

ACO Accelerated Development Learning Session

San Francisco, CA
September 15-16, 2011

Module 4. Risk Sharing, Incentives, and Start-Up/Capital Needs



September 16, 2011
10:45 a.m.–12:45 p.m.

Greger Vigen, FSA, MBA
Independent Actuary

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Introductions and Your Background

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

Content for Module 4A

- Business context
- Opportunities based on population and existing utilization
 - Estimate effects on services utilization and savings
 - Anticipate effects on operating expenses and Fee for Service revenues
 - System for financial analysis, planning, and budgeting
- Payment reform – funding options
 - Risk sharing among partners
 - Distributing savings/losses and creating incentives to providers
- Resources, expenses, investment, and capital
 - Estimate resources required
 - Estimate start-up investment and capital

Business Context

- Major business issues
- Not a deep dive technical presentation on any topic

Potential Magnitude in Existing Commercial (non-Medicare) Products

- “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.”

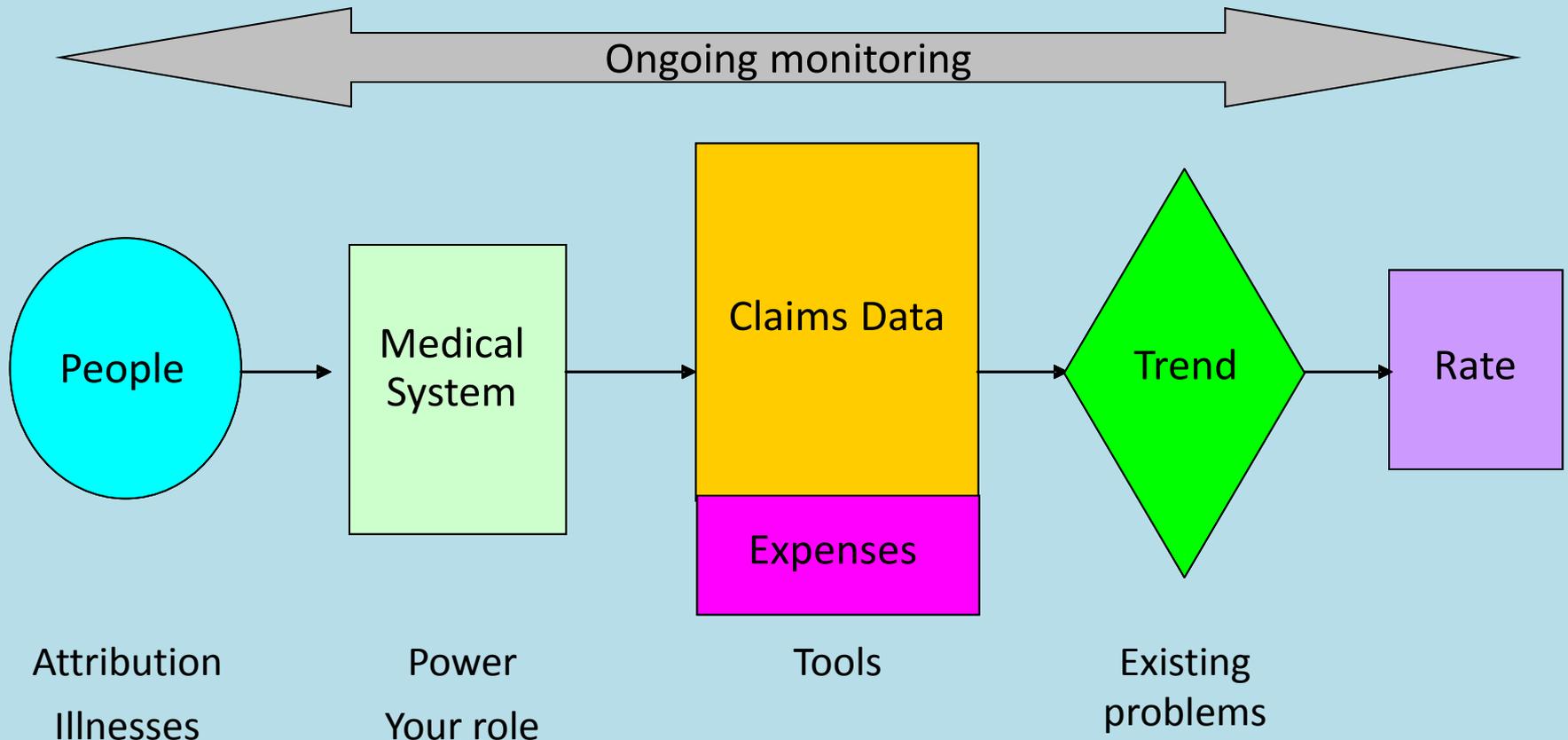
<http://businessroundtable.org/studies-and-reports/business-roundtable-hewitt-health-care-study-i/>

- Similar programs are working in other locations

Implementation Questions – Business Your Status?

- Do key executives understand financial implications for status quo?
- Do you have a trusted financial partner (carrier, consultant, MSO)?
 - Early financial claims summaries and detail
 - Used for broad advice or targeted situations
- Are roles and responsibilities defined and balanced?
- Do you have internal financial capabilities?

Build from Rate Projection Process Monitor and Rate



Attribution Alignment

Alignment Anchor

- Ultimate goal—connect the right doctor to the patient
 - Highly technical – currently based on formulas
 - Hopefully industry will move beyond formulas and do significant research
- Easy to touch (existing contact) or powerful (patient needs a physician)
- Once the patient is assigned to the ACO, ACO can attach patients to physicians using different logic
- Cost projections for subsets of populations are not random; costs can be unstable

Full Type of Service Chart

Exhibit II - 9

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

Risk Score 1.134

Benefit	Annual Admits Per 1,000	Average Length of Stay	Annual Utilization Per 1,000	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 days	\$1,829.64	\$114.39	-	\$0.00	\$0.00	\$114.39
Surgical	100.5	4.37	439.3 days	3,747.52	137.19	-	0.00	0.00	137.19
Psychiatric	3.2	15.73	50.9 days	649.71	2.75	-	0.00	0.00	2.75
Substance Abuse	1.5	5.83	8.7 days	751.42	0.55	-	0.00	0.00	0.55
Mat Norm Delivery	-	0.00	- days	0.00	0.00	-	0.00	0.00	0.00
Mat Csect Delivery	-	0.00	- days	0.00	0.00	-	0.00	0.00	0.00
Well Newborn	-	0.00	- days	0.00	0.00	-	0.00	0.00	0.00
Other Newborn	-	0.00	- days	0.00	0.00	-	0.00	0.00	0.00
Maternity Non-Delivery	0.2	3.00	0.7 days	1,945.29	0.12	-	0.00	0.00	0.12
Subtotal	269.1	4.64	1,249.8 days	\$2,448.27	\$254.99	-	\$0.00	\$0.00	\$254.99
Skilled Nursing Facility									
	73.6	19.21	1,414.6 days	403.50	47.57	-	0.00	0.00	47.57
Private Duty Nursing/Home Health									
			109.6 visits	2,653.36	24.23	-	0.00	0.00	24.23
Hospital Outpatient									
Emergency Room			286.4 cases	\$488.81	\$11.67	-	\$0.00	\$0.00	\$11.67
Surgery			436.7 cases	869.20	31.63	284.4	142.92	3.39	28.24
Radiology General			286.8 cases	457.41	10.93	27.1	16.80	0.04	10.89
Radiology - CT/MRU/PET			60.3 cases	354.72	1.78	12.1	83.12	0.08	1.70
Pathology/Lab			499.5 cases	82.27	3.42	2.1	30.22	0.01	3.42
Drugs			75.6 cases	1,619.72	10.21	1.6	8.36	0.00	10.21
Cardiovascular			30.5 cases	144.97	0.37	10.4	13.17	0.01	0.36
Physical Therapy			70.0 cases	379.85	2.22	-	0.00	0.00	2.22
Other			385.8 cases	154.35	4.96	45.0	163.98	0.62	4.35
Subtotal			2,131.7	\$434.55	\$77.19	382.8	\$129.85	\$4.14	\$73.05
Physician									
Inpatient Surgery - Primary Surgeon			373.5 proced	\$425.54	\$13.24	373.5	\$87.52	\$2.72	\$10.52
Inpatient Surgery - Asst. Surgeon			- proced	0.00	0.00	-	0.00	0.00	0.00
Inpatient Anesthesia			106.5 proced	261.15	2.32	106.5	54.21	0.48	1.84
Outpatient Surgery			652.2 proced	244.61	13.30	652.2	53.45	2.90	10.39
Office Surgery			1,663.4 proced	108.62	15.06	1,663.4	25.21	3.49	11.56
Outpatient Anesthesia			158.6 proced	123.62	1.63	158.6	27.65	0.37	1.27
Maternity			- proced	0.00	0.00	-	0.00	0.00	0.00
Hosp Visits			1,477.1 visits	104.40	12.85	1,477.1	22.39	2.76	10.09
Office/Home Visits			7,451.6 visits	73.42	45.59	7,451.6	22.02	13.67	31.92
Urgent Care Visits			12.3 visits	83.51	0.09	12.3	30.40	0.03	0.05
Office Administered Drugs			2,245.7 proced	176.41	33.01	2,090.5	34.35	5.98	27.03
Allergy Testing			13.9 units	169.33	0.20	13.9	41.35	0.05	0.15
Allergy Immunotherapy			72.9 visits	24.23	0.15	72.9	5.79	0.04	0.11
Misc Medical			1,588.8 proced	83.75	11.09	1,578.2	19.48	2.56	8.53
Immunizations			1,242.2 proced	16.93	1.75	125.0	6.78	0.07	1.68
Well Baby Exams			- visits	0.00	0.00	-	0.00	0.00	0.00
Physical Exams			31.0 visits	85.48	0.22	31.0	16.94	0.04	0.18
Vision Exams			595.5 visits	88.73	4.40	595.5	28.88	1.43	2.97
Speech and Hearing Exams			35.2 visits	63.41	0.19	35.2	18.14	0.05	0.13
ER Visits and Observation Care			433.2 visits	125.04	4.51	433.2	27.81	1.00	3.51

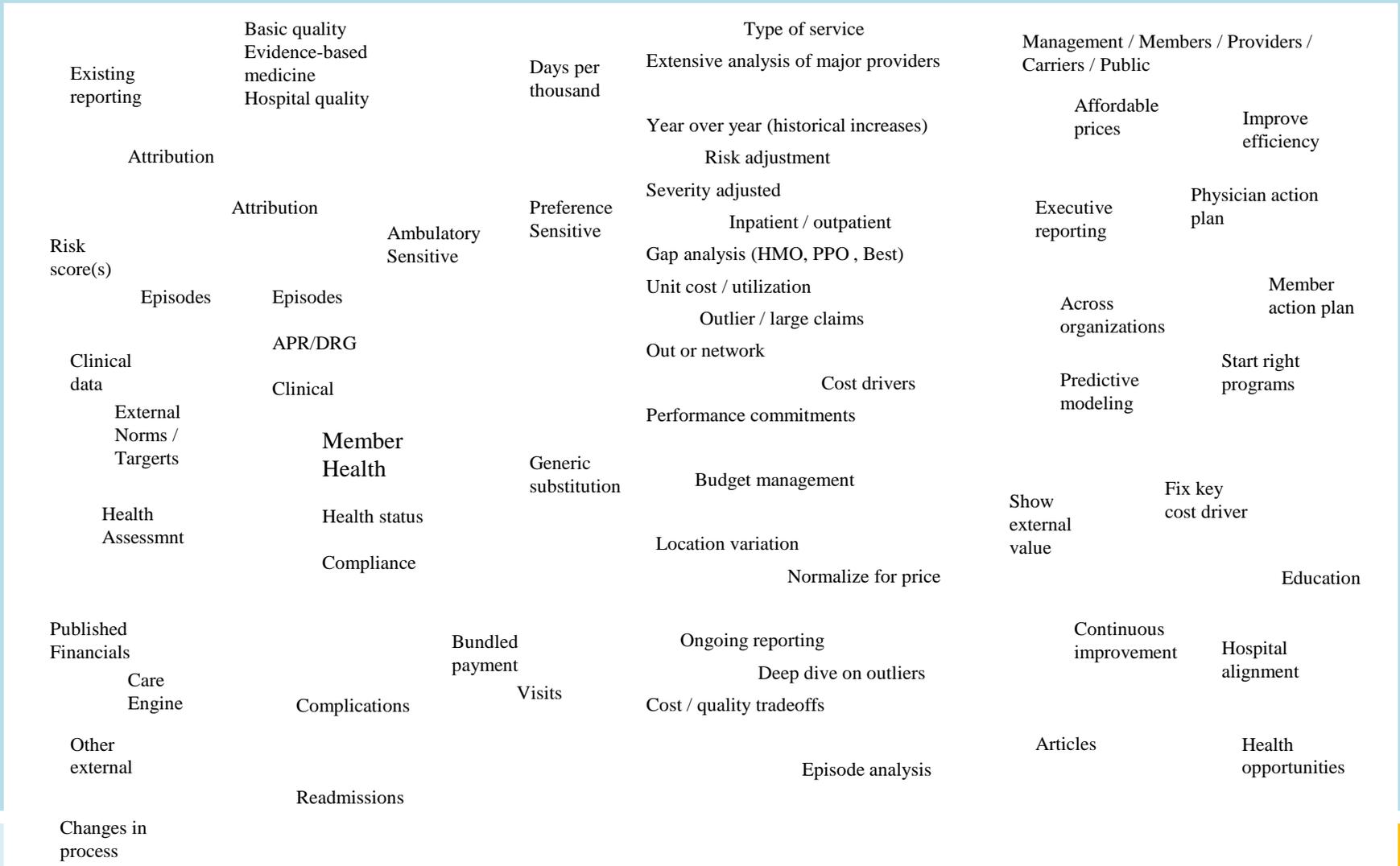
Blow-Up from Old Public Table

		Allowed PMPM
Professional Health Care Services		
Hospital Visits	\$ 1.74	\$ 2.64
Inpatient - Surgery	2.30	2.96
Outpatient - Surgery	7.36	10.98
Other - Surgery	0.19	0.24
Anesthesia	3.82	5.46
Office Visits - Primary	9.00	12.88
Office Visits - Specialist	4.03	5.74
Preventive Visits - Primary	4.91	7.37
Preventive Visits - Specialist	0.69	0.45
Emergency Room Visit	1.94	3.06
Consultation	3.43	5.23

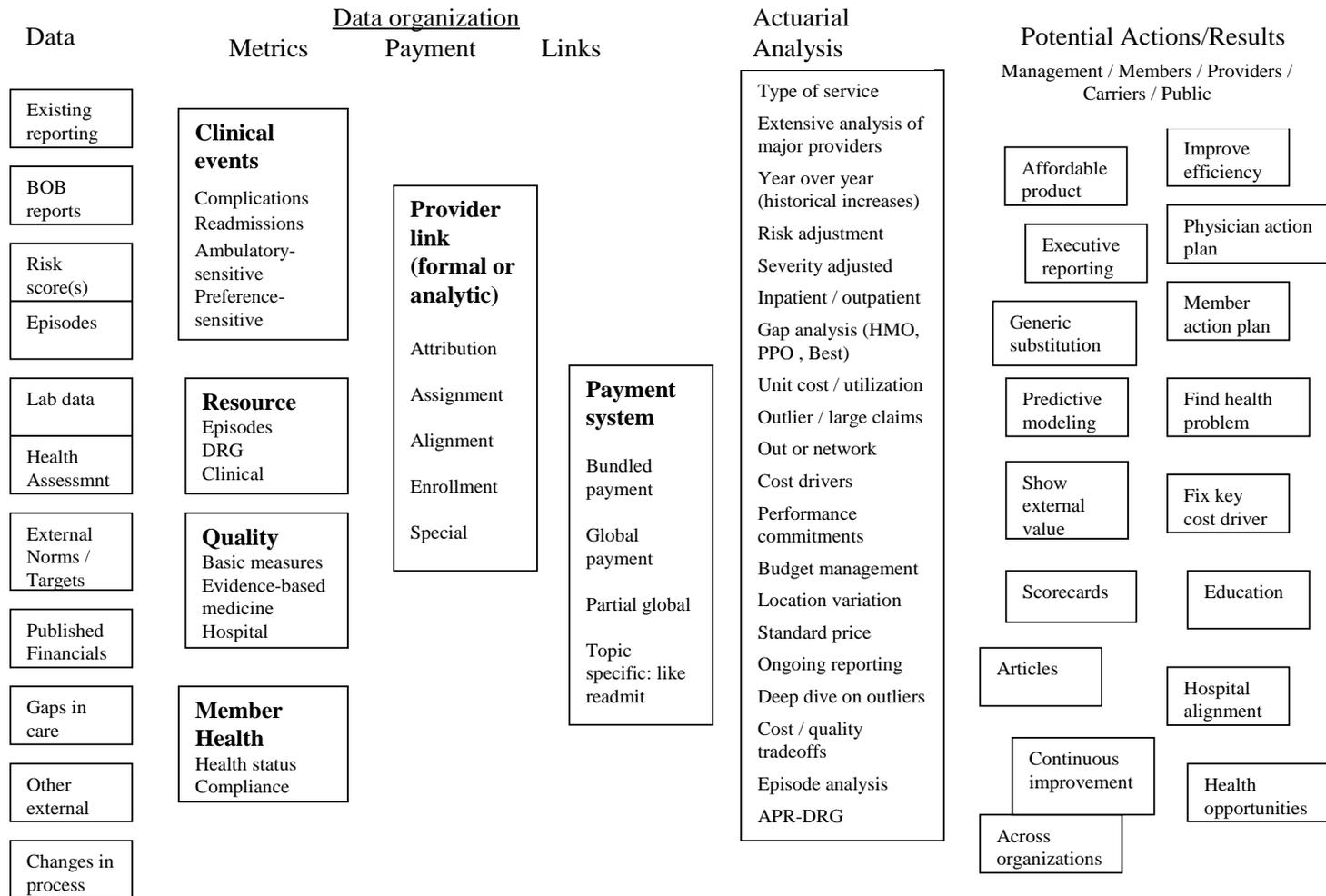
Claims Data – Analytic Opportunities

- Individual patient information is available
 - Typically a four 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 and/or paid amounts
 - Provider identification mixed
 - Diagnosis depends on input and processor effort
 - Physician level drill down from a few leading firms

Data and Analytics – Chaos Across One-Sixth of the Economy



Beyond Chaos – Analytic Structure



Trends and Management

Key Reports

Purpose

- Quantify illness burden
- Track results/project rates
- Evaluate reserves
- Evaluate cost growth trends (fees and utilization)
- Acute, inpatient cost
- Outpatient and total cost
- Outpatient pharmacy cost
- Build surplus
- Topic-specific analysis

Major tool/concept

- Risk Adjustment / Age / Gender
- Monthly claims
- Lag triangles
- Reports by various types of service
- DRG analysis
- Episode analysis
- Therapeutic class
- Risk-based capital
- Readmissions
- Ambulatory sensitive
- Preference sensitive
- Complication rates

Risk Scores – Two Very Different Tools and Purposes

- Risk Adjustment – overall population risk
(for instance, for aligned population comparisons)
 - Similar, but different, metrics for Medicare and commercial
 - Prospective (project the future risk) or retrospective (explain the past)
 - All claims used as input or just pharmacy
- Predictive Modeling – high-risk populations
 - Additional elements can be added, such as condition-specific filters that show whether action is possible
- Both are valuable, but they are not the same. It is crucial to understand technical strengths and weaknesses.

Fundamental Principles

- In times of major change, it is essential to track the external environment
- Financial issues are hard to discuss in public forums
- For affordable programs, must focus significant energy on cost and waste – does not fix itself
- Measurement is a strong force for change
- Quality by itself only sometimes creates cost savings
- 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
- Do what is powerful, not just what is easy

Implementation Questions – Technical

Your Status

- Do you understand the finances for ...
 - The population you are managing
 - Costs outside of your organization
 - System constraints for partners
 - Existing trends and cost drivers
- Do you understand the new strong tools
 - Can you distinguish the stronger vendors/tools
- Reality check on the financial impact of various initiatives
- Buy, build, partner, or rent (short or long term)

Analysis – Multiple Stages Over Time

- Priorities setting: Intuitive → Formal
- Retrospective analysis → Planning and projections
- Available data → Broad data base
- Internal trend → External standard (average) → External target (leading edge)
- Extended disease registry → Various versions of electronic health records (EHR)
- None → Episode analysis
- None → 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

Analysis – Multiple Stages Over Time

What Is Your Status?

- Priorities setting: Intuitive → Formal
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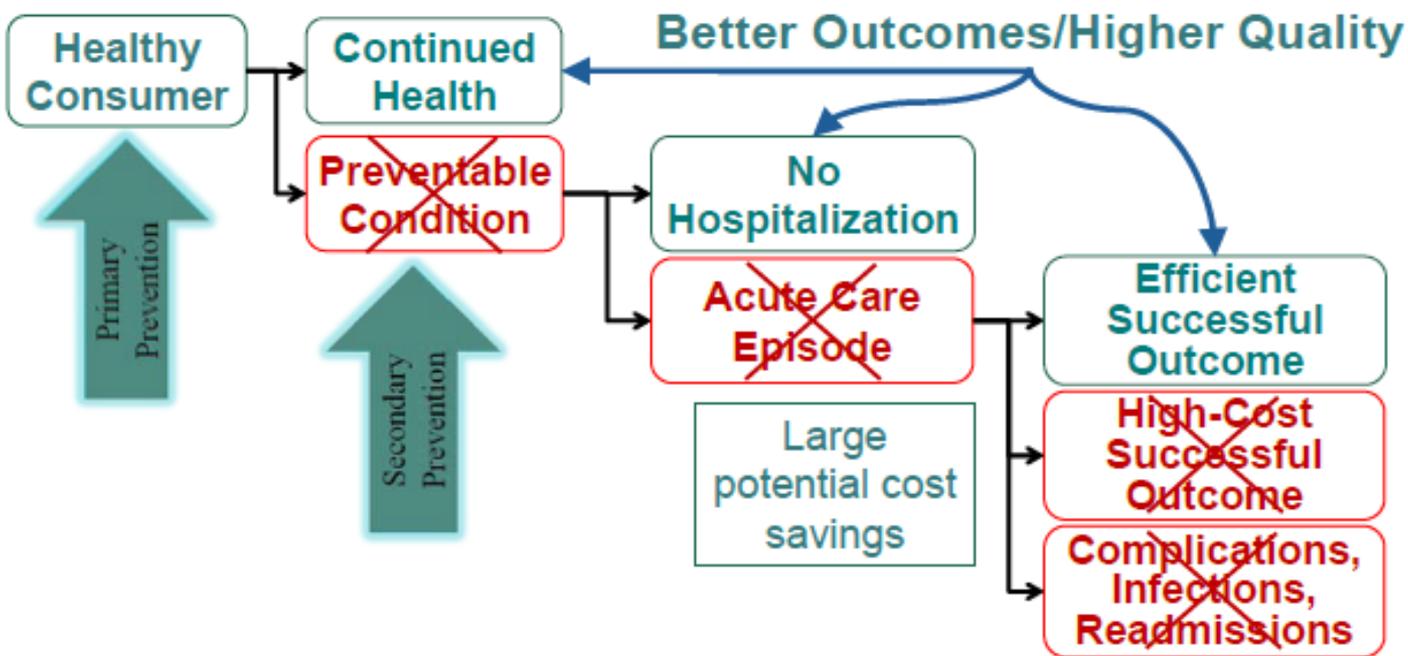
Payment Reform – Different Funding Options

Funding Options – Overview

- Move to a powerful ultimate state with a multi-year plan
- Initial ACO funding is a business decision
 - The absolute dollar rate (or target cost or trend) is crucial
 - As transition, may have simpler options (such as fixed payments) to cover expenses or shared savings
- At the provider level, target option to specialty

The Financial Incentives

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



Model courtesy of Harold Miller and the Center for Healthcare Quality and Payment Reform

PREMIER

Transforming Healthcare Together®

Funding Methods

Names Overlap – Still Being Defined

Approach	Total Cost	Illness	Service
• ACO/Pioneer	✓		
• Bundled payment		✓	
• Complication reduction		✓	
• Global payment – total	✓		
• Partial global payment			✓
• Shared savings	✓		
• Pay-for-performance		✓	
• Primary care payment		- -	Varies - -
• Patient-Centered Medical Home (PCMH)	- - - -	Varies	- - - -

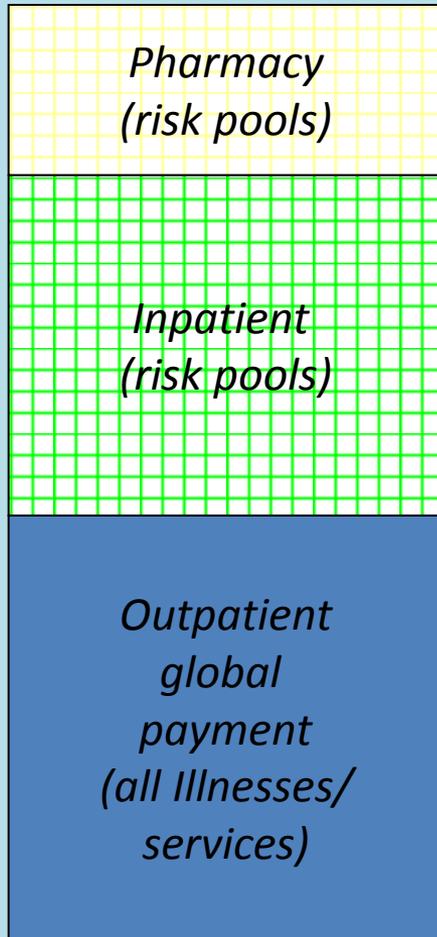
Funding Methods – Paradigm Shift

- Much can be accomplished with only partial provider alignment
- Physician and hospital perspectives are quite different
- For physicians—the concept of “manage waste as if it was my own money” has been powerful
 - Given multi-year arrangements and set population, little incentive for underutilization that magnifies future financial and quality problems
- 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 waste
 - Sometimes this works better for all payers (Medicare, Medicaid, and commercial) – margin gain on one offsets margin loss on another
 - Each condition and/or department can be discussed separately

Funding Methods Matched to Provider

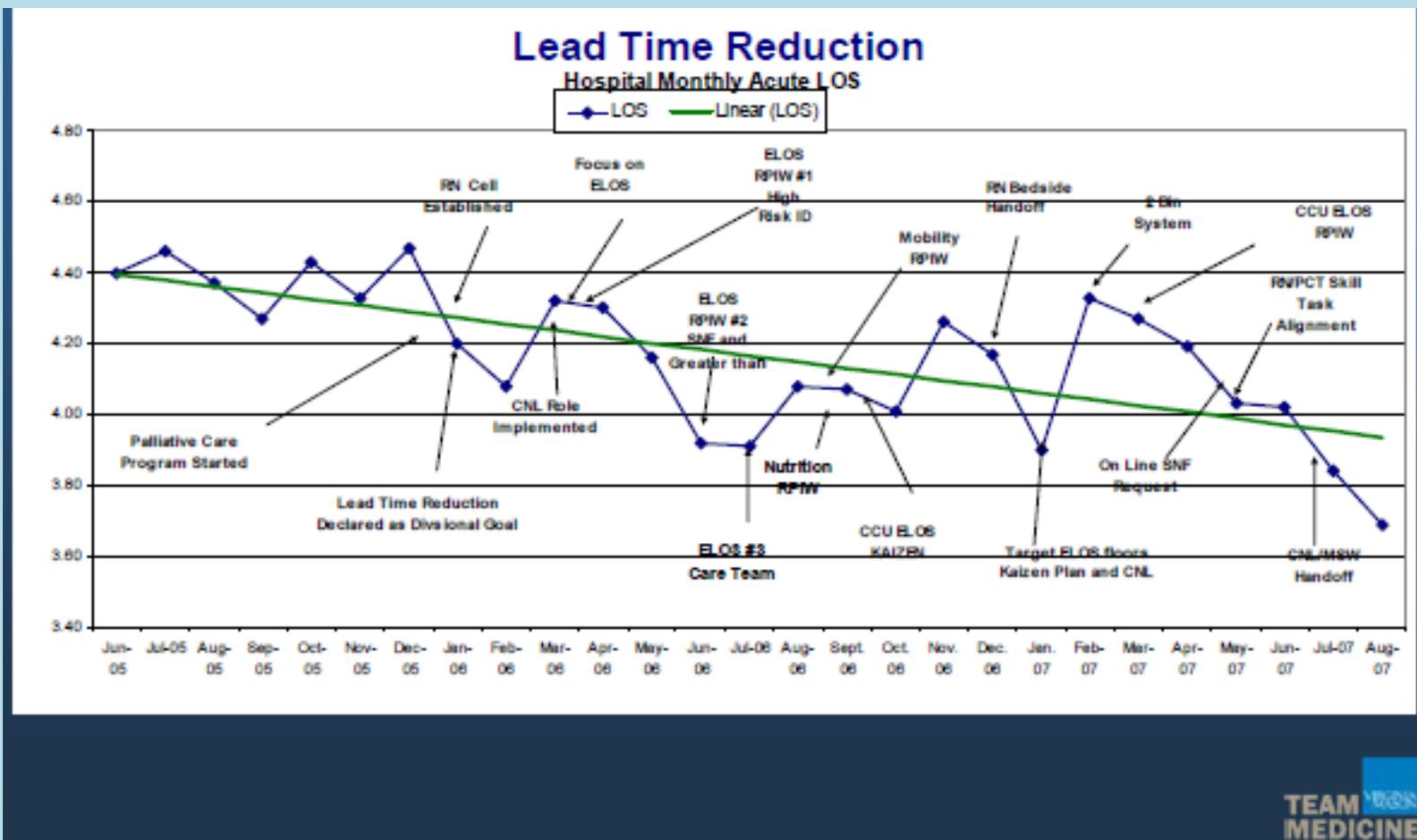
- ACO / Pioneer Overall organization
- Bundled payment Hospital/specialist
- Complication reduction
 - Acute Hospital/specialist
 - Chronic Primary care/specialist
- Global payment—total Overall organization
- Partial global payment Physician organization
- Shared savings Overall organization
- Pay-for-performance All providers
- Primary care Varies
 - Systems, support, dollars
- PCMH Varies

Partial Global – by Type of Service Dollars or Virtual Budgets



- 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

Virginia Mason Reengineering



http://www.ehcca.com/presentations/pfpsummit5/kaplan_2.pdf

Key Implementation Questions

- Do you have data for total system costs?
- Do you know strengths and weaknesses of the better national practices associated with the payment option under consideration?
- Do you have a clear end state in mind? Does the payment option ...
 - 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

Financial Impact – Key Levers

By Major Program

	Medicare	Commercial
Admissions	Yes	Yes
Pharmacy	--	Yes
Leakage	Yes	Yes
Price	--	Yes
Provider variation	Yes	Yes
Ambulatory care	Yes	Yes
Quality	Mixed	Mixed
Emergencies	Yes	Yes
Resource management	Yes	Yes

Financial Impact—Key Levers If Patient Health Done Well

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

* Financial impact only for specific condition

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)

Operating Expenses

A Recently Published Perspective

The Work Ahead: Activities and Costs

McManis/AHA

1,200-bed, 5-hospital system; 250 PCPs; 500 specialists

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		
1. Providing ACO management and staff	\$600,000	\$3,200,000
2. Leveraging the health system's management resources	\$300,000	\$250,000
3. Engaging legal and consulting support	\$500,000	\$125,000
4. Developing financial and management information support systems	\$500,000	\$160,000
5. Recruiting/acquiring primary care professionals, right-sizing practices	\$800,000	1,600,000
6. Developing and managing relationships with specialists	*	*
7. Developing and managing an effective post-acute care network	*	*
8. Developing contracting capabilities	\$150,000	\$150,000
9. Compensating physician leaders	\$190,000	\$190,000

The Work Ahead: McManis / AHA

Estimated Expenses (published)

1,200-bed, 5-hospital system; 250 PCPs; 500 specialists

	Start-up	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

Expenses represented in millions

Decision Tool – Simplified

Initiative	Impact		Ease	Systems	Others' money
	Savings	Clinical			

Random Cost Variation

Size of ACO

- From an actuarial perspective, a known population of 5,000 lives has stable total costs
 - Although more lives needed for deeper dives
- But, 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 Requirements

- Funds must be held by insurance companies to ensure they can pay claims. Insurance rules are based on a national structure called Risk-Based Capital (RBC).
 - 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 incurred but not reported (IBNR) claims liability documented monthly, and
 - 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

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

Services Included in Typical Diabetes ECR

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 minor 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%

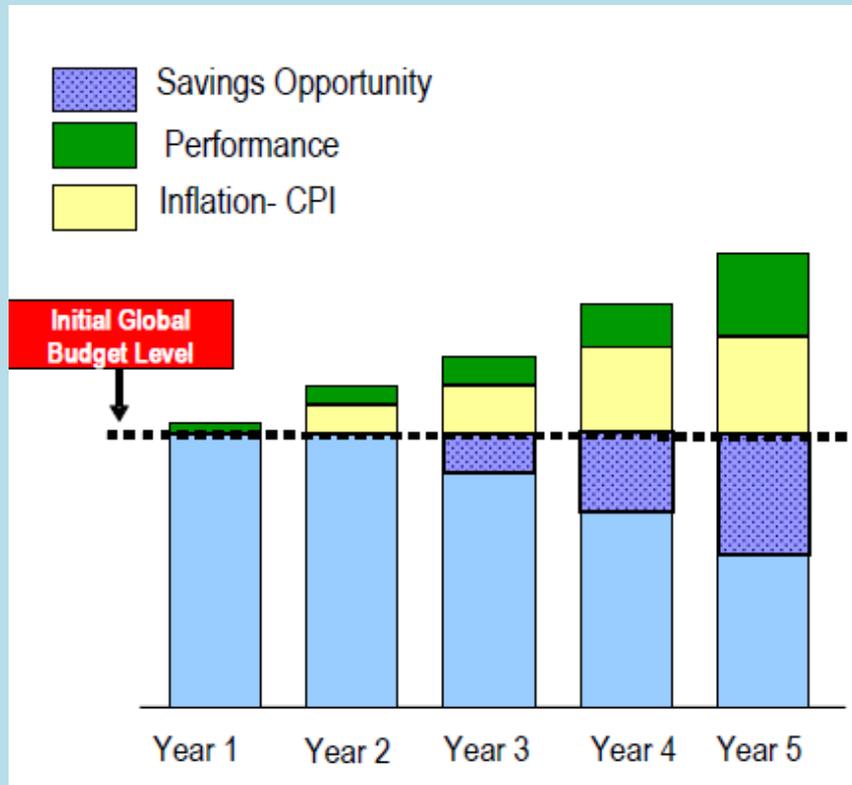
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Broad-Based PCMH

	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	x

http://www.bcbsm.com/pdf/all_pgip_groups_initiative_selections.pdf

Alternative Quality Contract Blue Cross Massachusetts



- Global budget
- Quality and safety incentives
 - Up to 10% above global budget
- Consumer Price Index (CPI) inflation factor
 - Controlled and predictable

<http://www.bluecrossma.com/visitor/pdf/alternative-quality-contract.pdf>

Measure Provider Variation in Performance and Motivation



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

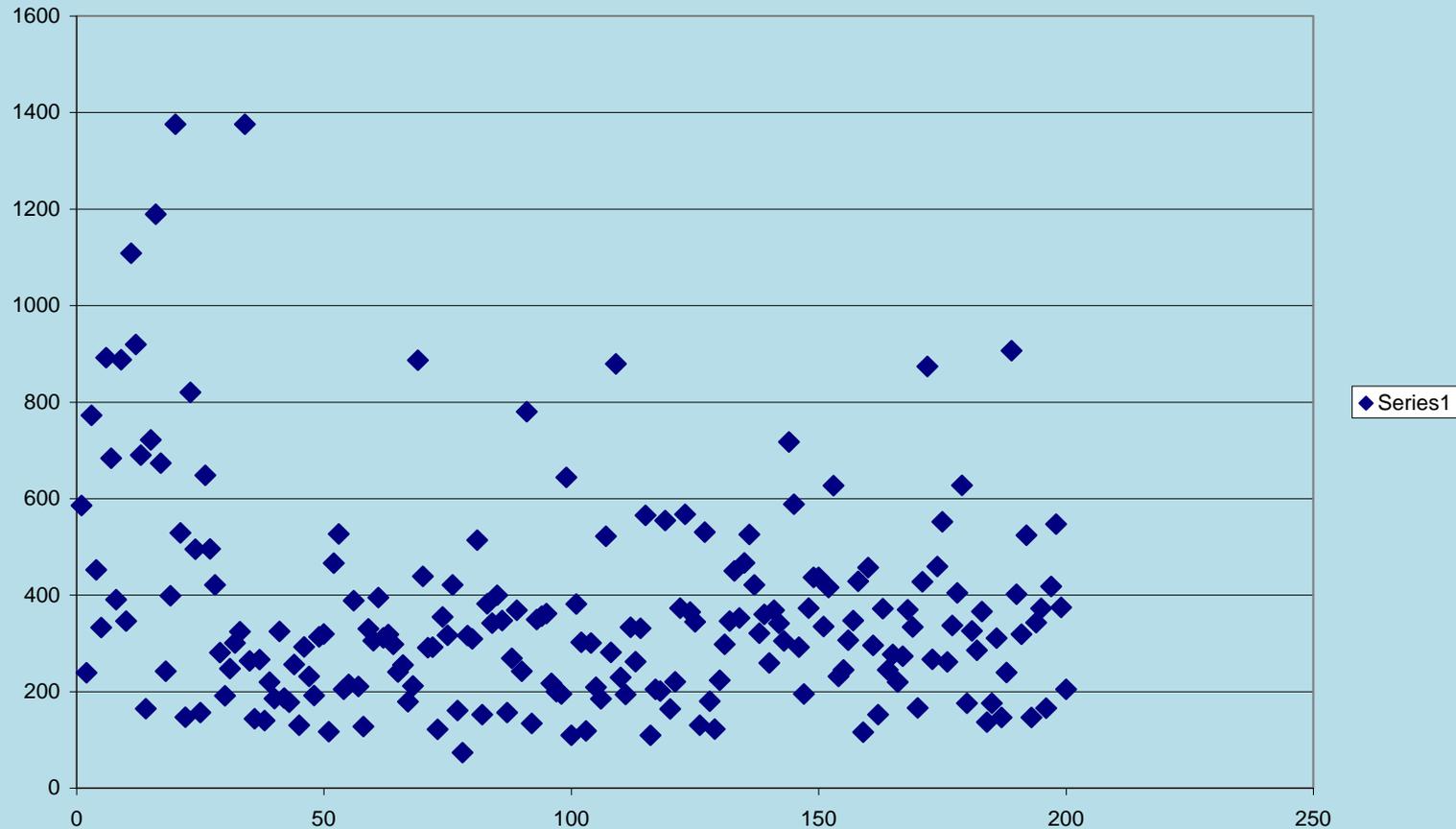
More

- “20% abdominal ultrasounds, 30% bone-density 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 within an Episode of Care

Standard Costs

Sample episode - Severity level 1
Cost per physician - standard



Generic Compliance

Monarch HealthCare Generic Prescription Rate for Commercial Members

Note: Aetna 2004 discarded due to data integrity issue



Carrier/Physician/Hospital Alliance

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 re-admissions and \$20 million in savings. The program in San Francisco is expected to benefit

- **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



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Greger Vigen, FSA, MBA
Independent Actuary
gregervigen@yahoo.com

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