Health Premium Risk Adjustment

Proposed Methodology

Pension and Health Benefits Committee
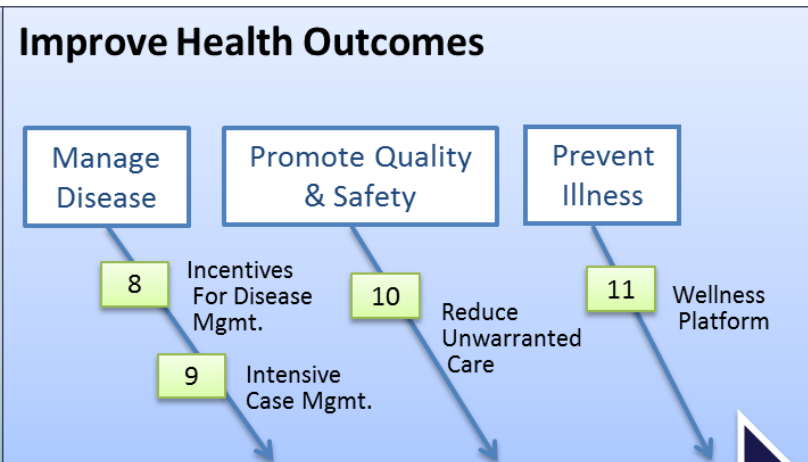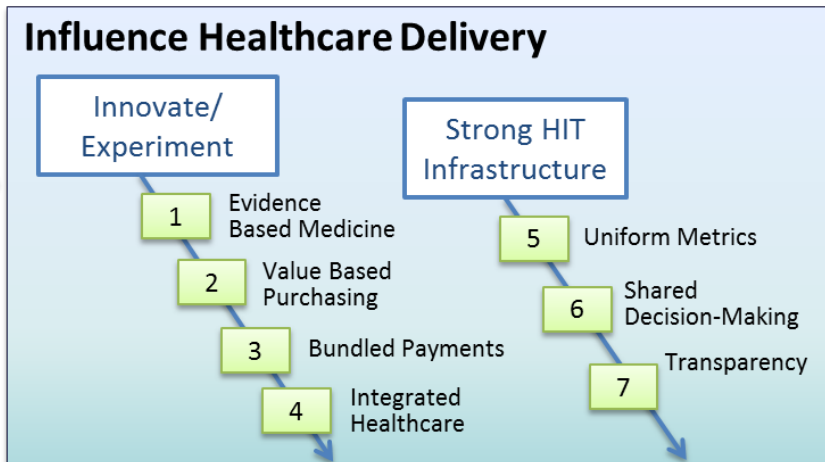February 20, 2013
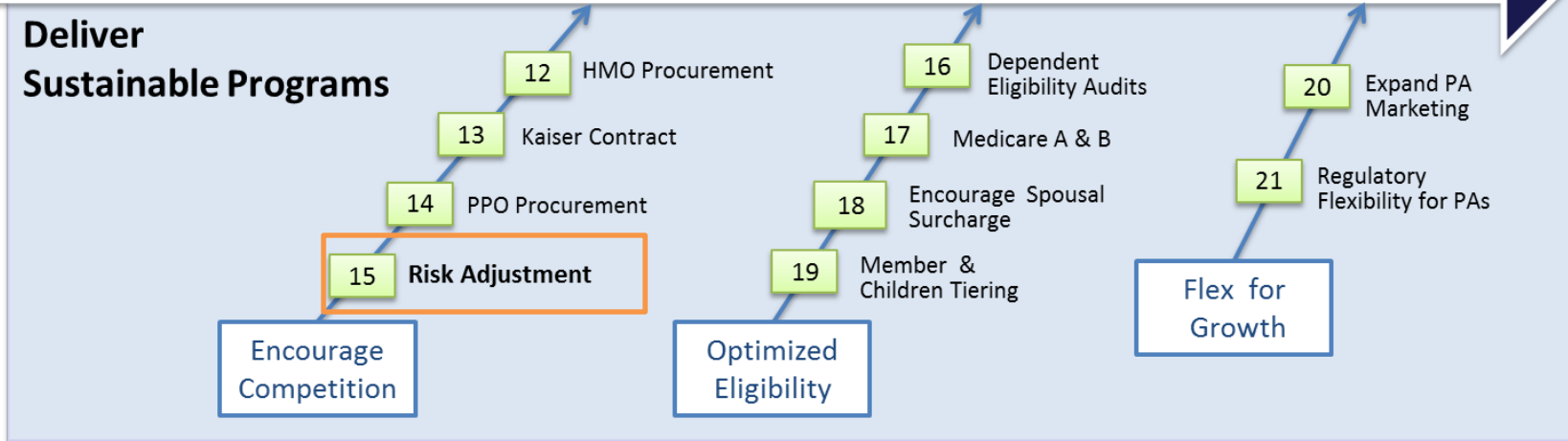
CalPERS

Today's Discussion

- Historical Perspective
  - CalPERS
  - Marketplace

- Risk Models

- Adverse Selection

- Risk Adjustment
  - Benefits
  - What it is
  - How it works
  - Best practice

- Risk Adjustment Methodology

- Next Steps

In January and March 2012 risk adjustment was approved as one of the 21 strategies

The Premium Normalization Study outcomes support a risk adjustment process

2012

Jan

Feb

Mar ⭐

Apr

May

Jun

...

Aug

Sep

Oct

- In March 2012, staff presented the results of the Premium Normalization Study

- The three year study compared health plan efficiency taking into account differences in:

  - Cost sharing (benefit design)
  - Member health status
  - Geographic service areas

- Completed by Milliman using a standard risk assessment tool which looks at medical and drug costs

- Reviewed and accepted by CalPERS health plans

- Reproducible in future years by internal CalPERS staff

Received input through RFI process and follow-up discussions

2012

Jan

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Apr

May

Jun

...

Sept

Oct

Nov

Dec

- RFI Responses included:
    - Will work with CalPERS on a mutually agreeable process
    - A detailed risk adjustment method
    - Use the CMS approach
    - ALL plans must be participants in the process
    - "must be well understood by all parties & not subject to gaming"
- Held discussions with health plans
    - Conducted follow-up RFI calls with a couple plans
- Held discussions with Mercer & Aon/Hewitt
    - Assisted in determining level of details and requirements for the HMO & PPO procurements

CalPERS legal authority to risk adjust

2012

Jan

...

Apr

May

Jun

...

Sept

Oct

Nov

Dec

- Statutory authority though AB 2142 Chaptered 9/22/12:
  - Grants the Board authority, at its sole discretion, to implement risk adjustment
  - Permits development of procedures for risk adjustment
  - Requires health plans to adjust and redistribute premiums

- Upon approval by the Board to exercise its authority to risk adjust, the regulations:
  - Require plan participation
  - Establish that adopted premiums are risk adjusted
  - Outline a reimbursement and reconciliation process
  - Require transparency and communication to plans allowing review and validation of the data being relied upon

Historical Perspective

Validation of the methodology

2012

Jan

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Apr

May

Jun

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Sept

...

Dec

Jan

- Met with plans to seek input
  - Refined approach based on Kaiser input
  - Discussion with other plans during confidential discussions and after procurements
- Engaged Milliman to review/refine the methodology
  - Experienced actuary & leader with wide range of experience ranging from helping payers set risk adjusted rates to health plans, helping health plans understand risk adjusted rates from payers, and helping California carriers understand the impact of the HHS regulations
- Attended an Assembly informational hearing
  - Chaired by Dr. Richard Pan
  - Presenters included academicians, industry experts, advocates & State regulators
  - Risk adjustment seen as essential to sustainability of Exchanges

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Risk adjustment is widely used in the marketplace today

- Centers for Medicare & Medicaid Services (CMS) to determine payments to plans for
  - Medicare Advantage (Part C)
  - Medicare Prescription Drugs (Part D)

- Many state Medicaid programs to pay managed care plans

- Health plans to set provider payment rates

- Payers such as UC, Stanford University, & the Washington Health Care Authority

- Permanent program for the Health Exchanges for individual and small group markets; inside and outside the Exchange

"The primary goal of the risk adjustment program is to better spread the financial risk borne by health insurance issuers. This will ensure that premiums remain stable so that issuers will be able to offer a variety of plans to meet the needs of a diverse population."
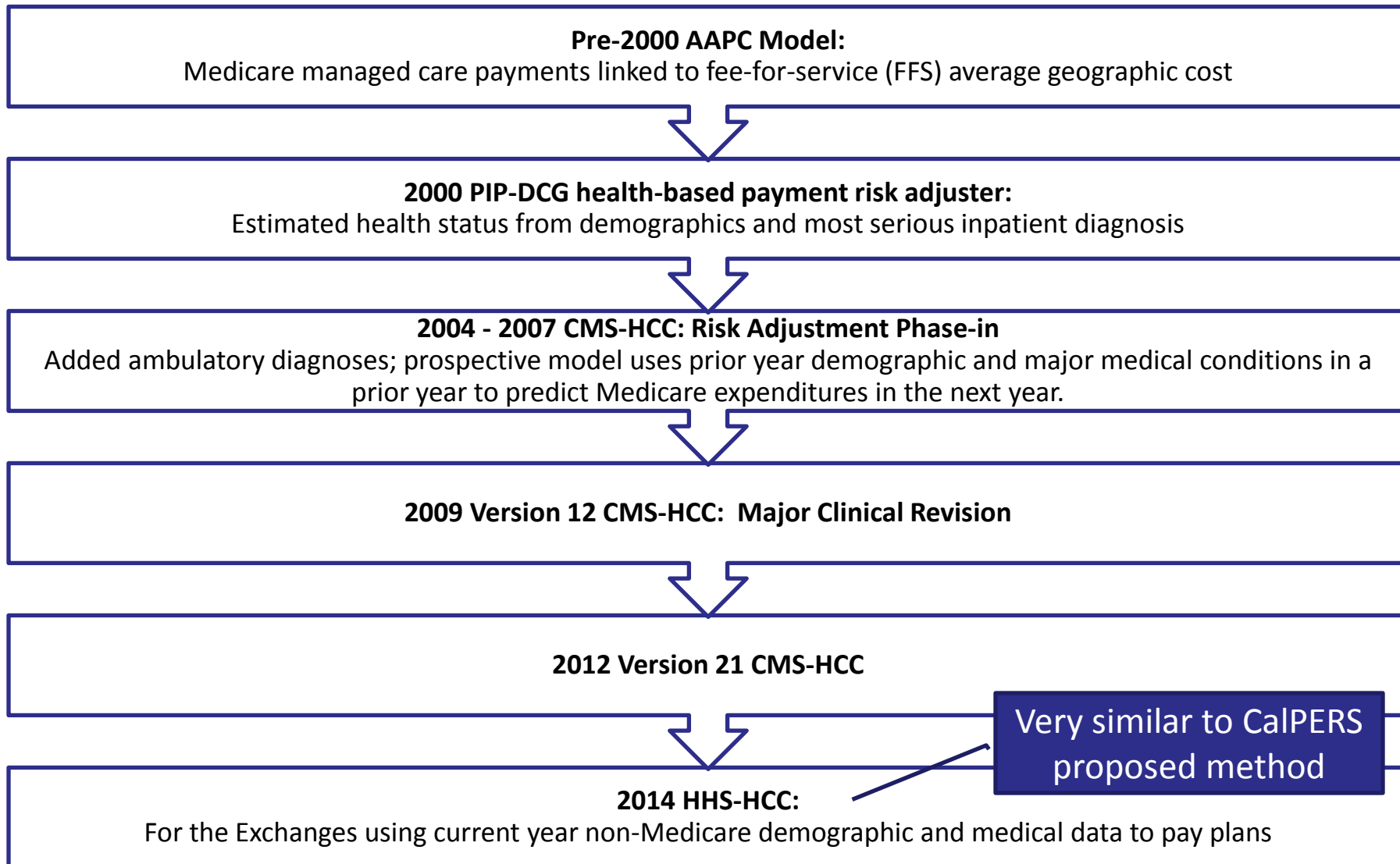News release, March 16, 2012, http://www.healthcare.gov/news/factsheets/2012/03/risk-adjustment03162012a.html
A federal government website managed by the U.S. Department of Health & Human Services

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Federal regulations and guidance

- After enactment of the ACA several regulations have guided federal implementation of risk adjustment
  - January 15, 2013 - Instructions for the Proposed HHS Risk Adjustment Model and Technical Details on the Proposed HHS Risk Adjustment Model
  - December 7, 2012 (CMS-9964-P) - HHS Benefit and Payment Parameters for 2014, and Medical Loss Ratio
  - November 26, 2012 (CMS-9980-P) - Standards Related to Essential Health Benefits, Actuarial Value, and Accreditation
  - May 1, 2012 - Bulletin on the Risk Adjustment Program: Proposed Operations by the Department of Health and Human Services
  - March 23, 2012 (CMS-9975-F) - Standards Related to Reinsurance Risk Corridors and Risk Adjustment
  - July 15, 2011 (CMS-9975-P) - Standards Related to Reinsurance, Risks Corridors and Risk Adjustment

- CalPERS plans have stated their support for the HHS approach and method through public comments in 2011 and 2012

HHS risk adjustment has a long evolutionary history

Pre-2000 AAPC Model:
Medicare managed care payments linked to fee-for-service (FFS) average geographic cost

↓

2000 PIP-DCG health-based payment risk adjuster:
Estimated health status from demographics and most serious inpatient diagnosis

↓

2004 - 2007 CMS-HCC: Risk Adjustment Phase-in
Added ambulatory diagnoses; prospective model uses prior year demographic and major medical conditions in a prior year to predict Medicare expenditures in the next year.

↓

2009 Version 12 CMS-HCC: Major Clinical Revision

↓

2012 Version 21 CMS-HCC

↓

2014 HHS-HCC:
For the Exchanges using current year non-Medicare demographic and medical data to pay plans

Very similar to CalPERS proposed method

The CMS, HHS, and CalPERS models are similar

ICD-9-CM Codes
(n = 14,000+)

↓

Diagnostic Groups (DXGs)
(n = 805)

↓

Condition Categories (CCs)
(n = 189)

↓

Hierarchical
Condition Categories (HCCs)
(n = 189)

↓

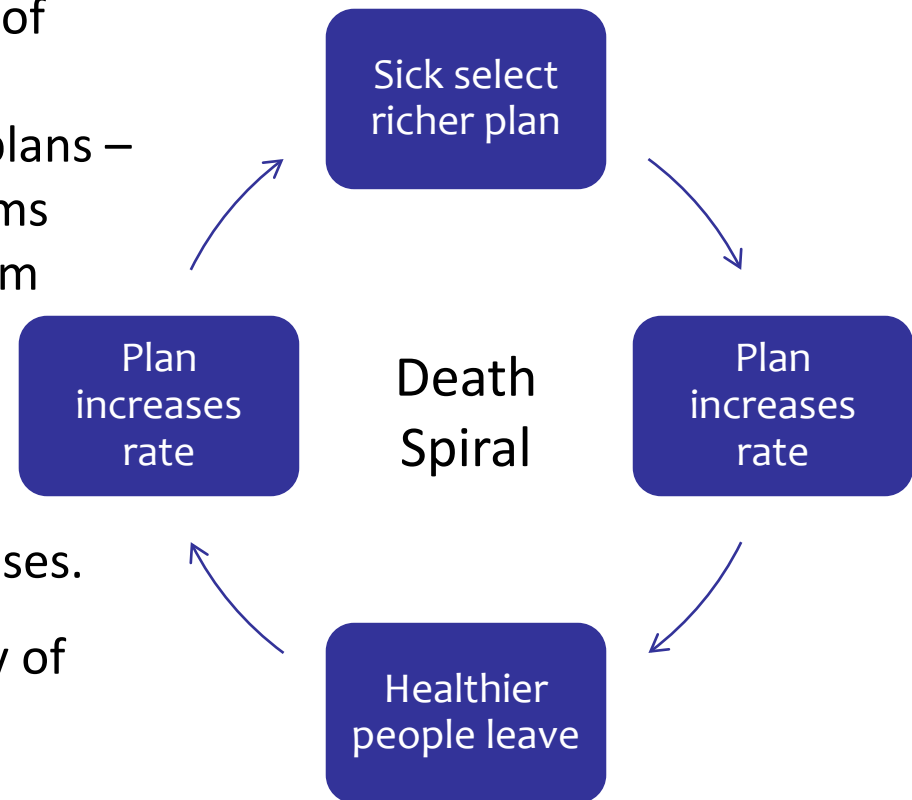CMS Hierarchical
Condition Categories
(n = 70)
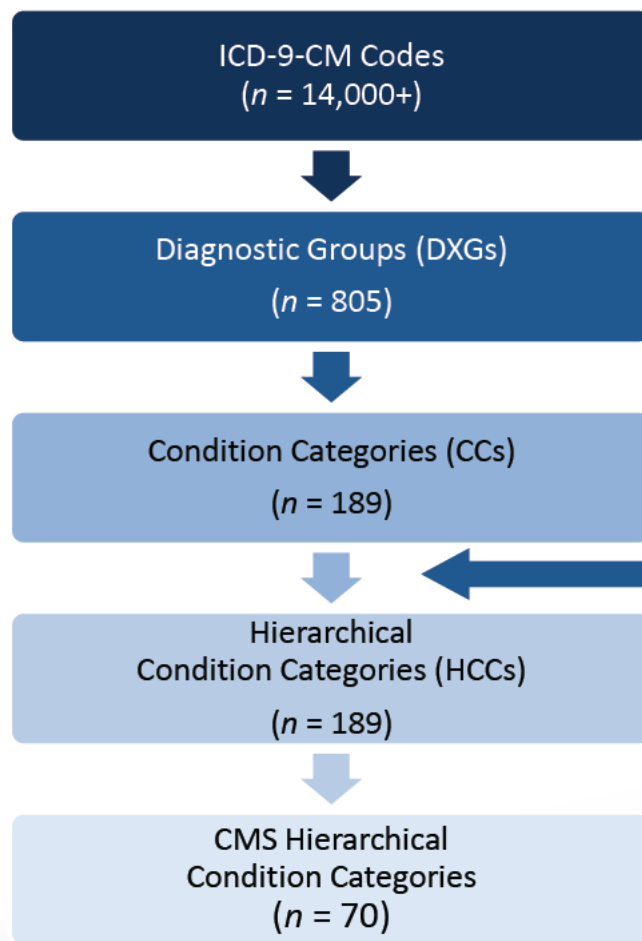
- All three models look at over 14,000 diagnostic codes

- A large number of these codes map to about 800 diagnostic groups

- They then group these diagnostic groups into condition categories (130 – 264)

- Hierarchies are imposed on these condition categories for scoring purposes

- CMS uses de-identified Medicare FFS claims; HHS and CalPERS rely on commercial all-encounter claims and encounters

Comparison of the three models

	CMS	HHS	CalPERS
Use	Med Advantage Capitation Payments	Transfers Among Plans Net to Zero	Transfers Among Plans Net to Zero
For what population?	Aged (65 and over)	Under 65	Basic
Information Used (Medical/pharmacy)	• Med to predict Med • Pharmacy to predict Pharmacy	• Med predicts Med and Pharmacy	• Med predicts Med and Pharmacy
Prediction	Prospective	Concurrent	Concurrent
Considers Geography	Y	Y	Y

Does adverse selection really cause a death spiral?

- Research has shown that health status of employees and their dependents is a significant predictor in their choice of plans – those with more serious health problems are more likely to enroll in high premium low out-of-pocket maximum plans.*

- Plans that attract more than the average morbidity can and do incur large losses, leading to premium increases.

- As healthy members opt out, morbidity of the population increases even more & premiums increase more.

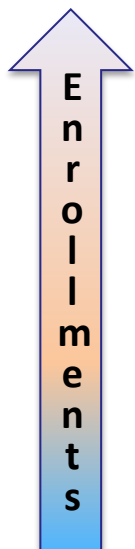- This vicious cycle is referred to as the death spiral.

Sick select richer plan

Plan increases rate

Death Spiral

Plan increases rate

Healthier people leave

*Source: Milliman. Found at http://www.hca.wa.gov/hbe/documents/HBE_HHS_Guidance_Comments_HCA.pdf

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Adverse Selection

Risk selection occurs today in the CalPERS plans

Younger
(healthier)
less expensive

E n r o l l m e n t s

Older
(less healthy)
more expensive

Risk selection is a business problem not unique to CalPERS

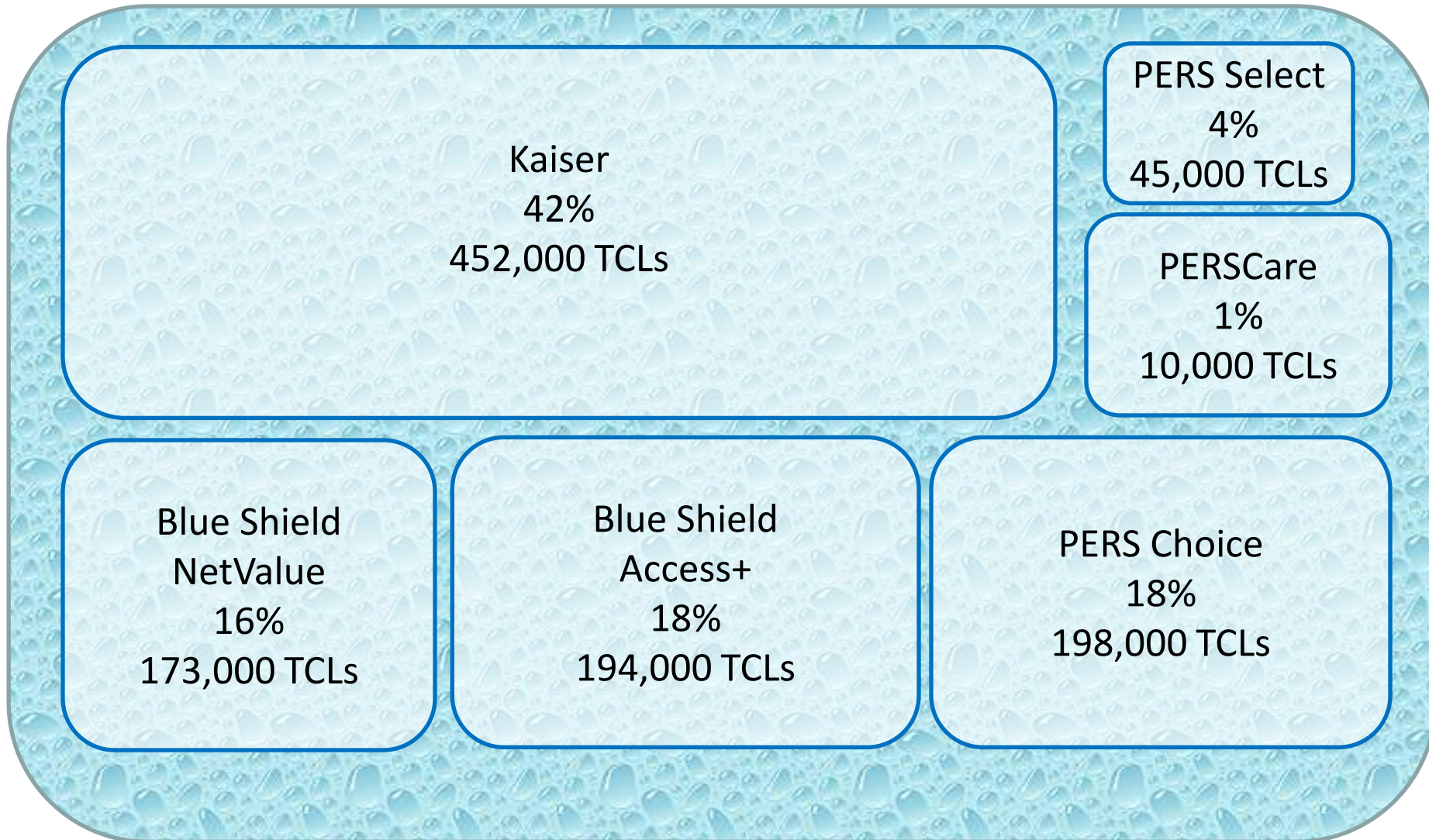| Plan	2013 Monthly Premium	2013 Ave. Age	Basic TCL %	Four Year Ave. TCL Trend
PERS Select	$463	33	4%	67%
BSC NetValue	$578	34	16%	12%
Kaiser	$609	36	42%	3%
BSC Access +	$676	37	18%	-9%
PERS Choice	$634	41	18%	-3%
PERSCare	$1,030	53	1%	-17%

Trend based on January enrollments between 2010 and 2013

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Insurance is designed to pool financial risk of high cost events across a large group of people

- The concept of pooling risk is fundamental for all types of insurance because a large risk pool is needed to produce stable and measurable characteristics that can be used to accurately estimate future costs.*

- The majority of individuals in the risk pool pay more than their actual health services cost; the excess payments are pooled to cover the cost of individuals who do experience high-cost events.

- Clearly, CalPERS is currently not leveraging the value of a single insurance pool.

*Wading Through Medical Insurance Pools: A Primer. American Academy of Actuaries, Issue Brief. Washington DC, September 2006.

Separate CalPERS risk pools today segregate the 1.1 million lives & do not leverage the entire pool

Kaiser
42%
452,000 TCLs

PERS Select
4%
45,000 TCLs

PERSCare
1%
10,000 TCLs

Blue Shield
NetValue
16%
173,000 TCLs

Blue Shield
Access+
18%
194,000 TCLs

PERS Choice
18%
198,000 TCLs

Note: January 2013 Basic. Kaiser Out of State and Associations (PORAC, CAHP & CCPOA) not represented

Addressing the adverse selection predicament…

- We know investing in active management of chronic conditions improves member health significantly, yet plans have limited financial incentive to target high risk members

  – Note that 67% of costs in Basic are incurred by 8.5% of members

- In a single carrier environment, pooling of premiums to cover the costs of all members would be a simple solution

- With multiple carriers and funding arrangements, having every carrier offer the full range of plans can mitigate adverse selection for each carrier

  – This is why Covered California (CA's Exchange) requires five levels be offered by each carrier

  – Because carrier premiums can vary, adverse selection will still occur

- The solution – Measure health risk and adjust for anticipated risk selection. i.e., risk adjust

The benefits of risk adjustment

- For Members and Employers
  - Maintains choice from among multiple health plans based on premiums that reflect plan design differences
  - Encourages insurers to compete on the basis of medical and administrative efficiency and quality of service and care, rather than on the ability to select risk
  - Protects financial soundness of the system by rebalancing premiums to reflect plan design differences – not enrolled risk

- For Plans
  - Neutralizes the risk avoidance incentive by compensating plans fairly for the risks they assume
  - Incentivizes effective management of individuals and groups with particular conditions; plans get paid more for risk factors so if they manage them well, they make more

Reduce inflated premiums to reflect plan design

Increase deflated premiums to reflect plan design
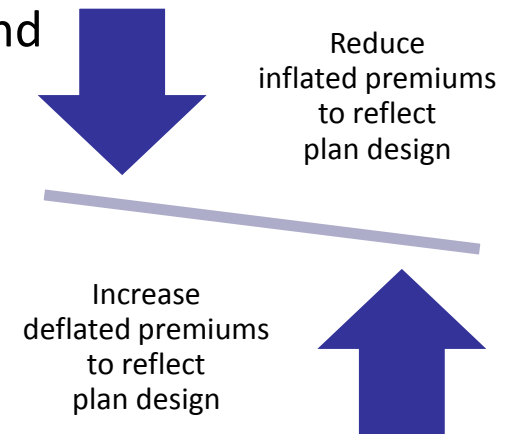
What is risk adjustment?*

Risk adjustment is an actuarial tool used to calibrate payments to health plans or other stakeholders based on the relative health of the at-risk populations. It is typically a two-step process:

- Health risk assessment – objectively determining whether an individual or group represents a risk that is reasonably close to the population average and, if not, quantifying the relative deviation from the average, and

- Payment or premium adjustment – adjusting payments to plans based on differences in the risk characteristics of people enrolled in each plan

*Risk Assessment and Risk Adjustment. Mita Lodh, Ph.D., MAAA, fSA; Michelle L. Raleigh, MAAA, ASA, fCA; Cori e. Uccello, MAAA, fSA, fCA; and Ross A. Winkelman, MAAA, fSA, American Academy of Actuaries, Issue Brief. May 2010.

How does health risk assessment work?

- Member diagnoses and demographic information (age and gender) are input into a regression model (CMS, Verisk, other)

- The output is a risk score for each member relative to the total population average (e.g., a member with a risk score of 1.2 is expected to cost 20% more than the population average)

- Member risk scores are grouped by health plan

- Each carrier's initial premium is adjusted to reflect the expected risks for the plan based on the weighted average premium for all plans

- Predictions are either prospective or concurrent

  – Prospective – Uses base year diagnoses and demographic information to predict the next year's spending

  – Concurrent – Uses current year diagnoses and demographics to predict the current year's spending

- Adjustments are either made during the rating period and/or after
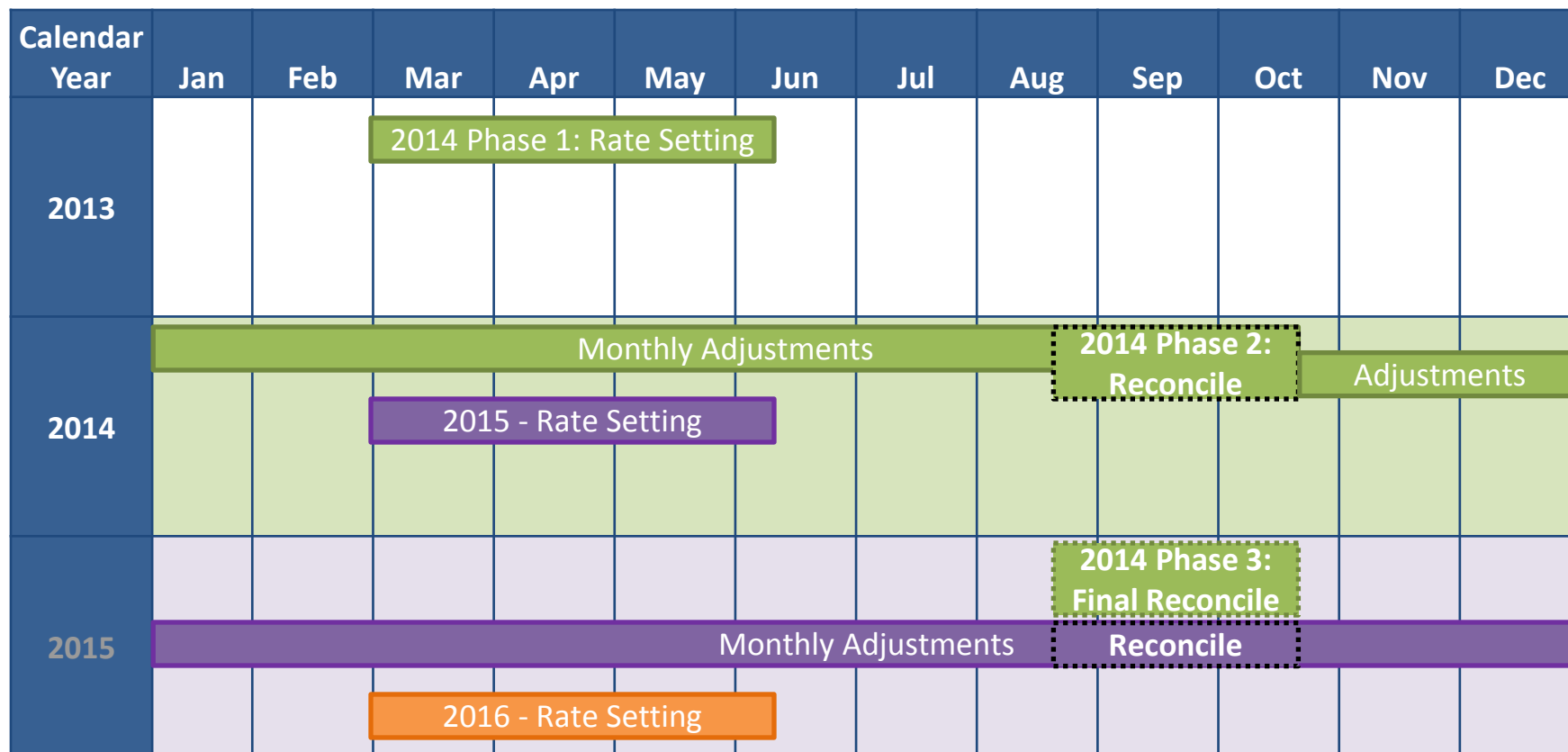
CalPERS will follow best practice

- Use the most current diagnosis data for input into the model
  - CalPERS will use fiscal year as well as a calendar year risk scores
- Select a model that more accurately matches the application and reflects actual expenditures
  - Like HHS, CalPERS plans to use the concurrent model
- Increase data collection frequency to increase confidence
  - CalPERS will perform to set rates, reconcile mid-year, & close out the year
- Use a model less prone to gaming
  - Like HHS, CalPERS plans to use Medical diagnoses to predict pharmacy and medical costs
- Select a risk assessment model that has good predictive power
  - Studies indicate that the model used by CalPERS since 2003 (Verisk DxCG) has the highest predictive power of diagnosis based risk adjusters. "The model is regarded as one of the best off the shelf diagnosis based risk adjusters currently available."*

*Source: Milliman. Found at http://www.hca.wa.gov/hbe/documents/HBE_HHS_Guidance_Comments_HCA.pdf

The CalPERS methodology

- Current Plan Required Premiums are adjusted based on health risk factors, also considering family size and geography

- The published rates are risk adjusted rates

- The difference between each plan's Required Premium and published rate is paid to or from CalPERS monthly

- During the plan year, a reconciliation is done by completing the calculations based on updated data considering enrollments and risk factors

- After the plan year, a final reconciliation is completed based on actual enrollments and risk factors

- At this time it will only apply to Basic plans (no associations)

Risk adjustment will begin with 2014 rate setting

Calendar Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2013			2014 Phase 1: Rate Setting									
2014	Monthly Adjustments							2014 Phase 2: Reconcile		Adjustments		
			2015 - Rate Setting									
2015								2014 Phase 3: Final Reconcile				
	Monthly Adjustments							Reconcile				
			2016 - Rate Setting									

Phase 1. State Rates – Health

Illustrative

Setting Rates in June

Health Risk Adjustments

Plan	(a) % of Anticipated Enrollment	(b) Plan Required Premiums	(c) Anticipated Health Risk Factors	(d) = (c) * (bg) Health Adjusted Target Premium	(e) = (d) - (dg) Health Adjustment to (From) Plan	(f) = (b) - (e) Health Risk Adjusted Premiums
Plan 1	52%	$570	1.0300	$555	$16	$554
Plan 2	40%	$540	0.9810	$529	($10)	$550
Plan 3: Regional HMO	8%	$330	0.9000	$485	($54)	$384
(g) Weighted Average	100%	$539	1.0000	$539		$539

Sumproduct of values above and in column (a)

Based on post OE Member Enrollments.

During rates, develop/negotiate Plan Required Premiums based on expected enrollment, health risks, admin. costs, and other cost components.

Obtain the relative health risk factor scores for each plan using Verisk 2.3.1 Concurrent Commercial All-Encounter Med+Rx Non-Rescaled (Model 18). If no experience, the factor is 1.0.

Multiply the plan's Anticipated Health Risk Factor by the Weighted Average Plan Required Premium.

Subtract the Weighted Average of all Plans' Health Adjusted Target Premium from the plan's Health Adjusted Target Premium.

Subtract the Adjustment amount from the Plan Required Premium. This is the Health Risk Adjusted Premium.

TRUVEN Projected Roll-out of Verisk ver 4.1.1 in the near future

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Risk Adjustment Methodology

Phase 1. State Rates – Geography

Illustrative

State Geographic Adjustments

Plan	(f) Health Risk Adjusted Premiums	(h) Geographic Factors	(i) = (h) * (fgr) Geographically Adjusted Target Premium	(j) = (i) - (igr) Geographic Adjustment to (From) Plan	(k) = (e) + (j) Total Adjustment to (From) Plan	(l) = (b) - (k) Health & Geography Adj. Prem.
Plan 1	$554	1.0350	$558	$19	$35	$535
Plan 2	$550	1.0124	$545	$7	($4)	$544
Plan 3: Regional HMO	$384	0.7100	$383	($156)	($210)	$540
(gr) Weighted Average	$539	1.0000	$539			$539

The weighted average of all calculated health premiums shown in (g) and (gr) should be equal

Start with the Health Risk Adjusted Premium.

State rates have to be geographically adjusted to account for regional differences in cost.

Subtract the Weighted Average of all Plans' Geographic Adjusted Target Premium from the plan's Geographic Adjusted Target Premium.

This is the plan required premium minus the total adjustment (or the health RA premium minus the geographic adjustment).

Note: A geographic adjustment is not necessary for PAs as their premiums are already regionally rated.

Phase 1. State Rates – Adjustments

Illustrative

Monthly Adjustment $			
Plan	**(k) = (e) + (j)** **Total Adjustment to (From) Plan**	**(m)** **Subscriber Premium Equivalents**	**(n) = (k) * (m)** **Monthly Payment to (From) Plan**
Plan 1	$35	200,773	$7,035,782
Plan 2	($4)	154,440	($545,874)
Plan 3: Regional HMO	($210)	30,888	($6,489,908)
(gr) Weighted Ave.		386,101	$0

Obtain Subscriber Premium Equivalents. This is the weighted average number of subscribers in each premium tier multiplied by the "Premium Multiple".

Multiply the Subscriber Premium Equivalents by the Total Adjustment to (From) Plan to obtain the monthly adjustment amount.

- Regional plan offerings are desirable to increase competition and get the highest value for members.

- Without this adjustment regional offerings would have an unfair advantage over statewide plans.
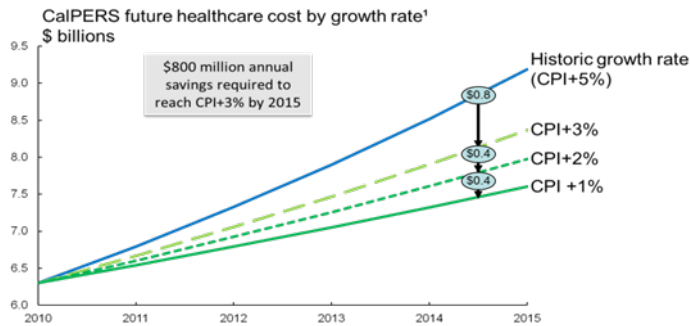
Illustrative Example

Components of the Calculation	Step	Plan A	Plan B	Plan C	Plan D	Plan E (Regional Plan)	Plan F (Regional Plan)	Total or Weighted Total
Convert Single Party Premiums to PMPM								
Plan Submitted Single Party Premium	(1a)	$650.00	$600.00	$605.00	$1,000.00	$600.00	$450.00	
Single Party Premium Equivalents	(1b)	210,000	210,000	310,000	8,400	50,000	40,000	828,400
Average Number of Members in 2012	(1c)	280,000	270,000	400,000	9,200	65,000	50,000	1,074,200
Percent of Membership in Health Plan	(1d)	0.26	0.25	0.37	0.01	0.06	0.05	1.00
PMPM Premiums	(1e)	$487.50	$466.67	$468.88	$913.04	$461.54	$360.00	$471.47
Risk Adjustment								
Population Risk Adjustment	(2a)	0.97	0.88	0.92	2.08	1.25	0.90	0.94
Risk Adjusted Single Rate	(2b)	$502.05	$530.39	$511.84	$439.63	$369.73	$400.00	$499.52
Normalized Risk Adjustment Factor	(2c)	1.03	0.93	0.97	2.20	1.32	0.95	1.00
Modified Risk Adjusted Single Rate	(2d)	$473.85	$500.60	$483.09	$414.93	$348.96	$377.53	$471.47
Geographic Adjustment								
Geographic Adjustment	(3a)	1.00	0.98	1.00	0.95	0.85	0.75	0.98
Geographic Adjusted Single Rate	(3b)	$474.21	$508.73	$482.82	$436.26	$410.54	$503.38	$483.27
Normalized Geographic Adjustment Factor	(3c)	1.02	1.01	1.03	0.97	0.87	0.77	1.00
Modified Geographic Adjusted Single Rate	(3d)	$462.63	$496.30	$471.03	$425.60	$400.51	$491.08	$471.47
Published Single Party Premiums								
2013 Single Rate Normalized Cost	(4)	$599.90	$643.56	$610.79	$551.88	$519.35	$636.79	
Comparison								
Plan Required Premium	(1a)	$650.00	$600.00	$605.00	$1,000.00	$600.00	$450.00	
Published Premium	(4)	$599.90	$643.56	$610.79	$551.88	$519.35	$636.79	
Percent Increase in Published over Submitted		-8%	7%	1%	-45%	-13%	42%	

Risk adjustment helps CalPERS accomplish many of its goals….

Control Cost Trend
- Pay plans fairly for risks they assume
- Reward efficiency; not risk selection
- Increase regional competition

CalPERS future healthcare cost by growth rate[1]
$ billions

$800 million annual savings required to reach CPI+3% by 2015

Historic growth rate (CPI+5%)

$0.8
$0.4
$0.4

CPI+3%
CPI+2%
CPI +1%

Provide Choice of Plan
- Address adverse selection issues when offering choice of plans

Monthly premium only (36%)	Risk averse (26%)	Minimize total costs (19%)	I want MY doctor (19%)

• Monthly premium dominates decision
• Choice is a non-factor
• **Might respond to:**
  – Tightly managed options with low up-front cost
  – Basic, essential coverage only
	• All costs are important
	• Out-of-pocket max most important
	• **Might respond to:**
	  – Tightly managed options with no out-of-pocket max
		• All costs are important
		• Some choice is important
		• **Might respond to:**
		  – Narrower benefits with affordable Rx and co-pay
		  – Broad HMO network
			• **Maximize access** to specific providers (hospitals, doctors, and specialists) with few/no restrictions
			• **Might respond to:**
			  – Plans with more generous out-of-network coverage

Prefers less control / options → Prefers more control / options
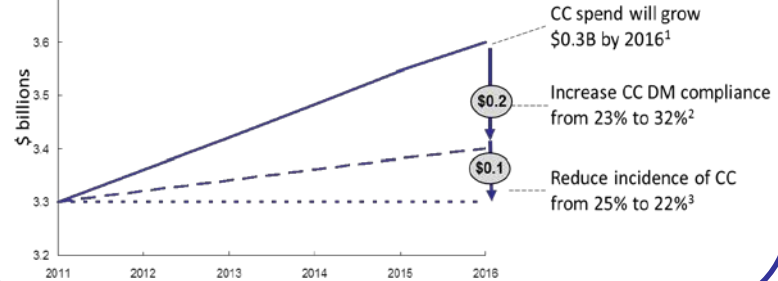
Better Data & Transparency
- More attention to data because payment depends on accuracy
- Enhanced opportunities to improve member health

Better Disease Management
- Reward plans for managing disease

Offsetting increased spending for patients with chronic conditions with savings from better compliance and overall reduction of chronic conditions

$ billions

CC spend will grow $0.3B by 2016[1]

$0.2 — Increase CC DM compliance from 23% to 32%[2]

$0.1 — Reduce incidence of CC from 25% to 22%[3]

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Next Steps

Agenda Item 9a
Attachment 1

Next steps

- Today: PHBC approval of final proposed regulations

- May: Propose risk adjusted rates for PHBC approval

- Address questions as they arise