Health Care Analytics Symposium

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July 25, 2012
Mission:
To be your medical home

Vision:
To be the model for physician-led health care in America

Values:
As a physician owned and directed company, we are committed to ensuring that patient care is efficient, effective, equitable, patient centered, safe, and timely
Everyone has a Default Future
The U.S. Health Care System is too expensive, wildly variable, with lower than desired quality and outcomes.
Are we underinvesting in other important parts of our economy?

![Health Care Spending Outpaces GDP Growth](chart.png)

- Per capita spending (1960=100)
  - Per Capita Health Expenditures: 8.8% Average Annual Growth
  - Per Capita GDP: 6.1% Average Annual Growth

[1960 to 2000 timeline]
The US healthcare system is too expensive, wildly variable, with lower than desired quality and outcomes.

**Unsustainable trend**

- **Spending**
  - Demo-graphic Age Wave
  - Declining Population Health Status and Current Attitudes
  - New Medical and Therapeutic Solutions
  - Fee-for-Service Payment Systems

- **Funding**

**Average Annual Individual Healthcare Cost**

- 2010: $4k
- 2011: $4k
- 2012: $4k
- 2013: $5k
- 2014: $5k
- 2015: $6k
- 2016: $6k

**Poor quality**

- 37th in WHO overall rankings
- 24th in life expectancy
- Last in preventable deaths
- 29th in infant mortality
- #1 in spending
Where will the money from? Core funding sources are on a path to insolvency.

<table>
<thead>
<tr>
<th>Healthcare Funding Source Pressures</th>
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<tbody>
<tr>
<td>Medicaid</td>
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<tr>
<td>Virtually bankrupt—need tax reform or federal subsidies</td>
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<td>Medicare</td>
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<tr>
<td>Trust fund will be bankrupt between 2017 and 2024</td>
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<tr>
<td>Commercial Payers</td>
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<tr>
<td>Cost burden will become untenable as commercial market continues to contract</td>
</tr>
<tr>
<td>Employers</td>
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<tr>
<td>Continued bailout to prevent margin erosion</td>
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<tr>
<td>Consumers</td>
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<tr>
<td>HC costs leading cause of personal bankruptcy</td>
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Trend is unsustainable and will continue to compress FFS reimbursement.
By the time health care is a foreign policy issue we know we are in trouble.
2001

38 Million Americans without Health Insurance
2010: 52 Million Americans without Health Insurance

Only 25% of those who lost their health insurance coverage over the past 2 years have been able to obtain additional coverage.
What is Our Default Future?
We can eliminate our default future by:

- Choosing to Re-write the Default Future
- Putting Language to our Alternative Future
- Creating a Vision of that Future
- Creating a Good Strategy to Get There
A Vision without a Good Strategy is a Hallucination
A Strategy is Not a Goal, Hope, or Aspiration
Strategies solve Real Problems

A good strategy

- Makes an accurate diagnosis
- Creates a guiding policy for problem solving
- Has a coherent administration of tactics
- Focuses on risks and how to mitigate them
- Understands competitive advantage
A Strategy without Effective Leadership will Fail

It won't work out
60% of healthcare leaders say neither the quality nor the efficiency of healthcare at their organization will get any better under healthcare reform.
These same clowns say

• 58% say the financial strength of their organization will deteriorate under the act
• 38% expect to cut services because of government reform efforts
• 39% expect to cut staff because of government reform efforts
• 34% say the act should be repealed
• 71% say some elements of the act should be repealed
“This is our last chance through creativity and innovation and leadership on our own to deal with bending the cost curve.”

“And if the industry fails, it will face a range of onerous solutions ranging from spending caps to global budgets to rate review.”
Somebody has to do something: it’s just incredibly pathetic it has to be us.

Jerry Garcia
THE TIME IS NOW!

We are at the beginning of what we expect will be the single fastest transformation of any industry in US history.
There will be continued downward pressure on health care providers to control costs while improving quality of care provided.

Fee-for-service reimbursement will be continually subject to reductions in fees, external efforts to control utilization, and scrutiny of care provided.

Favorable reimbursement will be shifted to those providers able to demonstrate value through providing high quality care at the lowest cost.
The healthcare delivery system model will change across several key dimensions

<table>
<thead>
<tr>
<th>Reimbursement</th>
<th>Volume Based</th>
<th>Value Based</th>
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<tbody>
<tr>
<td></td>
<td>▪ FFS/DRGs</td>
<td>▪ Outcomes &amp; Quality based</td>
</tr>
<tr>
<td></td>
<td>▪ No payment for readmits, never events, etc.</td>
<td>▪ Global payments</td>
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<tr>
<td>Organizational model</td>
<td>▪ Departmental</td>
<td>▪ Populations</td>
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<tr>
<td>Value drivers</td>
<td>▪ Volume</td>
<td>▪ Conditions</td>
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<tr>
<td></td>
<td>▪ Efficiency (on a procedure level)</td>
<td>▪ Focused factories</td>
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<tr>
<td>Profit pools</td>
<td>▪ Visits</td>
<td>▪ Quality and low variability</td>
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<tr>
<td></td>
<td>▪ Surgery / Procedures</td>
<td>▪ Efficiency (on a population level)</td>
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<td></td>
<td>▪ Outpatient ancillary</td>
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<tr>
<td>Investments</td>
<td>▪ Capacity</td>
<td>▪ Wellness and prevention</td>
</tr>
<tr>
<td></td>
<td>▪ Revenue-producing assets</td>
<td>▪ Population management</td>
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<td></td>
<td>▪ Patient referrals</td>
<td>▪ Chronic condition management</td>
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<td></td>
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<td>▪ Health IT</td>
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<td></td>
<td></td>
<td>▪ Clinical integration</td>
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<td></td>
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<td>▪ Commercialization</td>
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62% of the health care dollar is spent on hospital care and professional services.

Where The Health Care Dollar Went, 2008

- Hospital Care: 31%
- Professional services: 31%
- Retail prescription drugs: 10%
- Nursing home care: 6%
- Non-Rx medical products: 3%
- Govt. public health: 3%
- Home health care: 3%
- Research: 2%
- Other: 6%
- Structures, equip.: 5%

The Drivers of Health Care Costs

Chronic Disease:

$1.875 Trillion annual cost
$3 out of every $4 of U.S. health care spending
The Drivers of Health Care Costs

Aging Population:
1 in 8 Americans are 65+
In 2009 65+ comprised 12.9% of the population
By 2030 19% of the population is projected to be 65+
That is 72.1 million people
Hospital Readmissions:

In 2011 nearly 1 in 5 patients admitted to the hospital were readmitted within 30 days. This represents an estimated preventable cost burden of $25 billion annually.
The Drivers of Health Care Costs

Physician Shortage:
Projected shortage by year:
2015   63,000
2020   91,500
2023   135,600
Controlling Population Expenses By Improving Care For Patients Need in Costly Services

Three Stages of Health Care Information

- **1980**
  - Scheduling
  - Billing

- **2000**
  - Electronic Health Records
  - Clinical Decision Support

- **2015**
  - Community not facility focused
  - Identification of Outliers
The Three Economic Components of our Health Care System

- Risk
- Capital
- Knowledge Workers
A more effective and efficient health care delivery system will require a new integration of information between these three components.
Population Health Management
The consumer hassle map for traditional healthcare

Health plan

Disconnected and fragmented system with limited accountability

Every patient touch equals revenue

Hard to find quality docs

Too many patients, too little time

No focus on longer-term care plans

No informed consent

Emotionally attached

Denial of coverage

Disconnected and fragmented system with limited accountability

Health plan

No access to transportation

Problems go unnoticed

Conflicting treatments

Lost appointments

Hard to fit patients in schedule

No holistic care

Health plan

Missed appointments

Confusing benefits and billing

Confusing provider network

Health plan

Reduced margin for sick patients

Redundant treatment

Health plan

Risk of adverse selection death spiral

Effort to fit patients in schedule

Lack of resources to manage chronic illnesses

Byzantine billing

Limited physician collaboration

Professional frustration

More billing staff than nurses

Staff focused on costs, not prevention

Emergency? Call 911

Multiple medications

Expense co-pays

Expensive hospitalization

Expense acute and chronic care

Patient

Doctors

Expensive hospitalization

Multiple specialists

Complicated referrals

Complicated referrals

Insufficient access to transportation

Health plan

Medical necessity

Lack resources to manage chronic illnesses

Confusing provider network

Health plan

Health plan

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Health plan
Five critical gaps in the current healthcare management and delivery system

- Value-based benefits
- Patient health engagement
- Evidence based, integrated care models
- Value-based reimbursement
- Appropriate clinical performance measures

Basic provider delivery structure transformations and process improvements required to become operationally excellent

Five care management gap areas drive healthcare inefficiencies and contribute to high medical trend.
Improvement: Two Components

1. Exception management
   a. Identify potential physician or patient “outliers”
      • Clinical intuition—view in “context”
      • Population analytics—patterns of risk/cost
   b. Enables individualized attention
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2. Process redesign
   a. Reduce cost for the “typical” patient
   b. Reduce variation, patient to patient
      • Tools to ensure consistent execution
A shift to a higher leverage model across all key coordinating physicians (PCPs and many specialists) will be critical to successfully managing population health.

![Patient-Centered Medical Home Teamlet Diagram]

1. **PCP**: A primary care physician (PCP) will oversee the extender staff and a dedicated panel of patients.
2. **2-4 PA / NP**: Physician Assistants and Nurse Practitioners act as the main extenders to support the PCP.
3. **3-6 Other Clinical Staff**: Other clinical staff such as RN Care Managers, clinical associates and clerks will act as extenders depending on the makeup of the panel.
4. **Patient Panel**: The number of patients in a panel will depend on the population’s health status; varying from 5000 for Healthy Independents and 800 for polychronic.

Source: United States Department of Veteran Affairs, VA Healthcare VISN 4, Patient-Centered Medical Homes: Patient-Aligned Care Teams, 2010; Oliver Wyman Analysis.
PCMH practice re-design to provide holistic care

Teamlet Clinical Support Staff

<table>
<thead>
<tr>
<th>Function</th>
<th>FTE</th>
<th>Panels</th>
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</thead>
<tbody>
<tr>
<td>Clinical Pharmacy Specialist</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Clinical Pharmacy Anticoagulation</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Social Worker</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Nutritionist</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Patient Navigator</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Trainees</td>
<td></td>
<td>As needed</td>
</tr>
</tbody>
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Integrated Behavioral Health

<table>
<thead>
<tr>
<th>Function</th>
<th>FTE</th>
<th>Panels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychologist</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>1</td>
<td>10</td>
</tr>
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Health Promotion Staff (by facility)

- 1 FTE Prevention Program Manager
- 1 FTE Health Behavior Coordinator

Source: VA Patient-Centered Medical Homes: Patient-Aligned Care Teams, 2010
The PCMH care team serves as the central point of contact for overall patient care, which requires strong coordination across the care continuum.

**PCMH care team**
- Leader of care team
- Develop/update patient action plans
- Diagnosis and treatment
- Referral oversight
- Monitor patients’ performance

**Health plan**
- Early member identification and assignment to appropriate medical home
- Member engagement through health management, value-based benefits and targeted education

**Condition care models**
- Efficient care models for surgical and medical episodes
- Includes hospital, specialists, and ancillary providers as needed
- Close coordination with PCMH, including data sharing and referral management

**Surgical focused factories**
- Orthopedic focused factory
- Cardiac focused factory

**Integrated cardiology model**
- Integrated care models for patient conditions
- Includes hospital, specialists, and ancillary providers as needed
- Generally responsible for all care related to the specific condition
- Heavy communication and coordination with PCMH to facilitate optimal patient care

**Condition care models**
- Integrated oncology model

**Surgical focused factories**
- Orthopedic focused factory
- Cardiac focused factory

**Condition care models**
- Efficient care models for surgical and medical episodes
- Includes hospital, specialists, and ancillary providers as needed
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**Condition care models**
- Integrated cardiology model
- Integrated oncology model

**Support Services**
- Behavioral Health
- Social Workers
- Nutritionists

**Support Services**
- PCMH screens for potential risks and coordinates referrals
- Support services collaborate with PCMH for total person care and wellness

**Acute care facilities**
- Collaborate with PCMH on discharge activities
- Ensure real-time exchange of clinical info into EMR
- Contract based on quality and cost

**Laboratory**
- Efficient analysis of tests (e.g. bloodwork, etc.)
- Ensure real-time exchange of data to eliminate redundancy

**Front office**
- Review physician care plan with patient
- Plan referrals and collection of information
- Address patient questions
- Specialist / hospital follow-up

**Extenders**
- Prepare for patient visit
- Triage complex
- Baseline data collection
Connect the population health segments to the best-fit care models
Considerable value can be created through better care models. Value-based primary care models should build outward from the highest cost patients out to create maximum impact.

### Integrated Community Care Model

**Integrated OP Care Programs (80% of improvement opportunity)**
- **% Members:** 20%
- **% Costs:** 58%

**Proactive Prevention (17%)**
- **% Members:** 24%
- **% Costs:** 17%

**Routine Care (3%)**
- **% Members:** 56%
- **% Costs:** 25%

**Model Description**
- **Intensive active management of the sickest individuals within the population**
- **Proactive engagement for early chronic and at-risk individuals**
- **Efficient routine and urgent care services for everyone**

**Population**
- Complex/Poly-chronic
- Early Stage Chronic/At Risk
- Healthy

**Source:** Sample claims data, OW Analysis
Data! Data! Data!

Our Success Will Depend Upon Access to and Understanding of Entirely New Sources of Information
Population and Clinical Risk Management will require new forms of Health Information Infrastructure

- Enrollment Management
- Predictive Modeling, Patient Stratification, and Clinical Risk Quantification
- Attribution
Patient Engagement will also depend upon new forms of health information technology.

- Navigation and care collaboration
- Telehealth
- Intelligent scheduling
- Customer service
- Tracking, monitoring, reminders, alerts
- Clinical Information Portal
- Shared Decision-making
Clinical Model Design and Management will also require new forms of health information technology.

- Definition of Clinical Area
- Clinical Process Development
- Comparative Effectiveness and Benchmarking
Various technology vendors are capable of providing some of the tools necessary for population health management.
Cornerstone’s Strategic Choices

- **Maintain Status Quo**
- **Sell**
- **Partner with other providers and non-provider organizers**
- **Redefine business model and become efficient, high quality provider of services to population health management hubs**
- **Innovate the care model and become a population health management hub**
Here is what we’ve done so far:

- Medical Home
- Clinical Integration
- Information Integration

→ Accountable Care Organization
Information Integration

- Electronic Health Record
- Clinical Decision Support
- Registries
- Clinical Analytics
- Financial Analytics
- Health Information Exchange
- Patient Portal
- Remote Monitoring
- Collaborative Learning
Current Strategic Initiatives

Reorganization as Clinical Service Lines
- Adult Primary Care
- Cardiology
- Oncology
- Outpatient Specialists
- Inpatient Specialists
- Pediatrics
- Women’s Services

Reorganization of Administrative Infrastructure
- Redesigned practice management for enhanced accountability
- Development of a Medical Services Organization
- Gap Analysis completed to identify necessary infrastructure development

Redesign of the Patient Experience
- Aggressive Customer Service Training
- Compensation Changes to Reward Patient Satisfaction, Efficiency, Quality
- Expanded Weekend and Extended Hours
  - Patient Care Advocates
  - Patient Portal

• Redesigned practice management for enhanced accountability
• Development of a Medical Services Organization
• Gap Analysis completed to identify necessary infrastructure development
Ongoing Strategic Initiatives

Value-Based Contracting
- CHC Employee ACO
- Medicare Advantage Gain-sharing
- Medical Home Pay for Performance
- Infrastructure Development for Full Risk Contracting
- Private-Labeled Commercial Contract

Compensation Methodology change that will safely permit physician income stability from FFS to FFV
- Compensation floor
- E-Prescribe, Meaningful Use, PQRI Incentives
- Pay for Performance
- RVUs + Value Metrics

Physician Engagement
- Clinical Service Line Directors
- Leadership Development Training
- Long term return on investment
- Patient-centric process redesign
- Payment for Active Medical Management
- Payment for Meeting Attendance

Partnership for Capital and Risk
- Debt Financing
- Grants
- Hospitals
- Innovation Center
- Payers
- Private Capital Market
Contract Redesign
Infrastructure Development

- Facilities
- Information Technology
- People
Innovation Changes How Services are Delivered
Thank You!

Grace E. Terrell MD