# Democratizing data in Academic Health Centers

Dr. Alan Forster

VP, Innovation, Quality, and Performance MUHC

McGill Professor of Health Innovation

# Where it Started

**Evaluation of PCR-based MRSA screening program**

**40,000 patients** avoiding unnecessary nasal and rectal swabs per year

$1.5M **saved** per year

# “If only I had data”

## THE PARADOX OF HEALTHCARE DATA

### MASSIVE AMOUNTS GENERATED

**30%**

Of all data generated is for health

### ALMOST ALL IS UNUSED

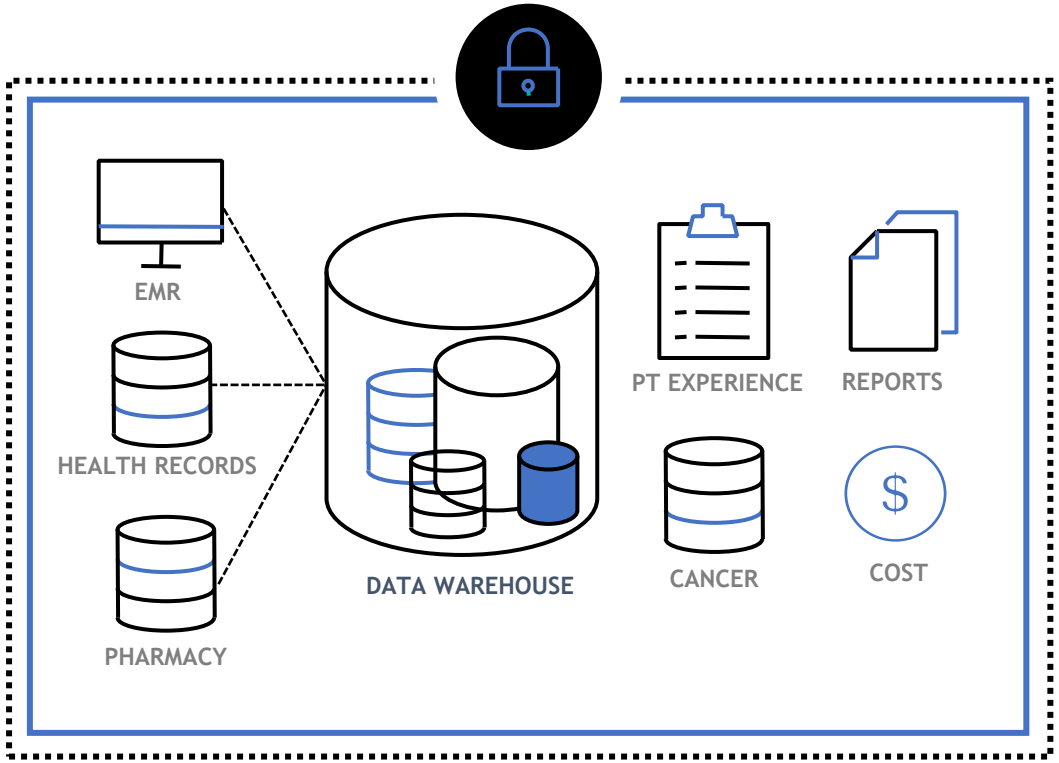
**<5%**

Of Health data is used in making decisions

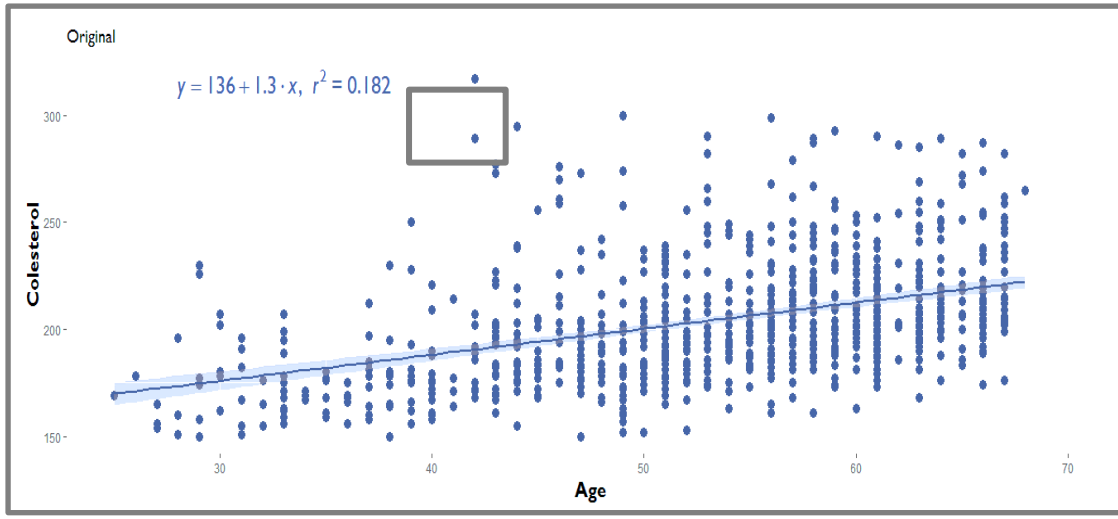
**30%** Of leaders state their data are insufficiently accurate to base decisions

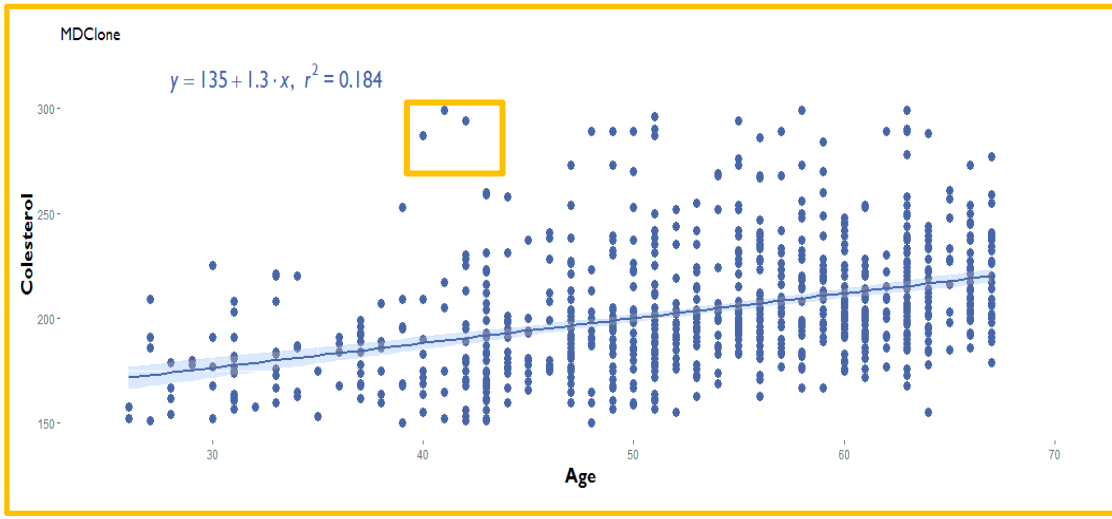
# Healthcare Data Challenges

- Competing demands
- Lack of technical knowledge
- Privacy
- No budget
- Clinician resistance
- Executive resistance
- Inaccuracy of data
- Inability to obtain results in real time



# Protect Patient Privacy






Patients cannot be reidentified:
No one-to-one correspondence.

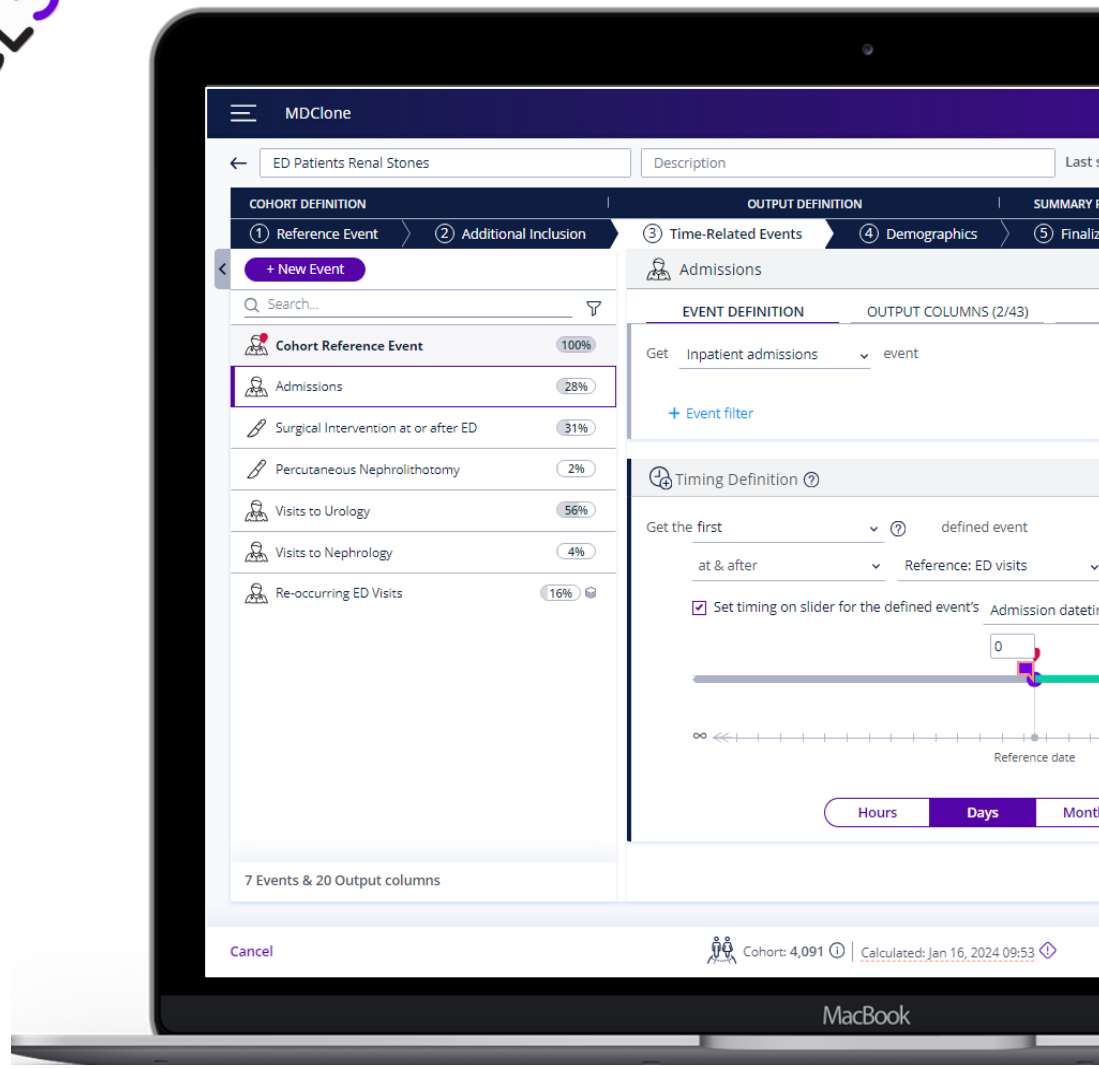
Synthetic data maintain the variables of interest and their inter-variable correlations.

No need to remove elements from data (as with deidentified data).

MDCLONE

# ADAMS Platform

| | Traditional Methods | MDCLONE |
|---|---|---|
| Clinician-friendly interface requires no coding or database knowledge | ✗ | ✓ |
| Data is validated and organized in the way that care happens | ✗ | ✓ |
| Can iterate on study design and view data in real-time | ✗ | ✓ |
| Can share data with collaborators while maintaining patient privacy | ✗ | ✓ |



# About MDCLONE

- Founded in 2016 in Beer Sheba, Israel
- 2021 & 2022 Recipient of Best Healthcare Big Data Platform by the MedTech Breakthrough Awards
- Clinical and administrative leaders using MDClone across Canada, US and Israel
- 200+ Employees across Canada, US, Israel and UK
- Recognized in Newsweek's 2024 World's Best Digital Health Companies

Microsoft Teams

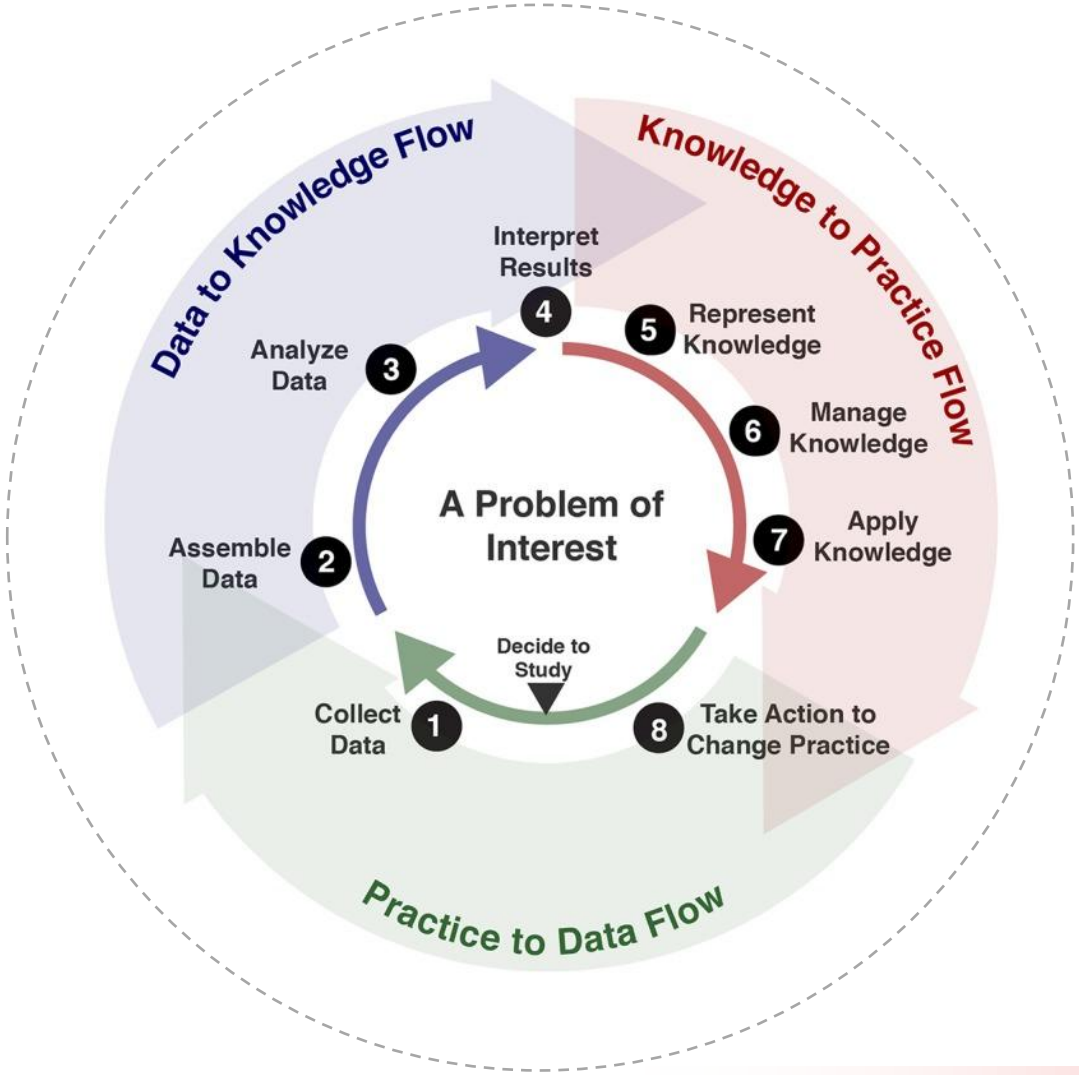
# Work on MDClone Demo

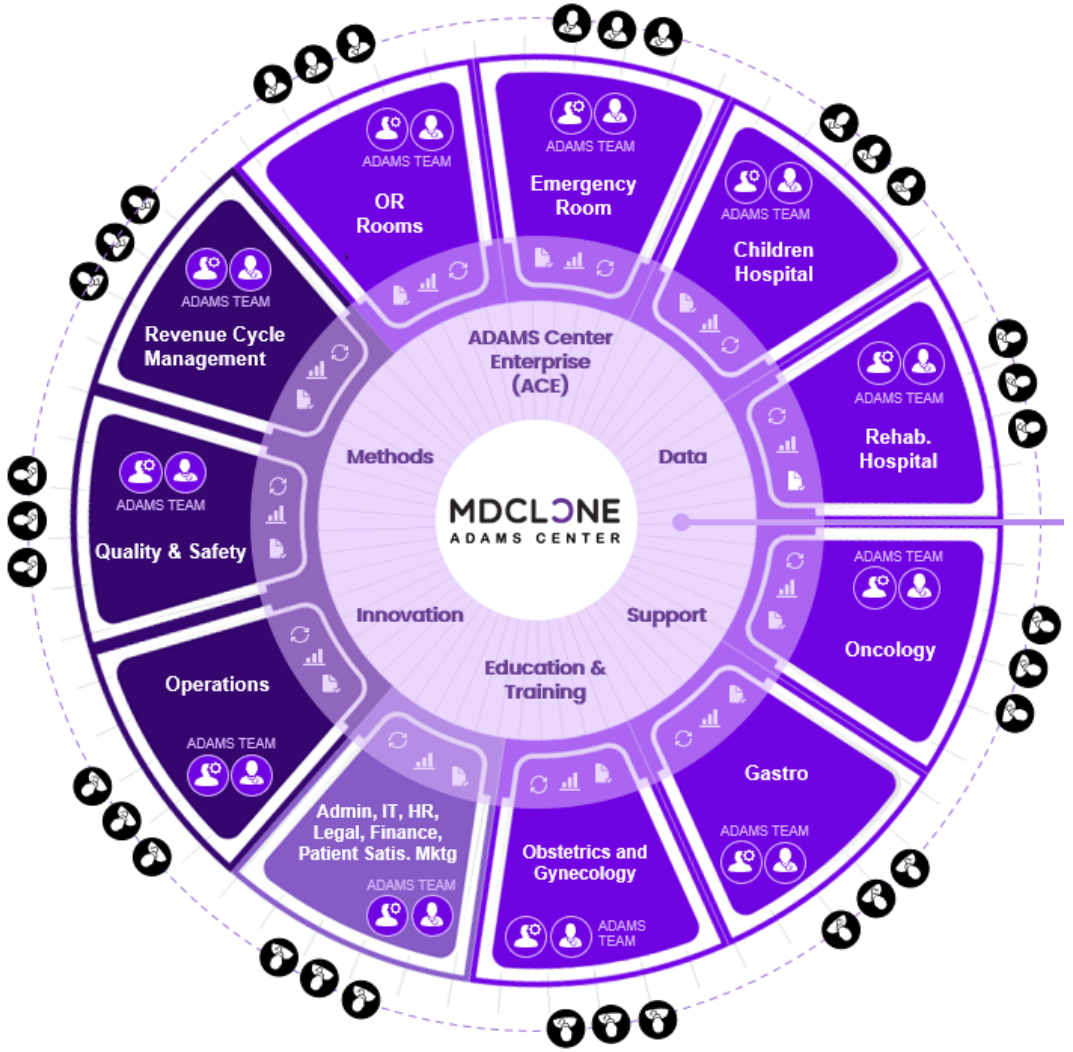
2025-05-09 20:16 UTC

Recorded by
Malini Krishnamurti

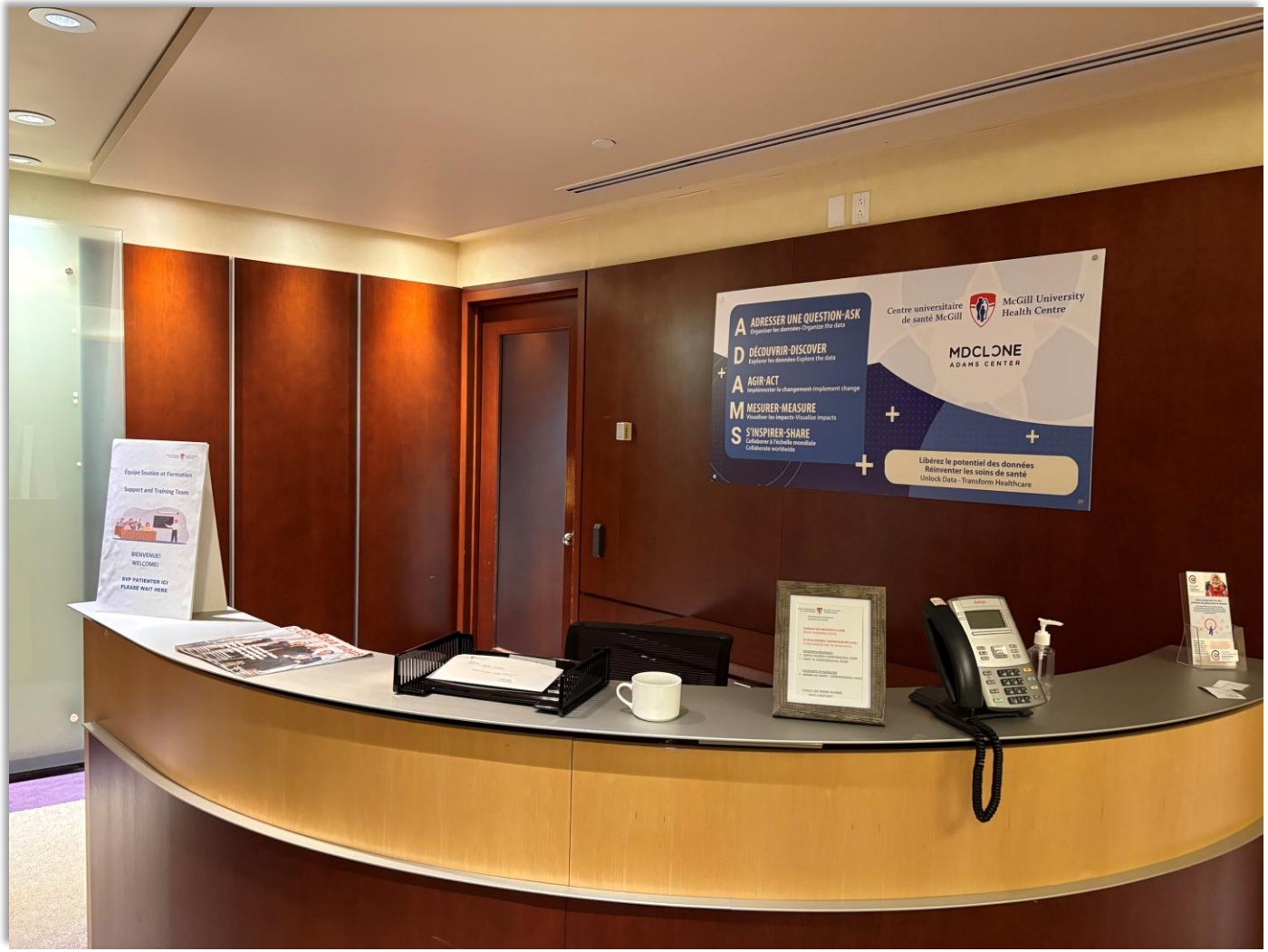
Organized by
Malini Krishnamurti

# Learning Health System



# Learning Health System Live!



## ADAMS CENTER LIVE FOR 3+ YEARS

Tel Aviv, Israel

SHEBA
Tel HaShomer
City of Health

**500+**
Active MDClone Users

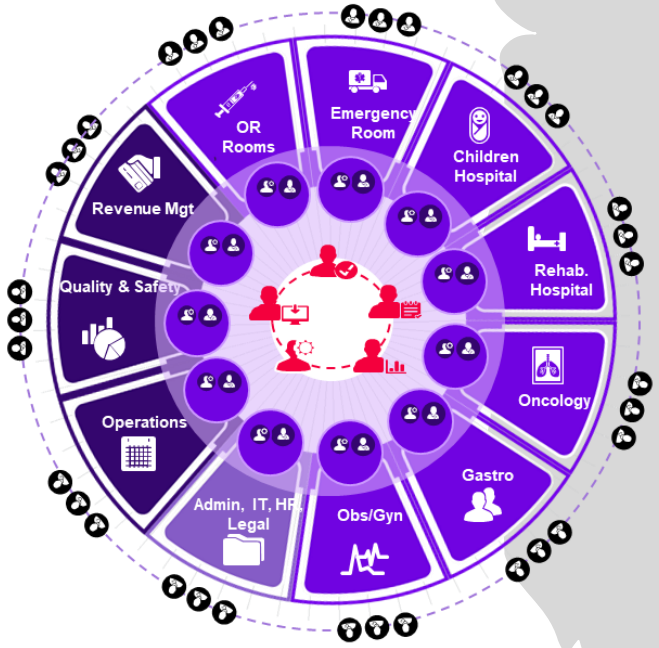
**25+**
Service Lines

**51**
Publications

"**ADAMS Center profoundly changes an organization's culture**. The ability for any health system to achieve excellence is rooted in what we're seeing."

(Prof. Yitshak Kreiss, CEO, Sheba Medical Center)

## SELF-SERVICE DATA STRATEGY




**50+**
Service Lines

**23M+**
In Grants Awarded

Salt Lake City, Utah

Intermountain Health

## QUALITY IMPROVEMENT

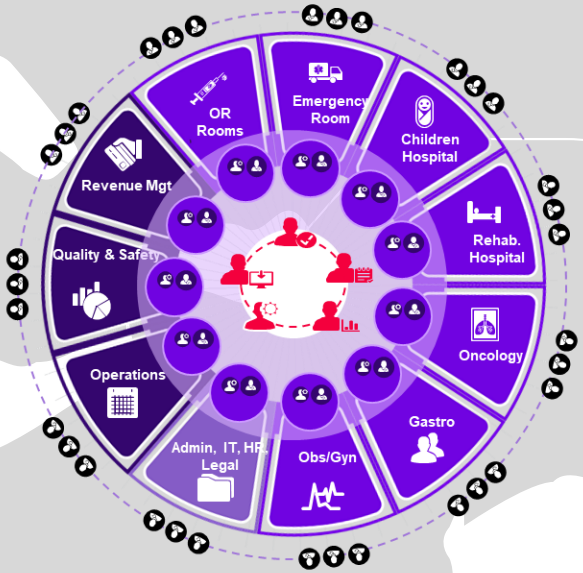
Value-based Kidney Care

Formulary Change Post Surgery

Pulmonary Embolism Response Team

MDCLONE

## BUILD CENTRAL HUB FOR LEARNING HEALTH SYSTEM INITIATIVES




Chicago, Illinois

AT THE FOREFRONT
UChicago Medicine

## PROMOTE ONE UCHICAGO VISION

UChicago

UChicago Medicine

**140+**
Project Ideas

**10**
Years of Data

Medication Reconciliation
Lab Stewardship
OR Throughput

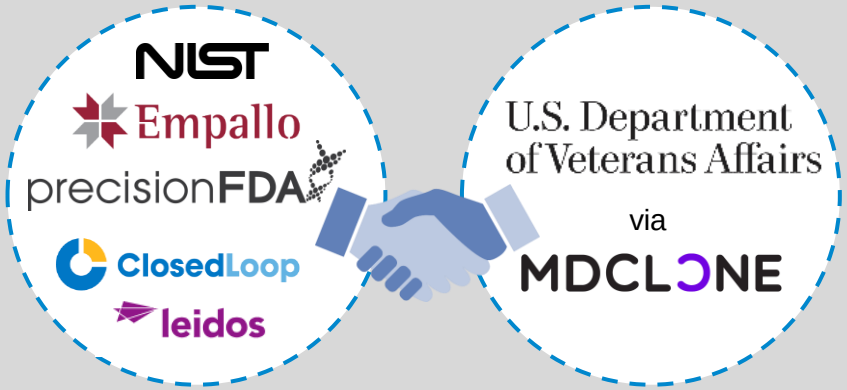
## EXTERNAL ACCESS TO SYNTHETIC PATIENT DATA

Washington, D.C

VA | U.S. Department of Veterans Affairs

### CRADA

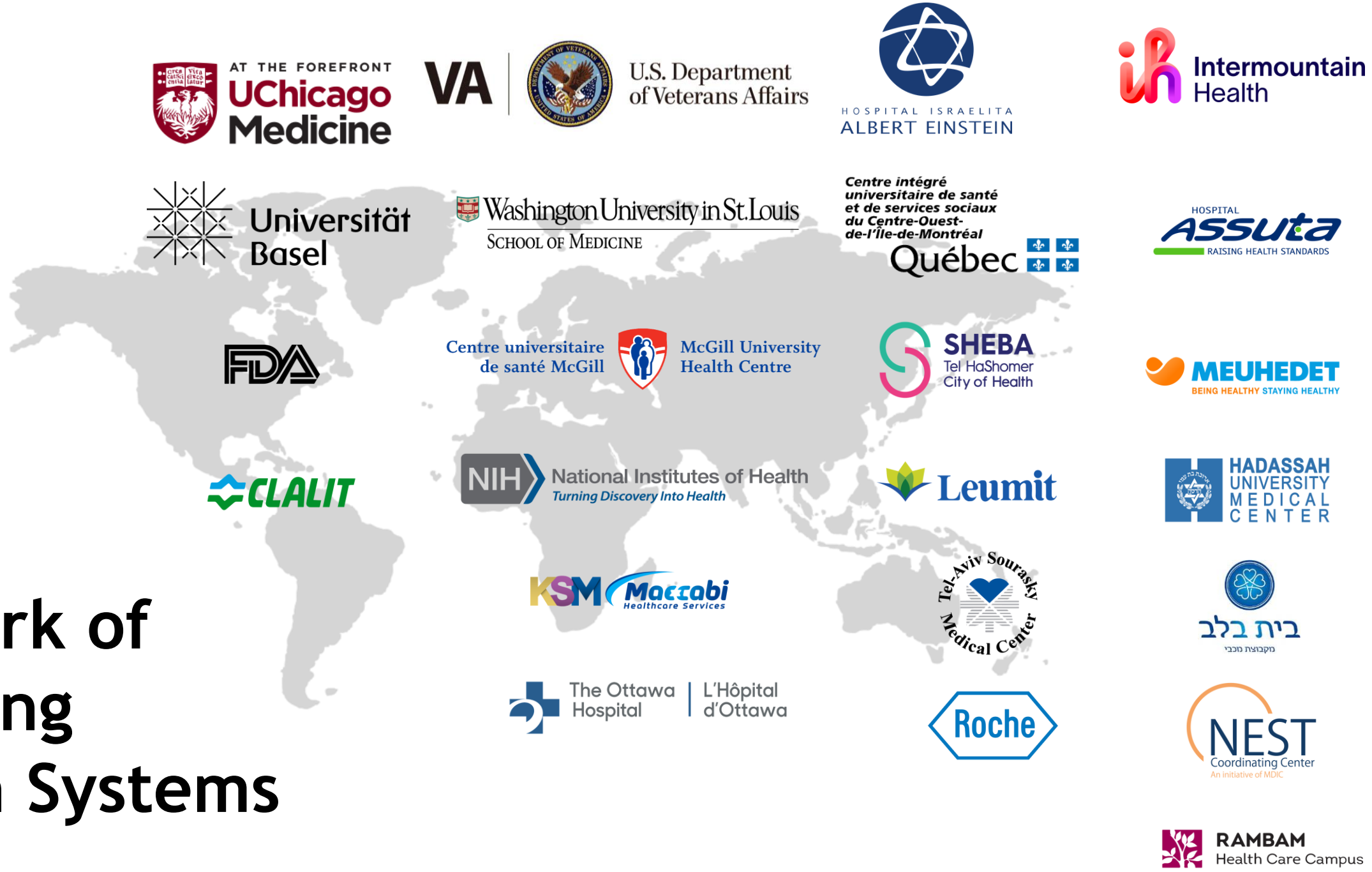
Cooperative Research and Development Agreements




### Open Innovation

**USING SYNTHETIC DATA TO BUILD AI/ML MODELS**

- Clinical Trial Matcher
- Predict Dementia Progression from MCI
- Target Pre-diabetics eligible for diet counseling
- Suicide Prevention
- Predict Heart Failure Outcomes
- Predict Risk of Self-Harm




# Network of Learning Health Systems

# Thank you!