The Internet of Things in Health
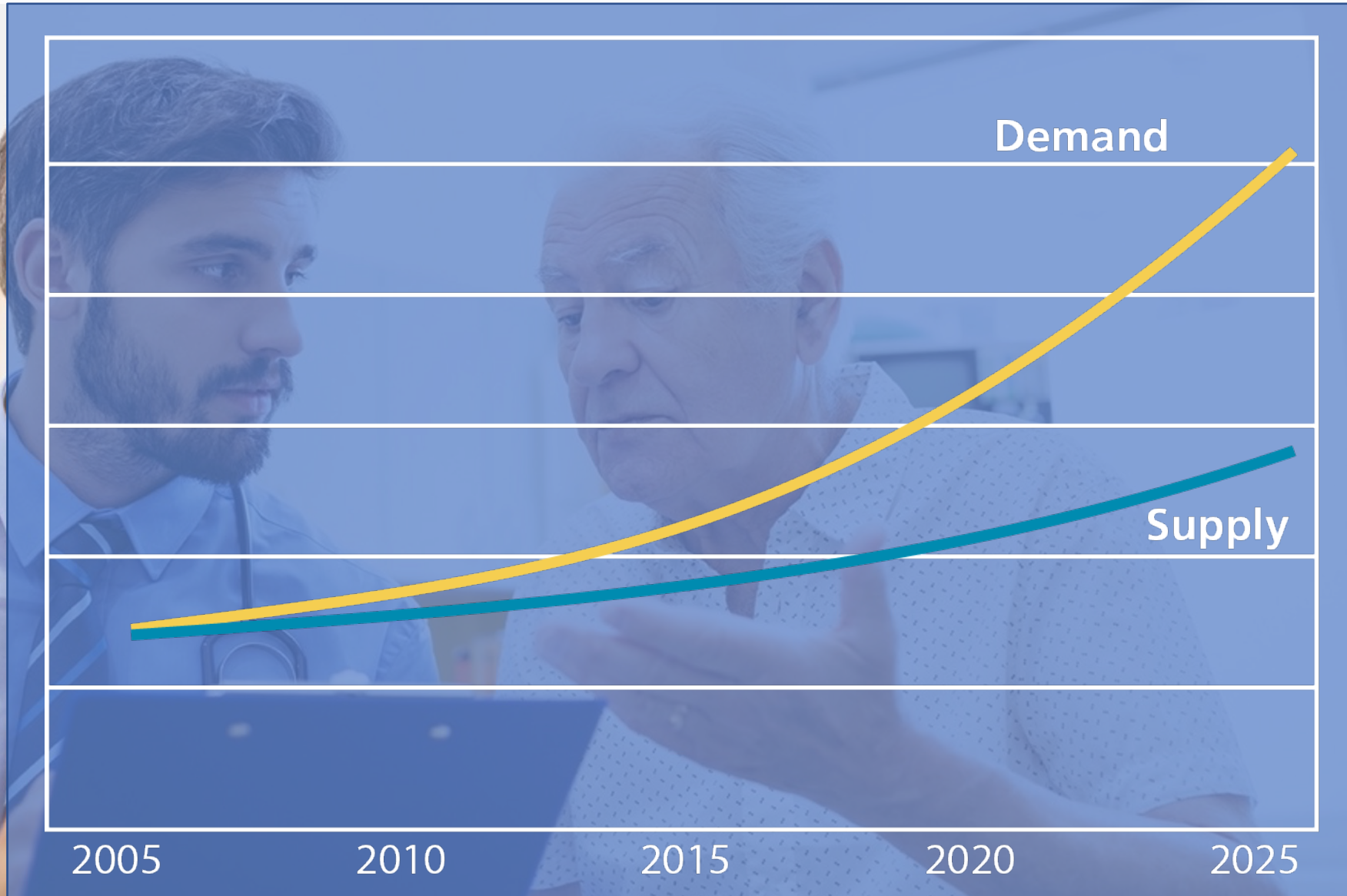
Opportunities and Challenges

Joseph C. Kvedar, MD

Professor of Dermatology, Harvard Medical School
Senior Advisor, MGH Center for Innovation in Digital Healthcare
Immediate Past Chair, American Telemedicine Assn
Co-chair AMA DMPAG
Editor-in-Chief *npj* Digital Medicine

Ratio of providers to patients

Wearables for health?

Two categories of wearable benefits

Tracking for
motivated individuals

Chronic disease
management

NOT useful for tracking for non-motivated individuals

United Healthcare Motion

- Eligible members get subsidized access to smart watches and fitness trackers

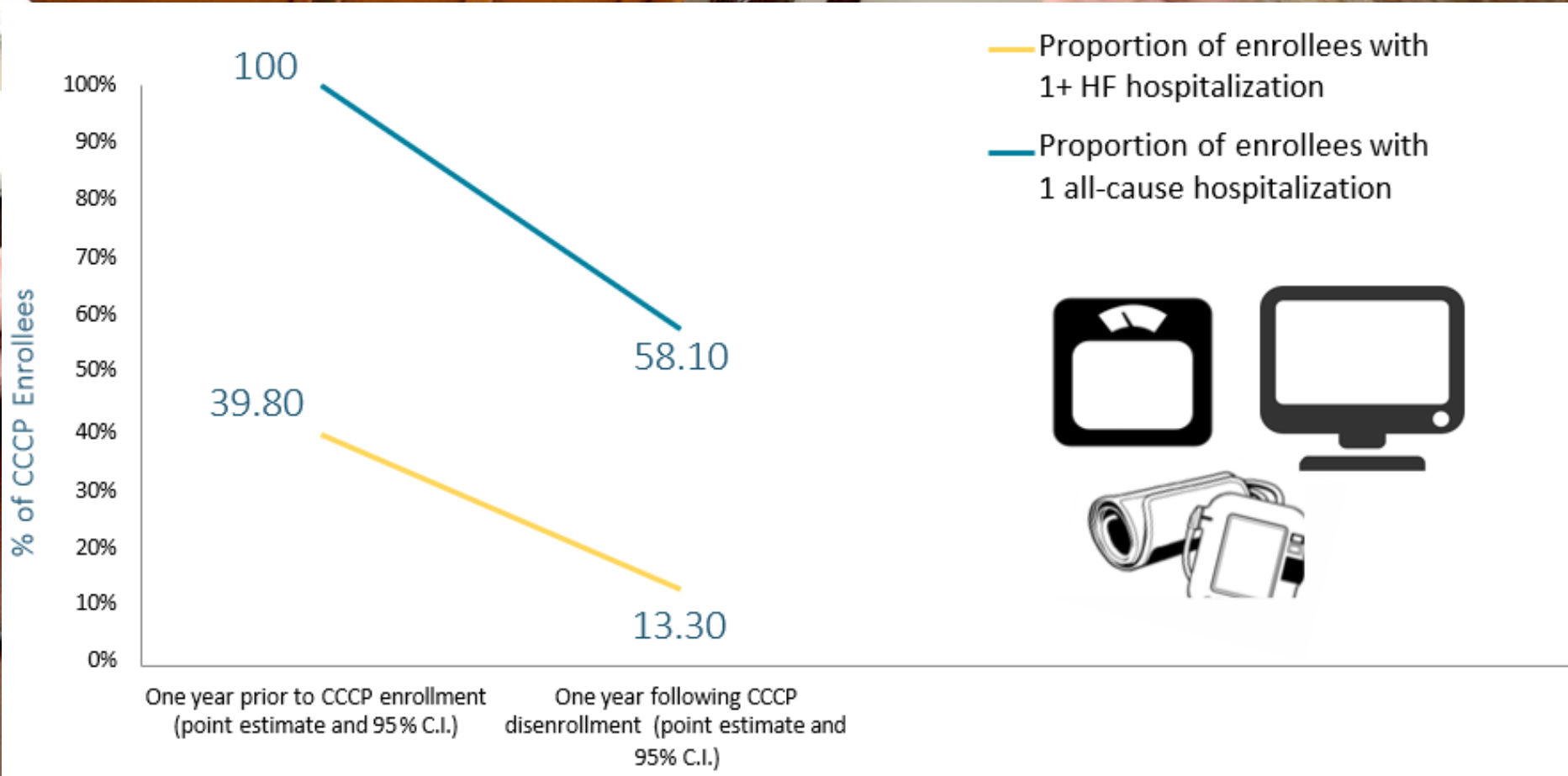- Participants earn up to $1000 annually for meeting daily program goals

Chronic disease management

- Apple watch and atrial fibrillation detection

- Titrating blood pressure medication

- Managing diabetes

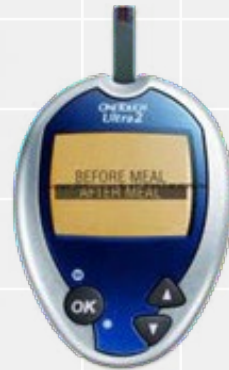- Managing congestive heart failure

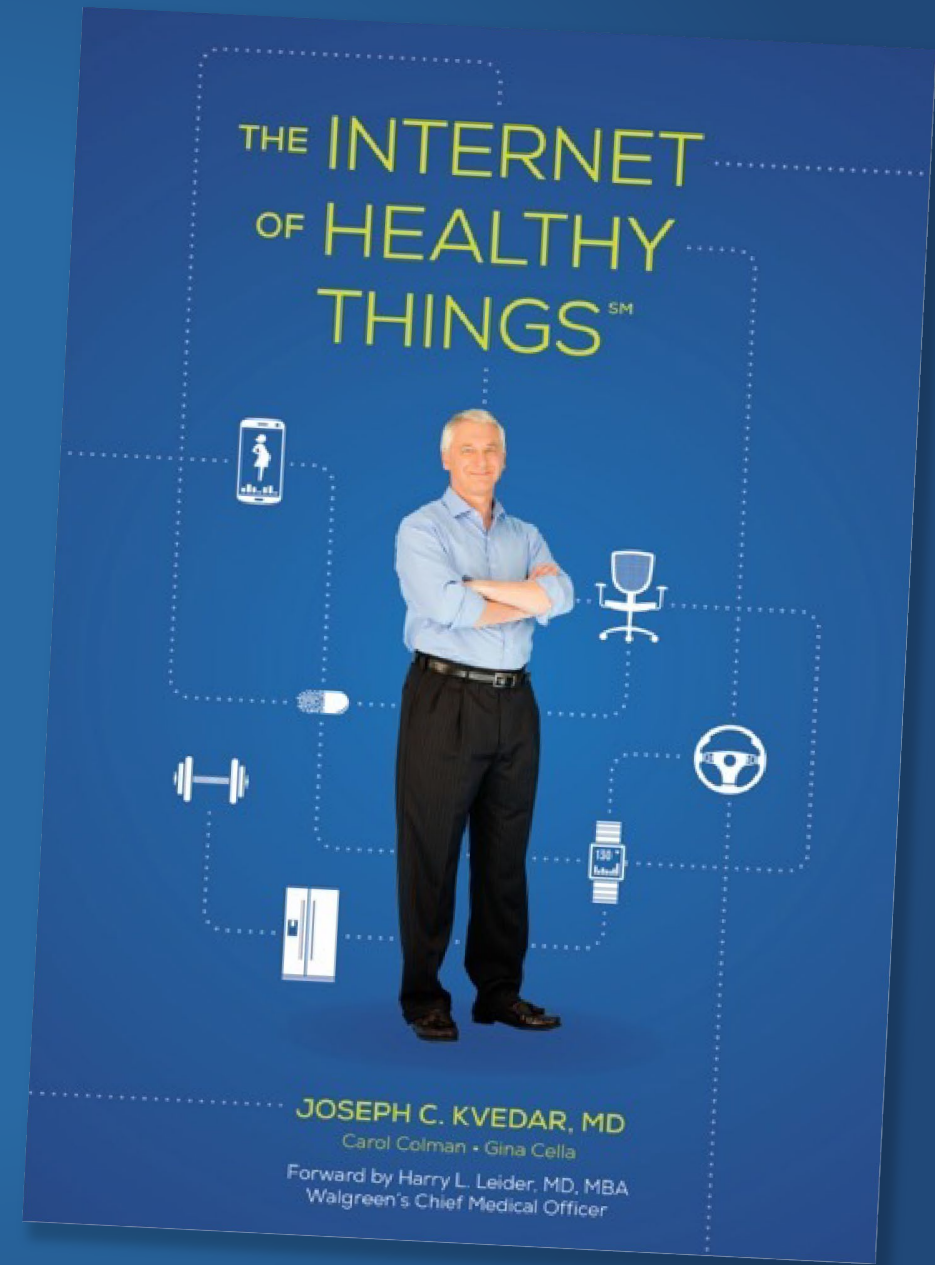# Connected Cardiac Care

Blood pressure and diabetes

Average drop of HbA1c: 1.5

69% achieved a drop in BP

THE INTERNET OF HEALTHY THINGS

AUTOMATING HEALTHCARE

Data Aggregation/ Normalization

New Sensors

\+

Analytics

\+

Engagement

AUTOMATING HEALTHCARE

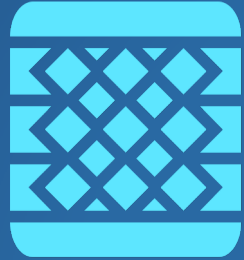Data Aggregation/ Normalization

New Sensors

Analytics

Engagement

DATA AGGREGATION BARRIERS

Normalization

Frictionless data capture

Integration

AUTOMATING HEALTHCARE

Data Aggregation/ Normalization

New Sensors

+

Analytics

+

Engagement

ANALYTICS BARRIERS

For healthcare it is not good enough to say "people like Joe did X, therefore, Joe will likely do X"

We have to take predictive analytics down to the individual level

AUTOMATING HEALTHCARE

Data Aggregation/ Normalization

New Sensors

+

Analytics

+

Engagement

ENGAGEMENT BARRIERS

Consumer centric design

Personalization

Fitting into everyday life

Sentinel effect

Barriers to IoT device and app adoption

States implement their own health data privacy frameworks

Ensuring interoperability and proper EHR integration

Hacking into healthcare system database – establish network security

Barriers to IoT device and app adoption

Insufficient funding and resources to implement or maintain security systems

Lacking capacity and resources to identify security requirements adequately

Lack of consistent policies, practices and regulatory frameworks

Recommendations for US Government and Congress to remove barriers

Create federal framework for privacy to reduce complexity of compliance and confusion

More education for providers and health systems

Increase funding for staff capacity to implement requirements and processes

Recommendations for US Government and Congress to remove barriers

Solicit feedback on successful privacy and security processes; collect use cases

Empower AGs to take enforcement action when privacy laws are violated

Ensure transparency and explainability on the use of AI to ensure outputs are secure, trustworthy, clinically appropriate and reliable

FDA – an Entrepreneur's Perspective

Understaffed and poor response times

Need to fit in a box – no innovative thinkers

Culture is to say no

Barriers/Solutions - CMS

CMS does not consistently deal with SaMD* from a coverage/payment perspective

It is presently considered an indirect practice expense so essentially a loss to providers

Not covered as DME either

Acknowledge that SaMD is a medical device and treat it as such for coverage/payment

Proactively help stakeholders identify which benefit categories are appropriate for SaMD

*includes prescription digital therapeutics, AI, and mobile medical apps

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Author of 2 Books
> *The Internet of Healthy Things*
> *The New Mobile Age*
Available at Amazon.com

Website
Joekvedar.com

LinkedIn
@JoeKvedar

Twitter
@jkvedar

Instragram
@drkvedar

Contact Me
jkvedar@mgb.org