Healthcare Transformation: Is the Geisinger Model Scalable/Generalizable?

22nd Annual Dr. Raymond C. Grandon Lecture
Jefferson School of Population Health
Philadelphia, PA
May 2, 2013

Glenn Steele, Jr., MD, PhD
President & CEO
Geisinger Health System
CME – Learning Objectives

• Define the basic terminology and expectations of accountable care organizations

• Describe the changes in the payer/provider relationship necessary to facilitate accountability

• Assess the adaptability of a successful model for a closed system accountable care organization to other types of healthcare provider systems

• Assess their individual practices in light of the information discuss, and identify specific strategies to implement in response to changes in the healthcare system
GEISINGER—An Integrated Health Services Organization

**Provider Facilities**
- Geisinger Medical Center & Geisinger Shamokin Area Community Hospital
- Geisinger Wyoming Valley Medical Center
- Geisinger Community Medical Center
- Geisinger Bloomsburg Hospital
- 2 Nursing Homes
- 4 Surgery Centers
- 77K admissions/OBS & SORUs
- 1,619 beds

**Physician Practice Group**
- Multispecialty group
- ~1,029 employed physicians
- ~600 advanced practitioners
- 73 primary & specialty clinic sites
- ~2.1M clinic outpatient visits
- ~464 resident & fellow FTEs

**Managed Care Companies**
- ~322K members (including ~68K Medicare Advantage members)
- ~100K Medicaid Managed Care Projected Membership (GHP Family)
- Diversified products
- ~34K contracted providers/facilities
- 43 PA counties
Transforming Healthcare with Technology

• **> $180 M invested** (hardware, software, manpower, training)
• **Running costs**: ~4.6% of annual revenue of > $3.6 Billion
• **Fully-integrated EHR**: 43 community practice sites; 3 hospitals; 3 EDs; 4 Surgical Centers; 12 CareWorks retail-based and worksite clinics
  – Acute and chronic care management
  – Optimized transitions of care
• **Networked Patient Portal** - ~220,000 active users (40% of ongoing patients)
  – Patient self-service (self-scheduling, patient-entered data)
  – Home monitoring integrated with Medical Home
• **“Outreach Health IT”** – 4,401 users in 729 non-Geisinger practices
  – Remote support for regional ICUs
  – Telestroke services to regional EDs
• **Active Regional Health-Information Exchange (KeyHIE)**
  – 19 hospitals, 100+ practices, 634,000 patients consented, publish 600,000+ documents monthly, participants access 900+ patients monthly
• **e-health (eICU®) Programs**
• **Keystone Beacon Community**
  – HIT-enabled, Community-wide care coordination in 5 rural counties
• **GHS awarded “Most Wired” health care system by Computer World ten years**
Strategic Priorities

Quality and Innovation
• Patient Centered Focus
  – Patient activation (empowerment)
  – Culture of quality, safety and health
• Value Re-Engineering

Market Leadership
• Extending the GHS Brand
• Scaling and Generalizing Innovation

The Geisinger Family
• Personal and professional well being
Where We Are Now (Nationally)

• Unjustified variation in quality, access, and cost of care
• Unwarranted and fragmented care-giving
• An addiction to perverse payment incentives
  – Piece rate Medicare/Medicaid payment model
    ➢ Driving up units of work
    ➢ Driving up cost
    ➢ Diminishing value and quality
• Transition to new payment incentives (predicated on fundamentally new care delivery models)
• Patients as passive recipients of care
Where Do We Want to Be?

- Affordable coverage for all
- Payment for value
- Coordinated care
- Continuous improvement/innovation
- Patient activation (empowerment)
- National health goals, leadership, accountability
The Geisinger Advantage

- Our physicians and professional staff
- Our market
- Vision and leadership
- Operational and professional integration
- Enterprise-wide clinical decision support (via the EHR)
- Accountability, transparency, incentives – all aligned
- Our insurance/provider “sweet spot”
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THE GEISINGER VALUE
RE-ENGINEERING “TOUCHSTONES”
The Quality of Health Care Delivered To Adults In the United States


BACKGROUND
We have little systematic information about the extent to which standard processes involved in healthcare—a key element of quality—are delivered in the United States.

METHODS
We telephoned a random sample of adults living in 12 metropolitan areas in the United States and…received written consent to copy their medical records…to evaluate performance on 439 indicators of quality of care for 30 acute and chronic conditions as well as preventative care…

RESULTS
Participants received 54.9 percent of recommended care.

CONCLUSIONS
The deficits we have identified in adherence to recommended processes for basic care pose serious threats to the health of the American public. Strategies to reduce these deficits are warranted.
Cost/Quality “Correlation”

MD Longitudinal Cost Efficiency Index
(total cost per case mix-adjusted treatment episode)

Adapted from Regence Blue Shield; Arnie Milstein, MD - Mercer
Cost ↓ = Quality ↑
2006-2010
GHS Innovations

Cost/Quality ≠ R
2003

Cost ↓ or Quality ↑
1993-1994
Hillary-Care ‘Debate’
QUALITY AND INNOVATION

- Patient Centered Focus
- Patient activation (empowerment)
- Culture of quality, safety and health
- Value Re-Engineering
Geisinger Transformation Initiatives

• ProvenCare® for Acute Episodic Care (the “Warranty”)
• ProvenCare® Chronic Disease
• ProvenHealth Navigator® (Advanced Medical Home)
• Transitions of Care
• PRIDE (Proven Innovation Drive for Excellence)
ProvenCare® Acute Programs

- Perinatal
- CABG
- PCI
- Bariatric Surgery
- Knee
- Hip Replacement
- Cataract
- Lung Cancer
- Low Back
- Erythropoietin (EPO)

- External Clinical Collaborations in Process
- Preparing for CMS Bundling Initiative
ProvenCare® for Acute Episodic Care

ProvenCare®

- Identify high-volume DRGs
- Determine best practice techniques
- Deliver evidence-based care
- GHP pays global fee
- No additional payment for complications
ProvenCare® CABG

% of Patients Receiving All ProvenCare Best Practice Elements

Q3    Q4    Q1    Q2    Q3    Q4    Q1    Q2    Q3    Q4    Q1    Q2    Q3    Q4    Q1
# ProvenCare® CABG

## Clinical Outcomes: Pre vs. Post ProvenCare® protocols

<table>
<thead>
<tr>
<th></th>
<th>Before ProvenCare®</th>
<th>After ProvenCare®</th>
<th>% Improvement (Deterioration)</th>
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<tbody>
<tr>
<td>N = 132</td>
<td></td>
<td>N = 687</td>
<td></td>
</tr>
<tr>
<td>In-hospital mortality</td>
<td>1.5 %</td>
<td>0.5 %</td>
<td>67 %</td>
</tr>
<tr>
<td>Patients with any complication (STS)</td>
<td>38 %</td>
<td>34 %</td>
<td>10 %</td>
</tr>
<tr>
<td>Atrial fibrillation</td>
<td>24 %</td>
<td>20 %</td>
<td>16 %</td>
</tr>
<tr>
<td>Permanent stroke</td>
<td>1.5 %</td>
<td>1.3 %</td>
<td>13 %</td>
</tr>
<tr>
<td>Prolonged ventilation</td>
<td>5.3 %</td>
<td>4.9 %</td>
<td>8 %</td>
</tr>
<tr>
<td>Re-intubation</td>
<td>2.3 %</td>
<td>1.4 %</td>
<td>40 %</td>
</tr>
<tr>
<td>Intra-op blood products used</td>
<td>24 %</td>
<td>12 %</td>
<td>48 %</td>
</tr>
<tr>
<td>Re-operation for bleeding</td>
<td>3.8 %</td>
<td>2.4 %</td>
<td>37 %</td>
</tr>
<tr>
<td>Deep sternal wound infection</td>
<td>0.8 %</td>
<td>0.2 %</td>
<td>76 %</td>
</tr>
<tr>
<td>Post-op mean LOS</td>
<td>5.2 d</td>
<td>5.0 d</td>
<td>4 %</td>
</tr>
</tbody>
</table>
Reliability:
- 40 best practice elements x 702 patients = 28,080 opportunities
- 37 missed best practice elements in 24 patients
- 37 / 28,080 = 0.13% elements missed
- (702-24) / 702 = 97% of all patients had ALL elements delivered

Financial Outcomes – Hospital:
- Contribution margin increased 17.6%
- Total inpatient profit per case improved $1946

Financial Outcomes – Health Plan:
- Paid out 4.8% less per case for CAB with ProvenCare® than it would have without
- Paid out 28 to 36% less for CAB with GHS than with other providers
Company’s New “Centers of Excellence” Program is First-of-its Kind Partnering with Six of the Nation’s Foremost Health Care Systems to Provide Better Care

We devoted extensive time developing Centers of Excellence in order to improve the quality of care our associates’ receive. We have identified six renowned health systems that meet the highest quality standards for heart, spine and transplant surgery. Through these organizations, our associates will have no out-of-pocket expenses and a greater peace of mind knowing they are receiving exceptional care from a facility that specializes in the procedure they require. This is the first time a retailer has offered a comprehensive, nationwide program for heart, spine and transplant surgery.”

~ Sally Welborn, senior vice president of global benefits at Walmart
ProvenCare® Portfolio

ProvenCare®:

– CABG
– PCI (Percutaneous Coronary Interventions Angioplasty/Angioplasty + AMI)
– Hip replacement
– Cataract
– EPO
– Perinatal
– Bariatric surgery
– Low back
– Lung cancer
– Knee Replacement
– Epilepsy
Portfolio of ProvenCare® Chronic Disease Programs

- Diabetes
- Congestive Heart Failure
- Coronary Artery Disease
- Hypertension
- COPD
- Prevention Bundle
## Value Driven Care for 25,250 Patients with Diabetes

<table>
<thead>
<tr>
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<th>3/06</th>
<th>3/07</th>
<th>6/11</th>
<th>6/12</th>
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<tbody>
<tr>
<td>Diabetes Bundle Percentage</td>
<td>2.4%</td>
<td>7.2%</td>
<td>12.6%</td>
<td>14.1%</td>
</tr>
<tr>
<td>% Influenza Vaccination</td>
<td>57%</td>
<td>73%</td>
<td>77%</td>
<td>76%</td>
</tr>
<tr>
<td>% Pneumococcal Vaccination</td>
<td>59%</td>
<td>83%</td>
<td>83%</td>
<td>81%</td>
</tr>
<tr>
<td>% Microalbumin Result</td>
<td>58%</td>
<td>87%</td>
<td>78%</td>
<td>80%</td>
</tr>
<tr>
<td>% HgbA1c at Goal</td>
<td>33%</td>
<td>37%</td>
<td>50%</td>
<td>49%</td>
</tr>
<tr>
<td>% LDL at Goal</td>
<td>50%</td>
<td>52%</td>
<td>55%</td>
<td>53%</td>
</tr>
<tr>
<td>% BP &lt; 140/80</td>
<td>39%</td>
<td>44%</td>
<td>56%</td>
<td>68%</td>
</tr>
<tr>
<td>% Documented Non-Smokers</td>
<td>74%</td>
<td>84%</td>
<td>85%</td>
<td>85%</td>
</tr>
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**BP changed from 130/80 to 140/80 November 2011**
Transforming the Management of Diabetes

Likelihood of GIO members with diabetes to have MI, retinopathy, stroke, or amputation

- 13-25% less
- If they also have a Geisinger provider
- 17-60% less
Value and the Medical Home: Effects of Transformed Primary Care

Richard J. Giffinan, MD; Janet Tomcavage, RN, MSN; Meredith B. Rosenthal, PhD; Duane E. Davis, MD; Jove Graham, PhD; Jason A. Roy, PhD; Steven B. Plerdon, MD; Frederick J. Bloom Jr, MD, MMM; Thomas R. Graf, MD; Roy Goldman, PhD, FSA; Karena M. Weikel, BA; Bruce H. Hamory, MD; Ronald A. Paulus, MD, MBA; and Glenn D. Steele Jr, MD, PhD

Health Affairs

Reengineering the Delivery System


Analysis & Commentary

How Geisinger’s Advanced Medical Home Model Argues The Case For Rapid-Cycle Innovation

November 2010

Reducing Long-Term Cost by Transforming Primary Care: Evidence From Geisinger’s Medical Home Model

Daniel D. Maeng, PhD; Jove Graham, PhD; Thomas R. Graf, MD; Joshua N. Liberman, PhD; Nicholas B. Dermes, BS; Janet Tomcavage, RN, MSN; Duane E. Davis, MD; Frederick J. Bloom Jr, MD, MMM; and Glenn D. Steele Jr, MD, PhD

March 2012
ProvenHealth Navigator®
Innovations in Management of Elderly

• “SNFist” model in targeted nursing homes
• Focused on transitions of care and length of stay
• Redesigned care model
• Smartly utilizing information technologies
• Reduced
  – Admits/1000
  – Readmissions/1000
  – ER Visits/1000
ProvenHealth Navigator® Reduces Cost Trend

Cumulative percent difference in spending (Pre-Rx Allowed PMPM $) attributable to PHN in the first 21 PHN clinics for calendar years 2005-2009. Dotted lines represent 95% confidence interval. P = < 0.003

- Medical expense trend reduced by 7.1%, p<.01
- ROI for all years 2007-2010, with Rx coverage = 1.7

TRANSFORMING HEALTHCARE WITH TECHNOLOGY
Capitalizing on Information Technology
Geisinger’s eICU® Initiative

Participants:
• Geisinger Medical Center, Danville, 50 beds
• Evangelical Community Hospital, Lewisburg, 4 beds
• Lewistown Hospital, Lewistown, 10 beds
• Geisinger Wyoming Valley Medical Center, Wilkes-Barre, 22 beds
• Schuylkill Health System Hospitals, Pottsville, 4 beds in East Norwegian and 4 beds in South Jackson

Outcomes To Date:
• Reduced LOS, Mortality and Morbidity
• Improved AICU LOS at GMC by 5.6%, which is worth $2.3M in variable cost savings
• Program has saved approximately 80 lives in the 1st Quarter of 2012 when compared to predicted mortality rates (based on severity adjusted cases)
Primary care e-visits

- MyGeisinger utilized for initiating health advice, avoiding costly office/ER visits
  - 36% redirected to traditional office appointment
  - 64% completed with advice and e-prescription

Specialty consults

- ER to ER for real time trauma/cardiac evaluation
- ~12 specialty departments offering rural outreach

Ancillary departmental services
Patient Activation: “Open Notes” – A Transparency and Patient Engagement Pilot

• 12-month research/demonstration project started in 2010

• 105 PCPs inviting over 19,000 patients to review notes through secure electronic portals
  – BI Deaconess, Geisinger, Harborview

• Reminders to patients to review visit notes after signed, and again prior to subsequent visits

• Geisinger participation
  – 24 PCPs
  – 8,700 Geisinger primary care patients
INNOVATION PROFILE

How Geisinger Structures Its Physicians’ Compensation To Support Improvements In Quality, Efficiency, And Volume
# THE SWEET SPOT

Geisinger Health Plan NCQA Rankings

<table>
<thead>
<tr>
<th></th>
<th>PA Rank</th>
<th>Rank by Type</th>
<th>National Rank</th>
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<tbody>
<tr>
<td>Private</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HMO/POS</td>
<td>#1</td>
<td>#5</td>
<td>#12</td>
</tr>
<tr>
<td>PPO</td>
<td>#1</td>
<td>#10</td>
<td>#53</td>
</tr>
<tr>
<td>Medicare</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HMO</td>
<td>#1</td>
<td>#6</td>
<td>#6</td>
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</tbody>
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**CMS Star Rankings**

HMO and PPO
4.5 out of 5 stars

**NCQA’s Private Health Insurance Plan Rankings 2012-2013.**
Next Steps (National)

- Medicare Advantage (Less Revenue)
- Expanded Medicaid Managed Care (Less Revenue)
- ? Price Controls
- ? Regulatory Commissions
- Multiple Payment Incentive Experiments Plus Residual FFS
- Continued Provider/Payer Consolidation (And Political Push Back)
- Global Budgets for Medicare & Commercial Payer
Multiple Payer-Provider “Integration” Models

Proliferating “Enabling” Enterprises (e.g., Evolent/Optum/”NewCo’s”)

“Blocking & Tackling” for True Integrated Care
Population Health Risk Taking
WILL WE ALL MOVE IN THE RIGHT DIRECTION?
Prognosis

↑ Access
↑ Demand

Perverse incentives – Old
“Piece rate” Medicare/Medicaid payment
↑ units of work
↑ cost
↓ value

Plus population health risk incentives – New
Falling off the “Fiscal Cliffs”

And now what?

Medicare? Medicaid?
↑Value → Shared Savings

or Quasi-capitation
(i.e., population health accountability)

or

Fee-for-Service
(with↓↓fees)
Next Steps (Geisinger)

Market Leadership

- Extending the GHS Brand
- Scaling and Generalizing Innovation
Scaling and Generalizing Insurance Operations

Vertically:
– PA Medicaid Managed Care, 3/1/2013
– Medicare FFS to Medicare Advantage
– Positioning for Exchange Environment

Horizontally:
– Out of State Provider-Payor Partnerships
  • West Virginia TPA “Plus”
  • Eastern Maine TPA “Plus”/ Pioneer Consulting
  • NJ JV w/Meridian – Medicare Advantage
Acute Care Mergers

Shamokin Area Community Hospital
- Hospital: 70 beds (skilled nursing facility, 15 beds)
- Annual revenue of $36M
- No long term debt
- Acquired January 1, 2012

Community Medical Center, Scranton
- Hospital: 297 beds, skilled nursing: 180 beds
- 9 physicians
- Annual revenue of $180M
- Long term debt of $33M
- Acquired February 1, 2012

Bloomsburg Health System
- Hospital: 72 beds, skilled nursing: 149 beds
- 11 physicians
- Annual revenue of $57.3M
- Long term debt of $24.2M
- Acquired July 1, 2012

In total added:
- $273.3 million of annual patient service revenue
- $57.2 million of long term debt
- Consulting
- Population Health Data Analytics
- Care Management
- Third Party Administration
- EHR Applications, Including Licensing Intellectual Property
- ?