Virtual Care Solutions

Moving Care from the Hospital to the Home

Access Strategy
Revenue Strategy
Primary Care Strategy

Building onto existing infrastructure to move to the next paradigm of healthcare delivery!
What is Virtual Care?

Technology

Tele-Health
Asynchronous Communication
Continuous Monitoring

Analytics/Data

Descriptive
Prescriptive
Predictive

Relationships

Patients view the connectivity as a relationship
What are the attributes and impact of Virtual Care?

**Virtual Care Attributes**
- Access – 24/7/365, synchronous & asynchronous
- Patient Engagement
- Decreased Variation
- Mobility
- Improves the efficiencies and effectiveness of clinical assets
- Changes traditional markets
- Builds from Alliances and Collaborations - scale

**Care Delivery Impact**
- Leverage existing Provider Networks managing larger populations
- Increases Revenue
- Lowers Costs
- Improves Quality
- Removes Market Geographic Limitations
- Scales thru Collaborations
- The vehicle to manage healthcare’s paradigm change

Value!
Driven by Economics

Healthcare’s Ambidextrous World

Today

Tomorrow

Fee For Service
Feed the Beast
Specialty and Hospitals have Value

Population Management
Grow the Village
PCP has Value

Ambidextrous Organization

Successful Operations

Innovation
Virtual Care

Why does it work?

Hospital

• E-ICU – It is not about the superman moments

Centralization of Health Care Delivery

• Sepsis – changing the paradigm

Impacting the Critically Chronically Ill @ home

• Radically changing the cost curve
E-ICU

It is about meat and potatoes

• Implemented the e-ICU over 10 years ago @ Mercy (Visicu platform)
  • Impact: 40% decrease in mortality and a 35% decrease in LOS as compared to APACHE base line expectations (severity adjusted)

• What did we learn
  • Two way video increased staff compliance with recommendations by 60%
  • The biggest impacts were derived from monitoring compliance with known standards and bundles of care, overlooked or under appreciated alerts, work load balancing – computer aided decision support
  • Nurse Mentoring
  • Virtual Care responds positively to scale
  • Virtual Care is an augmentation strategy, not a replacement strategy
E-ICU

It is about meat and potatoes

• How can you apply what was learned to the inpatient population
  • 24/7 monitoring of all acute patients – mobile biometrics
  • Virtual sitting for agitated and/or confused patients
  • ED support
    • Tele - stroke
    • Virtual ED physician to support NP’s in the Rural ED’s (also supports the rural PCP network)
    • Psych triage and Psychiatry consultative services removing the Behavioral Health Bottle Neck
    • Convert critically ill patients to e-ICU support during ED event in transition to either admission or transfer.
    • Virtualize difficult specialty consultations, that physician or specialty that never responds in a timely fashion
    • PCP Kiosks for less than severe ED cases
  • Observation Units – virtualize the transition patients waiting on discharge to home or admission decisions
  • PCP rounding on patients with hospitalizations predicted to be greater than 2days
  • Support networks of facilities with specialty consultations
Sepsis – development of the Virtual Care Impact Paradigm

70% reduction in Mortality in Patients with Severe Sepsis

45% reduction in Mortality in Patients with Septic Shock

95% reduction in patients moving from severe sepsis to septic shock
Virtual Care Impact Paradigm

The Power of Central Monitoring Analytics & Process Reengineering on outcomes and cost

- **Point of care**
  - Patient
  - Data Information
    - EMR
    - E-ICU
    - Home Monitoring
    - Physician Exam in person or remotely
    - Interviews etc.

- **Software Driven Triage Virtual Units**
  - Patient Selection
  - Central Monitoring
    - CHF
    - Ortho Bundles
    - Stroke
    - Critically Chronically Ill

- **Clinically supported Central Monitoring**
  - Monitoring Data
    - Patient self reports
  - Actionable Alerts

- **Care Plans Pathways**

- **Workflow Re-engineering**
  - Intervention with Improved Outcomes
  - Decreased cost

**DATA Strategy/Decision support**
- Decrease Variation
- Re-engineer the workflow

**Process Innovation**
- & Action taken

**Technology & Analytic Driven Decision Support**

**Facility** – ICU, Acute Care Ambulatory Home
Virtual Care Command Center

• What did we learn
  • Centralization decreases variation
  • Need to re-engineer the workflow
  • Data from all sources creates the opportunities

• How can you apply to the inpatient population
  • Sepsis programs in all facilities in the acute setting and post acute settings (right into the home)
  • Post surgical lab monitoring (glucose)
  • Pain Medication monitoring for hypercapnia
  • More intense monitoring of at risk patients in a number of diseases
    • Cardiovascular
    • COPD
Virtual Concierge’s
Go Where the Money Is

• Implemented a virtual concierge’s model for the most frail and at risk patients within an MA risk model contract.

• Multi Disciplinary Team
  • Physician – APN – Social Workers – Coaches – Navigators

• Bluetooth enabled monitoring kit with an I-Pad

• 24/7/365 access for patients and families

• Platform with video, asynchronous communication tools patient engagement, decision support, full patient data integration and AI
Healthcare Economics in the USA

- **Stupid Stuff**
  - Biggest short term financial opportunity
    - coordinated care
    - strong information systems
    - Patient engagement
    - access through technology
    - innovation
    - All about access

- **Disease Modification and Prevention**
  - Very difficult to do with payout → long term
  - Very few financial incentives to create models that support changes

- **Life style modification and Personal Choices**

- **Traditional Health System Strength**
  - payout → long - mid term
  - Reactive model of care with Strong incentives to utilize
Virtual Concierge’s

Go Where the Money Is

- What did we learn
  - Access to care decreases stupid stuff
  - Patients view this connectivity as a relationship – 95% retention over > 200,000 enrollee member months
  - The elderly can manage technology if it is designed properly
  - Once again – Meat and Potatoes and decreased variation apply
  - One hub can manage 500 CCI patients

60% decrease in enrollees resource utilization/cost

Population impact

$22 PMPM cost of the program

$112 PMPM savings
Where is the sweet spot?

Leveraging VCS to Reduce Costs for the Top 5%

<table>
<thead>
<tr>
<th>Medicare Advantage Population</th>
<th>20,000 patients</th>
<th>Cost PEPM</th>
<th>PMPM cost to provide service</th>
<th>Cost with 100% participation</th>
<th>Savings @ 60%</th>
<th>Revenue Return</th>
<th>Savings @ 30%</th>
<th>Revenue Return</th>
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<tbody>
<tr>
<td>22% of the spend</td>
<td>200</td>
<td>$950.00</td>
<td>$9.50</td>
<td>$2,280,000</td>
<td>$23,760,000</td>
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<td>28% of the spend</td>
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<td>2% of the spend</td>
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<td>$5.00</td>
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<td>$2,160,000</td>
<td>1.80</td>
<td>$2,700,000</td>
<td>0.90</td>
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<table>
<thead>
<tr>
<th>1 HUB</th>
<th>Statistics of 1 hub</th>
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<tbody>
<tr>
<td>Patients</td>
<td>500</td>
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<td>Medicare Population</td>
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<tr>
<td>Med Advantage Pop</td>
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<td>Total Cost</td>
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<td>Revenue per Hub</td>
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<td>Net per Hub</td>
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<td>System Size</td>
<td>1 billion in revenue</td>
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Virtual Care End State
managing populations 24/7, 365

Central Virtual Hub
Commercial Opportunity

Primary Care on Demand
Core to Successful Transition

Analytics
Supporting Patient selection, metrics and decision support

Differentiator

CCI & CCM
20%

Pro-Active Relationship

Health System Clinical Infrastructure

Hospital

Specialties

Primary Care

Capacity

Rural Support

Revenue

PCP Access

Practice Redesign

Revenue

Alliances
Growth

Collaborative Network

Revenue

Patients
Established

Services
Specialty Consultations
Follow-up – Post Op
PAC
Urgent Care
ED Support

Communities

Capacity

Growth

Ambulatory Well Acute Care Services

New

Revenue

Growth

Traditional Relationship

Revenue

Growth
Virtual Care

• Virtual Care is not tele-vision medicine – it is a multi dimensional, innovative approach to care delivery.

• Virtual Care is a network strategy with many components crossing the entire continuum of care delivery.

• Virtual Care is a “grow the village strategy” (not FFS friendly) but will allow health systems, physicians and payors to evolve to the new paradigm in a sound economic fashion.

• Virtual Care is an augmentation to the existing infrastructure, not a replacement.

    **Technology – Data - Relationships**