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
Cognizant Corporate Overview

- **Revenue**: $12.42 Bn in 2015 (up 17.9% YoY)
- **Revenue Mix**: NA: 76.8%, Europe: 18.3%, Others: 4.9%
- **Founded**: in 1994 (CTSH, Nasdaq)
- **Global HQ**: Teaneck, NJ
- **24,400+** employees
- **25,000+** Projects in 40 countries
- **75+** Global Delivery Centers
- **Market Capital Over $40 Bn**
- **1,550+** active customers
- **No. 1 in Customer Satisfaction**
- **Top 5 of Most Admired Companies**
- **Ranked #352**
- **Leader – Healthcare Provider ITO**
- **Leader – North American Applications Outsourcing Services**
- **Forbes Fast Tech 25 (only company for 10 years)**
- **InfoWeek Elite 100 Rank #40 2014**
- **Founding Partner**
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

Pharma
All major Global Pharmaceuticals, Medical Devices and Bio Tech Companies

PBM
5 of top 6 US PBMs

Govt
50+ Organizations and 30 State and Federal Exchanges

Cognizant Healthcare
Providing 360° perspective of the healthcare eco-system
Serving more than half of insured population in North America

Named to Winner’s Circle in Population Health and Care Management
URAC Certified – Health Utilization Management, Workers Compensation
NCQA Certification for 7 DM programs supported by CareAdvance Enterprise™
Only large vendor in “very satisfied” category in RCM
Preferred Payvider Vendor
STAR performer in the Provider ITO PEAK Matrix
Healthcare Informatics: Rank 3
Industry Drivers
Healthcare: Moving Towards Radical Transformation

**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

**TIME FOR DISRUPTIVE FORCES TO MAKE IMPACT**
- Today
- Tomorrow
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
Driven By Industry Challenges and Consumer Needs

The retail industry has long known 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% of specialists receive no information from referring PCPs prior to a referral visit\(^1\)

What Do Consumer’s Want?

- 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\(^****\)

IT Leader Challenges

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
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**

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

**Core Functions**

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

**Legacy Contact Centers**

**Telephony/CTI**

**Core Clinical Operations**

**EHR**

**Connected Health**

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

**A revenue center**
The Business Case
The Population Pyramid

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

Data: CDC, Johns Hopkins and Robert Wood Johnson Foundation
Chronic Care Management Population

Expanding Number of Beneficiaries Eligible for CCM

Number of Beneficiaries Eligible for CCM in U.S.

- Medicare
- Medicaid
- Commercial
- Combined

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

Addressable CCM Market Opportunity

http://kff.org/other/state-indicators/total-population/
And AHRQ Multiple Chronic Conditions Chartbook

Available Annual Dollars in Fee For Service CCM

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2018</th>
<th>2020</th>
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<tr>
<td>Medicare</td>
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<td>Commercial</td>
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<td>Combined</td>
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Note: 20158 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.
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).

<table>
<thead>
<tr>
<th>Vertical</th>
<th>Disease State</th>
<th>Total Savings Opportunity</th>
<th>Commercial Opportunity</th>
</tr>
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<tbody>
<tr>
<td>Remote Patient Monitoring</td>
<td>Heart Disease, COPD/Asthma, Diabetes,</td>
<td>$200+ billion</td>
<td>~$15 billion</td>
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<tr>
<td>Telehealth</td>
<td>Routine &amp; Psychological Care</td>
<td>$100+ billion</td>
<td>~$12 billion</td>
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<td>Behavior Modification</td>
<td>Obesity, smoking cessation, overall lifestyle improvement</td>
<td>Indefinitely large</td>
<td>~$6 billion</td>
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*Source: Goldman Sachs Global Investment Research*
EMR and Device Integration
Broad Device Portfolio is Available Today

Easy to Use Wireless Products

Two Way Educational, Motivational Messaging

Scale

Blood Pressure

Pulse Ox

Blood Glucose

Communication Enabler™
System Flow

Remote Patient Monitoring Connects Patients to Providers Supported With Analytics and EMR Integration
Devices Can be Bundled Around Disease States

- CHF
- WELLNESS PREVENTION
- DIABETES
- COPD/ASTHMA

*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
Multiple Gateway Options into a Single Portal

- **Private Gateway**: Wireless, Ethernet, POTS
- **Mobile Gateway**: Phones
- **Public Gateway**: Kiosk / Kiosk on a Tablet

*Secure Communication*
Simple “plug and play” Experience for End Users

- 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
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
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.

*Epic, Meditech, and other EMR Integrations available*
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.
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.

*Epic, Meditech and other EMR Integrations available*
Healthe™ Care Management

Care manager alerted about abnormal value

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
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.
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
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

- **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
Patient Engagement
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
HealthActivate™: Integrating High-Tech + High-Touch

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
Cognizant and Our Clinical Call Center Services
Global Clinical Services Overview

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

Comprehensive Service Offerings

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<thead>
<tr>
<th>Utilization Management</th>
<th>Wellness</th>
<th>Quality Improvement</th>
<th>CM and DM</th>
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<tbody>
<tr>
<td>Prior Authorization,</td>
<td>Health Risk Assessment</td>
<td>HEDIS and STAR rating</td>
<td>CM / DM Intake</td>
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<td>Concurrent Review,</td>
<td>Medication Adherence</td>
<td>Quality and Compliance Support</td>
<td>CM / DM Support</td>
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<tr>
<td>Post Services Review</td>
<td>Wellness and lifestyle coaching</td>
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<tr>
<td>Appeals and Grievances</td>
<td>Patient Navigation</td>
<td>Potential Quality Issues Assessment</td>
<td>Patient / Population outreach</td>
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<tr>
<td>Peer Review Support</td>
<td>Remote patient Monitoring</td>
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<td>Discharge Planning</td>
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Global Scale with multi geo delivery capabilities

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

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 accreditation in place for HUM
- Large National Blue Plan
- Leading IT-enabled Health Services
- Leading West Coast Healthcare Medicare Insurer
- A top 5 National Health Plan

1500+ Clinicians
13+ Years of experience
3MM+ UM/UR transactions
25+ Customers
24MM lives on platform
6 Global locations

1500+ Clinicians
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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 satisfaction.

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 rolled out to:

- Rapid pilot within 45 days and full roll out within 90 days now at 4,000 calls per week and growing
- Increase in incoming patient transfer referrals
- Discharge follow up within 48 hours
- Reduction in no-show appointments through patient follow-up calls, reminders
- 15% reduction in no-show appointments through patient follow-up calls, reminders
- 3X increase in incoming patient transfer referrals
- 100% Readmission reductions of more than 50%

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
The Vision
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.

Select the Opportunities and Populations to Get Started