# Qventus

# From Data To Action

## Putting Data to Work in Today's Hospital

# Growing Challenges

In today's uncertain environment, hospitals face many pressures. For some, future financial sustainability is becoming a very urgent question. Others are finding it increasingly difficult to meet the needs of their communities, with growing demand and the pressure to provide high-quality care at a reasonable cost. Across the board, hospitals are being asked to do more with less amid tremendous complexity.

**Tackling inefficiency is hard. Hospitals are far more complicated than other organizations, and they face more unpredictability and variability.**

Big data and analytics once held the promise of providing the insight needed to address these challenges. The billions of dollars invested in EMRs were an essential first step. Now, new technologies can make this data more useful, particularly to the clinicians who need it the most.

**Hospital costs rising 5–7 %**

**Hospital margins squeezed 2–5%**

**Increasing patient expectations**

**$100B inefficiency addressable through better use of IT systems**

# No More Missed Opportunities

Today's clinical teams and administrators are inundated with dashboards and reports. Despite all the information at their fingertips, they are often forced to make crucial operational decisions with incomplete insight.

With so much coming at them, it's difficult for caregivers to process the massive amounts of data, understand what's most relevant and make the best decision. It's even harder to quickly make these deeply complex decisions across cross-functional teams in high pressure moments.

The result of underleveraged data isn't just a missed opportunity, it's a failure to connect with patients in the way they need and want.

**If you can make data work when a decision is needed most, you can turn data into action, and action into results.**

**Enhance Patient Experience**

**Improve Financial Sustainability**

**Reduce Burden on Clinical Teams**

# What's Missing?
# A System of Action

Hospitals are missing a platform that makes our mountains of data meaningful. We have installed **Systems of Record** in the hospital with EMRs. Every conceivable piece of information is collected about each patient. We have **Systems of Display** which show this retrospective data in the form of dashboards, charts and reports. However, up to now, we haven't had a **System of Action**.

## SYSTEM OF
## RECORD

**Patient information gathering & tracking**

## SYSTEM OF
## DISPLAY

**Retrospective dashboard & reports**

## SYSTEM OF
## ACTION

**Real-time, accurate & actionable recommendations to the right people at the right time**

A System of Action can help manage the operational decisions involved in patient care. It provides an important layer of logic that helps hospitals adapt to their unique and ever-changing environments.
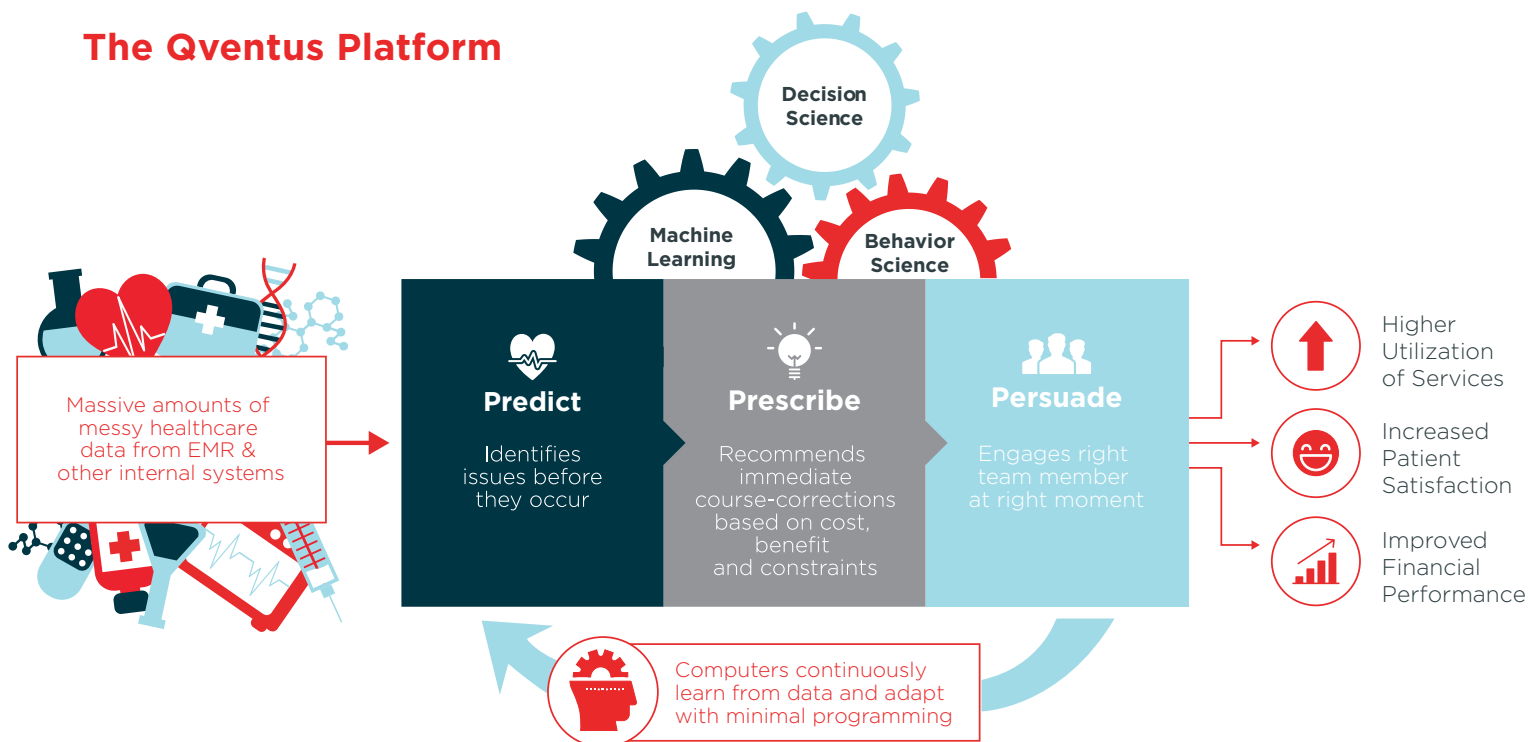
By translating data into immediate, accurate, and actionable decisions, clinical teams and staff can simplify how the hospital operates, resulting in better experiences for them and their patients.

# The Power of Being Proactive

Clinical teams know what to do for patient care – decades of training and experience have prepared them. But, knowing what is the best operational decision, what information to focus on in any given moment when the cognitive load is high and the pressure is on...that's the issue that needs to be solved. Qventus reduces the burden on frontline teams by helping them make better decisions in the moment.

The Qventus Platform takes in massive amounts of messy healthcare data and processes it in real-time, learning as it does so; it knows exactly what's going on at any given time and is intelligent enough to predict issues and outcomes. It provides simple, personalized recommendations, and coordinates an immediate response. That way, the best decisions can be made and issues can be dealt with before they even arise.

## The Qventus Platform



Decision Science

Machine Learning

Behavior Science

Massive amounts of messy healthcare data from EMR & other internal systems

**Predict**
Identifies issues before they occur

**Prescribe**
Recommends immediate course-corrections based on cost, benefit and constraints

**Persuade**
Engages right team member at right moment

Higher Utilization of Services

Increased Patient Satisfaction

Improved Financial Performance

Computers continuously learn from data and adapt with minimal programming

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✓ **Constantly monitors internal**

✓ **Alerts the right team members**

✓ **Coordinates resources in real-time**

✓ **Anticipate issues**

✓ **Recommends actions**

✓ **System learns and gets better over time**

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# How it Works

The Qventus Platform is powered by advanced artificial intelligence and machine learning, coupled with decision and behavioral sciences. The technology works continuously in the background and gets smarter with every interaction.

## Machine Learning

Enables computers to process massive amounts of data and learn complex patterns without being explicitly programmed.
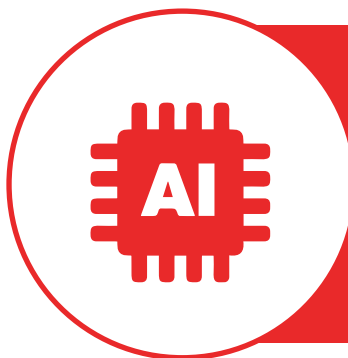
## Decision Science

Analyzes systems to extract knowledge.

## Behavioral Science

Integrates understanding of behavioral patterns and actions.

## Artificial Intelligence

Allows intelligent decisions to emerge from complex data sets.

> AI is about systems that assist and support the wisdom and experience of well-trained clinicians in making better data-driven decisions and taking actions that best support the needs of those they serve.

**Tom Lawry, Director, Worldwide Health, Microsoft**
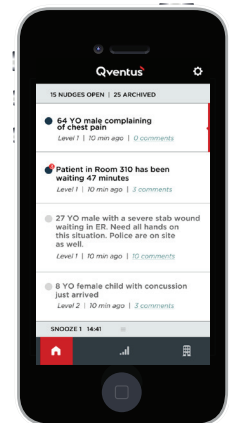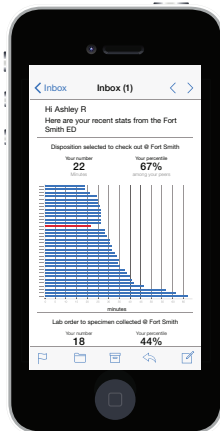
# Impact



**Emergency Department**

**Patient Safety**

**Operating Room**



+2%
**Increase in ED Volume**

+15%
**Reduction in LOS**

+30%
**Reduction in LWBS**

+39%
**Reduction in Patient Falls**

+18%
**Increase in Patient Satisfaction**

# About Qventus

We Believe in the Power of Data

Our mission is to simplify how healthcare operates, so that hospitals and caregivers can focus on delivering the best possible care to patients.

We think that data and analytics should make it easier for hospital teams to do great things.

We use machine learning to create solutions that help healthcare organizations and their people adapt to the variability of the healthcare system and make the right decisions from the most complex data.

We believe that small, day-to-day decisions can, over time, create massive improvements in healthcare.

> Adaptive Decision Management makes it possible to tackle the unpredictability of healthcare operations and make data-driven decisions with agility.

> "Qventus got me asking the right questions and being able to facilitate change for the nurses that ultimately helped me take care of the people that were taking care of the people."
>
> **Jennifer Bramlett, ED Director, Mercy Ardmore**

> "Qventus has transformed our leadership discussions of patient flow through the department from anecdotal hearsay to objective, contemporaneous data-driven analysis."
>
> **Dr. Craig Walls**
> **Emergency Department Medical Director, Natividad Medica Center**

> "Qventus predictions helped us gain even more situational awareness over the patient in our units. The predictions allowed us to intervene with the right patients at the right time–which is really important given the dynamic pace & long list of priorities on the floor to enable a safe and high quality environment."
>
> **Meriam Signo, Nursing Manager El Camino Hospital**

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