Health Market 2.0
The patient to consumer revolution

Quantified self
Transparent consumer markets
Smart care teams
TIME FOR ACTION

CHANGING THE CONVERSATION
CONSUMERS WANT – BETTER VALUE AND WAY LESS HASSLE

WHAT WILL CONSUMERS EXPECT?

**THE NEW BASICS**
- Baseline quality standards
- Convenience and Simplicity

**CONSUMER MARKET**
- Value Transparency - Shopping
- Personalized Health & Lifestyle

**BETTER LIVING**
- Relevant Partnered Engagement
- Prediction & Prevention
WHY NOW? OPPORTUNITY IS JUST TOO COMPELLING

THE TRILLION DOLLAR GROWTH RUNWAY

CONSUMER MOTIVATION
- Consumer Skin in the Game
- Retail Exchanges

CONSUMER POWER
- Health Apps & Communities
- Market Relevant Quantified-Self

DISRUPTIVE ALTERNATIVES
- Retailers Monetize Health & Lifestyle
- Consumer Tech Players Create Transparent Health Market

A BETTER LIVING MARKETPLACE
- Consumer Engagement Ecosystems Redefine Chronic Care
- Precision Science Pioneers Open New Markets
LEADING TO HEALTH MARKET 2.0

Consumers

- Sally
- Fred
- Gramps

MARKET STRUCTURES

Suppliers

- Tele-health
- Specialty care
- Hospitals
- ASCs/DxCs
- Assisted living
- Skilled nursing
- Rehab
- Hospice EOL
- Primary care
- Smart care teams
- Convenient care

ORGANIZED ECOSYSTEMS

Social networks

HEALTH MARKET 2.0 ATTRIBUTES
- Price/value transparency
- Crowd sourcing
- Sensible consumer economic units
- Balanced marketplace competition
- Open market borders
- Efficient substitute economics
- Significant value innovation curve

Navigators and mobile apps
HOW ARE YOU THINKING ABOUT FRED?

Meet FRED 1.0

$25k

HOND
HYPERTENSIVE
OBESE
NON-COMPLIANT
DIABETIC
ADULT

Meet FRED 2.0

$10k

LIFESTYLE MEDICINE
ENGAGED
CONNECTED
PERSONALIZED
LIVING BETTER
MORE GOOD YEARS

Health Market 2.0
The patient to consumer revolution
POPULATION AND CONSUMERS

Specialized care models for population segments with distinct needs

Severe behavioral
- Dedicated psychiatric NPs/MDs
- Bio-monitoring of Rx adherence
- Dedicated social worker and PCP
- Etc.

Chronic with social needs
- Case worker embedded in care team
- Dedicated coach focused on nutritional and mental health needs
- Etc.

End of life
- Palliative care experts
- Support for caregivers
- Hospice centers
- Legal/financial advisers for family
- Etc.

Poly-chronic/complex
- Dedicated “Extensivists”
- Remote monitoring
- Specialty clinics
- Integrated behavioral health
- Etc.

Generally healthy
- Affordable acute care options
- Rewards and incentives
- Social/mobile health tracking tools
- Etc.

Early chronic/at-risk
- Dedicated health coach focused on fitness, nutrition
- Attention to behavioral health
- Rewards for meeting health goals
- Etc.

Potential Care Model Components
A NEW INDUSTRY PROFIT MODEL

THE NEW PROFIT LEVERS

Health value impact opportunity

Health Market 1.0

- Complex adaptive ecosystems
  - 10%
- Passive monitoring & prevention
  - 10%
- Big data, EBM and personalized health
  - 10%
- Lifestyle medicine
  - 5%
- Consumer engagement
  - 5%

The new profit drivers

Health Market 2.0

- Better consumer pricing
  - 40%
- Potential profit
  - 40%

HEALTH AND LIFESTYLE

Health value impact opportunity
WHAT WILL IT TAKE TO WIN

- 40% BETTER OVERALL VALUE GUARANTEED
- TEN—X BETTER CONSUMER EXPERIENCE
- SHOPPABLE AND IN CONSUMER TERMS
- ALWAYS AVAILABLE AND INTEGRATED
- HEALTH AND LIFESTYLE – PERSONALIZED
- REAL TIME, PREDICTIVE AND PREVENTITIVE
- ALMOST NO UNWARRANTED VARIATION
- NEW INTEGRATED ECOSYSTEMS
TIME FOR ACTION

THE CONSUMER TECH ATTACK CHANGES EVERYTHING
UNLOCKING CONSUMER VALUE

Health Plan

- Need to minimize costs
- Hard to find quality docs
- Too many patients, too little time
- No time or $ to talk end of life
- Emergency? Call 911
- Denial of coverage
- Small margin for Medicare patients
- Redundant treatment
- Expensive hospitalization
- Expensive co-pays
- Health Plan

Patient

- Complicated referrals
- 15-20 medications
- Can't Drive
- Miss Appointments
- Problems go unnoticed
- No end-of-life plan
- No holistic care
- Conflicting treatments
- Costly senior care

Doctors

- Staff focused on costs, not prevention
- Byzantine billing
- More billing staff than nurses
- Professional frustration
- Lack resources to manage chronic illnesses
- Hard to be ideal doc
- Hard to find quality docs
- No end-of-life plan
- No time or $ to talk end of life
- Denial of coverage
- Small margin for Medicare patients
- Redundant treatment
- Expensive hospitalization
- Expensive co-pays

Emergency?
15-20 medications
Multiple specialists

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IT IS ALREADY UNDERWAY

RISE OF RETAIL

Mobile and monitoring

- MyFitnessPal
- Jawbone
- Zipongo
- Livongo

Tech – Big data

- Google
- IBM Watson
- Apple
- Microsoft

Advanced diagnostics

- Theranos
- NantHealth
- Illumina - HL
- 23andMe
- Samsung

Health shopping

- Castlight
- WebMD
- Zest
- ZocDoc

Exchanges

Health Market 1.0

- HealthSparq
- Amazon

- Liazon
- Bloom
- Mercer Market
- Towers

PHM enablement

- Evolent
- xG Health
- Optum
- Healthagen
- Alignment

- HealthCare Partners
- Iora
- Qliance
- CareMore

Mobile health/home hubs

- Teladoc
- MDLive
- HealthSpot

- Telottok
- Audax
- Rally

Engagement platforms

- Mercer
- Towers

CONSUMER MARKETS

Food and grocery

- Weight Watchers
- Whole Foods
- GNC

- Walgreens
- Walmart
- CVS
- Rite Aid
- Target

SMART CARE TEAMS PHM

- HealthCare Partners
- Iora
- Qliance
- CareMore

- Evolent
- xG Health
- Optum
- Healthagen
- Alignment

HEALTH ECOSYSTEMS

- Weight Watchers
- Whole Foods
- GNC

- Walgreens
- Walmart
- CVS
- Rite Aid
- Target

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WITH ACCELERATING VELOCITY

$10bn from strategic(s)

1600 clinics

200m consumers

100 biomarkers now

Next gen disruptors getting to scale

1000 biomarkers coming

4m daily downloads

100k apps

$10bn from strategic(s)

1600 clinics

200m consumers

100 biomarkers now

Next gen disruptors getting to scale

1000 biomarkers coming

4m daily downloads

100k apps
DESIGNING AROUND THE CONSUMER

INFORMATION VALUE LADDER

- Social networks and mobile apps
- Big data -- personalization
- Predict/prevent modeling
- Population analytics
- Actionable insights
- Complex adaptive workflow
- Basic reporting
- Transactional clinical
- Transactional finance

BUSINESS DESIGN AND ORGANIZATIONAL SCOPE

- Single sick care business unit
- Clinically integrated sick care networks
- Population based health ecosystem
- Population based health and wellness ecosystem
- Consumer better living ecosystem
RETHINKING WHAT IS POSSIBLE
RETHINKING WHAT IS POSSIBLE

FRED THE HONDA

$25k
RETHINKING WHAT IS POSSIBLE

Next Generation Diagnostics

Cloud Platform Technology & Big Data

Crowd Sourcing & Social Networks

Low Cost Sequencing & Biomarkers

Mobile Smart Platforms

Always Available

FRED THE HONDA

WiFi Implantable Nanotechnology

Biometric Monitoring & Wearable Sensors

Gigabit Fiber Networks

Low Cost Sequencing & Biomarkers
RETHINKING WHAT IS POSSIBLE

Next Generation Diagnostics

Low Cost Sequencing & Biomarkers

Cloud Platform Technology & Big Data

Crowd Sourcing & Social Networks

Mobile Smart Platforms

WiFi Implantable Nanotechnology

Biometric Monitoring & Wearable Sensors

FRED THE HONDA

Gigabit Fiber Networks

Location Independent

$25k
RETHINKING WHAT IS POSSIBLE

Next Generation Diagnostics

Cloud Platform Technology & Big Data

Crowd Sourcing & Social Networks

Transparent, Crowd Sourced & Social

Low Cost Sequencing & Biomarkers

Mobile Smart Platforms

WiFi Implantable Nanotechnology

Biometric Monitoring & Wearable Sensors

Gigabit Fiber Networks

FRED THE HONDA

$25k
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Low Cost Sequencing & Biomarkers

Mobile Smart Platforms

WiFi Implantable Nanotechnology

Biometric Monitoring & Wearable Sensors

Gigabit Fiber Networks

Personalized, Relevant & Adaptive

FRED THE HONDA

$25k
RETHINKING WHAT IS POSSIBLE

Next Generation Diagnostics

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Predictive & Preventative

FRED THE HONDA

$25k
RETHINKING WHAT IS POSSIBLE

Next Generation Diagnostics

Cloud Platform Technology & Big Data

Crowd Sourcing & Social Networks

Low Cost Sequencing & Biomarkers

Mobile Smart Platforms

Limited Practice Variation

Gigabit Fiber Networks

WiFi Implantable Nanotechnology

Biometric Monitoring & Wearable Sensors

FRED THE HONDA

$25k
RETHINKING WHAT IS POSSIBLE

Next Generation Diagnostics

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Limited Practice Variation

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Always Available

WiFi Implantable Nanotechnology

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Predictive & Preventative

Personalized, Relevant & Adaptive

Gigabit Fiber Networks

FRED THE HONDA

$25k
THE TRILLION DOLLAR RACE

The worry – search – shop – buy – schedule loop
- Best total value – price, convenience, quality transparency
- Integrated rewards changing the insurance risk paradigm
- Adaptive personalized experience
THE TRILLION DOLLAR RACE

The new front door
- $25 visit and $5 script
- Clinic or virtual
- Mobile or retail diagnostics
- Never leave home, or
- Perfect visit and chicken soup

2

Walgreens
Walmart
Cox
Teladoc
CVS Health
healthspot
American Well
THE TRILLION DOLLAR RACE

Consumer engagement ecosystems (at-risk, chronic)
- Predictive and preventative
- Personalized and real time
- Connected and relevant
- Health and lifestyle

3

patientslikeme™

livongo™ health

Apple

RALLY™

Welltok®

ACCOLADE®

JAWBONE®
THE TRILLION DOLLAR RACE

Path to zero practice variation
• Longitudinal PHR and big data
• Highly accurate retail diagnostics
• Personalized EBM treatment plan
THE TRILLION DOLLAR RACE

Higher value acute care for complex chronic patients
• Patient centered health ecosystem
• Connected care team, shared PHR
• Insights engine – treatment plan
• Patient centered smart workflow
• Applied precision medicine
THE TRILLION DOLLAR RACE

1. The worry – search – shop – buy – schedule loop
   - Best total value – price, convenience, quality transparency
   - Integrated rewards changing the insurance risk paradigm
   - Adaptive personalized experience

2. The new front door
   - $25 visit and $5 script
   - Clinic or virtual
   - Mobile or retail diagnostics
   - Never leave home, or
   - Perfect visit and chicken soup

3. Consumer engagement ecosystems (at-risk, chronic)
   - Predictive and preventative
   - Personalized and real time
   - Connected and relevant
   - Health and lifestyle

4. Path to zero practice variation
   - Longitudinal PHR and big data
   - Highly accurate retail diagnostics
   - Personalized EBM treatment plans
   - Big data, biomarkers, tissue banks

5. Higher value acute care for complex chronic patients
   - Patient centered health ecosystem
   - Connected care team, shared PHR
   - Insights engine – treatment plan
   - Patient centered smart workflow
   - Applied precision medicine

Five Massive New Market Spaces
GIVING US THE PROMISE OF TEN MORE GOOD YEARS

- Undiagnosed depression; pre-hypertensive
- Poly-chronic, severe mobility impairment, depression, in skilled nursing facility
- Overweight, diabetic, high blood pressure, undiagnosed depression
- Overweight, diabetic, high blood pressure, depression, CHF
- Care team prescribes coaching, diet, exercise program
- Biosensors, light weight training, strength and stretch training
- Psychologist catches early depression, addresses it
- Nutritionist helps craft better diet to promote good weight
- PCP addresses high cholesterol with an Rx
- Occasional home care visits help maintain independence
- Fully mobile

**Health Market 1.0**
- Physician Centered Sick Care

**Health Market 2.0**
- Transparent consumer markets
- Smart care teams
- Quantified self

**Lifetime**

**Health status migration**

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THREE CONVERGENT MOVEMENTS
ELEMENTS OF HEALTH MARKET 2.0

Quantified self

Transparent consumer markets

Smart care teams
ELEMENrS OF HEALTH MARKET 2.0

Quantified self

Healthy living values

Clinical and health condition values

Expense and budget values

Exchanges and shopping market

Social and expert communities

Quantified self the bridge to a personalized health and wellness marketplace

Health living rewards exchange.
Changing consumer’s health IQ and engagement level thru real time health/living feedback through a common sense mobile app

Healthy living values
- Steps or activity
- Sleep
- Nutrition
- Stress
- Weight

Clinical and health condition values
- Blood sugar
- Weight changes
- Blood pressure
- Heart function
- Blood oxygen

Expense and budget values
- Premium share
- Risk exposure
- Co-pay/deductible
- Rewards
QUANTIFIED SELF

Healthy living values
- Steps or activity
- Sleep
- Nutrition
- Stress
- Weight

Clinical and health condition values
- Blood sugar
- Weight changes
- Blood pressure
- Heart function
- Blood oxygen

Expense and budget values
- Affordability
- Deductible status
- Exposure
- Pharmacy costs
- Reward opportunities

Real time personalized preventive health

Quantified self
the bridge to a personalized health and wellness marketplace

Health living rewards exchange

Increased relevance and engagement through social communities

Exchanges and shopping market

Smart personalized shopping

Smart care team
a personalized ecosystem

Social and expert communities

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TRANSPARENT CONSUMER MARKETS

Consumers with advanced decision tools building personalized configurable health solutions during annual enrollment
TRANSPARENT CONSUMER MARKETS

- **Insights engine**
- **Crowd sourced recommendations**
- **Personalized better living itinerary**
- **Personal health economy/bank**
  - Benefits
  - Reward
  - Flex dollars
  - Cash/debt
- **Smart care team**

**Annual decision process**
- Consumers and families working with their smart care team and decision tools to make more informed decisions on acute and complex care

**Plan year online shopping marketplace**
- Real time shopping based on price location, waiting times and experience
- Bundled procedures with comparative price, value, experience and outcome information
- Retail health and wellness shopping with integrated rewards

**Convenient care**

**Surgical and diagnostic procedures**

**Retail healthy living services**
- **Major diseases and conditions**
  - Cancer care
  - Inflammatory disease
  - Vascular and cardiac
  - Renal care
- **Acute and complex care services**
- **Consumers making informed decisions about disease treatment with support tools and their smart care team**

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ELEMENTS OF HEALTH MARKET 2.0

Smart care teams

Predictive, personalized, preventive health, wellness and engagement system

Communication platform
Biosensors and monitoring
Predictive insights engine
IT enablement engines
Weight management
Stress management
Nutrition management

Smart clinics
Retail pharmacy clinics

Physical in the community resources
Virtual health resource access

Smart Care Team
A Personalized Ecosystem

Better living programming
Coaching
Telehealth

Complex Adaptive Workflow
Personalized Health Itinerary
Intuitive engagement model
Personalized connected relationship
Real time biometric and daily living information
The smart care team building the foundation with full multi-skill team composition and a consumer better-living culture
Diving into daily living relationships with the consumer through passive monitoring, real time feedback – prevention becomes expected
Building in near perfect diagnostics with personalized treatment plans, behavioral segmentation models and advanced predictive capabilities
SMART CARE TEAMS

Predictive, personalized, preventive health, wellness and engagement system

Value based acute and complex care services

Shared longitudinal and collaborative health record

Smart care teams partner with consumers to navigate and coordinate acute and complex care

Smart Care Team

A Personalized Ecosystem

Physical in the community resources

IT enablement engines

Predictive insights engine

Biosensors and monitoring

Communication platform

Genomics and advanced diagnostics

Smart clinics

Retail pharmacy clinics

Complex Adaptive Workflow

Personalized Health Itinerary

Intuitive engagement model

Personalized connected relationship

Real time biometric and daily living information

Better living programming

Coaching

Telehealth

Virtual health resource access

Retail pharmacy clinics

Smart clinics

Genomics and advanced diagnostics

Innovative engagement model

Better living programming

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Telehealth

Virtual health resource access

IT enablement engines

Smart Care Team

A Personalized Ecosystem

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Predictive insights engine

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HEALTH MARKET 2.0

Quantified self

Healthy living values

Clinical and health condition values

Expense and budget values

Social and expert communities

Health living rewards exchange

Exchanges and shopping markets

Transparent consumer markets

Crowd Sourced Recommendations

Personal Health Economy/Bank

Convenient Care

Annual Decision Process

Plan Your Marketplace

Surgical and Diagnostic Procedures

Major Diseases and Conditions

Real Industry Living Services

Personal Health Economy/Bank

Better living programming

IT enablement engines

Physical in the community resources

Smart Care Teams

Personalized Ecosystem

Smart Clinics

Retail pharmacy stores

Telehealth

Coaching

Better living programming

Nutrition management

Stress management

IT enablement engines

Smart Care Teams

Personalized Ecosystem

Real time biometric and daily living information

Complex Adaptive Workflow

Personalized Health Itinerary

Motivational and engagement model

Personalized connected relationship

Smart care teams

Predictive, personalized, preventive health, wellness and engagement system
UNLOCKING THE INCUMBENT'S DILEMMA

TIME FOR ACTION
The biggest problem in business …

is staying with your previously successful business model two to three years too long.
The trillion dollar question…

how can you change the mental model and thrive in Health Market 2.0?
1. CHANGE YOUR FRAME OF REFERENCE

RISE OF RETAIL

TECHNOLOGY ATTACK

Food and grocery

Retail

Health Market 2.0

Mobile and monitoring

Tech – Big data

Advanced diagnostics

Health shopping

Exchanges

PHM enablement

Smart care teams PHM

Telehealth

Consortiums

HEALTH ECOSYSTEMS

CONSUMER MARKETS
2. DON’T GET BLIND SIDED BY THE SPEED OF CHANGE

A new consumer economy with redefined value

Walmart

CVS Health

WebMD

iora health

Priced based Competition and substitute economics

Transformative value

Delight consumers

Become magnetic

Point of design

Physician - disease

Consumer - health

Ecosystem

Consumer beware

Highly coordinated

Network advantage

Value chain control

New industry standard

Diagnostic procedures

Convenient care

Simple surgical procedures

High deductible plans

Narrow networks

Product leadership

True commodity

Market position

Laggard

Multi-year lead

Price position

Above market

Price advantaged
3. KNOW THAT IT IS NOT A LEVEL PLAYING FIELD

A capital markets perspective

**AGILITY**
- Speed
- Information Intensity

**GLUE**
- Regulation
- Geographic scope

**FUEL**
- Access to capital
- Market value

**WEIGHT**
- Asset intensity
- Return on capital

**Incumbents**
1 new operating theatre a decade
1 dollar of capital for a dollar of revenue

**Adjacencies**

**New Players**
25 new product releases a year
5 cents of capital for a dollar of revenue
4. SHIFT YOUR STRATEGIC FORMULA TO 70% OFFENSE

Provider

Population based smart care team ecosystems

Protect the fort

Reinvent & Innovate

Payer

Consumer configurable health plans

Protect the fort

Reinvent & Innovate

Companies:
- Ascension Health
- Emory Healthcare
- Advocate Health Care
- CareMore
- iora Health
- Cleveland Clinic
- Evolent Health
- GuideWell
- Humana
- Mosaic Group
- Oscar
- Cigna
- United Healthcare
- Aetna
5. DON’T GO IT ALONE – PARTNER

Health Market 1.0
Incumbent

Health Market 2.0
New Players

Selecting Strategic Partners from the Health and Wellness Jungle

MOBILE APPS

RETAIL PHARMACIES

BIG DATA AND PREDICTIVE MODELING

PASSIVE MONITORING
6. RUN SKIP-GENERATION PLAYS

1. Hospital system

2. Clinically integrated network

3. Patient center care model

4. Smart care team ecosystem

Provider
Population based smart care team

- Complex Adaptive Workflow
- Personalized Health itinerary
- Intuitive engagement model
- Personalized connected relationship
- Real time biometric and daily living information

Predictive, personalized, preventive health, wellness and engagement system

- Communication platform
- Biosensors and monitoring
- Predictive insights engine
- Weight management
- Stress management
- Nutrition management
- Physical in the community resources
- IT enablement engines
- Virtual health resource access
- Smart Care Team & Personalized Ecosystem
- Better living programming
- Smart clinics
- Retail pharmacy clinics
- Coaching
- Telehealth

Better living programming - Complex Adaptive Workflow - Smart Care Team & Personalized Ecosystem - Retail pharmacy clinics - Coaching - Telehealth

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7. BUILD BUSINESSES LEVERAGE THE ROADMAP

The Portfolio Approach to Transformation

Required Investment

- Low
- Moderate
- High

Profit Margin

- Low
- Moderate
- High

- No-regret FFS extensions
- Access Channels: Clinics & Kiosks
- Ambulatory Surgery
- Virtual Care
- Home Health
- Urgent Care
- Consumer packaged procedures
- Disease Centers of Excellence
- Consumer centered value based health services
- Hospice & End of Life Care
- Managed Medicaid Programs
- Employer Carve-outs for consumers with chronic disease
- Full risk Medicare Advantage
- New high growth risk based PHM business models
- New high

Convenience care service models
Value based episodic and chronic care models
Population health management businesses

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The Scarcest Commodity

LEADERSHIP
VIVA LA CONSUMER REVOLUTION!!