# ACO Accelerated Development Learning Session

Baltimore, MD November 17–18, 2011

## Module 4A: Risk Sharing, Incentives, and Startup/Capital Needs



November 18, 2011 1:00-3:00 p.m.

Greger Vigen, FSA, MBA Independent Actuary

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### Introduction and Background

- Greger Vigen—Health actuary, MBA, with jumbo employer and physician clients
- Background and interests
  - Medicare, Medicaid, commercial
  - Hospital, integrated system, or physician group
  - Understanding of total costs
  - Existing payment methods
  - New payment methods (Pioneer, etc.)

## Content for Module 4A Working Session With Four Elements

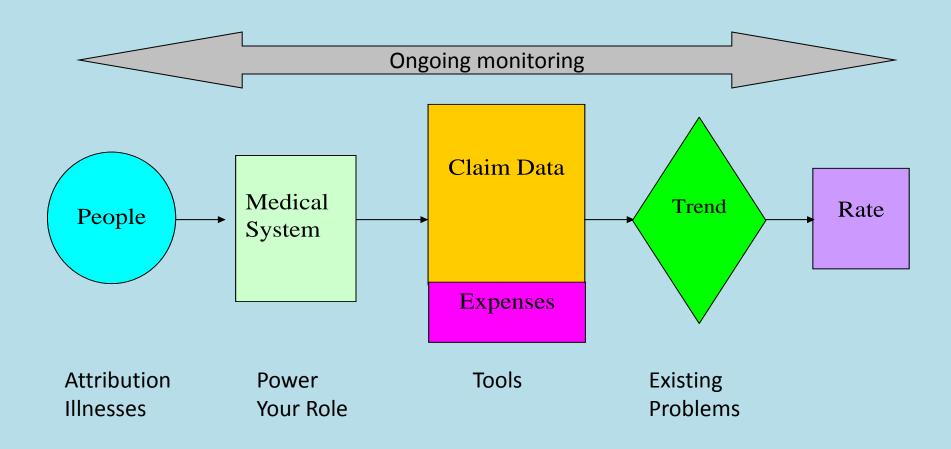
- Overview of financial approach and new resources
- Opportunities and risk sharing
  - Where is the money and impact
- Business context for incentives and payment reform
  - Working relationships with payer partners
  - Alternative payment method
  - Incentives and distribution to providers
- Resources, expenses, investment, and capital
  - Resources required
  - Estimate startup investment and capital
- Appendix with additional resources

### **Financial Approach and New Resources**

Financial Objectives and Relationships

#### **Build From Rate Projection Process**

#### **Monitor and Rate**



#### Claim Data

### Beyond Chaos—Analytic Structure

Data	<u>D</u> Metrics	ata organization Payment L	inks		Actuarial Analysis	Potential Actions/Results
BOB reports  Risk score(s) Episodes  Lab data  Health Assessmnt  External Norms / Targets  Published Financials  Gaps in care  Health H	Clinical vents complications eadmissions mbulatory- ensitive reference- ensitive  Resource Episodes DRG Clinical  Quality Basic measures Evidence-based nedicine Hospital  Iember Iealth ealth status compliance	Provider link (formal or analytic) Attribution Assignment Alignment Enrollment Special	Payment system  Bundled payment  Global payment  Partial glob  Topic specific: lii readmit	bal	Type of service Extensive analysis of major providers Year over year (historical increases) Risk adjustment Severity adjusted Inpatient / outpatient Gap analysis (HMO, PPO, Best) Unit cost / utilization Outlier / large claims Out or network Cost drivers Performance commitments Budget management Location variation Standard price Ongoing reporting Deep dive on outliers Cost / quality tradeoffs Episode analysis APR-DRG	Management / Members / Providers / Carriers / Public  Improve efficiency  Physician action plan  Generic substitution  Predictive modeling  Show external value  Scorecards  Fix key cost driver  Education  Articles  Hospital alignment  Continuous improvement  Health opportunities
Changes in process						Across organizations



## Trends and Management Key Reports

#### Major tool/concept

- Retrospective Risk scores, age, gender
- Beyond Prospective Risk scores
- Monthly claims
- Lag triangles
- Report by types of service
- DRG analysis
- Episode analysis
- Therapeutic class
- Risk-based capital
- Readmissions, complication rates, ambulatory sensitive, preference sensitive

#### **Purpose**

- Quantify illness burden
- Project future illness
- Track results/project rates
- Reserves and reconciliation
- Cost drivers (fees and utilization)
- Acute, inpatient cost
- Outpatient and total cost
- Outpatient pharmacy cost
- Review surplus
- Specific topics

Medical System

### Blow-up From Old Public Table

	Allowed PMPM
Professional Health Care Services	
Hospital Visits	\$ 2.64
Inpatient - Surgery	2.96
Outpatient - Surgery	10.98
Other - Surgery	0.24
Anesthesia	5.46
Office Visits - Primary	12.88
Office Visits - Specialist	5.74
Preventive Visits - Primary	7.37
Preventive Visits - Specialist	0.45
Emergency Room Visit	3.06
Consultation	5.23

## Monthly ACO Reporting Shell Half

#### **Total expenditures**

Per aligned beneficiary expenditures

#### **Component expenditures**

- Inpatient expenditures per aligned bene
- Hospital outpatient expenditures per aligned bene
- Part B physician/supplier expenditures per aligned bene
- SNF per aligned bene expenditures
- Home health per aligned bene expenditures
- DME per aligned bene expenditures
- Hospice per aligned bene expenditures

## Pioneer Reporting Shell Top Half

#### **Total Expenditures**

Per aligned beneficiary expenditures

#### **Component Expenditures**

- Inpatient expenditures per aligned bene
- Hospital outpatient expenditures per aligned bene
- Part B physician/supplier expenditures per aligned bene
- SNF per assigned bene expenditures
- Home health per assigned bene expenditures
- DME per assigned bene expenditures
- Hospice per assigned bene expenditures

## Pioneer Reporting Shell Bottom Half

#### **Transition of Care/Care Coordination Utilization**

- 30-day all-cause readmissions per 1,000 discharges
- 30-day postdischarge provider visits per 1,000 discharges
- Ambulatory care sensitive conditions admission rates per 1,000 beneficiaries
  - Diabetes, short-term complications
  - Uncontrolled diabetes
  - COPD
  - Congestive heart failure
  - Bacterial pneumonia

#### **Additional Utilization Rates**

- Hospitalizations
- FD visits
  - ED visits that lead to hospitalizations
- CT events
- MRI events
- Primary care physician visits
- Nonprimary care visits
- Ambulance events

## **Analysis—Multiple Stages Over Time**

#### **Your Status?**

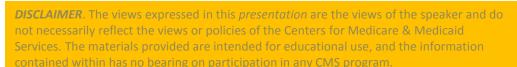
- Past results → Future
- Readily available data
   → Broad data base
- Internal trend → External standard → External target
- Extended disease registry → Various EHR versions
- Raw claims → Episode analysis
- Age gender → Risk Scores
- Internal, loyal analyst → External expert
- Single organization → External (systemwide)
  - Hospital: equal weight to ambulatory
  - Physician, formal support for hospital management of resource use

### **Financial Opportunities and Risk Sharing**

Link Risk and Responsibility

### **Fundamental Financial Principles**

- To create affordable programs, focus significant energy on cost and waste—does not fix itself
- Do what is powerful, not just what is easy
- Measurement itself is a strong force for change
- Use strong tools and newer analytics at the right time
- Both clinical impact and financial impact should be evaluated up front; then, review both to set initial priorities
- Quality by itself only sometimes creates costs savings
- In times of major change, essential to track the external environment
- Financial issues hard to discuss in public forums



### **Potential Magnitude**

#### In Existing Commercial (non-Medicare) Product

- "The study also showed that specific HMOs—California HMOs in general and group/staff models in particular—were as much as 10% to 15% more efficient than PPOs.
- Financial efficiency was not due to age, sex, geography, plan design, or health risk of the population."
- http://www.businessroundtable.org/sites/default/files/Hewitt BRT Sustai nable%20Health%20Care%20Marketplace Final.pdf
- Similar programs are working in other locations.

### Financial Impact—Key Levers

### By Major Program

		Medicare	Commercial
•	Admissions	Yes	Yes
•	Pharmacy	<del>_</del>	Yes
•	Leakage	Yes	Yes
•	Price	<del>_</del>	Yes
•	Provider variation	Yes	Yes
•	Ambulatory care	Yes	Yes
•	Quality	Mixed	Mixed
•	Emergencies	Yes	Yes
•	Resource managem	nent Yes	Yes

### Financial Impact—Key Levers

#### If Patient Health Done Well

	Medicare	Commercial
Very high risk	Yes	Yes
High risk	Unclea	ır Unclear
Chronic	Yes	Yes
Complications	*	*
Major procedures	*	*

<sup>\*</sup> Financial impact only for specific condition

## Various Examples in Appendix With Web Links

- Physician/hospital/carrier alliance—major impact
- Generic drugs
- Complication reduction
- Variations in performance—market
- Variations in performance—physician
- Reengineering with margin improvement
- Broad PCMH
- Alternative Quality Contract
- Full type-of-service chart

### Claims Data—Analytic Opportunities

- Individual patient information is available
  - Typically a 4-month lag before service is recorded and data released
- Major challenges
  - Capabilities of underlying claims systems and outside data vendors vary widely
  - Uneven release of allowed or paid amounts
  - Provider identification mixed
  - Diagnosis depends on input and processor effort
  - Physician level drill down from a few leading firms

### Financial Questions—Technical

#### **Your Status?**

- What initiatives with a financial impact are you doing?
  - How identified?
  - What financial impact is expected?
- Do you understand?
  - Existing trends and cost drivers
  - Finances for the population you are managing
  - Costs outside of your organization
  - System constraints for partners
- Are you or your partners using new strong tools
  - How can you distinguish the stronger vendors/tools
- Buy, build, partner, or rent (short or long term)

### Decision Tool—Simple Version

	Impact				Others'
Initiative	Savings	Clinical	Ease	Systems	money

## **Business Context for Incentives and Payment Reform**

Financial Objectives and Relationships

## **Starting Business Context**Your Current Status?

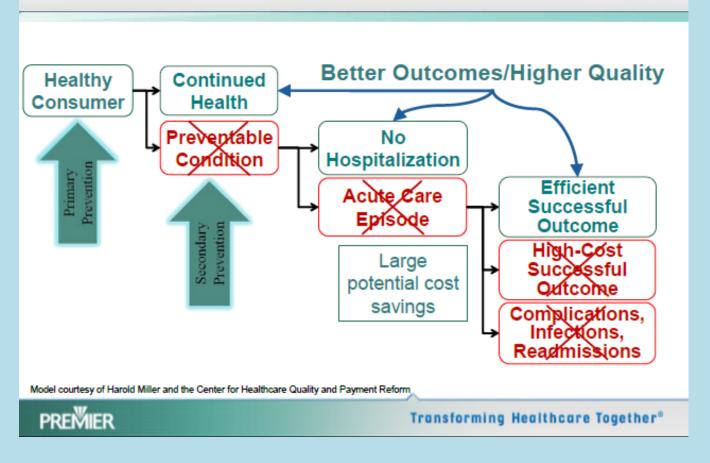
- Medicaid, Medicare, or carrier?
- What are your internal financial capabilities?
- Do you have a trusted financial partner (carrier, consultant, or MSO) for key issues?
  - How much previous material have you seen?
  - If not, how do you find one?
- Are roles and responsibilities defined and balanced?
- Financial goal (short term and ultimate)
  - Low, medium, or high?
- Do key executives understand financial implications for status quo?

### Payment Methods—Overview

- The initial payment method is a business decision
  - Analysis is complex, contracts can be simpler
  - The absolute dollar rate (or target cost or trend) is crucial
  - As transition, many methods can be considered to cover expenses or shared savings (including fixed payments)
- The ultimate payment method is a policy decision—a powerful ultimate state with a multiyear plan
- Incentives for physicians are often different from the carrier method (and vary by specialty)

#### The Financial Incentives

We began with the end in mind: What are we trying to incent?



## Funding Methods Matched to Initiative and Provider

ACO/Pioneer Overall organization

Bundled payment Hospital/specialist

Complication reduction

Acute Hospital/specialist

ChronicPrimary care/specialist

Global payment—total
 Overall organization

Partial global payment
 Physician organization

Shared savings
 Overall organization

Pay for performance
 All providers

Primary care Varies

Systems, support, dollars

PCMH Varies

## Partial Global—By Type of Service Dollars or Virtual Budgets

Pharmacy (risk pools)

Inpatient (risk pools)

Outpatient
global
payment
(all
illnesses/
services)

- Formal pharmacy risk pool
- Formal risk pool for days per thousand (some capitation)
- Capitation for primary care
- Mix of specialist payments
- Mix for others
- Bonus on resources
- Plus quality-based bonuses

### Paradigm Shift

- Physician and hospital perspectives are quite different
- For physicians, the "manage waste as if it was my own money" concept has been powerful
  - With multiyear arrangements, little incentive for underutilization that would magnify future quality and financial problems
- The paradigm shift for hospitals is more challenging
  - Currently more service → more revenue → more margin
  - So, must address marginal income as transition
  - Physician/hospital can align to reduce internal waste (margin gain on Medicare may partly offset margin loss on commercial)
- Much can be accomplished with only partial provider alignment

#### **Key Implementation Questions**

- Do you have data for total system costs?
- Do you know strengths and weaknesses associated with the payment method(s) under consideration?
- Do you have a clear end state in mind? Does the payment method . . .
  - Create balance between physician, hospital, and carrier?
  - Move toward the end payment structure?
  - Encourage the flow of data with appropriate ownership?

#### Resources, Expenses, Investment, and Capital

- Key financial levers
- Non-claims data
- Expenses
- Capital

### Resources Needed From MACIPA

- 513 physicians, 48 employees, 38,100 capitated lives
- Case management
- Medical management
- Pharmacy management
- Data and reporting
- Contracting
- Quality improvement
- EHR department
- IT department

## Operating Expenses Another Recent Published Perspective

- The Work Ahead: Activities and Costs McManis/AHA
- 1,200-bed, 5-hospital system, 250 PCPs, 500 specialists

Expenses

#### **Estimated Expenses (Published)**

#### 1,200-bed, 5-hospital System, 250 PCPs, 500 Specialists

	Startup	Ongoing
Network Development	\$2.9	\$5.7
Care Coordination, Quality and Utilization	0.8	3.9
HIT (primarily EHR)	7.7	3.9
Data Analytics	0.6	0.7
Total	\$11.8	\$14.1
The Work Ahead: Activities and Costs	McManis	For AHA

### Perspective on Network Development Expenses 1,200-bed, 5-hospital System, 250 PCPs, 500 Specialists

	Start up Costs	Ongoing (Annual) Costs
Group I. Network Development and Management		
<ol> <li>Providing ACO management and staff</li> <li>Leveraging the health system's management resources</li> <li>Engaging legal and consulting support</li> <li>Developing financial and management information support systems</li> <li>Recruiting/acquiring primary care professionals, right-sizing practices</li> <li>Developing and managing relationships with specialists</li> <li>Developing and managing an effective post-acute care network</li> <li>Developing contracting capabilities</li> <li>Compensating physician leaders</li> </ol>	\$600,000 \$300,000 \$500,000 \$500,000 * * * \$150,000 \$190,000	\$3,200,000 \$250,000 \$125,000 \$160,000 1,600,000 * * * \$150,000 \$190,000

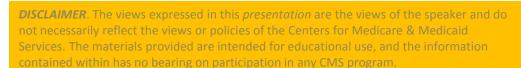
The Work Ahead: McManis/AHA

## Random Variation in Cost Size of ACO

- From an actuarial perspective, a known population of 5,000 lives has stable total costs
  - But, more lives needed for deep analysis
- From a business perspective, a larger size is needed
  - Volume needed to impact provider community
  - Economies of scale
- Medicare shows 2% variation for large ACOs

## Capital/Solvency Requirements for Insurers

- Funds must be held by insurance companies to make sure they can pay claims. Insurance rules are based on a national structure called Risk-Based Capital.
  - Specific requirements vary by state
  - Under capitated and managed contracts, RBC requirements are much smaller
- So, the required insurance surplus is widely different depending on the situation. For example,
  - The average required capital for Massachusetts insurers is 6% of insured premium
  - The required capital for a hospital-owned insurance company in California is 1.5% of premium
- Rules, if any, for providers are likely to be quite different.



# Solvency for Physician Organizations Example From California

- Capital requirements for providers are quite different
  - They have more internal costs and fewer external costs
  - The structure and tax impact of surplus on the organization is different (especially physician organizations)
- Required solvency criteria for risk-bearing organizations
  - Positive tangible net equity
  - Positive working capital
  - Minimum cash-to-claims ratio (minimum 0.75 requirement)
  - 95% claims timeliness
  - Reserves for IBNR claims liability documented monthly
  - IBNR estimate is reflected on the financial survey reports
  - Submit annual audited financial statement

### Reinsurance

- No consensus on the business reaction of private reinsurers
  - Newer ACOs may have problems getting broad coverage or favorable rates
- Some states, such as Massachusetts, are proposing to create statewide pools
- In some cases, carriers may offer reinsurance
- Inside the program, internal pooling across physicians can be created

## **Overall Financial Implementation Questions**

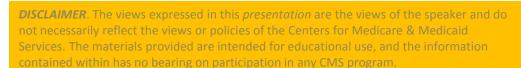
- What are the big open items?
  - Within your role and financial objective?
  - What resources are needed? Where to get it?
  - What expertise is needed? Where to get it?
- What is your overall financial projection?
  - Impact on expenditures?
  - Revenue
    - Funding from payment reform (when)?
    - Funding for quality and information technology?
  - Expenses (startup and ongoing)

## **Appendix for Other Resources**

- For later review—not current discussion
  - Reference list
  - Sample of services provided for diabetes
  - Extensive PCMH program
  - Alternative Quality Contract
  - Generic compliance
  - Recent carrier/hospital/physician group results

### **Tools and Resources**

- ACO Toolkit from Dartmouth Brookings, PART 4 and Appendix 4A
- CHQPR: "Transitioning to Accountable Care"
  - http://www.chqpr.org/downloads/TransitioningtoAccountableCare.pdf
- Milliman: "ACOs: Beyond Medicare"
  - http://insight.milliman.com/article.php?cntid=7611&utm\_source=healthreform&utm\_medium=web
     &utm\_content=7611&utm\_campaign=Milliman%20On%20Healthcare
- "Calculated Risk: A Provider's Guide to Assessing and Controlling the Financial Risk of Managed Care" Bruce S. Pyenson, FSA, MAAA, Editor Milliman & Robertson Inc. American Hospital Publishing Inc.
- "Managing Risk: A Leaders Guide to Creating a Successful Managed Care Provider
   Organization" Bruce S. Pyenson, Editor Milliman & Robertson Inc. Published in Cooperation
   with AHA Center for Health Care Leadership.
- The work ahead: Activities and Costs to develop an Accountable Care Organization" American Hospital Association and McManis Consulting
  - www.aha.org/aha/content/2011/pdf/aco-white-paper-cost-dev-aco.pdf
- Measurement of Healthcare Quality and Efficiency 2010
  - soa.org/research/research-projects/health/research-quality-report.aspx



## Physician/Hospital/Carrier—Major Impact Hill CHW Blue Shield in CalPERS HMO

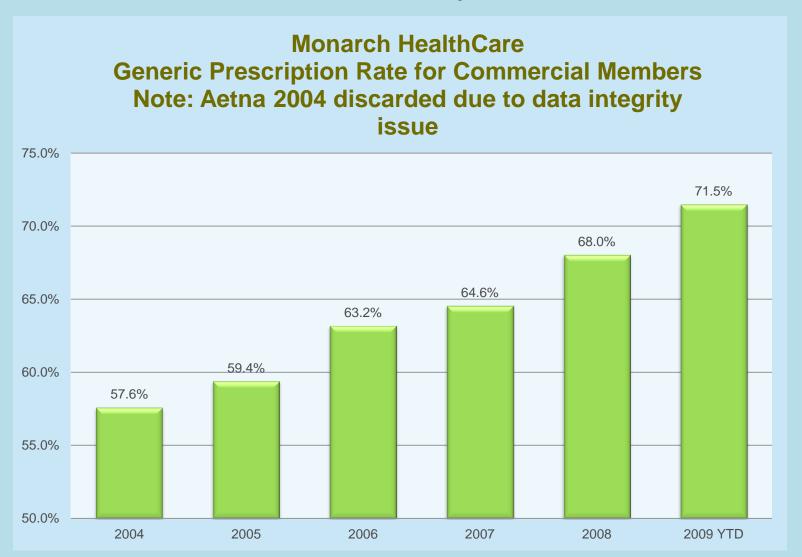
Results from the first year of the pilot showed impressive increases in clinical measurements and cost management, and generated anecdotal feedback from members who felt more actively engaged with their doctor and their own health. The collaboration has succeeded in preventing premium increases, and has achieved an estimated 22 percent reduction in hospital readmissions and \$20 million in savings.

- Strategies
  - Clinical Management
  - Population Variation and Peer Review
  - Pharmacy
  - IT Integration

#### Preliminary Outcomes

- 22% reduction in inpatient readmissions
- .48 day reduction in ALOS (average length of stay) for inpatient admissions
- 12.9% reduction in inpatient days per thousand
- 46% reduction in inpatient stays per thousand of 20 or more days

## Generic Compliance



# Move to Reduce Complications Services for Typical Diabetic

Most common procedures (included)	COUNT	PERCENT
Laboratory services	798,213	35.20%
Other diagnostic procedures (interview, evaluation, consultation)	570,625	25.17%
DME, visual and hearing aids	243,749	10.75%
Other therapeutic procedures, anesthesia, pathology	166,109	7.33%
Medication administration	69,868	3.08%
Minor skin and breast procedures, diagnostic	68,411	3.02%
Microbiology	66,806	2.95%
Eye diagnostic and monor therapeutic procedures	52,304	2.31%
Ancillary, home health, transport	44,770	1.97%
Physical therapy and rehabilitation	27,086	1.19%
Non-invasive cardiovascular studies	25,068	1.11%
Genitourinary diagnostic and minor therapeutic procedures	23,605	1.04%
Radiology and radionuclear diagnostic services	12,941	0.57%



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## Variation in Performance Market



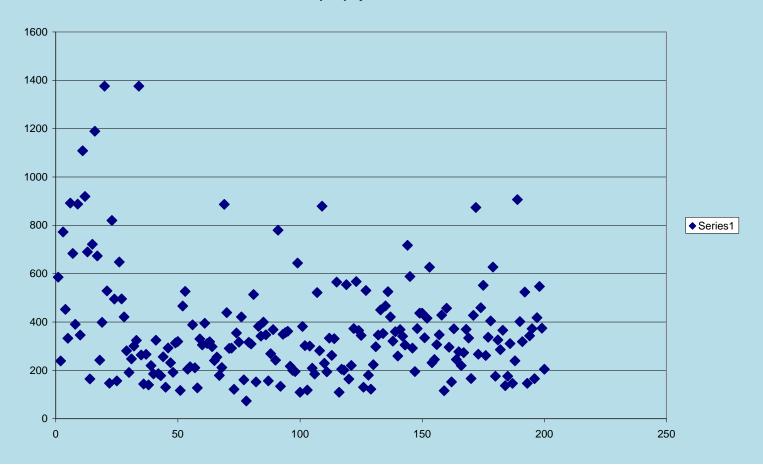
- The Cost Conundrum: What a Texas town can teach us about health care.
- By Atul Gawande June 1, 2009, New Yorker

#### More

- "20% abdominal ultrasounds, 30% bonedensity studies, 60% stress tests with echocardiography, 200% nerve-conduction studies to diagnose carpal-tunnel syndrome, and 550% more urine-flow studies to diagnose prostate troubles."
- Less impact in commercial members

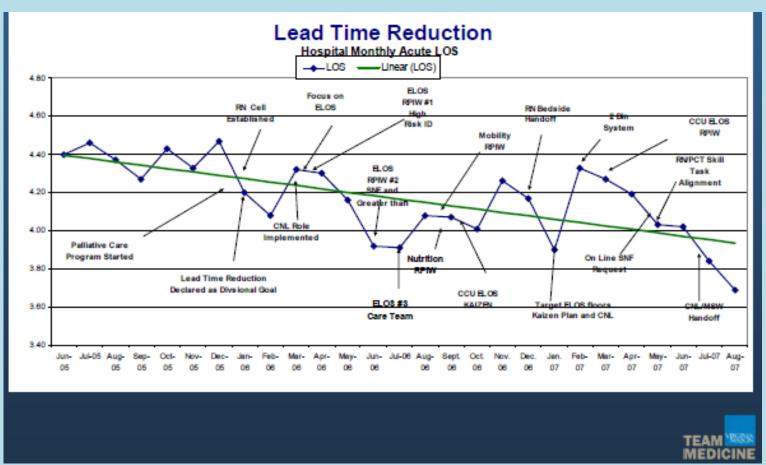
# Variation in Performance—Physician Standard Costs in an Episode of Care

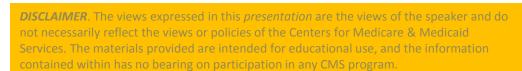
Sample episode - Severity level 1 Cost per physician - standard



# Reengineering and Margin Improvement Virginia Mason

http://www.ehcca.com/presentations/pfpsummit5/kaplan\_2.pdf





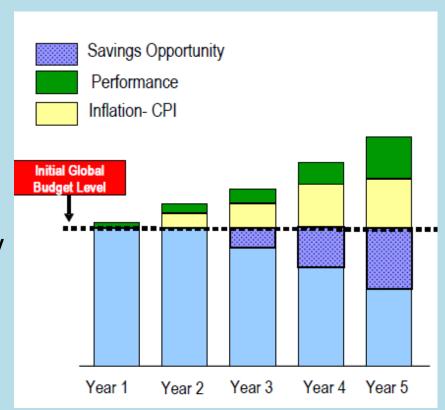
### **Broad PCMH**

http://www.bcbsm.com/pdf/all\_pgip\_groups\_initiative\_selections.pdf

	New Groups							
PGIP Group	Process Improvement Staff - new groups only	Analytics and Reporting Staff - new groups only	*Oncology	Chronic Kidney Disease	Oncology Clinical Pathways	End-stage Renal Disease	Generic Drugs	Radiology
	IC-08-01	IC-08-02	CF-08-01	CF-10-01	CF-10-03	CF-10-03	SF-08-01	SF-08-02
Advantage Health								
Physicians				x			x	x
Beaumont Physicians								
Organization	x	x					x	x
Bronson Medical Group							x	х

## Alternative Quality Contract Blue Cross Massachusetts

- Global budget
- Quality and safety incentives
  - Up to 10% above global budget
- CPI Inflation factor
  - Controlled and predictable
- http://www.bluecrossma.com/v isitor/pdf/alternative-qualitycontract.pdf



## Full Type of Service Chart

#### Exhibit II - 9

#### Star Present Claims

Claims Incurred 04/2007 through 03/2008 Summary of Experience Data: All Claims and Encounters Plan Year 3

Non-Duals

Member Months: Medical - 96,483

			M	ember M	Ionths: Medical	- 96,483				
Benefit	Annual Admits Per 1,000	Average Length of Stay	Annu Utilizat Per 1,0	tion	Average Allowed Per Service	Allowed PMPM	Patient Pay Utilization Per 1,000	Average Patient Pay	Patient Pay PMPM	Paid PMPM
			-							
Hospital Inpatient										
Medical	163.7	4.58	750.2		\$1,829.64	\$114.39	-	\$0.00	\$0.00	\$114.3
Surgical	100.5	4.37	439.3		3,747.52	137.19	-	0.00	0.00	137.1
Psychiatric	3.2	15.73	50.9		649.71	2.75	-	0.00	0.00	2.7
Substance Abuse	1.5	5.83	8.7		751.42	0.55		0.00	0.00	0.5
Mat Norm Delivery	-	0.00	-	days	0.00	0.00	-	0.00	0.00	0.0
Mat Csect Delivery	-	0.00	-	days	0.00	0.00	-	0.00	0.00	0.0
Well Newborn	-	0.00	-	days	0.00	0.00	-	0.00	0.00	0.0
Other Newborn	5.0	0.00	-	days	0.00	0.00		0.00	0.00	0.0
Maternity Non-Delivery	0.2	3.00	0.7	days	1,945.29	0.12		0.00	0.00	0.1
Subtotal	269.1	4.64	1,249.8	days	\$2,448.27	\$254.99	-	\$0.00	00.02	\$254.9
Skilled Nursing Facility	73.6	19.21	1,414.6	days	403.50	47.57	-	0.00	0.00	47.5
Private Duty Nursing/Home H	lealth		109.6	visits	2,653.36	24.23	-	0.00	0.00	24.2
Hospital Outpatient										
Emergency Room			286.4	cases	\$488.81	\$11.67	-	\$0.00	\$0.00	\$11.6
Surgery				cases	869.20	31.63	284.4	142.92	3.39	28.
Radiology General				cases	457.41	10.93	27.1	16.80	0.04	10.
Radiology - CT/MRI/PET				cases	354.72	1.78	12.1	83.12	0.08	1.
Pathology/Lab				cases	82.27	3.42	2.1	30.22	0.01	3.
Drugs				cases	1,619.72	10.21	1.6	8.36	0.00	10.
Cardiovascular			30.5		144.97	0.37	10.4	13.17	0.01	0.
Physical Therapy				cases	379.85	2.22	-	0.00	0.00	2.
Other				cases	154.35	4.96	45.0	163.98	0.62	4.
Subtotal	-	-	2,131.7	- and -	\$434.55	\$77.19	382.8	\$129.85	\$4.14	\$73.
Physician										
Inpatient Surgery - Primary St	urgeon		373 5	proced	\$425.54	\$13.24	373.5	\$87.52	\$2.72	\$10.
Inpatient Surgery - Asst. Surg			3,3.5	proced	0.00	0.00	515.5	0.00	0.00	0.
Inpatient Anesthesia	,0011		106.5		261.15	2.32	106.5	54.21	0.48	1.
Outpatient Surgery			652.2		244.61	13.30	652.2	53.45	2.90	10
Office Surgery			1,663.4		108.62	15.06	1,663.4	25.21	3.49	11.
Outpatient Anesthesia				proced	123.62	1.63	158.6	27.65	0.37	1
Maternity			-	proced	0.00	0.00		0.00	0.00	0
Hosp Visits			1,477.1		104.40	12.85	1,477.1	22.39	2.76	10
Office/Home Visits			7,451.6		73.42	45.59	7,451.6	22.02	13.67	31
Urgent Care Visits				visits	83.51	0.09	12.3	30.40	0.03	0
Office Administered Drugs			2,245.7		176.41	33.01	2,090.5	34.35	5.98	27
Allergy Testing				units	169.33	0.20	13.9	41.35	0.05	0
Allergy Immunotherapy				visits	24.23	0.15	72.9	5.79	0.04	0
Misc Medical				proced	83.75	11.09	1,578.2	19.48	2.56	8
Immunizations				proced	16.93	1.75	125.0	6.78	0.07	1
Well Baby Exams			-,	visits	0.00	0.00	-	0.00	0.00	0
Physical Exams			31.0		85.48	0.22	31.0	16.94	0.04	0
a any order amounts					88.73	4.40	595.5	28.88	1.43	2
Vision Exams										
Vision Exams Speech and Hearing Exams			595.5 35.2		63.41	0.19	35.2	18.14	0.05	0

## Data—Beyond Medical Claims

- Enrollment
- Notice of admission
- Emergency room
- Patient engagement
- Personal health assessment
- Disease registry
- Lab data
- Pharmacy (for health management and risk)



## Module 4A: Risk Sharing, Incentives, and Startup/Capital Needs

**Greger Vigen, FSA, MBA Independent Actuary**