

# **Managing Disruptive Innovation in an Era of Dual Transformation**

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**Mark Muller**

**Sr. VP of Strategy & Business Development**

**Ochsner Health System**

# Market Context

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## Challenging Market Environment

- Sparsely Populated, 1 of Poorest, Least Educated, Highest Disease Burden States
- 48<sup>th</sup> Commercially Insured % State in U.S. (19 point differential)
- LA-MS-AL 3 Contiguous States with Least Competitive Commercial Insurance Market
- LA only state where PAC Costs > Hospital IP Costs (Medicare)
- Small Group Employer Market (95% of Employers < 100 Employees)

# Ochsner Health System

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*Our Mission is to Serve, Heal, Lead, Educate, and Innovate*



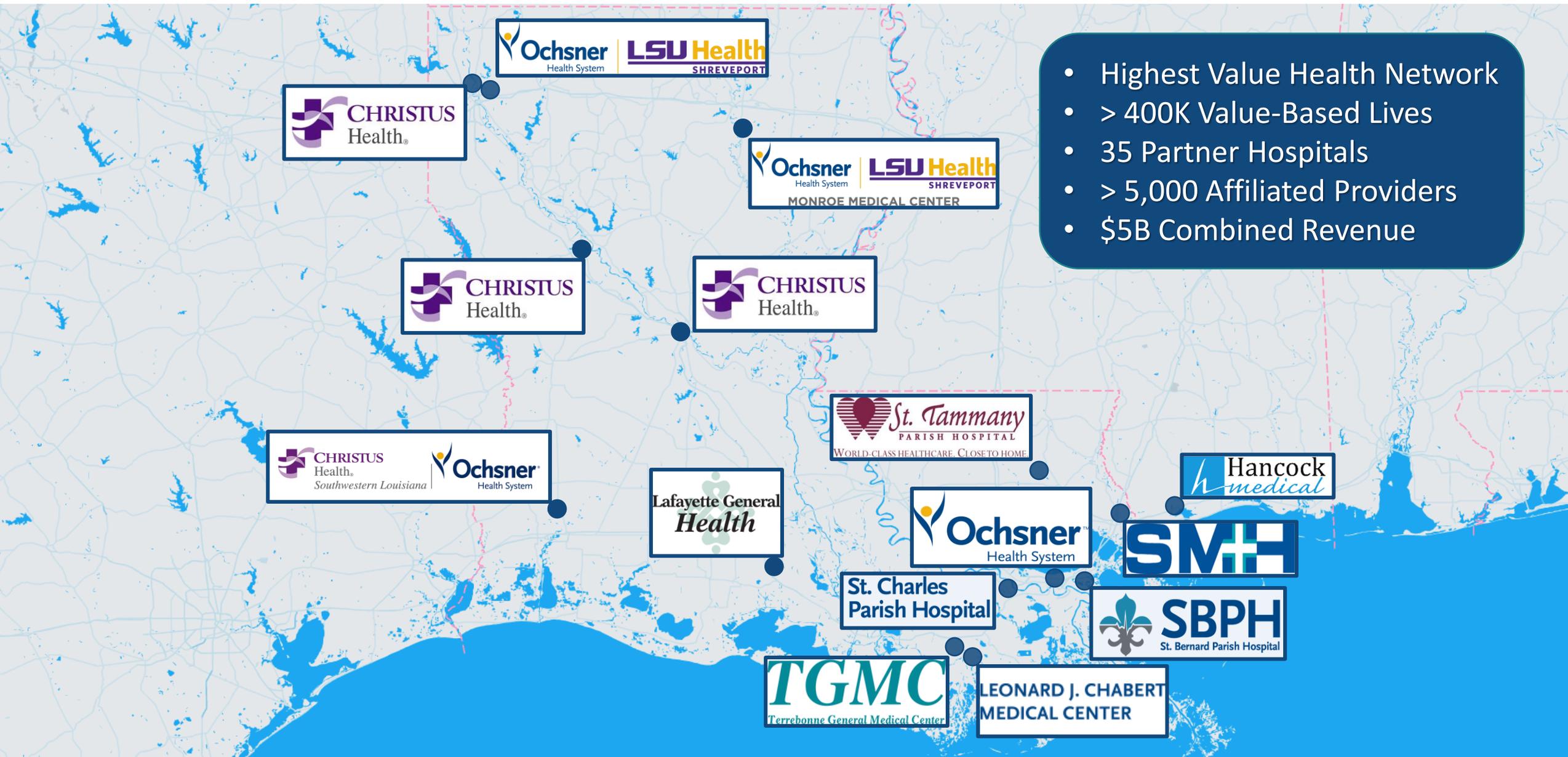
## **Our Vision**

*Ochsner will be a global medical and academic leader who will save and change lives. We will shape the future of healthcare through our integrated health system, fueled by the passion and strength of our diversified team of physicians and employees.*



- ✓ Largest Health System in Gulf South, Largest Employer in LA
- ✓ > 800K Patients from across LA, Every State, 70+ Countries
- ✓ #1 Consumer Brand for Healthcare in Louisiana
- ✓ 15 Hospitals, 115+ Health Centers, \$3.5B Operating Revenue
- ✓ Top 1% Clinical Quality Outcomes in U.S., > 750 Clinical Trials
- ✓ > 2,000 Employed Providers in 90+ Specialties/Subspecialties
- ✓ > 1,000 Medical School Students, Residents, Fellows

# Statewide Ochsner Health Network



- Highest Value Health Network
- > 400K Value-Based Lives
- 35 Partner Hospitals
- > 5,000 Affiliated Providers
- \$5B Combined Revenue

# **The Evolution of Ochsner's Strategy**

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# Circa 2012 – Ochsner “Strategy” Base Case

Harvard  
Business  
Review

[Latest](#) [Magazine](#) [Popular](#) [Topics](#) [Podcasts](#) [Video](#) [Store](#) [The Big Idea](#) [Visual Library](#) [Reading Lists](#) [Case Selections](#)



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## What Is Strategy?

by Michael E. Porter

### **I. Operational Effectiveness Is Not Strategy**

For almost two decades, managers have been learning to play by a new set of rules. Companies must be flexible to respond rapidly to competitive and market changes. They must benchmark continuously to achieve best practice. They must outsource aggressively to gain efficiencies. And they must nurture a few core competencies in race to stay ahead of rivals.

*hypercompetition* is a self-inflicted wound, not the inevitable outcome of a changing paradigm of competition.

The root of the problem is the failure to distinguish between operational effectiveness and strategy. The quest for productivity, quality, and speed has spawned a remarkable number of management tools and techniques: total quality management, benchmarking, time-based competition, outsourcing, partnering, reengineering,

# Circa 2015 & 2016 – Ochsner Strategy 1.0 and 2.0

## Our Centers Of Excellence Strategy

Destination Center

*Where People Want To  
Be Cared For*



Population Health Center

*Living Healthier & More  
Productive Lives*



*Trusted Partner In Care*



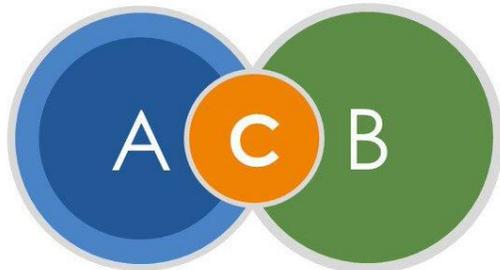
Solution Center

# Moving to 3.0

THOUGHTS FROM KEN KAUFMAN

## Now, Near, And Far: A Lens For The Internet Economy

By Kenneth Kaufman



TRANSFORMATION A Reinvent Today    C APABILITIES LINK Flip the Dilemma    TRANSFORMATION B Create Tomorrow

**A + B + C = Dual Transformation**



## Two Distinct, But Complimentary Areas of Focus



# Executive Retreats to Silicon Valley

## “Think Differently”

- Disruptors & new entrants are attempting to uncouple the patient from the provider/health system by attacking healthcare **cost of care** and **consumer pain points**
- Some of these entrants have the capital and the unbiased, **outside-in perspective** to **solve problems** faster than traditional healthcare systems
- All aspects of healthcare are being **digitized**
- **Culture** is paramount to success- Innovative, proactive, nimble and ability to lead through ambiguity

**KPCB** | KLEINER  
PERKINS  
CAUFIELD  
BYERS



**Solv.**

ANDREESSEN  
HOROWITZ

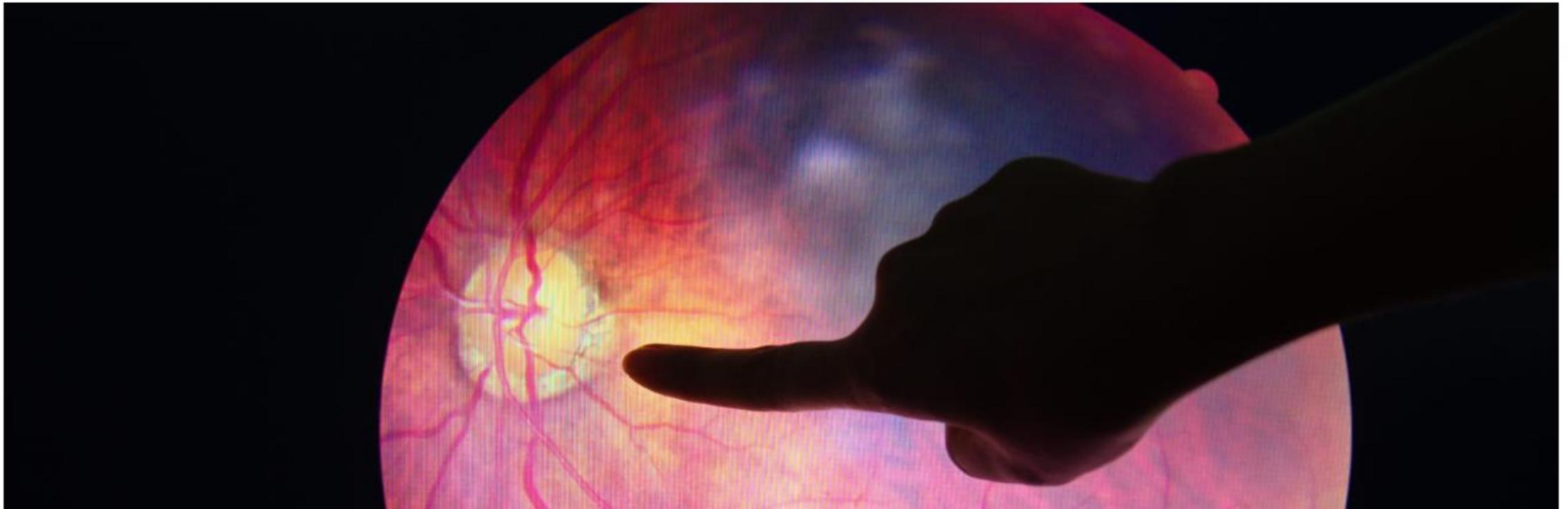


**IDEO**

[POLITICS](#)

# FDA approves first AI software that can identify disease, no specialists needed

By IKE SWETLITZ / APRIL 11, 2018



## ECONOMY

[THE FED](#) | 
 [CENTRAL BANKS](#) | 
 [JOBS](#) | 
 [US ECONOMY](#) | 
 [EUROPE ECONOMY](#) | 
 [CHINA ECONOMY](#)

# Online shopping overtakes a major part of retail for the first time ever

- The report from the Commerce Department this week shows a new milestone for online shopping.
- The total market share of sales done with “non-store” retailers, or online, was higher than general merchandise, including department stores sales, in February.
- “The days of the internet and online shopping being “just a fad” have come a long way over the years,” says Bespoke’s Paul Hickey.

[Kate Rooney](#) | [@Kr00ney](#)

Published 12:06 PM ET Tue, 2 April 2019 | Updated 2:34 PM ET Wed, 3 April 2019



HEALTH

# Amazon Alexa is now HIPAA-compliant. Tech giant says health data can now be accessed securely

By CASEY ROSS [@caseymross](#) / APRIL 4, 2019

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**Is Digital Health Part of the Strategy**

**Or**

**Is It An Enabler To The Strategy?**

**Yes!!**

# Transition From A "Health System" To A "System That Delivers Health"

Positively Impact The Communities We Serve

## Destination Care

Where People Want To Be Cared For.



## Community Health

Living Healthier & More Productive Lives.



Patient As

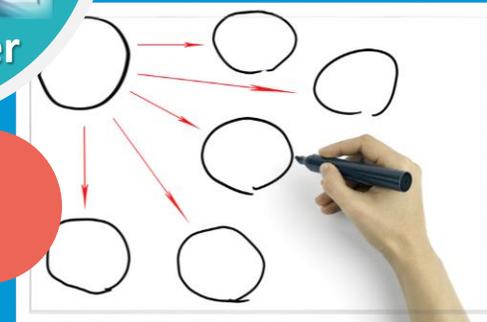


A Consumer



## Digital Health

Predictive & Personalized Care.



## Diversification

Comprehensive & Coordinated Care.

Optimize  
Our Core

Create Our  
Future

Be The Employer of Choice

# Fundamental Problem We Need to Solve

Can Digital Health be a Solution?

BECKER'S  
**HOSPITAL REVIEW**

## Former Aetna CEO Mark Bertolini: US healthcare is a warranty system that 'waits for humans to break'

Morgan Haefner - Wednesday, February 27th, 2019 [Print](#) | [Email](#)

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Mark Bertolini, former CEO of Aetna — now owned by CVS Health — compared the U.S. healthcare system to the auto industry in an interview at the Chief Executives for Corporate Purpose's annual "Board of Boards" event, according to *Chief Executive*.

"We have a warranty system in this country. Just like you have a warranty for when your car breaks ... we have a health system that waits for humans to break," Mr. Bertolini said during a keynote panel. He said instead of confronting health problems before they arise, the health system waits for patients to present with problems.



# Where We Need To Go

## *Vision for Digital Health*

**Reactive** → **Proactive** → **Predictive**



- Focus on Each Person's Total Health Status including All the Determinants of Health
- Build & Scale Comprehensive Digital Medicine Platform & Solutions to Manage Disease
- Predict & Prevent Negative Health Outcomes Through Machine Learning & Data Analytics
- Create Digital HomeCare Options and Connectivity with Patients and their Families
- Build New Knowledge And Solutions In VR, AR, Genomics, 3D Printing, New Technologies

# Strategic Digital Innovation

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Innovation Ochsner (iO)

# The Catalyst – Innovation Ochsner (iO)

## A Digital Health Start Up Within Ochsner

### iO operates like a start up...

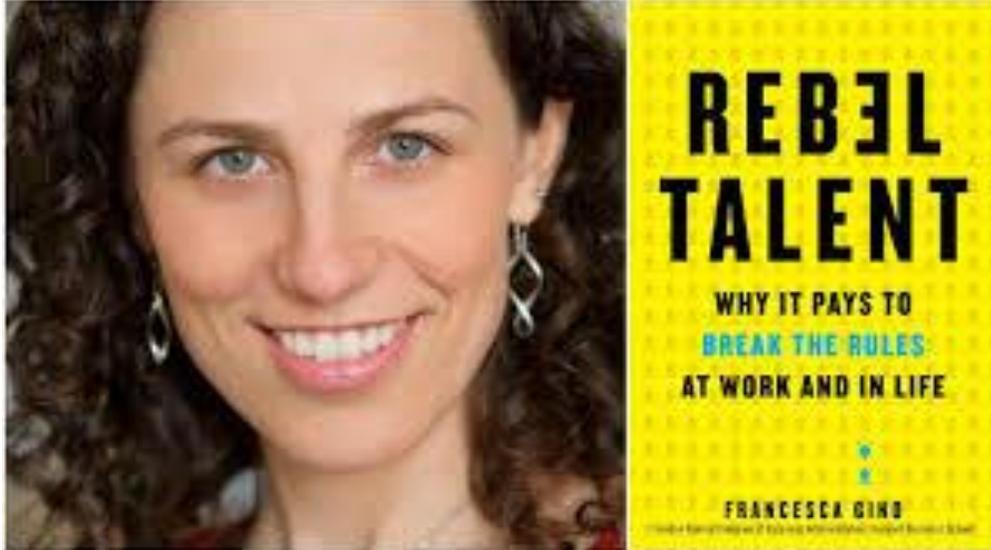
- + Disruptive mission: Innovation Lab to reimagine/revolutionize healthcare in a way that creates new value
- + Cross-functional team is 100% dedicated to innovation
- + Culture of agility, speed, bias toward action, rapid experimentation and productive failure

### Yet is deeply connected to the System....

- + Close alignment with healthcare delivery system – focused on real pain points and relevant areas of opportunity
- + Access to Ochsner physicians, clinicians, facilities, patients
- + Ability to rapidly test and implement new solutions in the real world

# Our Culture

## A Counter Culture within a Culture



- + Entrepreneurial
- + Abhor Bureaucracy, Rules, Structure
- + Challenge Everything while being Respectful to Everyone – “No Brilliant Jerks”
- + Fully Integrated into EMR with Structured Data
- + Importance of Partnerships – We Can’t Do Everything Ourselves

# Our Model

Future Focus with Present Benefit



Delivering financial & consumer value now,  
while investing in the future



1X Projects (3X ROI)

Solve pain points with **immediate consumer + financial benefit, which fund 10X projects**

10X Projects

Big bets with longer-term financial potential and **immediate consumer benefit + differentiation value**

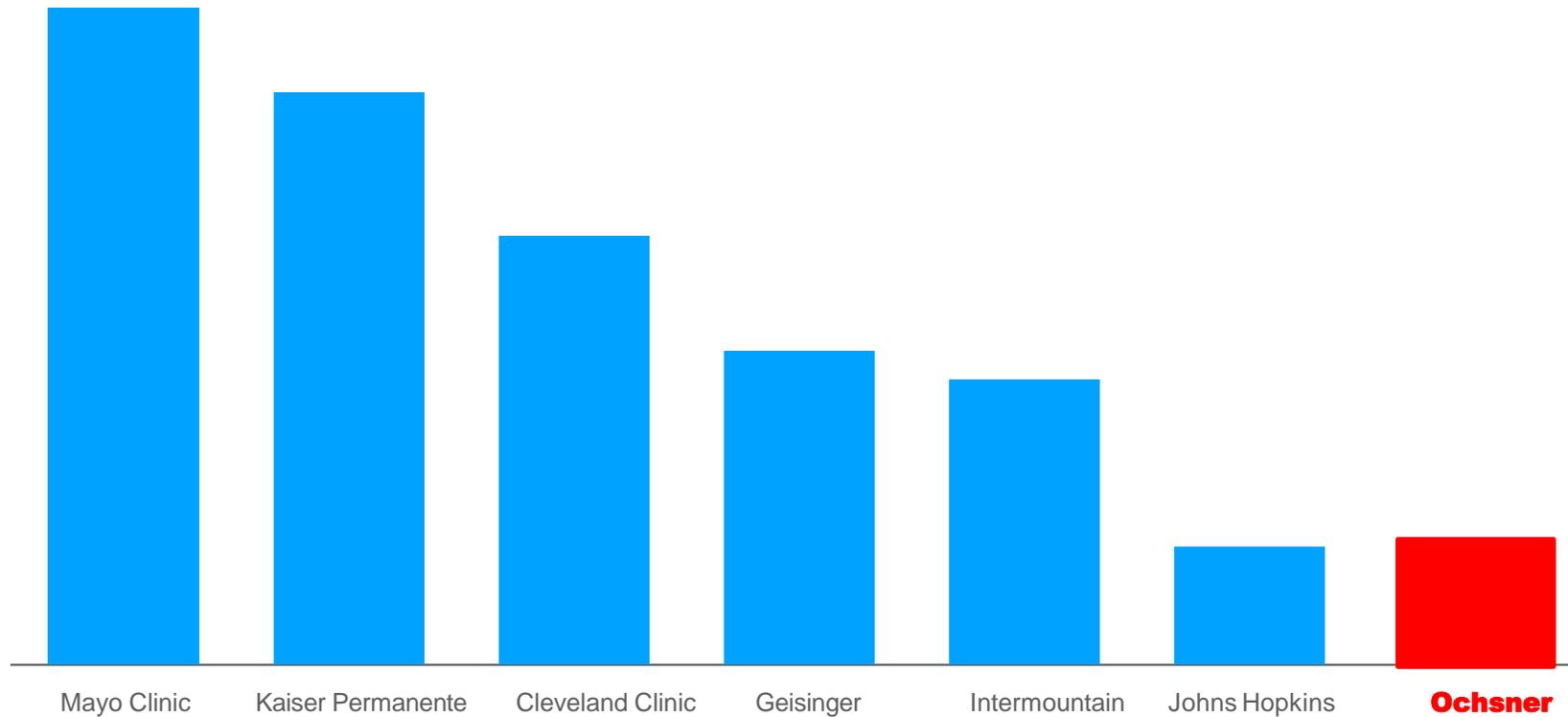
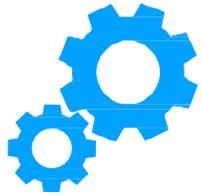
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Growing the Ochsner Brand for Innovation

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# Top Hospital Organizations

What Healthcare System comes to mind as Model for Innovation?



# Strategic Digital Innovation

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Selected Results

# Innovating Healthcare

iO is using technology and data to improve patient care now while designing healthcare for the future

## Digital Connectivity



**Future Connections:**  
ConnectedPARENT  
ConnectedCAREGIVER  
Healthy@Home



Hypertension,  
Diabetes, COPD



## AI & Machine Learning

**Machine Learning**  
Appointment Optimization  
No Show Prediction



**Reducing Codes  
Through AI & EHR  
Integration**

## Reimagining Healthcare



### Optimal Hospital

Optimizing Sleep  
Enabling Personal Control  
iPad for Every Patient  
Enhancing Environment of Care

### Hospital @ Home



# Improving Health Through Digital Medicine

Nationally-Recognized, Proven Program with Published Results Driving Superior Health Outcomes

**6,000** Patients Enrolled

Direct to Employer Expansion to  
**NASA** and **Shell** in LA & MS



ONC Patient Engagement  
**PLAYBOOK**

**HIMSS**  
DAVIES Award

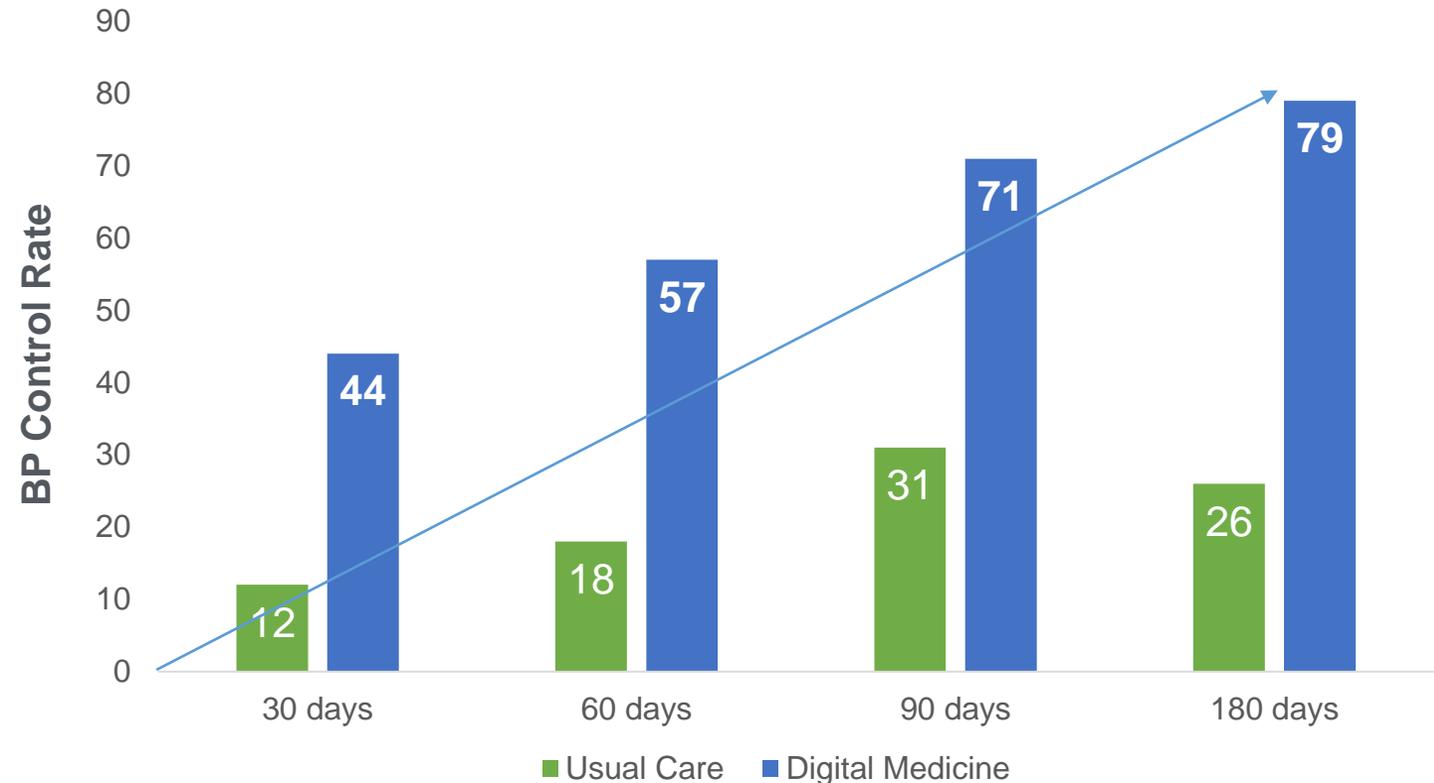
The Washington Post

**Newsweek**



## Hypertension Digital Medicine Program

% Patients Achieving Blood Pressure Control  
*All had out of control BP at start;  
Digital Medicine outperformed traditional care models*





Ochsner Center for Primary Care & Wellness  
1401 Jefferson Highway, New Orleans, LA 70121

504.842.8566  
ochsner.org/obar

Patient .....

Visit the Bar to get your apps & devices today!

**Your prescription for good health.**

**Rx APPS**

- Nutrition
- Fitness
- Women's
- Oncology
- Diabetes
- Medication
- Smoking
- General Health

**DEVICES**

- Activity Monitor
- Blood Glucose Monitor with Bluetooth
- Wireless Scale
- Wireless Blood Pressure Monitor

Physician Signature .....

*“Tell me and I forget, teach me and I may remember, involve me and I learn.”*  
— BEN FRANKLIN



## Forbes

**Ochsner is First in Nation to Manage Chronic Diseases with Apple Watch**

Patients with hypertension have a new tool to keep their numbers in check.



**Ochsner Physicians Prescribe Mobile Apps**

Ochsner Health System is using wellness apps to keep patients healthy.

## CNNMoney

**Apple HealthKit to Help Combat Chronic Diseases**

Health care technology lets patients share important data with their physician between doctor visits.

# Using Artificial Intelligence To Save Lives



The image is a screenshot of a CNBC news article. At the top, the CNBC logo is on the left, and navigation links for 'HOME U.S.', 'NEWS', 'MARKETS', 'INVESTING', 'TECH', 'MAKE IT', 'VIDEO', and 'SEARCH' are on the right. Below the navigation is a 'TECH' section header with sub-links for 'TECH', 'MOBILE', 'SOCIAL MEDIA', 'ENTERPRISE', 'CYBERSECURITY', and 'TECH GUIDE'. The main headline reads: 'A hospital group in New Orleans is working with Microsoft to help predict patient emergencies'. Below the headline are three bullet points: 'Machine learning has a lot of promise, but it's still far from being used in routine clinical practice.', 'Ochsner Health System in Louisiana has been piloting a new technology tool for predicting a specific kind of medical emergency, before it's too late.', and 'It aims to put this tool to work today.' The author is identified as Christina Farr (@chrissyfarr), published on Feb 28, 2018. At the bottom of the article is a photograph of a man in a suit standing behind a desk with several tablets displaying the hospital's interface. Behind him are screens with text: 'Technology empowers patients to engage in their own well-being and will be a significant part of the future of healthcare.' and a logo for '108'.

TECH

TECH | MOBILE | SOCIAL MEDIA | ENTERPRISE | CYBERSECURITY | TECH GUIDE

## A hospital group in New Orleans is working with Microsoft to help predict patient emergencies

- Machine learning has a lot of promise, but it's still far from being used in routine clinical practice.
- Ochsner Health System in Louisiana has been piloting a new technology tool for predicting a specific kind of medical emergency, before it's too late.
- It aims to put this tool to work today.

Christina Farr | @chrissyfarr  
Published 8:08 AM ET Wed, 28 Feb 2018 | Updated 10:46 AM ET Wed, 28 Feb 2018

Technology empowers patients to engage in their own well-being and will be a significant part of the future of healthcare.



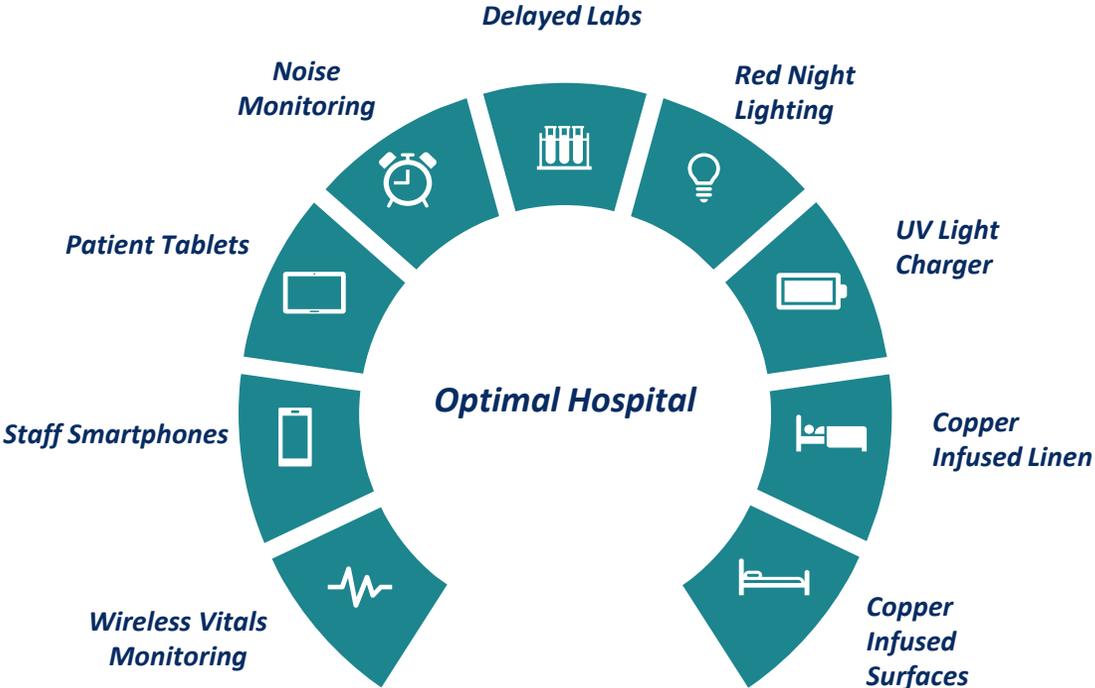
Technology empowers patients to engage in their own well-being and will be a significant part of the future of healthcare.

- One of the first systems in the country to integrate AI into patient care workflows
- Epic and Microsoft's AI technology analyzes clinical data to prevent patient deterioration
- Our Rapid Response Team (RRT) now intervenes proactively, in real-time
- During the 90-day pilot, we reduced adverse events outside of the ICU by 44%
- 2018 Microsoft Healthcare Innovation Awards Recipient – AI & Machine Learning



# Reengineering Hospital Care: Optimal Hospital

Live in 148 beds at Ochsner Medical Center-New Orleans; Further Expansion Underway



Innovative tools, technologies, and processes that create workflow efficiencies in managing patient care, while improving the experience and outcome of care for our patients.

- 8.6 Hour Reduction in Length of Stay
- 16% Reduction in 30-day Readmissions
- 12% Reduction in 90-day Readmissions
- Continuous Data Collection
- Improved Patient Experience



Milani RV, et al., *Reducing Hospital Toxicity: Impact on Patient Outcomes*, Am J Medicine 2018;131:961-66

# Ochsner Innovation Hub – *Launching April 15 2019*

## Interactive Touch Screen & Augmented Reality Experience

- Ochsner & health trivia
- Video Highlights
- Virtual vending machine
- Virtual visit demos



## Portal Sign Ups

- Dedicated iPad for MyOchsner sign-ups and online appointment scheduling



## Wellness Bar & Hologram

- Wellness & fitness quizzes
- Phone soap station



# Coming Soon! Genomic Testing



## 30 gene test kit

Our simple saliva test analyzes 30 genes that increase your risk for the most common hereditary cancers.



## High quality, accurate reports

Your results are reviewed by a certified medical professional. Knowing your results allows you and your doctor to create a personalized screening plan.



## Genetic counseling included

Our board-certified genetic counselors are experts in genetics and explaining how your results may impact you.

color



# Ochsner Center for Innovation

Accelerating the Exploration & Development of New Breakthroughs in Healthcare



- Space to Inspire and Fuel Exploration, Collaboration and Engagement and to Advance Proactive, Predictive and Preventive Care and Personalized Health
- Disrupting Ourselves with Cutting-Edge Clinical Technology and Data Science:
  - Digital Health Innovation
  - Artificial Intelligence & Machine Learning
  - 3D Printing
  - Augmented & Virtual Reality
  - Genomics

# Strategic Digital Innovation

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## Key Learnings

# Digital Innovation Lessons Learned

- ✓ Can't expect full-time results... from part-time people
- ✓ Don't need to spend a ton of money... we started with 3 people
- ✓ Cannot be buried in organization... must be accountable directly to CEO & Exec Team
- ✓ Not a department/division... a separate company deeply connected to health system
- ✓ Scaling is always harder and takes longer than you think... change management key
- ✓ Ensure you clearly articulate the Value Prop ("The Why")... to every key stakeholder
- ✓ Must stratify patients... can't treat everyone the same ( $n = 1$ )
- ✓ Need designated "Pitchers" and "Catchers"... in Innovation and Operational Teams
- ✓ There will be culture clashes with the core business... be prepared
- ✓ Need a physical, digital, and machine learning approach... to solving problems



10.17.18

# Why do digital health startups keep failing?

The “move fast and break things” approach that works in tech doesn’t translate well to healthcare. Instead, digital health startups should try need-driven innovation.



[Source Image: Jolygon/iStock]

Digital health products need to appeal not just to individual consumers but to a complicated landscape of stakeholders—from doctors and patients to regulators and insurers—all of whom have a say in whether a new technology is adopted. Products, especially those considered medical devices, may take years of jumping through complex clinical and regulatory hoops before they reach the market, and can’t always easily be iterated once they do.

In this environment, tech’s “move fast and break things” model can become “move too quickly and break your company.” For example, many founders coming from tech are focused on building and marketing products to consumers. They don’t realize until well into their company’s development that doctors and insurers are actually the gatekeepers and customers to whom they should be selling their products. This is why **61% of digital health companies that start B2C end up pivoting to B2B** and selling to insurance companies, employers, hospitals, or other healthcare providers.

# Top Ten Keys to Success

1. *“Hold on loosely, but don’t let go”*... encourage and support rebellion!
2. Must be all-in... full-time, dedicated leadership and team, “statement” investment
3. Right leadership... clinical, technical, business
4. Real commitment... Board, CEO & Sr. Leadership, Physician Leaders
5. Must take long-term view... while developing short-term wins
6. Self-Funding business model... 1X short-term projects fund 10X long-term projects
7. Embed Digital directly into system strategy... utilize to help effect culture change
8. Focus on Experience & Health... including all determinants and integrate into PHR
9. Target real pain points... clear problem to solve
  - a. Use health system as learning lab... relationship with Operations key
  - b. Access to physicians and patients... identify “Early Adopter” MDs
  - c. Test solutions with employees... before taking to employers
10. Celebrate learning over speed... our first digital medicine attempt was a *“failure”*

# QUESTIONS?