Geisinger's Bundled Payments Experience for Better Clinical Integration to Drive Quality to Lower Cost

Thomas Graf, MD
Chief Medical Officer
Population Health and Longitudinal Care Service Lines

"Let us bear in mind that the most important individual after all is the patient. Our paramount thought must be to provide him means by which he can have skilled diagnostic and therapeutic service in as complete form as may be indicated in a given case, in the shortest possible time consistent with thoroughness, and at the least cost to him." Dr. Foss

HL Foss, MD
11/4/1950

Geisinger
An Integrated Health Service Organization

Provider Facilities

- **Geisinger Medical Center**
  - ***Danville Campus*** *– includes Hospital for Advanced Medicine, Janet Weis Children's Hospital, Women's Health Pavilion, Level I Trauma Center, Ambulatory Surgery Center*
  - ***Geisinger Shamokin Community Hospital***
- **Geisinger-Bloomsburg Hospital**
- **Geisinger Wyoming Valley Medical Center** *with Heart Hospital, Henry Cancer Center, and Level II Trauma Center*
  - ***Geisinger South Wilkes-Barre*** *campus with Urgent Care, Ambulatory Surgery Center and Inpatient Rehabilitation*
- **Geisinger Community Medical Center** *with specialized medical & surgical services, including Level II Trauma and comprehensive cardiac & orthopedic services*
- **Marworth Alcohol & Chemical Trtmt Center**
- **Mountain View Care Center**
- **Bloomsburg Health Care Center**
- **>72K admissions/OBS & SORUs**
- **>1,593 licensed inpatient beds**

Physician Practice Group

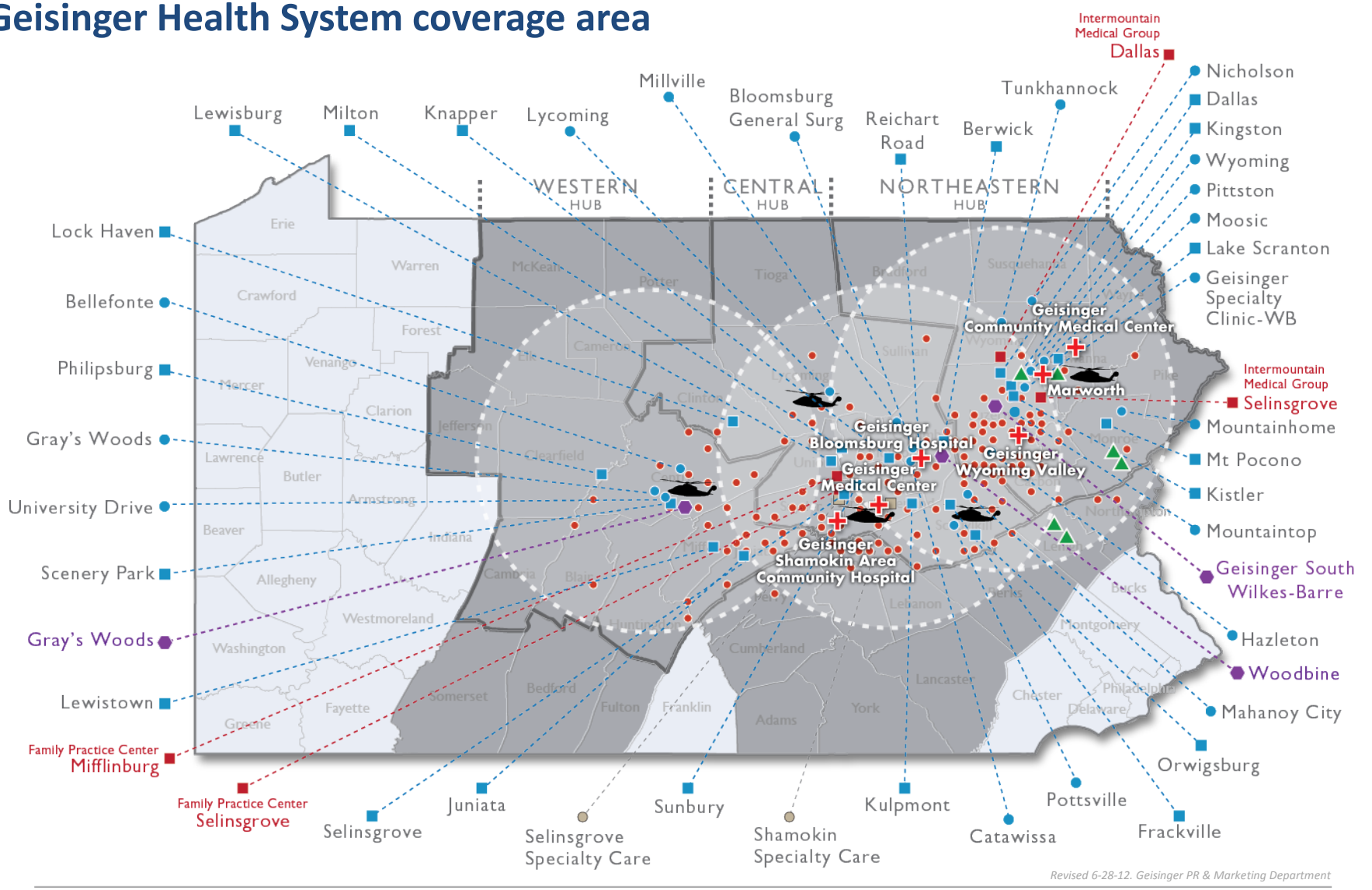
- **Multispecialty group**
  - **~1,000 physicians**
  - **~520 advanced practitioner FTEs**
  - **65 primary & specialty clinic sites (37 Community Practice Sites)**
- **Freestanding outpatient surgery center**
- **> 2.1 million clinic outpatient visits**
- **~360 resident & fellow FTEs**

Managed Care Companies

- **~400,000 members (including ~63,000 Medicare Advantage members, and 100,000 Medicaid Advantage members)**
- **Diversified products**
- **~30,000 contracted providers/facilities**
- **43 PA counties**
- **PA Medicaid initiative**
- **Out of state TPA contracts**

Note: Numerical references based on fiscal 2012 budget plus impact of GSACH , GCMC and GBH acquisitions.

Geisinger Health System coverage area



Revised 6-28-12. Geisinger PR & Marketing Department

- Geisinger Inpatient Facilities
- Geisinger Health System Hub and Spoke Market Area
- Geisinger ProvenHealth Navigator Sites
- Contracted ProvenHealth Navigator Sites
- Geisinger Medical Groups
- Geisinger Specialty Clinics
- Careworks Convenient Healthcare
- Non-Geisinger Physicians with EHR
- Ambulatory Care Facility
- Geisinger Health Plan Coverage Area
- LifeFlight Bases

Geisinger Patient-Centered Continuum of Care

Community-Based Care

Specialty Outreach ("Face-to-face" & Telemedicine)

Ambulatory Care & Surgery Center

Multi-Specialty Clinic

Urgent Care Center

Specialty Center, e.g. Cancer or Sleep

After-Hours Care Center

Community Practice Site

E-Visit MyGeisinger

Retail Clinic

Imaging Center

Wellness

Retail Pharmacy

Lab Outreach Site

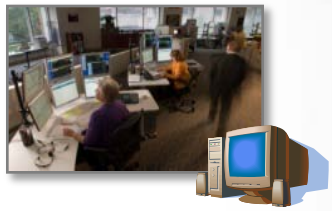
Work Site Clinic

Acute Care

Destination Medicine

Tertiary/Quaternary Medical Center

eICU



Post-Acute & Transitional Care

Inpatient Rehab

Outpatient Rehab

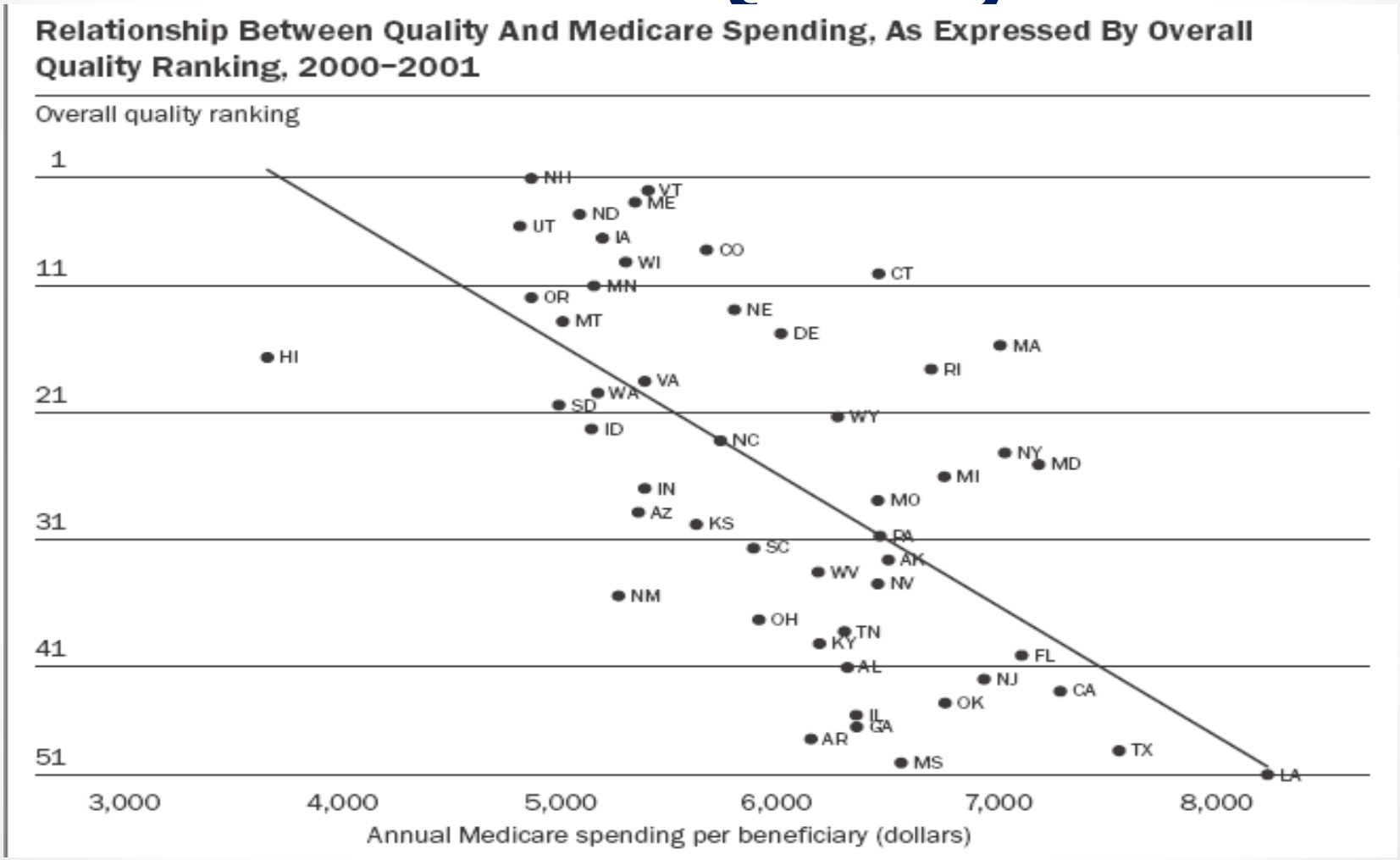
Adult Health Program & Day Center

Home Care Hospice

ProvenHealth Navigator

GEISINGER
REDEFINING BOUNDARIES

Higher Cost Associated with Lower Quality



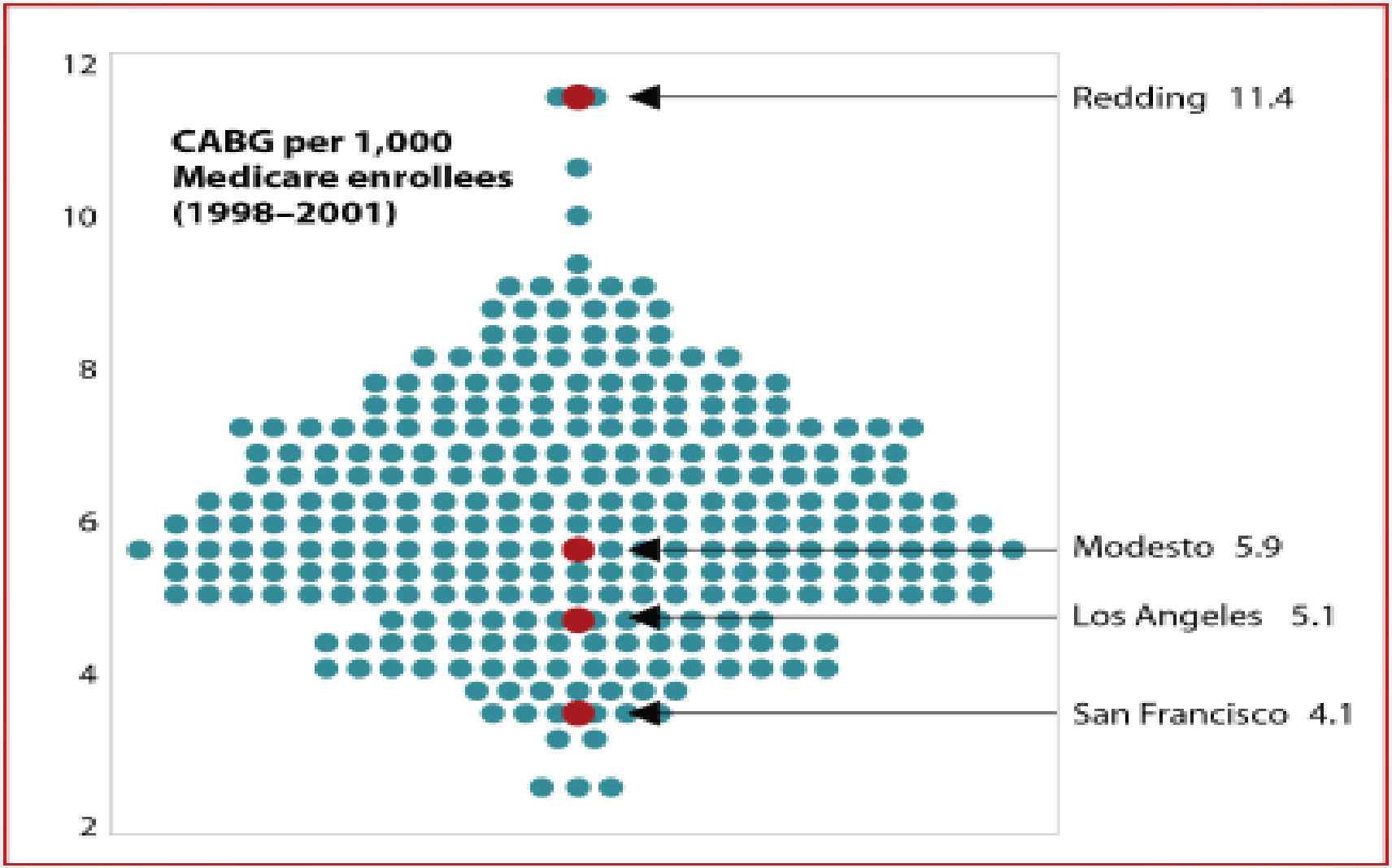
Baicker K, Chandra A. Health Affairs Web Exclusive, April 7, 2004: W4 184-97.

ProvenCare® Acute

Geisinger Health System programs to deliver improved quality and value for a defined set of health care services:

1. Document appropriateness of care.
2. Establish evidence or consensus-based best practices.
3. Reliably deliver these by redesign of complex clinical systems by embedding the behaviors into everyday patient flow using the electronic health record when able.
4. Activate patients and families, engaging them in the care processes.
5. Provide a packaged price for the episode of care.
6. The “Warranty” transfers financial risk for medical complications to Geisinger.

Appropriateness ?



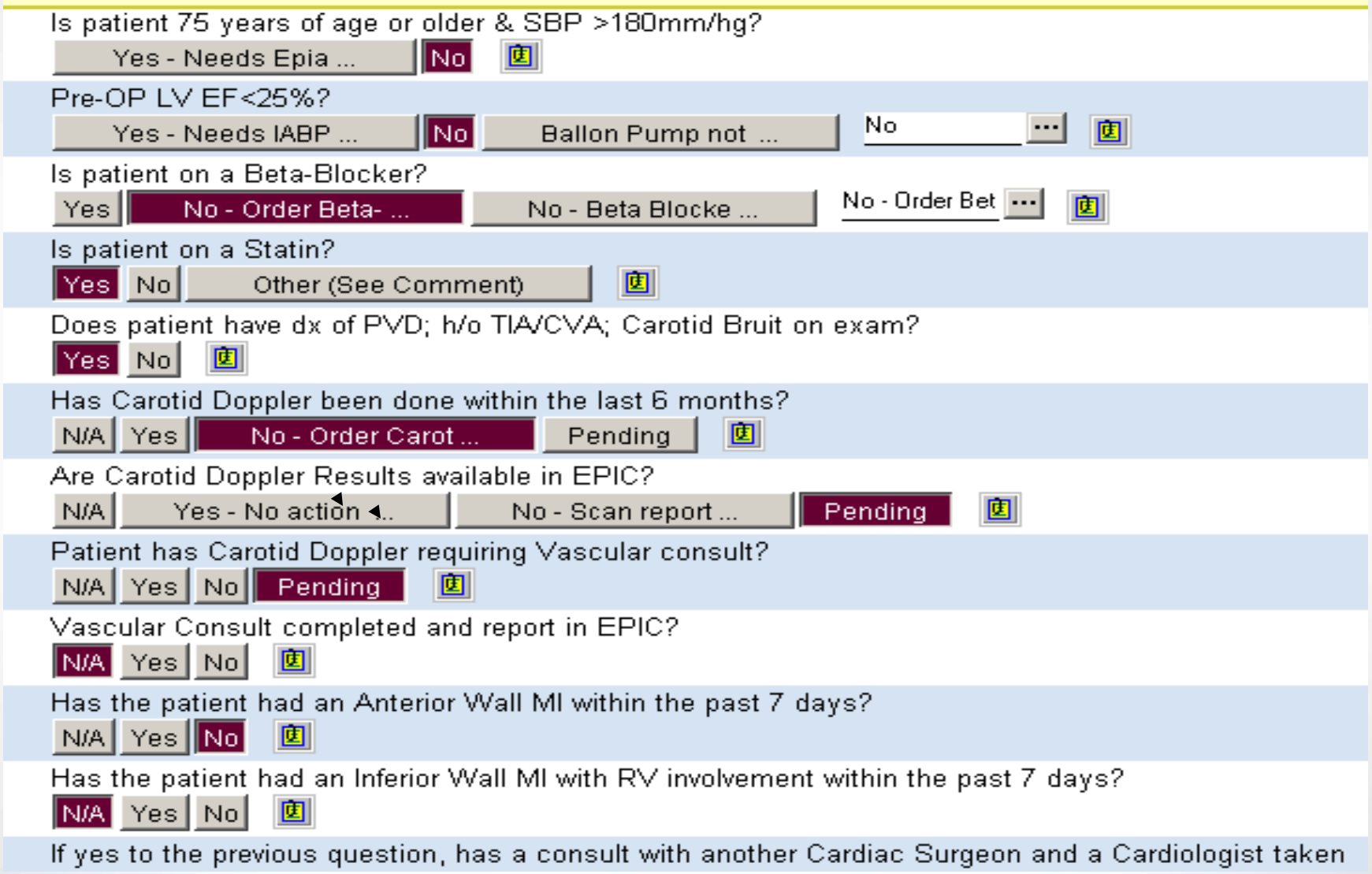
Establishment of Best Practice

- Established “Guideline” team
  - Start with established national guidelines
  - Surgeons review each element for appropriateness
  - Validation
    - Translation to **40 verifiable, actionable behaviors** with clear definitions
    - Developed unanimity and “buy-in”

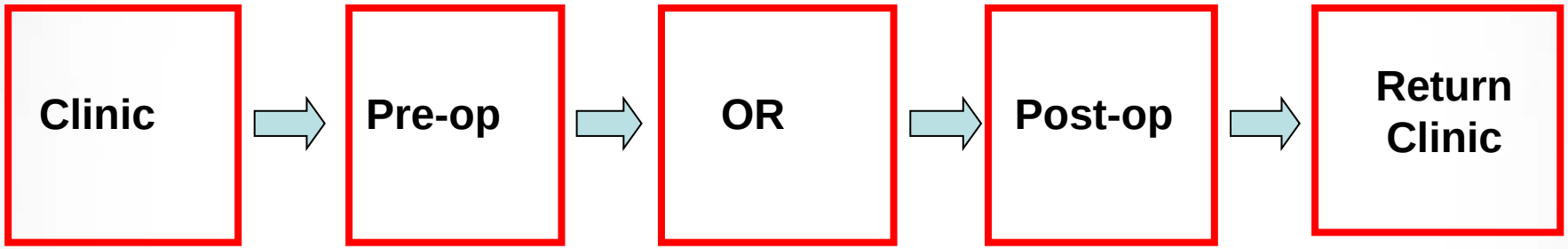
Key Process Redesign Principles

- Eliminate any care steps that do not add value
- Automate Any steps that can be managed electronically and accelerate other team members work
- Delegate work that must be done to appropriately trained non-physician staff when possible.
- Incorporate electronic work flows and tools into standard practice to eliminate variation
- Activate and engage the patient and family

ProvenCare® & the Electronic Medical Record (EMR)



ProvenCare® CABG Process Flow



- Carotid Eval
- Vascular Consult
- Inf.MI/RV
- Clopidogrel
- Warfarin
- Beta Blockade
- Smoking Cessation

- Beta Blockade
- Clopidogrel
- Warfarin

- Antibiotics
- Glycemic Control
- IABP use
- Atherosclerotic Aortas
- Cardioplegia
- Arterial Conduits

- Antibiotics
- Glycemic Control
- Beta Blockade
- ASA Therapy
- Afib prevention
- Lipid management
- Ant.MI/WMA
- Smoking Cessation

- Beta Blockade
- ASA Therapy
- Lipid management
- Cardiac Rehab
- Smoking Cessation

Reliability

- 40 best practice elements x 715 patients = 28,600 opportunities
- 37 missed best practice elements in 24 patients
- 37 / 28,600 = 0.13% elements missed
- (715-24) / 715 = 96.6% of all patients had ALL elements delivered

Clinical Outcomes:
Pre vs. Post ProvenCare® protocols

	Before ProvenCare® N = 132	After ProvenCare® N = 687	% Improvement
In-hospital mortality	1.5 %	0.4 %	**73 %**
Patients with any complication (STS)	38 %	34 %	**10 %**
Atrial fibrillation	24 %	20 %	**16 %**
Permanent stroke	1.5 %	1.2 %	**24 %**
Prolonged ventilation	5.3 %	5.2 %	**4 %**
Re-intubation	2.3 %	1.6 %	**30 %**
Intra-op blood products used	24 %	12 %	**48 %**
Re-operation for bleeding	3.8 %	2.4 %	**37 %**
Deep sternal wound infection	0.8 %	0.2 %	**80 %**
Post-op mean LOS	5.2 d	5.0 d	**4 %**

Financial Results:

	Base Line (FY2006)	Look Back (FY2010)	Variance
Length of stay	7.60	6.28	(1.32) -18%
Contribution margin / case			+ 23%

- **Insurer**: Paid out 4.8% less per case for CAB with ProvenCare®
- 28 to 36% less for CAB at Geisinger than with other providers

16

High Value Care Creates a High Value Chain

- Patients get improved outcomes
  - fewer complications,
  - lower cost,
  - earlier release from hospital
- Employer gets better outcomes
  - healthier employees,
  - lower premiums
- Geisinger Health Plan gets better outcomes
  - higher quality scores
  - lower cost
  - more members
- Geisinger clinical enterprise gets better outcomes
  - better quality
  - higher contribution margin
  - lower length of stay

ProvenCare® Portfolio

Contracted w/ Bundled Payment

- ProvenCare® Coronary Artery Bypass (CAB)
- ProvenCare® Percutaneous Coronary Intervention (PCI)
- ProvenCare® Perinatal
- ProvenCare® Bariatric Surgery
- ProvenCare® Thoracic Lung

In Clinical Phase or Development

- ProvenCare® Fragility Hip Fracture
- ProvenCare® Heart Failure
- ProvenCare® COPD
- ProvenCare® Epilepsy
- ProvenCare® Spine
- ProvenCare® Total Hip Arthroplasty
- ProvenCare® Total Knee Arthroplasty

ProvenCare ® Summary

- We have implemented a provider driven program to improve the outcome of acute surgical and high cost care, improved financial performance and increased value to payer and patient by:
  - assuring appropriateness of care delivered,
  - **redesigning care processes to reliably deliver** verifiable elements of care based on evidence-based best practices,
  - eliminating unwarranted variation,
  - while engaging the patient and family as partners in their care,
  - maintaining the ability to add/subtract/modify component parts as consensus or scientific evidence changes, and
  - preserving patient centered and individualized care
  - and fundamentally altering the reimbursement scheme

Center for Medicare & Medicaid Innovations (CMMI)

- Established by the Patient Protection and Affordable Care Act (PPACA)

- **Mission:** To help transform Medicare, Medicaid, and the Children's Health Insurance Program (CHIP) through improvements in the health care system, thereby ensuring better health care, better health, and reduced costs for beneficiaries, and ultimately enhancing the health care system for all Americans.

CMMI Bundled Payment Project Overview

- Aligning incentives through bundled payments for services across a single episode of care is one way to encourage providers to work together to coordinate patient care resulting in better outcomes
- Providers were invited to apply to this project to help test and develop the best models for bundled payments; 4 models were available to choose from
- GMC and GWV selected Model 2: Retrospective Acute Care Hospital Stay plus Post-Acute Care
- Demonstration Project spans (3) years starting late spring / early summer 2013

CMS Payment Structure

- CMS sets a target payment amount for a defined episode of care
- Participants in the initiative would be paid for their services under the regular Medicare FFS system
- At the end of the episode, the total payments would be compared to the target price (set at a 2% discount)
  - If > target price: hospital pays CMS (refunds payments above the target)
  - If < target price: CMS pays hospital additional funds up to the target price
    - These savings are divided between hospitals and physicians
  - Quality metrics to maintain the program integrity

Geisinger has Two Roles : Facilitator Convener and Awardee Convener

Geisinger Clinic is acting as a Facilitator Convener and has developed a Bundled Payment Collaborative Learning Network (BPCLN) for its convener group.

State	Facilities
Massachusetts	Lahey Clinic Medial Center
Minnesota	EH-St. Mary's Medical Center (EH Awardee Convener)
North Dakota	Essential Health Fargo (EH Awardee Convener)
Pennsylvania	Aria Health Bryn Mawr Hospital (MLH Awardee Convener) Geisinger Medical Center (GC Awardee Convener) Geisinger Wyoming Valley (GC Awardee Convener) Holy Redeemer Health System Lankenau Medical Center (MLH Awardee Convener) Paoli Hospital (MLH Awardee Convener) Riddle Memorial Hospital (MLH Awardee Convener) Thomas Jefferson Health
Tennessee	Indian Path Medical Center Johnson City Medical Center
Virginia	Bon Secours St. Mary's Hospital Johnston Memorial Hospital Virginia Baptist Hospital/Lynchburg General Hospital

ProvenHealth Navigator®

Geisinger's Advanced Medical Home Model

Primary care redesign is the foundation of population health management

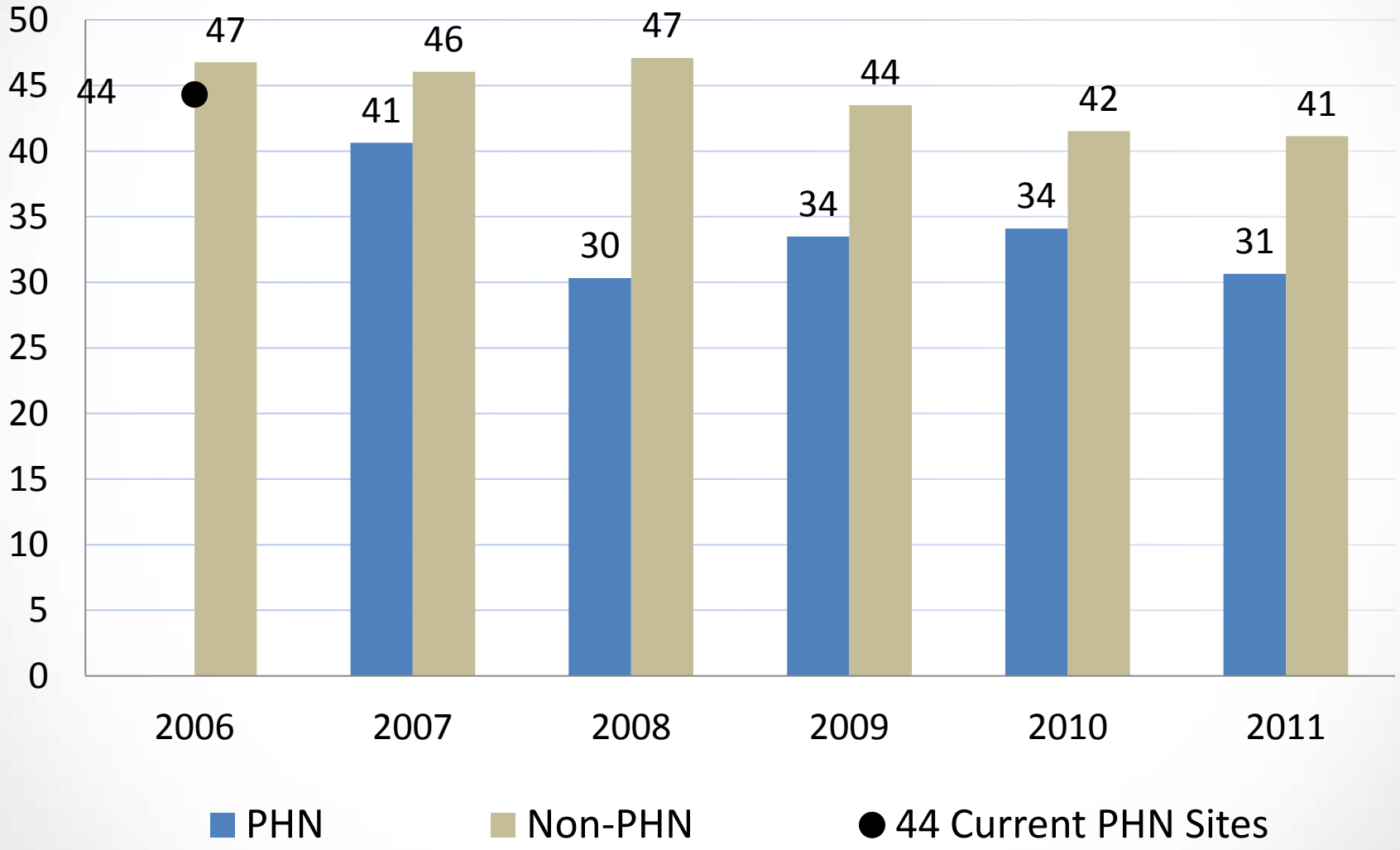
Patient Centered Primary Care	• Physician led team-delivered care • **Population focused delivery with segmentation and proactive care delivery by comprehensive team working at top of license** • Enhanced access, services, patient • Enhanced patient & family education & engagement
Integrated Population Management	• ***Chronic disease & preventive care optimized with Health Information Technology & EHR*** • Population identification, segmentation and risk stratification of panel members driving primary care team work • Automated interventions for care
Medical Neighborhood	• Micro-delivery referral systems • Physician profiling • ***360 °care systems*** – SNF, ED, hospitals, HH, etc
Outcome Driven Performance Management	• Patient satisfaction • Clinician satisfaction • **All-or-none bundled chronic disease metrics** • Preventive services metrics
Value Based Reimbursement	• **Fee-for-service with P4P payments for quality outcomes for 20-30% of total compensation for PCPs and specialists** • Physician and practice transformation stipends • Payments distributed on measured Quality performance

GEISINGER
REDEFINING BOUNDARIES

Transitions of Care

- Pt contact within 24-48 hrs post discharge
- Telephonic outreach
  - Medication reconciliation
  - Ensure safe transition post discharge
  - with appropriate services in place
    - Home Health
    - DME
    - Safe to be in their home?
  - Facilitate post hospital PCP & CM appt w
    days
- Close follow-up for 30 days

Readmissions impact



PHN Results for Medicare

Table 4. Estimated Effect of ProvenHealth Navigator on Admissions, Readmissions, and Spending[a]

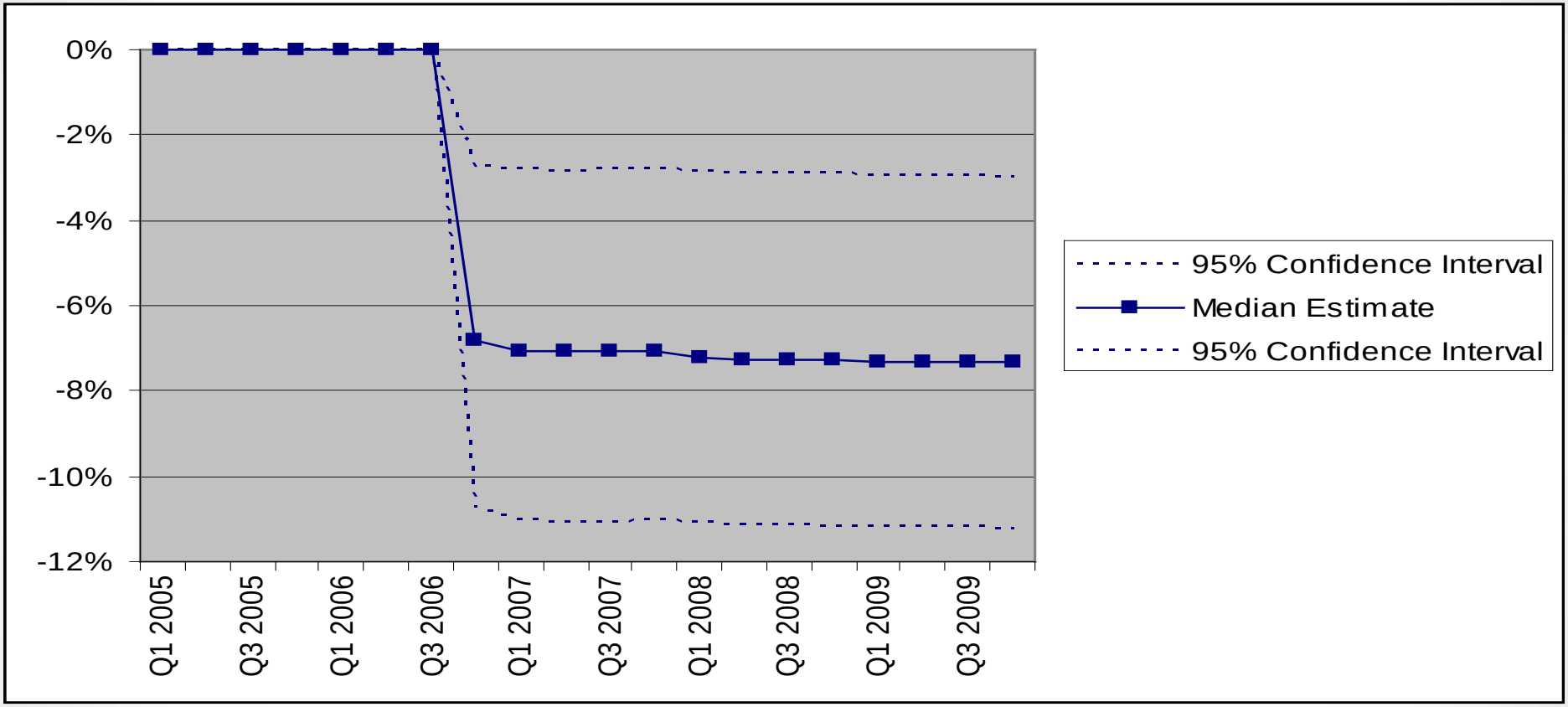
Variable	PHN Participants		Expected Difference Attributable to PHN	95% CI	*P*
	Active	Simulated			
Admissions per 1000 members per year	257	313	–56 (–18%)	–30% to –5%	<.01
Readmissions per 1000 members per year	38	59	–21 (–36%)	–55% to –3%	.02
Total costs PMPM, $	107	116	–9 (–7%)	–18% to +5%	.21

CI indicates confidence interval; PHN, ProvenHealth Navigator; PMPM, per member per month.

[a]Total spending (plan payment plus member copayment) values exclude prescription drugs and are indexed to equal $100 for non-PHN sites in January 2005 to protect confidentiality of spending figures. Results are reported for 2 groups: (1) PHN participants (active), representing only data from participants at PHN sites after implementation and (2) PHN participants without PHN (simulated), representing the expected outcomes from the previous group if the PHN had never been implemented.

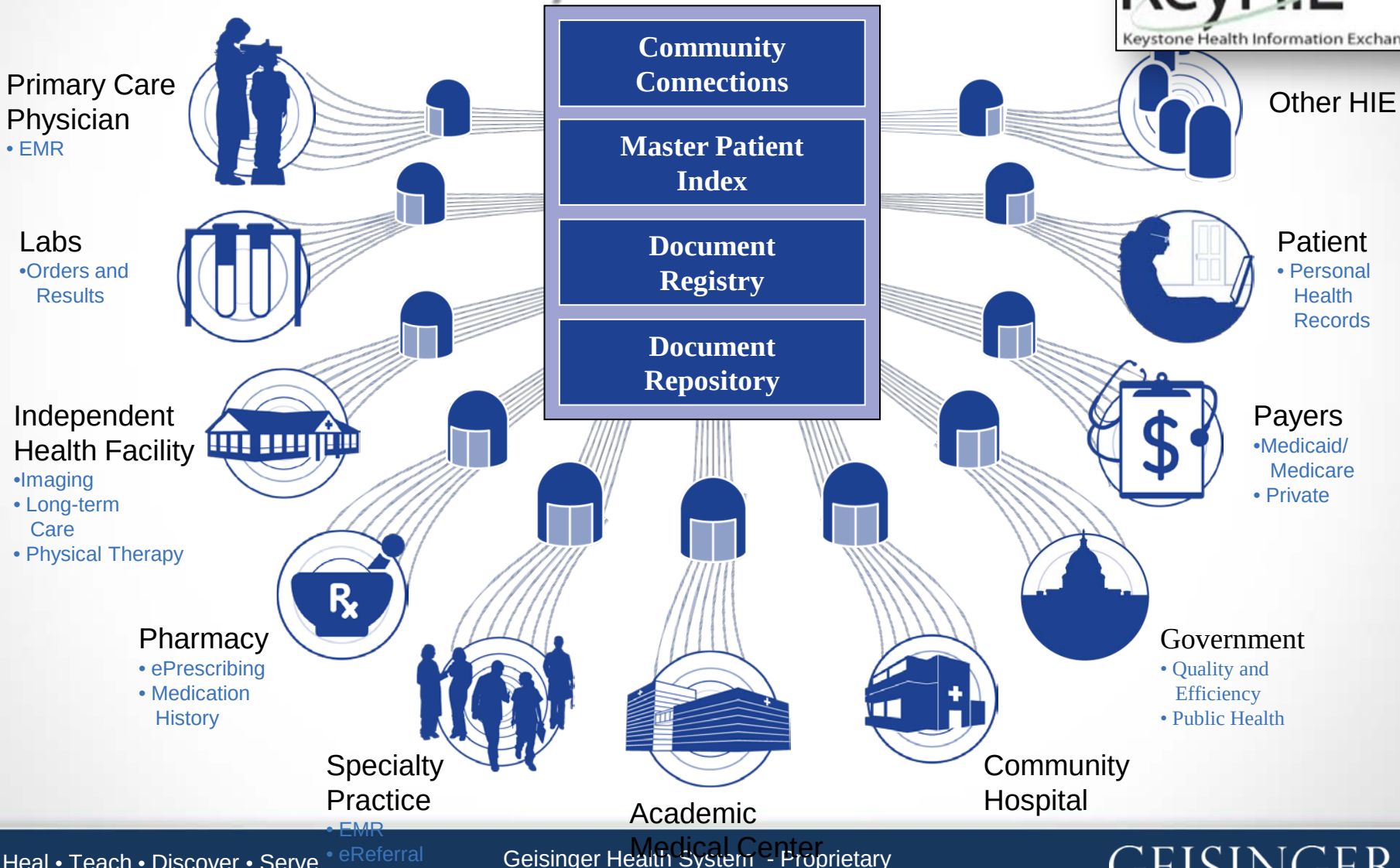
(Am J Manag Care. 2010;16(8):607-614)

Cumulative percent difference in spending attributable to PHN



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

Health Information Exchange
Community Connections



Care Transitions

Home

Clinic

Hospital

Elderly Transition

Medications

Home Health Care

? Can I safely care for myself ?
? Do I have caregiver at home ?
? Can I manage and afford my treatment ?
? Do I understand my disease(s) and treatment(s) ?

Skilled Nursing Facility

ProvenHealth Transitions Bundle

Transfer In

Readmission Risk Score
Early notification of
physician and care team
MyGeisinger (patient portal)
Universal Authorization

During stay

Pharmacy Med Rec
(High Risk-within 24-48hrs)
Address end of life issues
Identify Primary physician
Identify Care Team
Schedule PCP F/U

Transfer Out

One discharge record
discharge instructions
with Teach-Back
Discharge TIME-OUT

Post Transfer

Phone Call
Office within 7 days
Completed summary
within 24 hrs

Discharge Time-Out

MD CM RN

Clinical Status

Safe for launch
Status=Support
Labs & vital signs

Medications

adherence Med Rec
Scripts & Access

Follow Up visit

Scheduled
Pt adherence

Transportation and DME

Disharge Instructions/Plan with teach-back

Goals for Improved Connections

- New admissions seen within 1 working day
- Readmission – reduce or maintain readmission rate
- Use Health Assessment Tool annually
- Primary Care Physician follow up within 7 days from discharge
- Close coordination with offices
  - Initial admission
  - Transition to home

Critical tactics

- Initial evaluation within 24 hours, physician visit within 5 days of admission.
- Follow closely while at Skilled Nursing Facility ie 1-2 times a week for rehabilitation.
- Complex medical needs.

Early Results for Nursing Homes Look Promising

Nursing Home	Baseline Readmissions	PY 1 Readmissions	Reduction
Nursing Home A	34%	18.5%	- 45.5%
Nursing Home B	18.5%	14.5%	- 21.6%
Nursing Home C	27%	9%	- 66.6%
Nursing Home D	44%	33%	- 25%
Nursing Home E	42.5%	31%	- 27%
Nursing Home F	27.5%	24%	- 12.7%