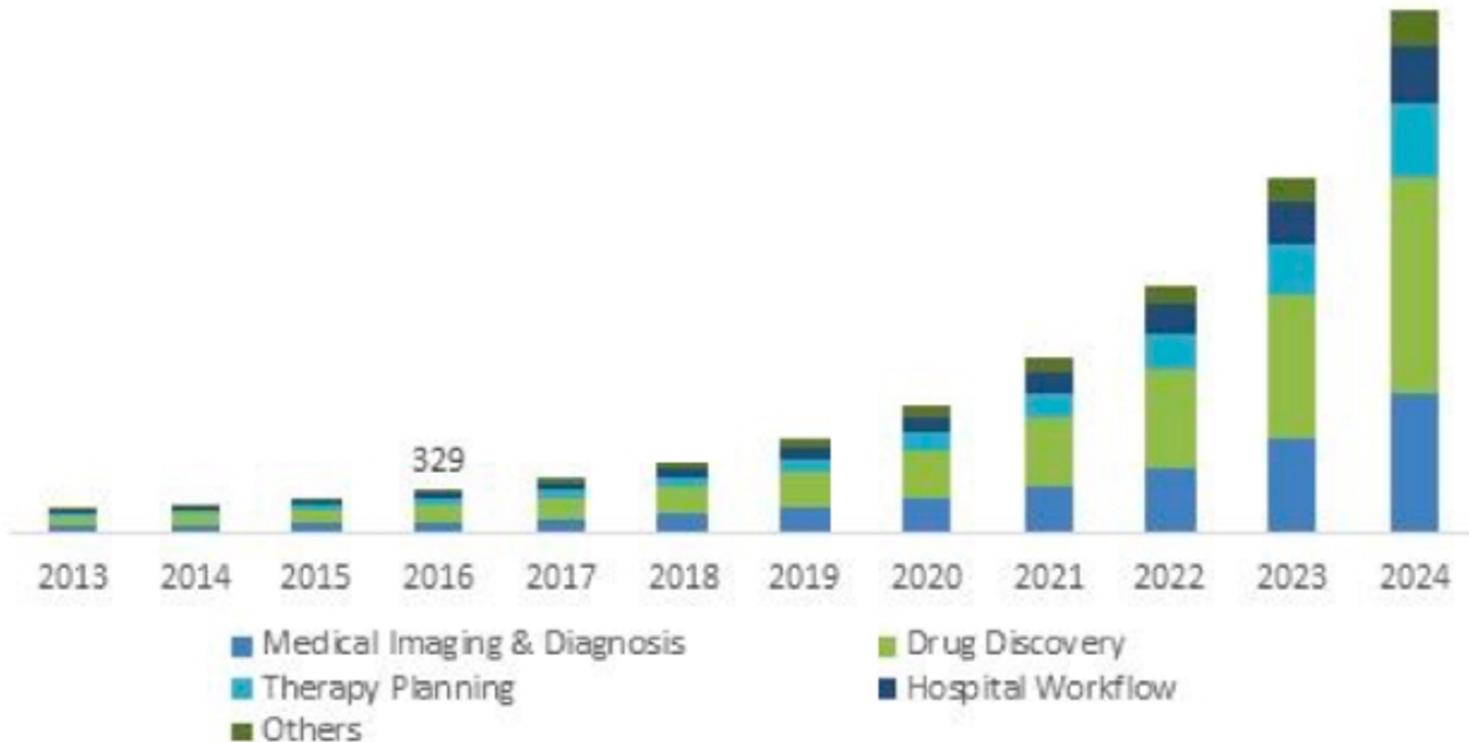
Acquisitions of AI startups are rapidly increasing while the health AI market is set to register an explosive CAGR of 40% through 2021



Source: Accenture analysis

Health AI Market Size 2013-2024

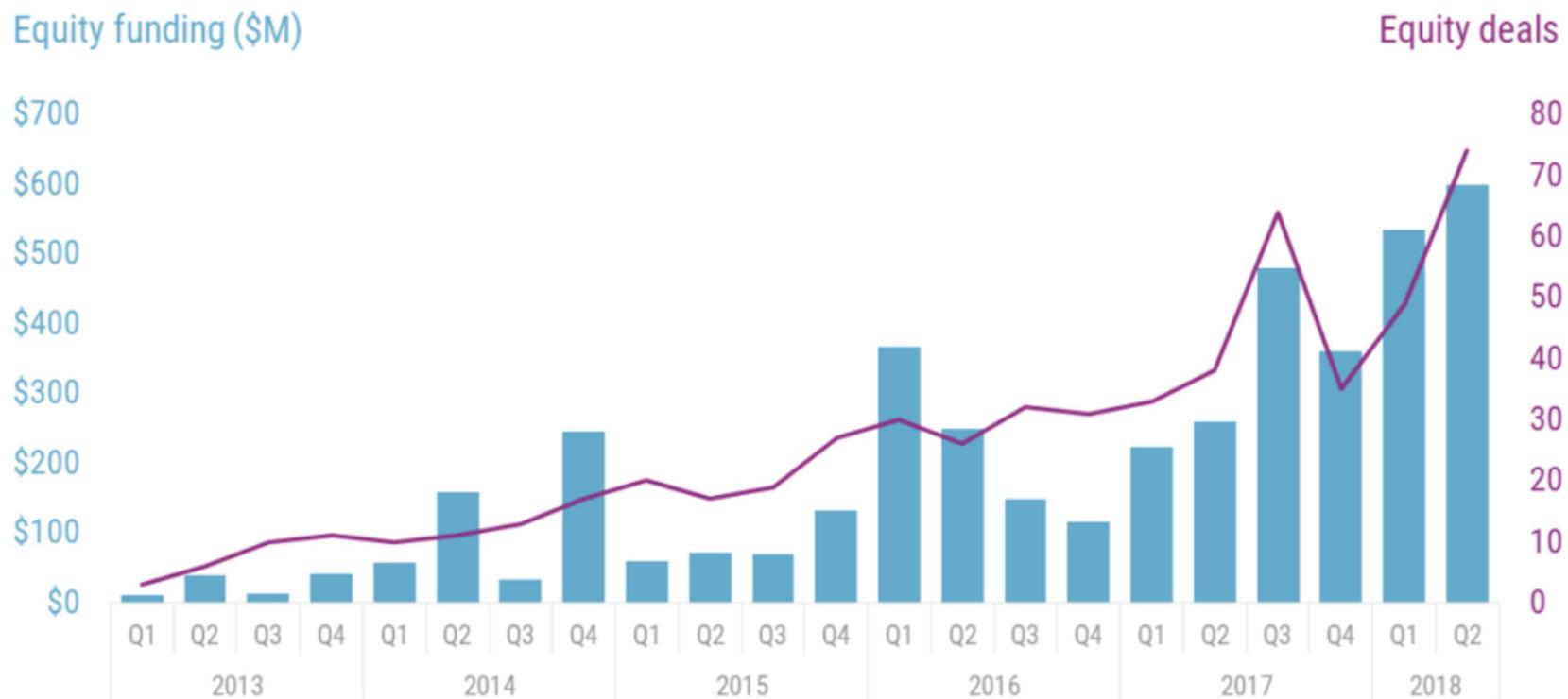
10B+





AI in healthcare funding hit a historic high in Q2'18

Disclosed equity funding, Q1'13 – Q2'18



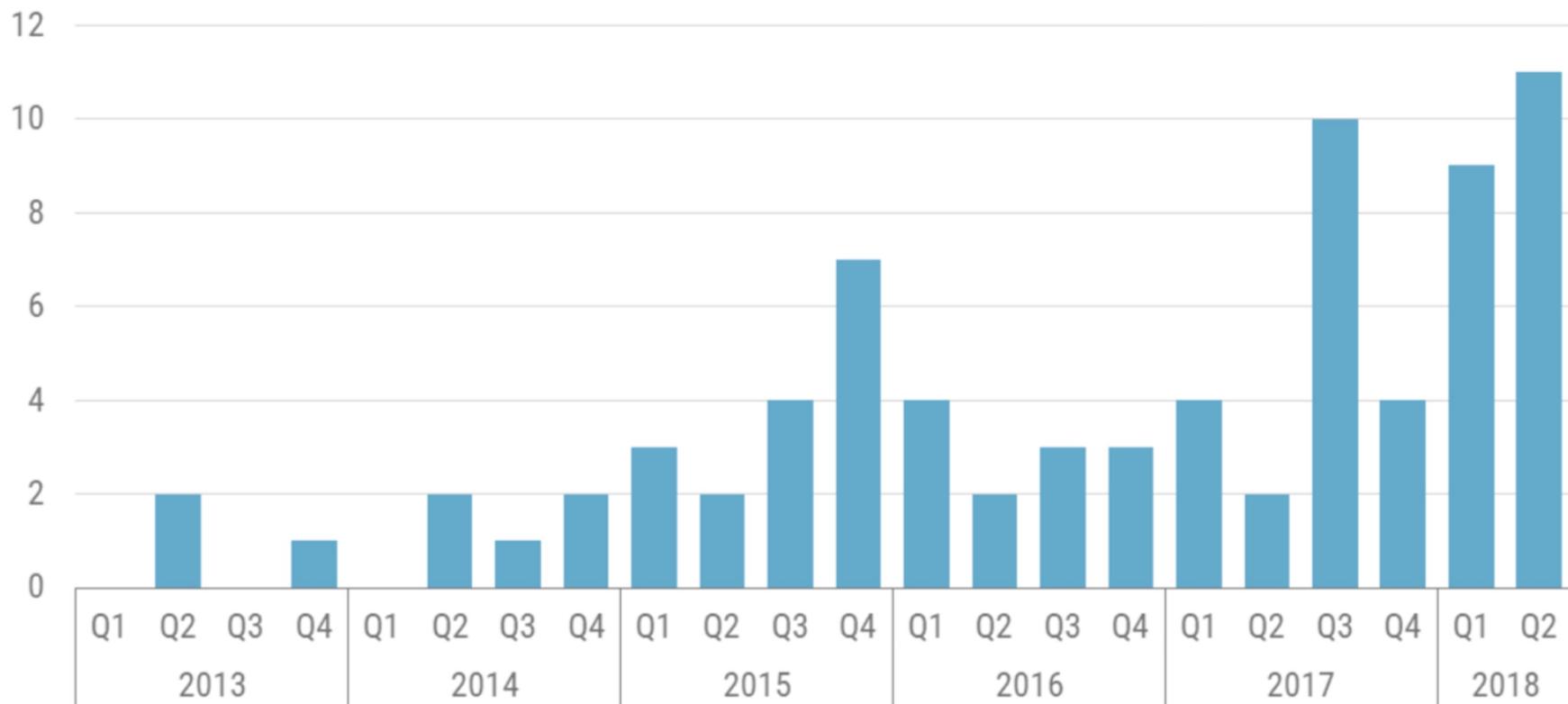
Source: cbinsights.com

CB INSIGHTS



Big pharma's interest boosts AI drug discovery deals

Disclosed equity deals, Q1'13 – Q2'18



Source: cbinsights.com

CBINSIGHTS



Robot-Assisted
Surgery**

\$40B



Virtual Nursing
Assistants

\$20B



Administrative
Workflow
Assistance

\$18B



Fraud
Detection

\$17B



Dosage Error
Reduction

\$16B



Connected
Machines

\$14B



Clinical Trial
Participant
Identifier

\$13B



Preliminary
Diagnosis

\$5B



Automated
Image
Diagnosis

\$3B



Cybersecurity

\$2B

TOTAL = **~\$150B**

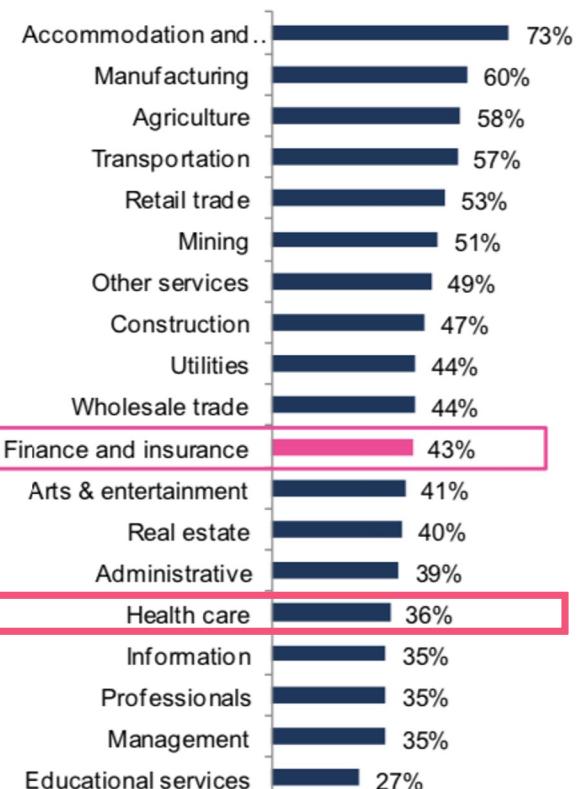
Scale

- Our bottoms up analysis is consistent with other studies about the expected size of the impact from Artificial Intelligence on financial services
- Bain sees a potential \$5.4 trillion shortfall in GDP by 2030, which would translate to **\$1.1 trillion** of associated GDP in the financial sector
- Accenture sees AI adding **\$1.2 trillion** in financial services value by 2035

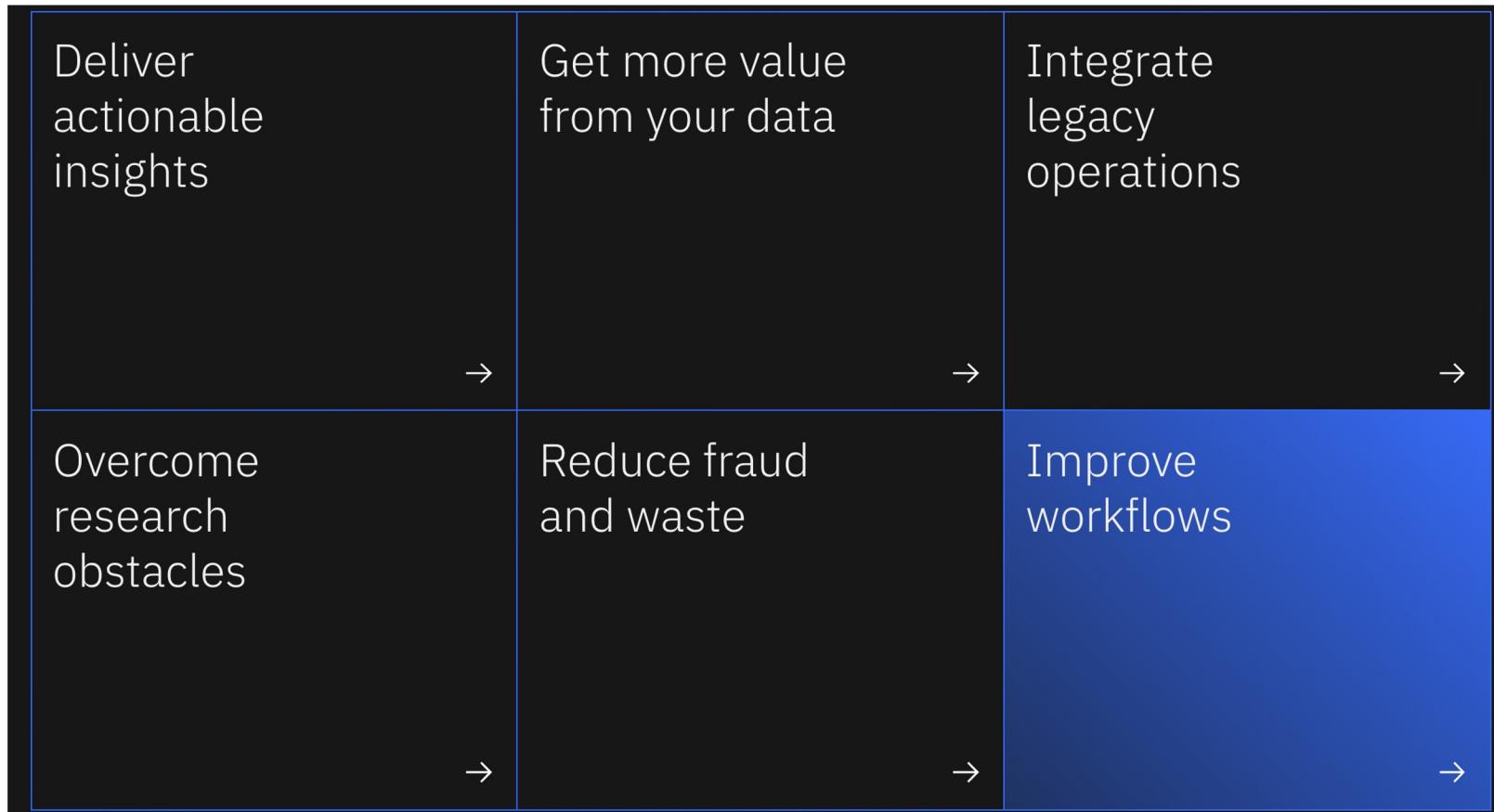
Productivity Gains from Automation (Bain 2018)



Automation Potential of Industry (McKinsey 2017)



Industry Trends on AI Applications for Healthcare

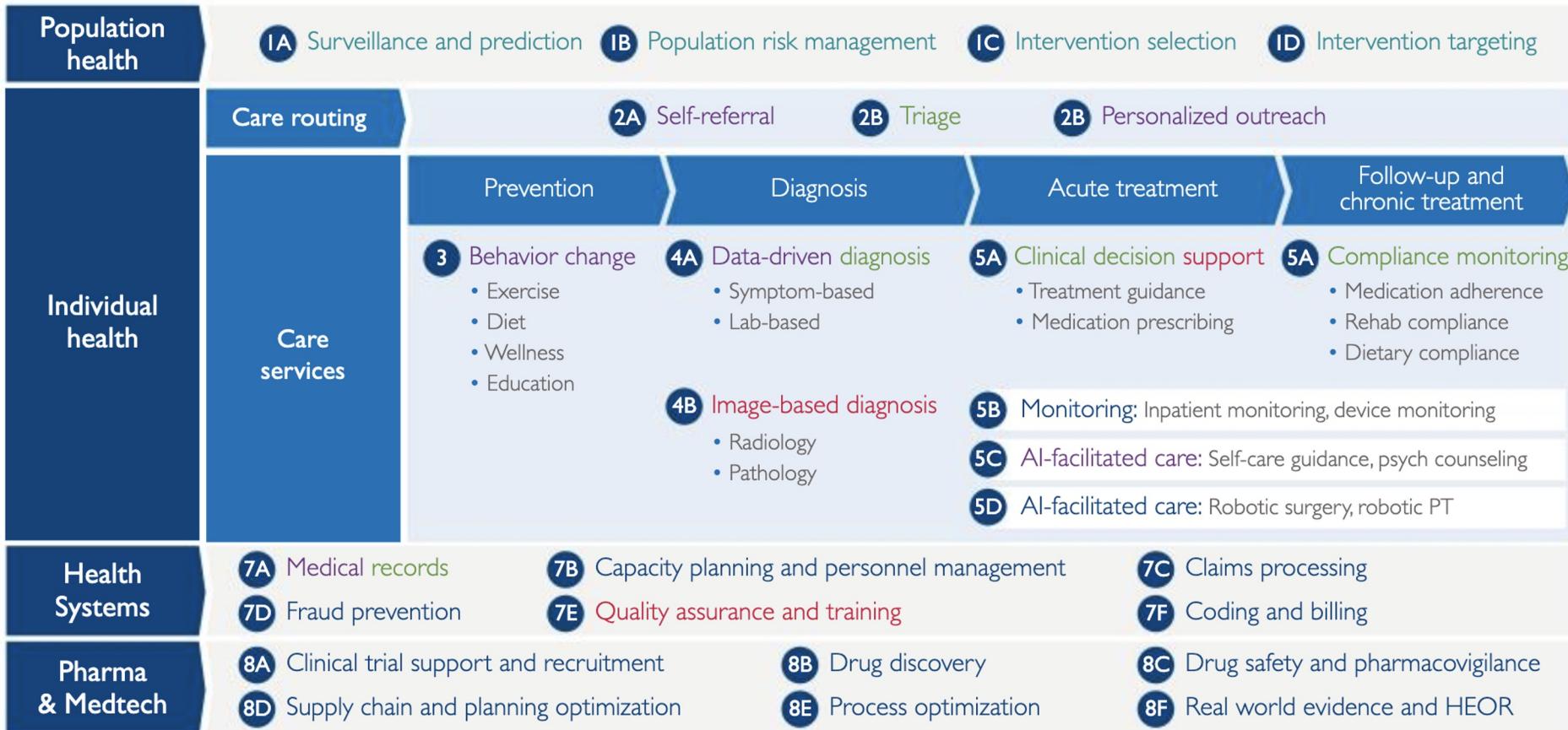


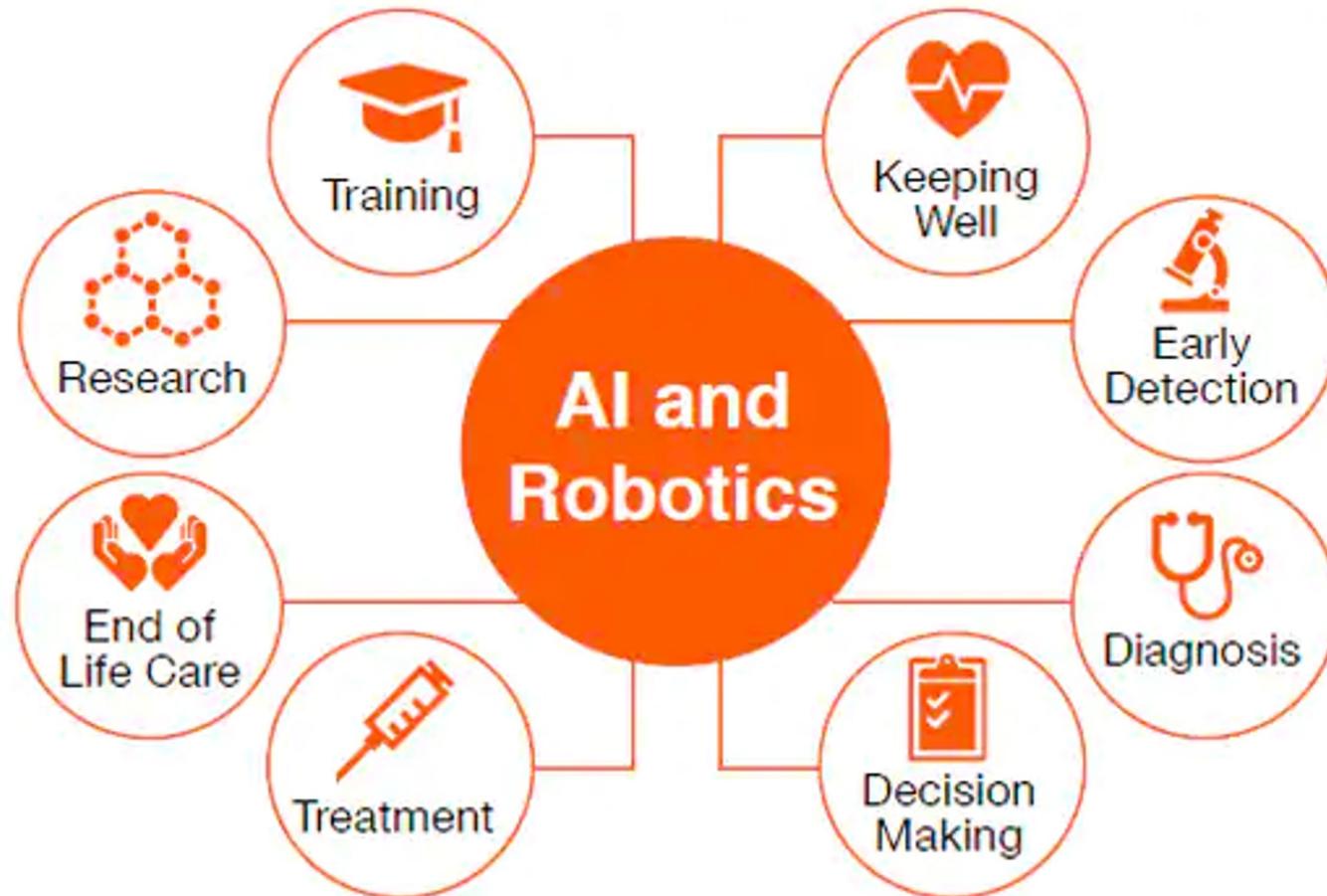
Cognizant

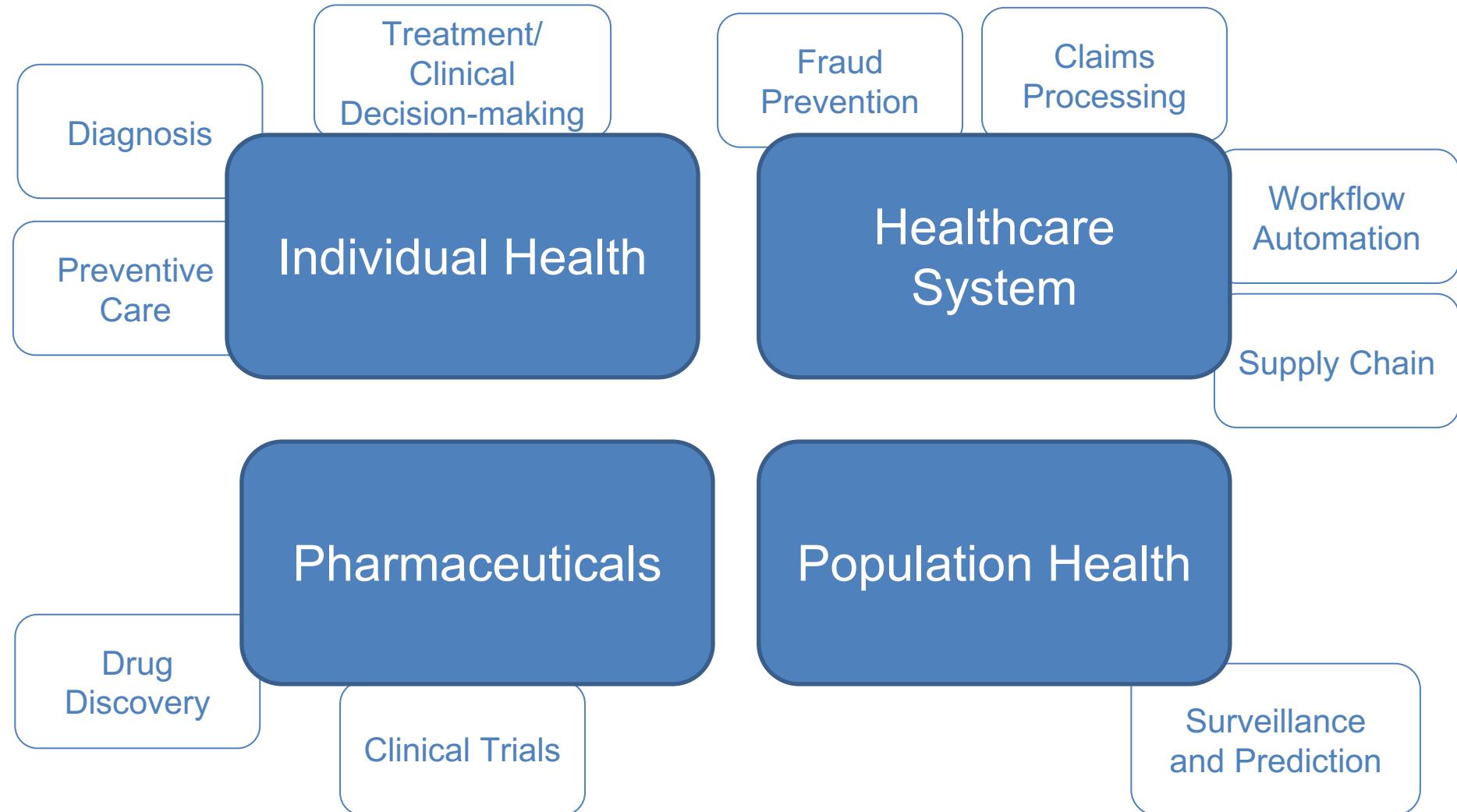




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Top Applications of AI in Healthcare

Preventive Care

Preventive Care

- Wearable systems can provide insights and recommend exercise and diet based on risk profile of patient
- Virtual Assistant systems can provide preventive care information and reminders
- Live data of patients can be used to identify patterns in health recordings to predict diseases
- Gene mapping and testing can identify genes that puts patients in high risk profiles for certain diseases
- Provide rewards in insurance premiums for doing regular exercise, etc.

Behavior change

TOUCHKIN BI BEATS



physIQ



Intendu.

ovia

PeerWell

omada



lark



virta

FREE
LETICS

@ nutrino



iCarbonX

Arivale

FITGENIE



Welltok[®]

Optimizing Health, Maximizing Rewards.

Diagnosis

Diagnosis

- AI applications is being widely applied in detection diseases based on imaging data. X-rays; MRIs, CT - are being read by AI systems for diagnosing diseases
- AI Virtual doctors are helping many patients to diagnose diseases when no doctor is available
- Telemedicine augmented with AI system is also provided access to getting better diagnosis
- Pathology assistants

Diagnosis

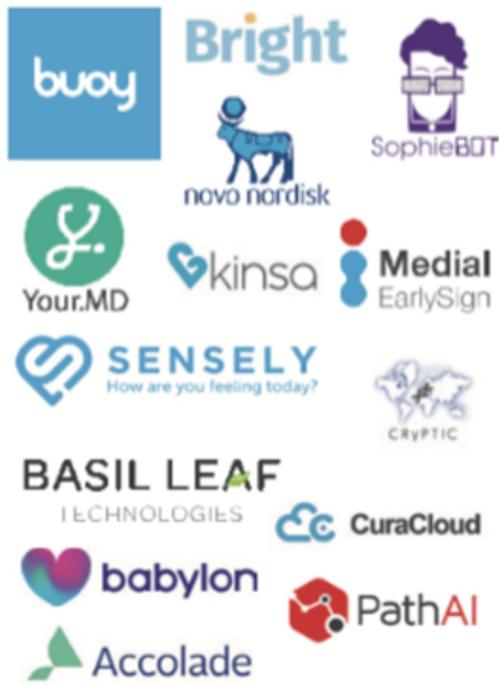


Image-based diagnosis



Treatment and Clinical Decision-Making

Treatment and Clinical Decision-Making

- AI based surgical robots such as Da-Vinci has become popular to provide higher precision robotic surgeries
- The dosage of medicine can also be tailored for individual patient
- Errors on prescriptions can be found using AI systems to check prescribed medicine against the disease symptoms
- Better analysis of EEG, Ultrasound and other types of signals

Triage



Bright

BASIL LEAF
TECHNOLOGIES



SENSELY
your personal learning partner

JOHNS HOPKINS
UNIVERSITY

MEDTRONIC
LABS

Microsoft

jvion

CYRCADIA
HEALTH

AMARA
HEALTH ANALYTICS

Digital
Reasoning

Living
Goods



VIZ



Smart Health Care
WE SAVE LIVES



Your.MD

Accolade

novo nordisk

SENTRIAN
Remote Patient Intelligence

BRAINSCOPE

FLASHBACK
TECHNOLOGIES

medwhat

corti

DeepMind



Magna

Clinical decision support



Fraud Prevention

Fraud Prevention

- Volume of claims make it hard for insurance agents to review all items carefully
- AI systems can be used to identify anomalies on insurance claims
- Other data streams like prescriptions, medical records can also be mined for possible fraud
- Claim processing can be automated to a degree that can reduce errors

Workflow Automation

Workflow Automation

- Many internal workflows in Healthcare systems can be automated
- Automatic transcriptions of doctors voice and hand written notes can make overall note taking faster
- Automatic form filling for prescriptions can save time to doctors and nurses
- Inventory Management and supply chain management can be automated

Compliance monitoring



Magnea



RxAnte®



ROAM



lark



MEDALOGIX



OPTUM®



Medical records



Microsoft



AYASDI



nimblr

Qualaris*

Spectra
MEDIX



saykara



Oncora
MEDICAL

clinithink



Drug Discovery

Drug Discovery

- AI applications is being widely applied in detection diseases based on imaging – x-rays; MRIs, CT scans are being read by AI systems for diagnosing diseases

90+ Healthcare AI Startups To Watch

Imaging & Diagnostics



Drug Discovery



Predictive Analytics & Risk Scoring



Genomics



Fitness



Hospital Decision Support



Remote Monitoring



Virtual Assistant



Clinical Trials



Nutrition



Compliance



Mental Health



Clinical Trials

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Population Health Surveillance and Prediction

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Genomics



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Hospital Decision Support



Remote Monitoring



Virtual Assistant



Clinical Trials



Nutrition



Compliance



Mental Health



Challenges in Integrating AI in Healthcare

Challenges for AI in Healthcare

Data Silos

Outdated
Infrastructure

Compliance
Complexity

No All-
Encompassing AI
Strategy

AI Decision
Explainability
Problem

Lack of AI Talent