Praise for *The Internet of Healthy Things™*

No one has done more to power the creation of new models of healthcare delivery than Joe Kvedar and his colleagues at Partners HealthCare...

- **Harry L. Leider, MD, MBA, Chief Medical Officer and Group Vice President, Walgreen Company**

Long before anyone had even heard the term “connected health,” Joe Kvedar was hard at work inventing this new field. The Internet of Healthy Things is packed with real-world information, clinical care models and practical guidance to fuel the disruption of healthcare delivery.

- **Gregg Meyer, MD, Chief Clinical Officer, Partners HealthCare**

Joe Kvedar provides entrepreneurs, innovators and investors with a roadmap for innovation that is grounded in practical business terms and clinical gravitas, while emphasizing the need for personalization and an understanding of human behavior. Anyone who wants to make an impact in the digital health space should read this book.

- **Halie Tecco, Founder and Managing Director, Rock Health**

Joe Kvedar is one of the greatest HIT influencers of our generation. He has the rare ability to envision our future in this non-linear era and convene world-class thought leaders in Boston each year. This book captures the vision and wisdom of a landmark healthcare pioneer.

- **Andrew R. Watson, MD, MLitt, FACS, FACHE, Chief Medical Information Officer, International and Commercial Services, University of Pennsylvania Medical Center; Medical Director, UPMC Telemedicine**

Today, we are at the cusp of technology shaping health and wellness for millions. Seeing the future of care delivery through Joe Kvedar’s eyes is an epiphany. The Internet of Healthy Things is leading the way forward and I encourage us all to get on board today.

- **Krishna Yeshwant, MD, MBA, Investor**

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**JOSEPH C. KVEDAR, MD**

Carol Colman • Gina Cella

Forward by Harry L. Leider, MD, MBA
Walgreen’s Chief Medical Officer
Joe, your blood pressure and cholesterol are fine, but your sleep deficit is now up to three hours for the week, you’ve put on two pounds since last month and your activity level is falling short of your goal by 25%. You’ll have to get more sleep and exercise if you’re going to achieve your goal of fitting into your size 40/34 tuxedo by March for Julie’s wedding. Only 140 more days to go!”
Sam reminds me of choices
Joe, I’m guessing you’re walking toward Pace’s Bakery to get one of their big chocolate chip cookies. If you have this snack now, it will only set you back further in your goal of fitting into size 34 waist pants. Why not use those extra calories to have a glass of red wine with dinner tonight, which is also better for your heart.
Joe, have you thought about taking up swimming again? I have a coupon from the Boston Sports Club two blocks from your office offering a six-month membership at half price. On top of that incentive, there are five other people in your online social network considering this opportunity, I see three time slots each week when you could meet at least one of them for a swim. You don’t have to make up your mind right now, just think it over.
Joe, have you thought about taking up swimming again? I have a coupon from the Boston Sports Club two blocks from your office offering a six-month membership at half price. On top of that incentive, there are five other people in your online social network considering this opportunity, I see three time slots each week when you could meet at least one of them for a swim. You don’t have to make up your mind right now, just think it over.
The (near term) future

- Automated
- Contextual
- Empowering
- Motivational

How do we get there?
Automating Healthcare

Data Aggregation/Normalization

New Sensors

Analytics

Engagement
Automating Healthcare

Data Aggregation/Normalization + Analytics + Engagement

New Sensors
Spire
Muse
Business opportunities remaining

Normalization  Frictionless data capture  Integration
Automating Healthcare

Data Aggregation/Normalization

New Sensors

Analytics

Engagement
The state of the art of predictive analytics

“a sudden uptick in how often family members contact their health plan about caregiver support and the available benefits is often a good indicator of impending acute risk”

“The magazines that you read—whether you subscribe to Runners Daily or Barbecue Daily—say a lot about you”
How Big is Big Data?

MORE LIKELY

TV HABITS
People with large cable-television packages are less likely to be active and tend to be overweight.

WEB SHOPPING
People who are obese often purchase their clothes online because they require special sizes.

MINIVAN
People without children who own a minivan may be too large to fit in a smaller vehicle.

LESS LIKELY

PET OWNERSHIP
People who own a dog are more likely to be active, as a dog requires frequent walks.

VACATIONS
People who take ski trips or other active vacations are less likely to be obese.

HIGH INCOME
The more disposable income people have, the less likely they are to be obese because they can afford to join a gym or buy healthy foods.

Source: Blue Chip Marketing Worldwide
Data driven health messaging

- Readiness To Change
- Connected Health Data
- Location Data
- Weather
- Analytic Engine
- Customized Program Design

Connected to Data

- Data
- Messaging
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
Keys to engagement

Strategies

- Make it about life
- Make it personal
- Reinforce social connections

Tactics

- Employ subliminal messaging
- Use unpredictable rewards
- Use the sentinel effect
Omada Health

We help employers and health plans tackle chronic disease in the most engaging, effective, and scalable way possible.

Prevent is a 16-week online digital health program that coordinates everything people at risk for chronic disease need to embrace lasting change.
BlueStar® is the first mobile prescription therapy developed for adults living with type 2 diabetes and their doctors.

Read Our Clinical Trials

BlueStar helps adults living with type 2 diabetes and their doctors to improve self-management and help decrease A1C.
Business opportunities remaining

- Consumer centric design
- Fitting into every day life
- Personalization
- Sentinel effect
Joe, all in all, you’re doing pretty well (we know that Sam can be tough on you). We think the suggestion of swimming is a good one and agree you can use more sleep. Please spend some time over the next few days contemplating which you want to work on first. If you try to do both, your history suggests you will fail at both, but if you focus on one, your history predicts you’ll succeed. Have a good night’s sleep!”