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Connecting Patient Homes to the EMR:
Successfully Pilot and Scale Remote Patient Monitoring

Laying the foundation of your Connected Health Strategy

Discussion Agenda

- Industry Drivers & Challenges

- The Business Case – The High Risk Population

- EMR and Connected Health Device Platform Integration

- Connected Health Platform Overview

- Patient Engagement

- Cognizant Global Clinical Call Center Nursing Services

- The Vision

- Q & A

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Cognizant Corporate Overview

No.1 in Customer Satisfaction

FORTUNE
Top 5 of Most Admired Companies

FORTUNE 500
Ranker #352

Everest Group
From insight to action.
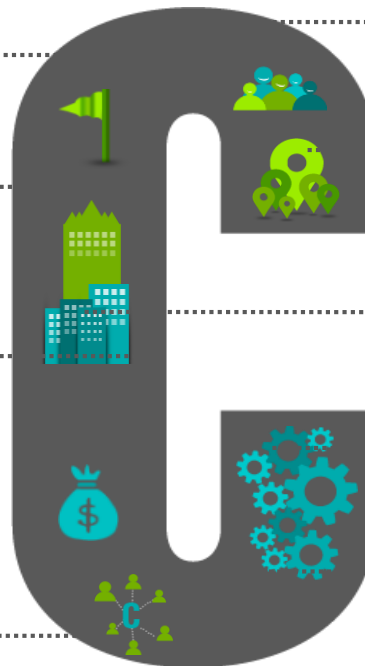Leader – Healthcare Provider ITO

HCI HEALTHCARE INFORMATICS
Ranked #3 (Listed for the 13th Year)

Founded in **1994** (CTSH, Nasdaq)

Global HQ: **Teaneck, NJ**

Revenue $12.42 Bn in 2015 (up 17.9% YoY)

Revenue Mix NA: 76.8%, Europe: 18.3%, Others: 4.9%

244,300+ employees

25,000+ Projects in **40 countries**

75+ Global Delivery Centers

Market Capital Over **$40 Bn**

1,550+ active customers

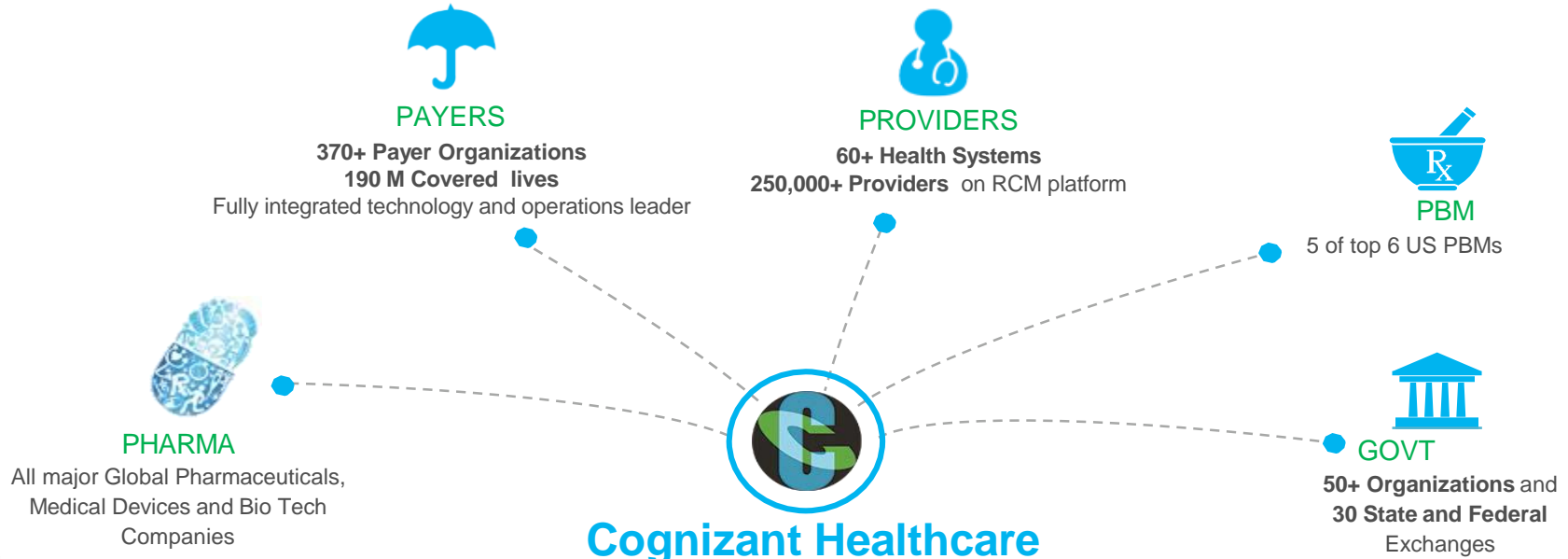**Forbes**
Fast Tech 25 (only company for 10 years)

Elite 100
Rank #40 2014 InfoWeek Elite 100

US 2020
Founding Partner

FORRESTER
Leader – North American Applications Outsourcing Services

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Cognizant – A Global Healthcare Leader

PAYERS

370+ Payer Organizations
190 M Covered lives
Fully integrated technology and operations leader

PROVIDERS

60+ Health Systems
250,000+ Providers on RCM platform

PBM

5 of top 6 US PBMs

PHARMA

All major Global Pharmaceuticals, Medical Devices and Bio Tech Companies

Cognizant Healthcare

Providing 360⁰ perspective of the healthcare eco-system
Serving more than half of insured population in North America

GOVT

50+ Organizations and **30 State and Federal** Exchanges

HfS Research

Named to Winner's Circle in Population Health and Care Management

urac ACCREDITED CORE ORGANIZATIONAL QUALITY

URAC Certified – Health Utilization Management, Workers Compensation

NCQA Measuring quality. Improving health care.

NCQA Certification for 7 DM programs supported by CareAdvance Enterprise™

KLAS ACCURATE. HONEST. IMPARTIAL.

Only large vendor in "very satisfied" category in RCM
Preferred Payvider Vendor

Everest Group From insight to action.

STAR performer in the Provider ITO PEAK Matrix

HCI 100

Healthcare Informatics: Rank 3

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Industry Drivers

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Healthcare: Moving Towards Radical Transformation

VALUE TO COST RATIO

Current State

Fragmented and Disaggregated

- Care is delivered by multiple players operating in silos
- FFS, Volume based reimbursements
- Physician/specialist driven primary care

Incremental

Integrated and Coordinated Care

- Integrated model and team based care delivery model
- Outcome based reimbursements
- Retail clinic driven primary care supported by care teams
- More risk shifts to providers

Radical Transformation

Virtualized, Delocalized, and Personalized Care

- Consumer driven healthcare
- Integrated care through tele-presence and mobility
- Outcome based payments
- Convenient care delivery at home/ retail/ web
- Risk shifts to individuals, govt. and ACOs

Today

Tomorrow

TIME FOR DISRUPTIVE FORCES TO MAKE IMPACT

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Strong Engagement Is The Transformation Lynch-Pin

Better engaging physicians and patients in care communications not only hits the triple aim goals of improved quality, experience of care, and cost of care – but can also drive revenue and reduce leakage

Increase Patient Satisfaction	Close Gaps in Care	Improve Utilization	Increase Referrals
Improve Outcomes			
Drive Revenue			
Reduce Costs			

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Driven By Industry Challenges and Consumer Needs

The retail industry has long know that loyalty and satisfaction drives growth. In healthcare, the stakes are even higher – healthcare engagement also drives adherence, referrals, and reduces the cost of care

Industry Challenges

68% of specialists receive **no information** from referring PCPs prior to a referral visit[1]

70% of medical errors and adverse effects in healthcare are attributed to **communication failures** between providers[2]

25% **loss in patient satisfaction** due to the absence of follow-up after care **and** contributes to overutilization of services

What Do Consumer's Want?

Healthcare Consumers

93% **of patients** want to manage their healthcare online*

41% **of patients age 65+** are interested in telehealth**

75% **of mobile phones are smart phones;** expected to hit 85% by 2019***

64% of Americans would be willing to do a **video visit with a doctor****

Healthcare Providers

IT Leader Challenges

24% *Health IT leaders said **Care Coordination** is the biggest challenge their organization is facing to achieve effective population health management[3]*

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Even Effective Programs Face Substantive Barriers

The challenge facing healthcare providers today is how to better engage with patients during transitions and across care settings to minimize the need for high cost settings and to insure utilization is appropriate
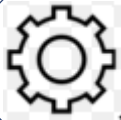
Integrated Services and Technology
Patient and consumer needs are often siloed; addressed at a department or facility level with variable results

Right Channel at the Right Time
Most facilities do not have omni-channel solutions or 24 X 7 response capabilities

Cross-Functional Program Support
Implementing common programs for populations that cross departments and settings is hard

Care Team Effectiveness
Lack of common, real time information to care givers and providers, increases costs and impedes optimal outcomes

Key Organizational Challenge: Transitioning from Pilot to Scale

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Including the Limitations of Embedded Operational Systems

Neither legacy telephony systems or EHR systems are able to fully meet consumer and coordination needs

New Needs

IoT

Legacy Contact Centers

Telephony/CTI

Core Clinical Operations

EHR

Connected Health

Core Functions

- Department and/or hospital based phone routing
- Some scheduling
- Call management and transfers

Transitions of Care
Care Coordination
Tele-health
Remote Monitoring
Consumer / Patient Engagement
Community Outreach
Campaigns
Referrals

A revenue center

Core Functions

- Registration / Scheduling
- Acute Care
- Ambulatory Care
- Coding and clinical documentation
- Orders

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The Business Case

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In addition, there is the opportunity to focus on the highest healthcare returns

- 5% Patients = 50% of the cost
- 50% Patients = 97% of the cost

Aging Independently — Acute — 5% of the Population

Health Management — Chronic — 45% of the Population

Wellness & Fitness — Living/Worried Well — 50% of the Population

49% — $ 1.029 Trillion

48% — $ 1.008 Trillion

3% — $ 63 Billion
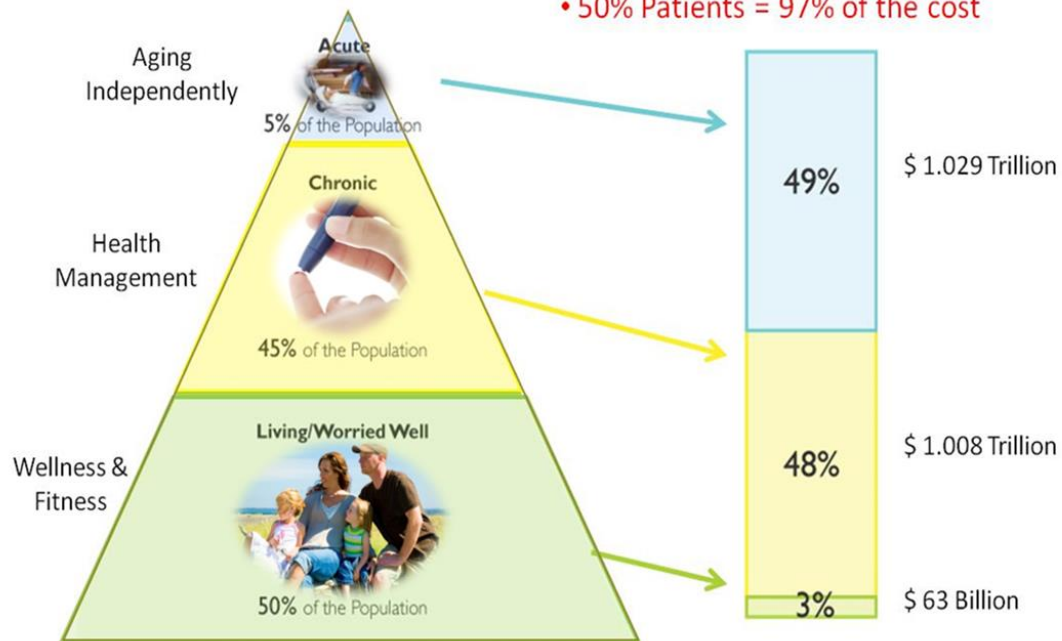
Data: CDC, Johns Hopkins and Robert Wood Johnson Foundation

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Chronic Care Management Population

Expanding Number of Beneficiaries Eligible for CCM

Adapted From: Kaiser Family Foundation, Accessed January 19, 2016
http://kff.org/other/state-indicator/total-population/
And AHRQ Multiple Chronic Conditions Chartbook

Number of Beneficiaries Eligible for CCM in U.S.

Legend: 2016, 2018, 2020

Categories: Medicare, Medicaid, Commercial, Combined

Chronic Care Management Dollars
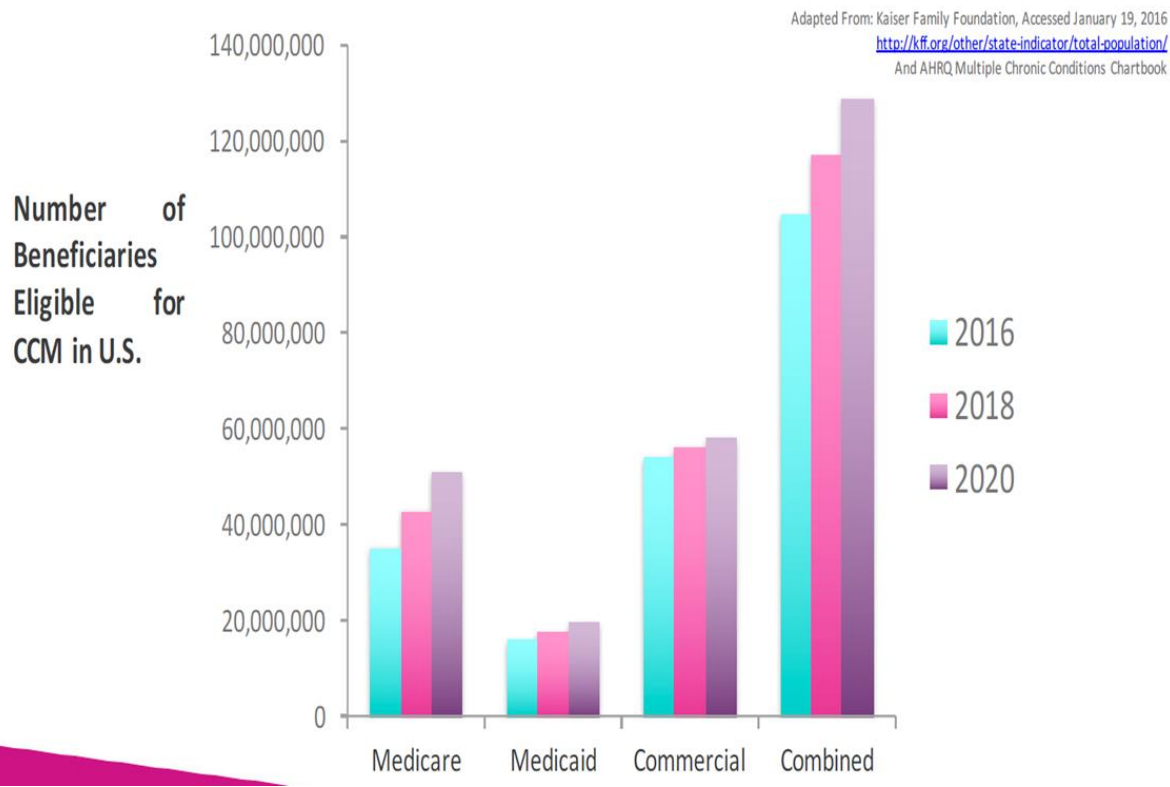
Addressable CCM Market Opportunity

Adapted From: Kaiser Family Foundation, Accessed January 19, 2016
http://kff.org/other/state-indicator/total-population/
And AHRQ Multiple Chronic Conditions Chartbook

Available Annual Dollars in Fee For Service CCM

Legend: 2016, 2018, 2020

Categories: Medicare, Medicaid, Commercial, Combined

Note: 2015B national payment rate of $43.12 for CPT 99490 used in projections
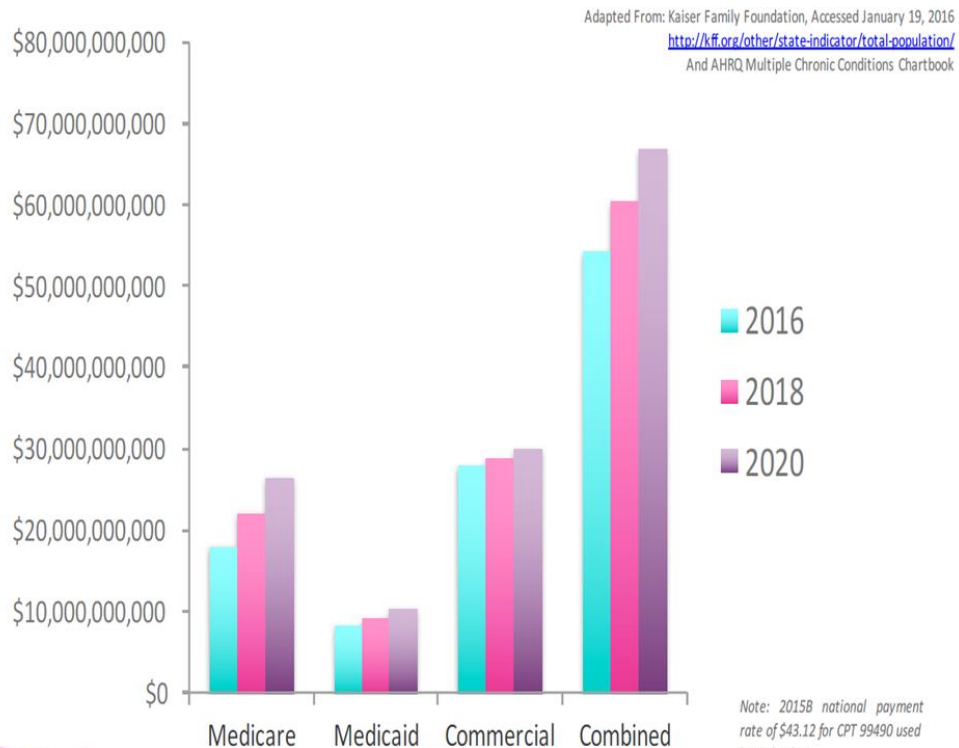
Three Key Drivers for Hospitals to Adopt Remote Patient Monitoring (RPM)

Regulatory Penalties

Readmission Penalties provide significant incentive to providers to ensure patients are not readmitted for the same condition shortly after discharge (30 days)

Reimbursement

New Medicare Reimbursement codes (CPT) reimburse providers for remote monitoring and follow-up care after certain events.

Cost Avoidance

Capitation is becoming more prominent where hospitals share risk with insurers or receive a fee for each covered life but must bear the cost of all care themselves.

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Industry Opportunity

- *Goldman Sachs* projects $305 billion in savings from digital healthcare.
- $200 billion from Remote Patient Monitoring, Chronic Disease Management and Transitional Care Management.
- $32.4 Billion in Near-Term Revenues (2015).

Vertical	Disease State	Total Savings Opportunity	Commercial Opportunity
Remote Patient Monitoring	Heart Disease, COPD/Asthma, Diabetes,	$200+ billion	~$15 billion
Telehealth	Routine & Psychological Care	$100+ billion	~$12 billion
Behavior Modification	Obesity, smoking cessation, overall lifestyle improvement	Indefinitely large	~$6 billion

Source: Goldman Sachs Global Investment Research

Goldman Sachs

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EMR and Device Integration

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Broad Device Portfolio is Available Today

Easy to Use Wireless Products

Scale

Pulse Ox

Blood Pressure

Blood Glucose

Communication Enabler™

Two Way Educational, Motivational Messaging

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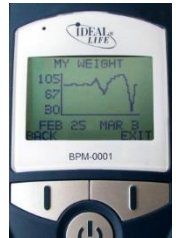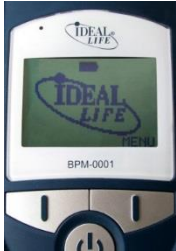
Remote Patient Monitoring Connects Patients to Providers Supported With Analytics and EMR Integration

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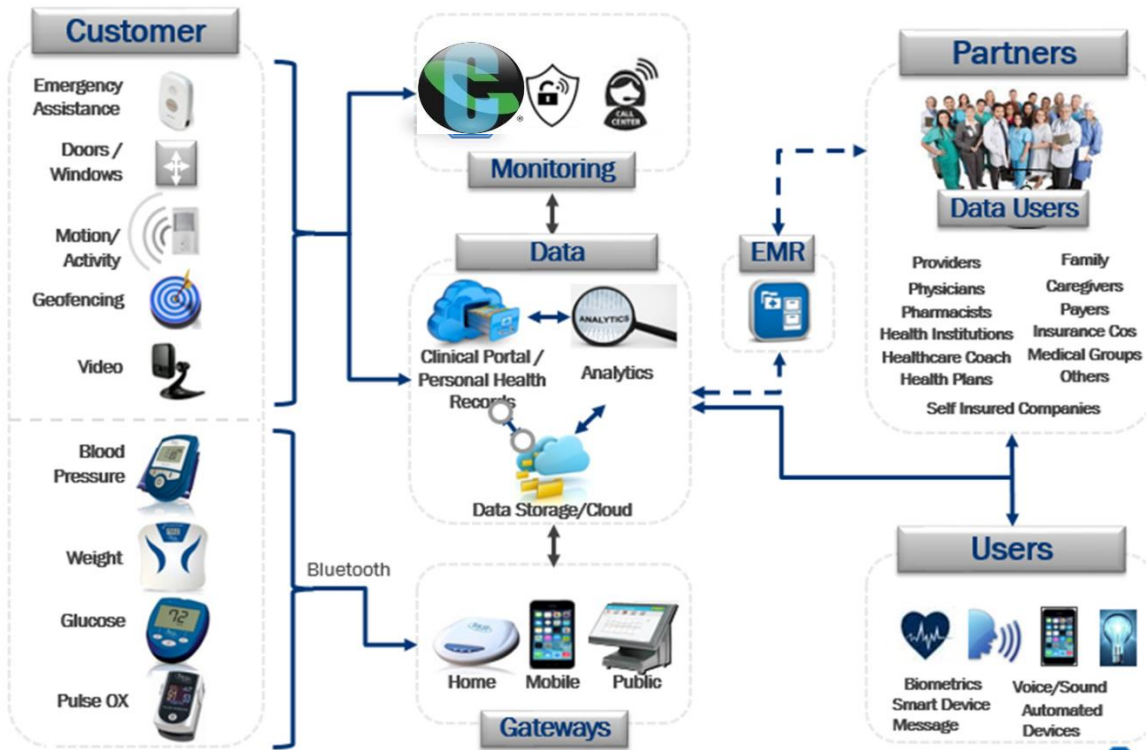
Devices Can be Bundled Around Disease States

CHF

WELLNESS PREVENTION

DIABETES

COPD/ASTHMA

FDA Approved BYOD*

* Note: Bring your own consumer device are supported for wellness and related programs

New Devices are in Development

Fall Trending

Medication Tracking

- Tag and track medications

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Multiple Gateway Options into a Single Portal

Private Gateway: Wireless, Ethernet, POTS

Mobile Gateway: Phones

Public Gateway:
Kiosk / Kiosk on a Tablet

Secure Communication

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Simple "plug and play" Experience for End Users

Enjoy

Ideal Life configures customer account

Devices shipped direct to user

Customer just unboxes and plugs in devices

Quick start guide and welcome call ensure proper setup

Devices auto-pair and work seamlessly

Optional customer portal provides additional insight and access to add new devices

Hospital reviews patient readings

Optional nurse monitoring handles alerts

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Examples of Impact from Clinical Trial and Deployments

Vidant Health – Hospital System

- 66% reduction in bed days, admissions and costs
- $4.4 M net savings for initial project: CHF and COPD patients

Caremore – Payer

- 47% reduction in hospital admissions for CHF patients
- 45% decrease in hospital bed days for CHF patients
- 48% reduction in hospital admissions for COPD patients

Flagstaff Medical Center – Medical Group

- 44% reduction in hospital admissions
- 64% decrease in bed days
- 72% reduction in total costs of care

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Cerner Millennium™ Order Process

Cerner and IdealLife are integrated in order to create a clinically-driven, closed-loop approach that automates remote device connectivity from the existing workflow. Patients may be identified one at a time during care or through your population health lists by condition.

Kit type and relevant details

Epic, Meditech, and other EMR Integrations available

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Value of Integration when you start with an order:

Results flow seamlessly into the monitoring workflow and the patient's EHR real-time.

- This enhances timeliness and patient care.
- Everyone in the care process is always on the "same page"
- Avoids need to re-enter results in the physician workflow
- Can drive a variety of Clinical Decision Support (CDS) activities to enhance patient care and billing.

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Complete Cerner Millennium Integration

Remote monitoring documented via an order, and embedded within existing clinical workflow. Communicates kit details and duration to deliver and manage purpose-built kits. Establishes a clinical encounter based on the order, tied to billing.

Ability to set monitoring duration at time of order

Ability to select from client defined kit types (e.g. aFib, DM, wellness)

Epic, Meditech and other EMR Integrations available

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Healthe™ Care Management

Dashboards allow call center or care management team to monitor the population for compliance and alerts

Healthe™ Personal Health Record

Provider views results in the EHR *FlowSheet;* can include pertinent data or trends into notes via *Dynamic Documentation™* or *PowerNote™*

Connected Health Platform Overview

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Cognizant-ADT Connected Health Platform

Cognizant and ADT have partnered to create an integrated solution for Connected Health that includes a deeply integrated Remote Patient Monitoring solution with device integration, remote monitoring platform, care coordination, analytics and 24X7 Remote Nurse Call Center Support

Cognizant HealthActivate

Mobile Patient Engagement Platform with Bring Your Own Healthcare Device" (BYOhD™) capability

Cognizant Onvida

Omni Channel Platform and Clinical Call Center Services

Cognizant ADT

Connected Health Platform

ADT **Ideal Life Platform**

Remote Devices

Wireless Biometric Device (Gateway)

Cloud/EMR

Wireless Biometric devices and platform integrated with EHR

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Using Connected Health to Address High Risk Populations

Our goal is to minimize the outcome and financial challenges of unmonitored high-risk patients

Programmatic Approach

Population Health Management

Connected Health

Remote Monitoring

Wireless Biometric Devices

Patient Electronic Medical Record

24X7 Nurse Engagement

Analytics

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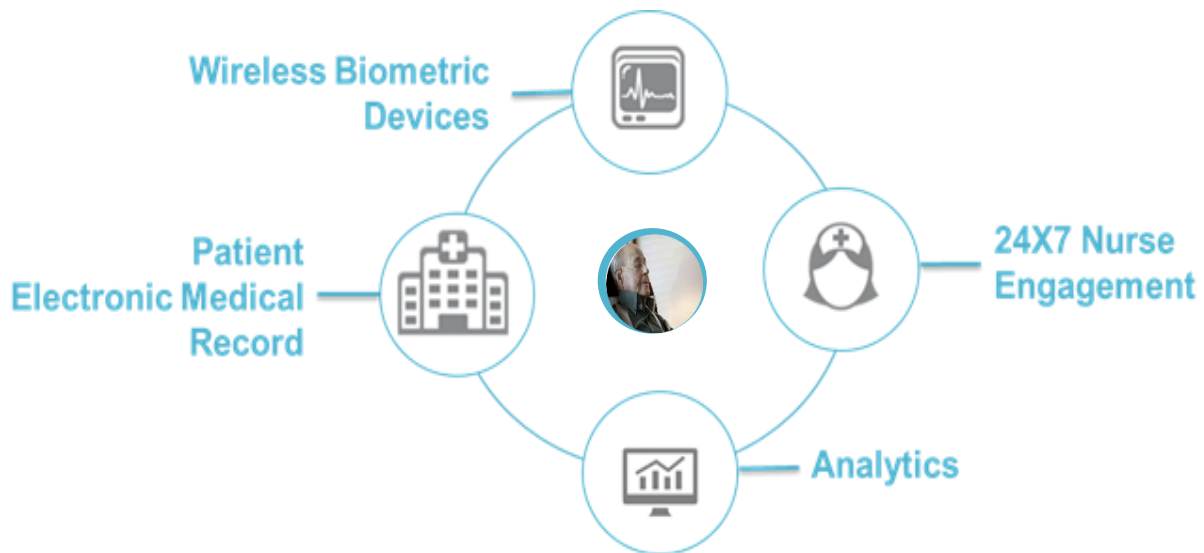
Connected Health Capabilities is more than Remote Monitoring

Patient Engagement

- Unified patient engagement
- Patient reassignment
- Documentation and monitoring patient health outcomes

- Virtual and real time coaching
- Social
- Gamification

Family / Friends Ecosystem

- Family Education
- Motivation
- Access to Blogs

- Social Media relevant content display
- Habits modification, adoption of healthier lifestyle

Patient

- Mobile Apps
- Goal Achievement
- Alerts
- Patient Education

- Patient Education
- Voice Interaction
- Prevention of illness
- Remote patient Monitoring Devices Setup

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HealthActivate

Cognizant ADX
REMOTE PATIENT MONITORING

Cognizant
onvida

ADT

Provider/Health System

- Customized care plans
- Patient Intervention
- EHR/EMR Integration
- Discharge Management
- Goal Setting

- Care Gap Analysis
- Risk Stratification
- Data Aggregation
- Clinical monitoring and documentation support

Care Navigation

- Care Coordination
- Patient Outreach
- Remote Monitoring Infrastructure
- Scheduling appointments

- Surveys
- Data Analytics
- Real-time adherence monitoring & tracking

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Patient Engagement

HealthActivate™

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HealthActivate – Mobile Patient Engagement

- Combines 'high tech' with 'high touch' to modify patient behaviors: better outcomes at a lower cost, with increased patient satisfaction

- Highly modular, configurable 'plug and play':
  o Understand patient motivations and behaviors to predict timely intervention
  o Leverage sophisticated analytics to predict and trigger interventions using virtual and live coaching
  o Tailor and deliver personalized education to improve adherence
  o Keep patients motivated with a powerful, configurable 'gamification engine'

- Extensible across multiple platforms and operating systems
  o Wellness as Service
  o Chronic Care Management
  o Transition of Care

- The "Bring Your Own Healthcare Device" (BYOhD™) approach enables connectivity to 80+ medical devices and consumer wearables to create a longitudinal patient record

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HealthActivate™ :Integrating High-Tech + High-Touch

Patient Education

Medication Reminders

Appointment Reminders

Virtual Coach

Gamification

Feedback & Surveys

Behavioral Change Tools

DEVICE DATA

SERVICE BUS
(Federation of Services)

DATA LAKE
(De-identified / Identified Data)

Hi-Tech

PATIENT-CENTERED CARE

Hi-Touch

Remote Nurse
- Appt. Reminders
- Goal Setting
- Patient Follow-Up

Health Coach

Analytics

Virtual Coach
- Drug Reminders
- Tips & Challenges
- Videos, Articles & Quiz
- Real-time Messaging

HealthActivate™ platform for Patient engagement with data from 80+Medical / Fitness devices + 3rd party apps & data streams

Dedicated clinical team to provide comprehensive, end to end population health management and patient education & outreach services based on client needs

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Cognizant and Our Clinical Call Center Services

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Global Clinical Services Overview

1500+
Clinicians

13+ Years
of experience

3MM+
UM/UR transactions

25+
Customers

24MM
lives on platform

6
Global locations

Overview

- Dedicated clinical services practice; leveraging specialized skills, licensing, and industry accreditations; to support our client across **Medical Management and *Population Health services***
- Experience in Commercial, Medicare, Medicaid LOBs across clinical services value chain

Global Scale with multi geo delivery capabilities

- Delivery centers Philippines, US,and India
- URAC accreditation in place for HUM

New York City, NY
Tampa, FL
Bangalore, India
Manila & Cebu, Philippines

Comprehensive Service Offerings

Utilization Management	• Prior Authorization, • Concurrent Review, • Post Services Review	• Appeals and Grievances • Peer Review Support
Wellness	• Health Risk Assessment • Medication Adherence • Wellness and lifestyle coaching	• Patient Navigation • Remote patient Monitoring
Quality Improvement	• HEDIS and STAR rating • Quality and Compliance Support	• Potential Quality Issues Assessment
CM and DM	• CM / DM Intake • CM / DM Support	• Patient / Population outreach • Discharge Planning

Diversified Client base across health plans

- Leading Blue Plan in the East Coast
- A **top 5** National Health Plan and global insurance company
- New York based health plan
- Large **National Blue** Plan
- Leading IT-enabled Health Services
- Leading West Coast Healthcare **Medicare Insurer**
- **A top 5** National Health Plan

Accreditation and Quality Leadership

urac ACCREDITED Health Utilization Management Expires 11/01/2018

HIPAA COMPLIANT

urac ACCREDITED Workers' Compensation Utilization Management

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LifeBridge Health – Onvida & Clinical Call Center Services

Case Study

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Engagement Platform Improves Population Health and Provider Satisfaction for Lifebridge Health

Cognizant and Lifebridge partner to coordinate care and enhance physician-patient communications across the healthcare continuum

Lifebridge Health, a large nonprofit health system serving Baltimore, saw an opportunity to radically improve patient experience and improve communication between patients and providers by investing in a seamless, multi-channel digital communication platform, supported by knowledgeable clinical staff. Improving communications and coordination among the large number of stakeholders in the care continuum, from community physicians to post-acute providers, would reduce overall cost of care and improve

AT A GLANCE

Lifebridge Health, a large health system in the Baltimore area, sought a strategic partner to solve communication challenges between its hospital and community physicians. The health system envisioned a digital experience that would enable consistent and proactive patient engagement.

The organization partnered with Cognizant to deliver a solution to raise engagement levels, as well as facilitate more effective communication and coordination among primary care physicians, hospital physicians and system facilities. Cognizant was able to deliver a pilot solution in 45 days. The solution was refined and released to
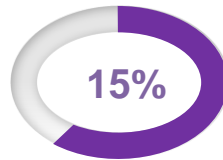
Rapid pilot within 45 days and full roll out within 90 ..now at 4,000 calls per week and growing
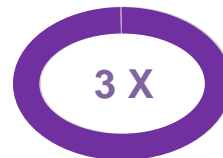
3 X — **increase in incoming patient transfer referrals**
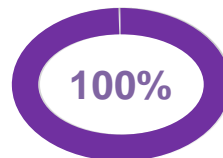
100% — **discharge follow up** within 48 hours

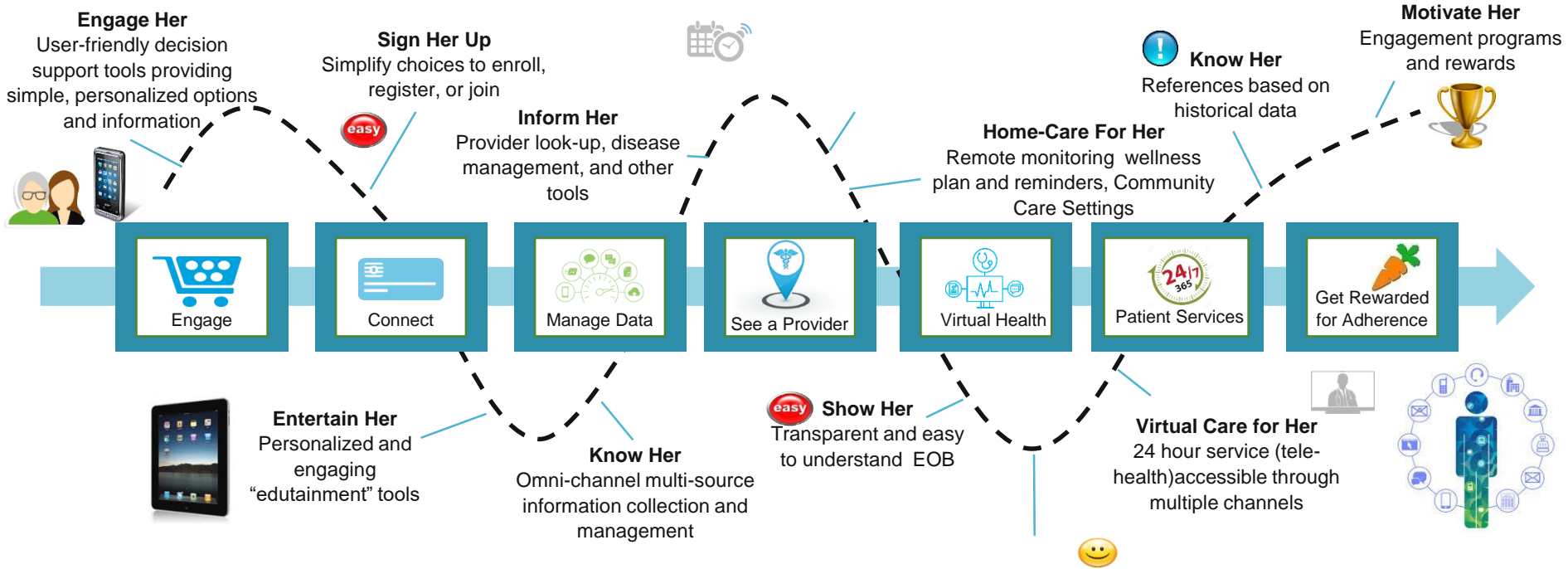**15%** — **reduction in no-show appointments** through patient follow-up calls, reminders,

Readmission reductions of more than 50%

This (solution), and it's improvements in our communication frequency and quality, is the best thing that's happened to Sinai Hospital in my 14 years with the organization."
*- **Chief Quality Officer***

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The Vision

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The Vision? A Seamless Connected Health Experience

Opportunities to impact the triple aim exist at many steps in the consumer, patient, and provider journey. Determine the best place to start and develop the transformed customer experience center services and capabilities to deliver a pilot, prove the results, and scale

Engage Her
User-friendly decision support tools providing simple, personalized options and information

Sign Her Up
Simplify choices to enroll, register, or join

Inform Her
Provider look-up, disease management, and other tools

Know Her
References based on historical data

Motivate Her
Engagement programs and rewards

Home-Care For Her
Remote monitoring wellness plan and reminders, Community Care Settings

| Engage | Connect | Manage Data | See a Provider | Virtual Health | Patient Services | Get Rewarded for Adherence |

Entertain Her
Personalized and engaging "edutainment" tools

Know Her
Omni-channel multi-source information collection and management

Show Her
Transparent and easy to understand EOB

Virtual Care for Her
24 hour service (tele-health)accessible through multiple channels

Select the Opportunities and Populations to Get Started

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