SOA Advanced Pricing Boot Camp

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SOCIETY OF ACTUARIES

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The United States antitrust laws aim to protect consumers by preserving the free economy and prohibiting anti-competitive business practices; they promote competition. There are both state and federal antitrust laws, although state antitrust laws closely follow federal law. The Sherman Act, is the primary U.S. antitrust law pertaining to association activities. The Sherman Act prohibits every contract, combination or conspiracy that places an unreasonable restraint on trade. There are, however, some activities that are illegal under all circumstances, such as price fixing, market allocation and collusive bidding.

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- -**Do not** discuss prices for services or products or anything else that might affect prices
- -**Do not** discuss what you or other entities plan to do in a particular geographic or product markets or with particular customers.
- -**Do not** speak on behalf of the SOA or any of its committees unless specifically authorized to do so.
- -**Do** leave a meeting where any anticompetitive pricing or market allocation discussion occurs.
- -**Do** alert SOA staff and/or legal counsel to any concerning discussions
- -**Do** consult with legal counsel before raising any matter or making a statement that may involve competitively sensitive information.

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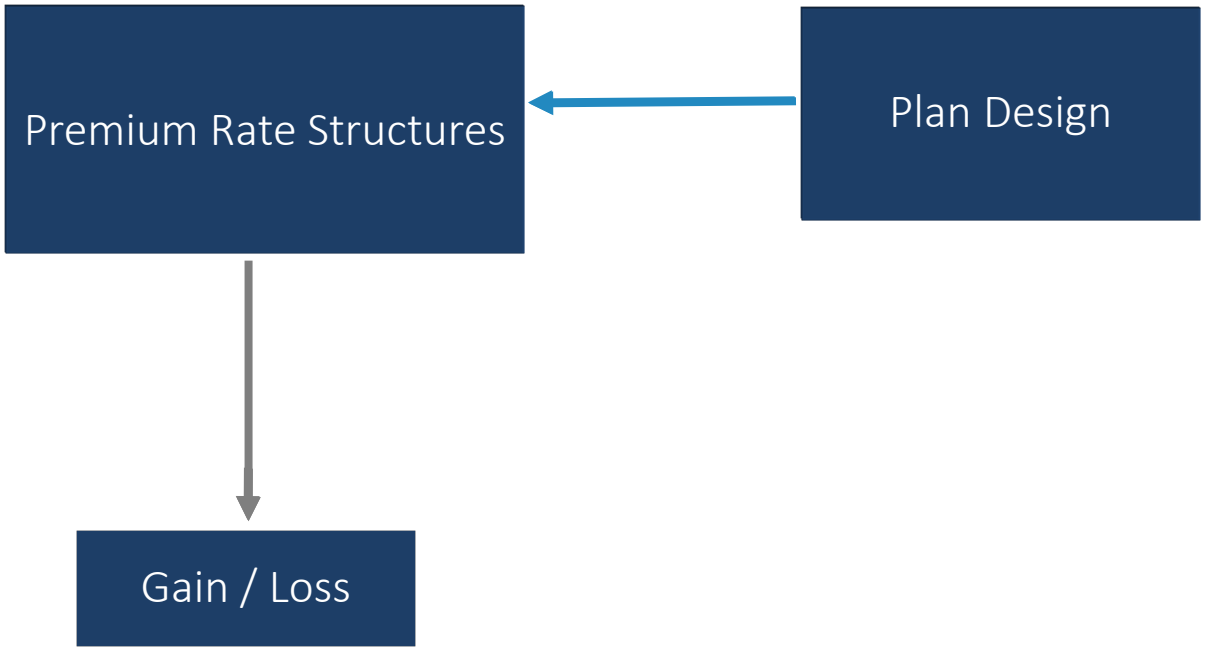
3 Rs – Overview

einsurance

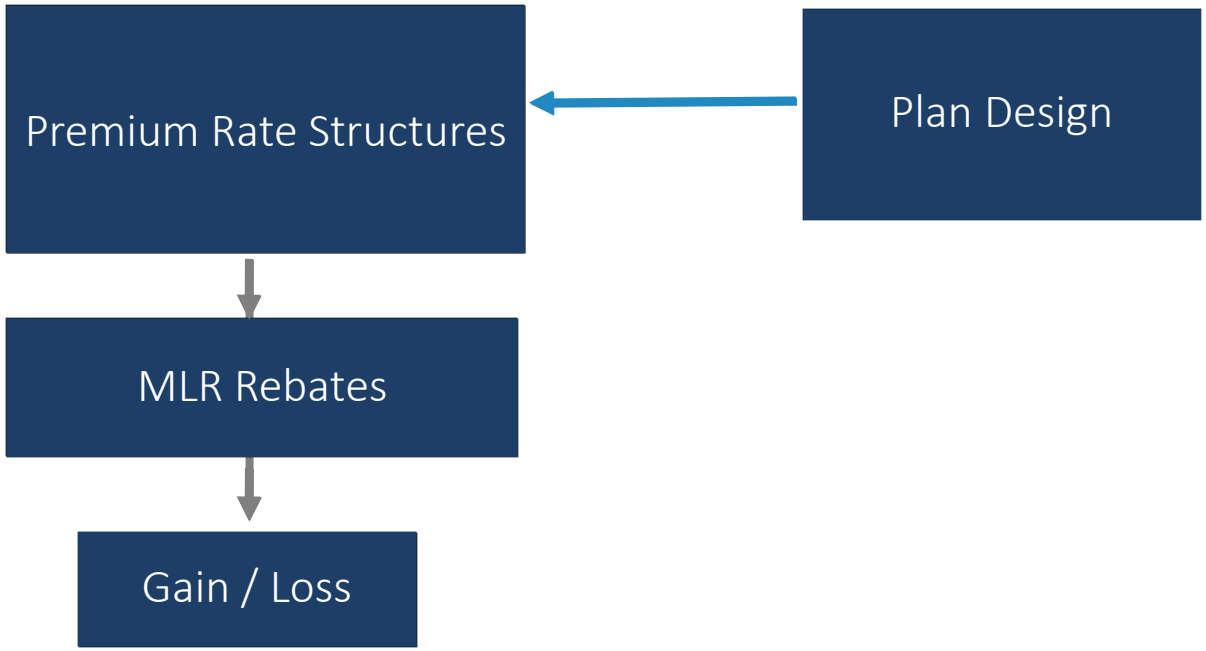
isk Corridors

isk Adjustment

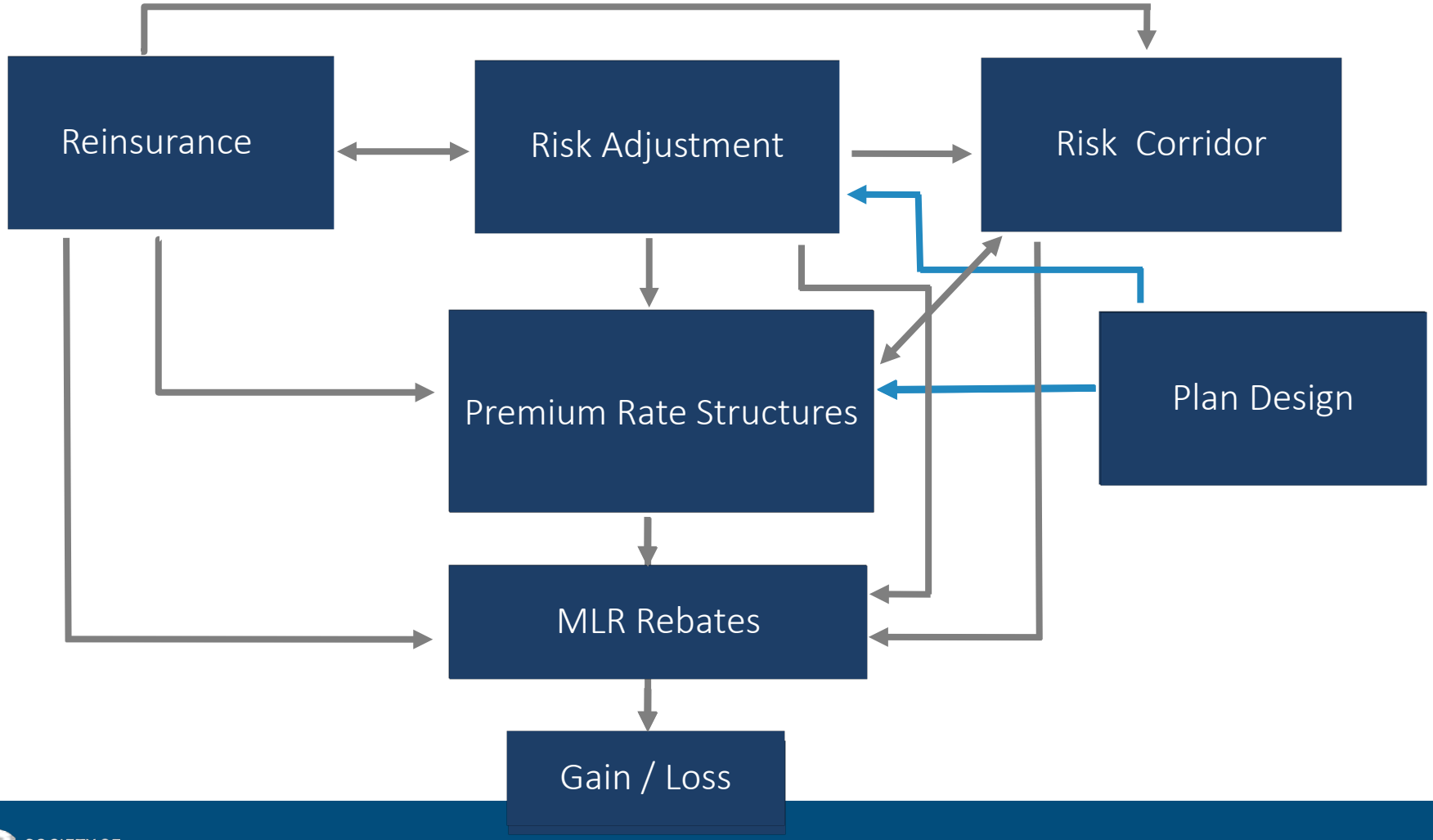
Evolution of ACA Provisions
Pre-ACA



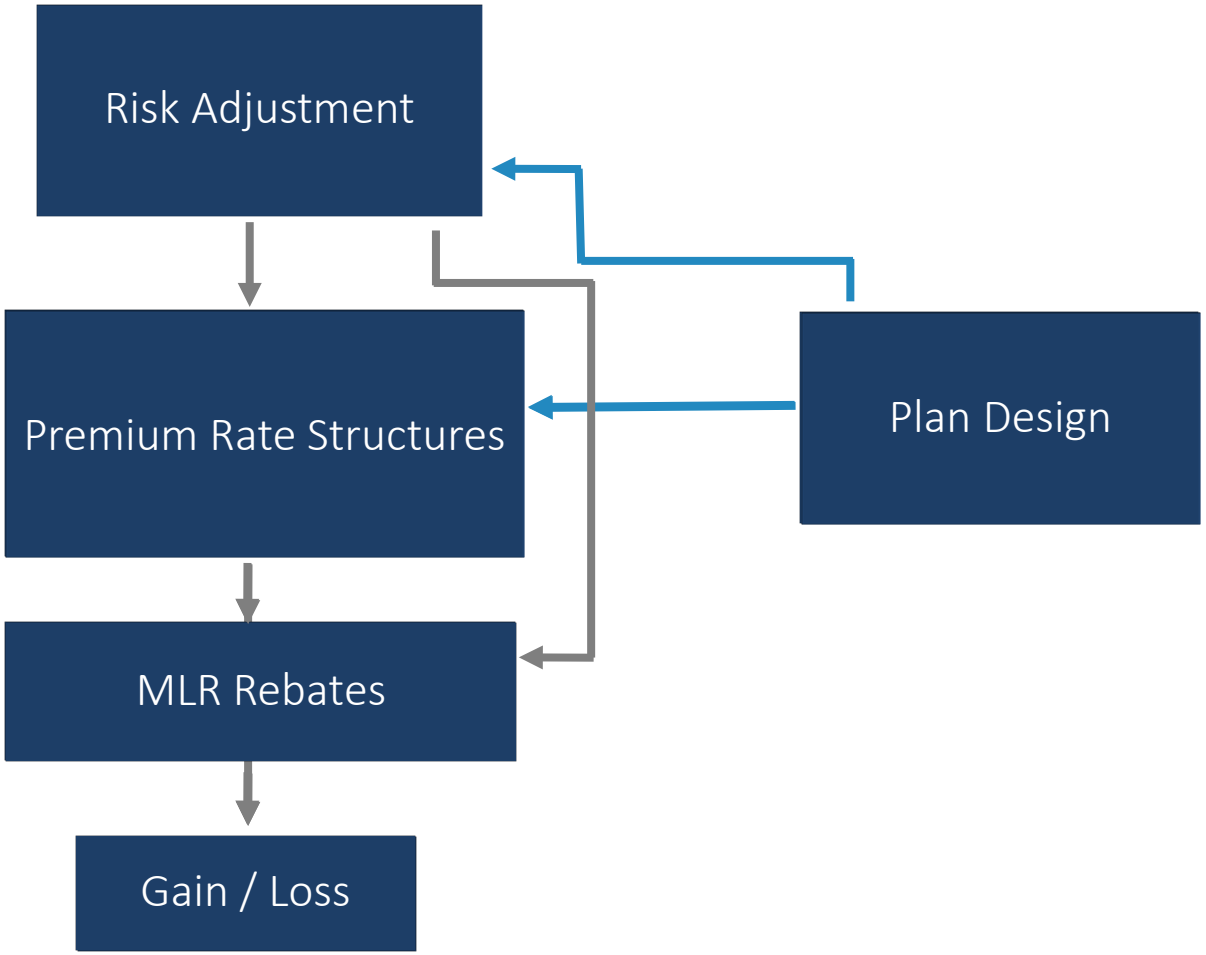
Evolution of ACA Provisions 2012-2013



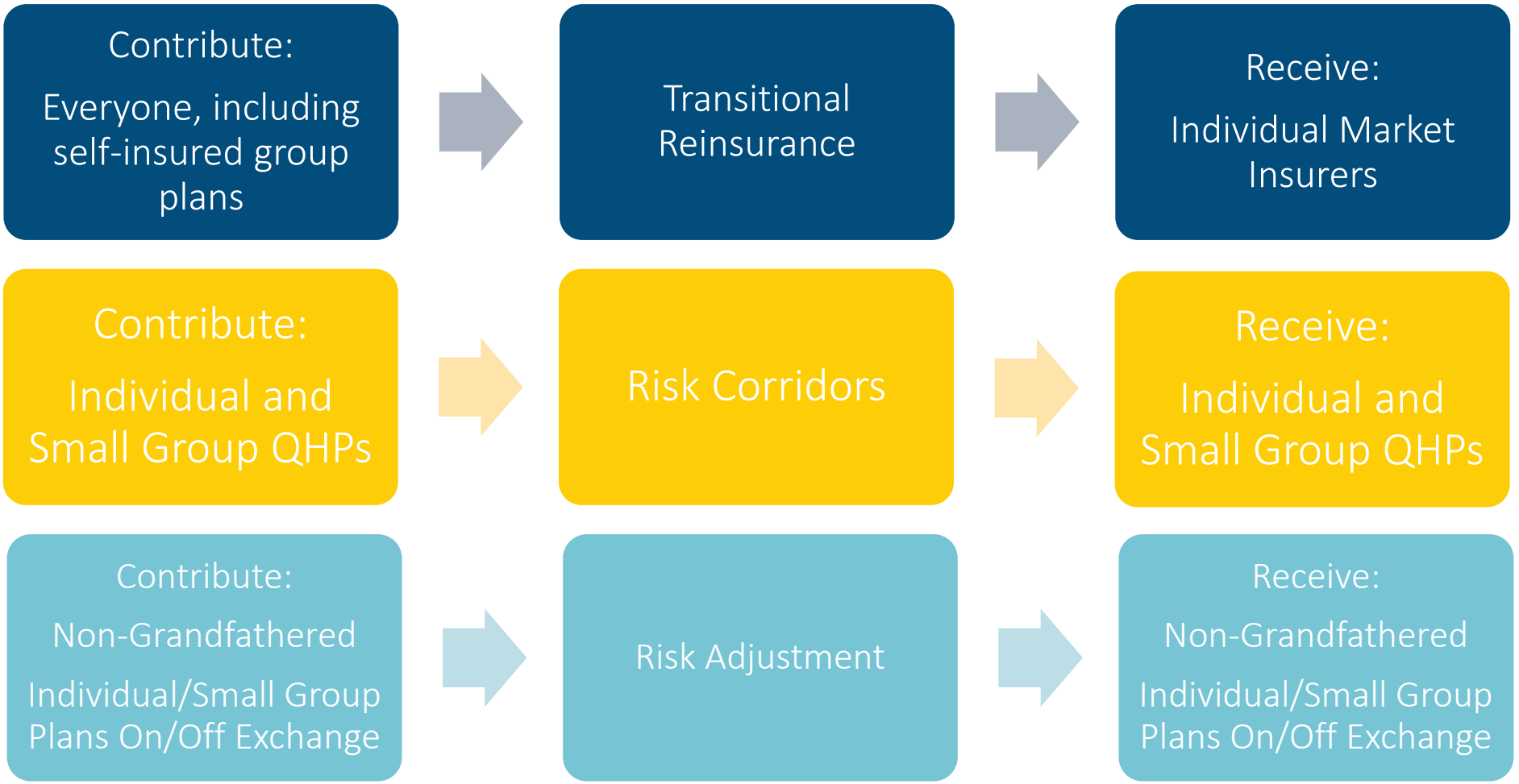
Evolution of ACA Provisions 2014-2016



Evolution of ACA Provisions 2017+



3Rs – Who does each “R” apply to?



3Rs – Transitional Reinsurance: Implications of the Phase Out

- Recall:
  - Plans have less responsibility for claims in the $45k-250k threshold in 2014, $45K-250k in 2015, and $90-250k in 2016
  - Under current law, transitional reinsurance program ends after 2016 benefit year. Payments for 2016 will be made in 2017.

Individual Market Issuers

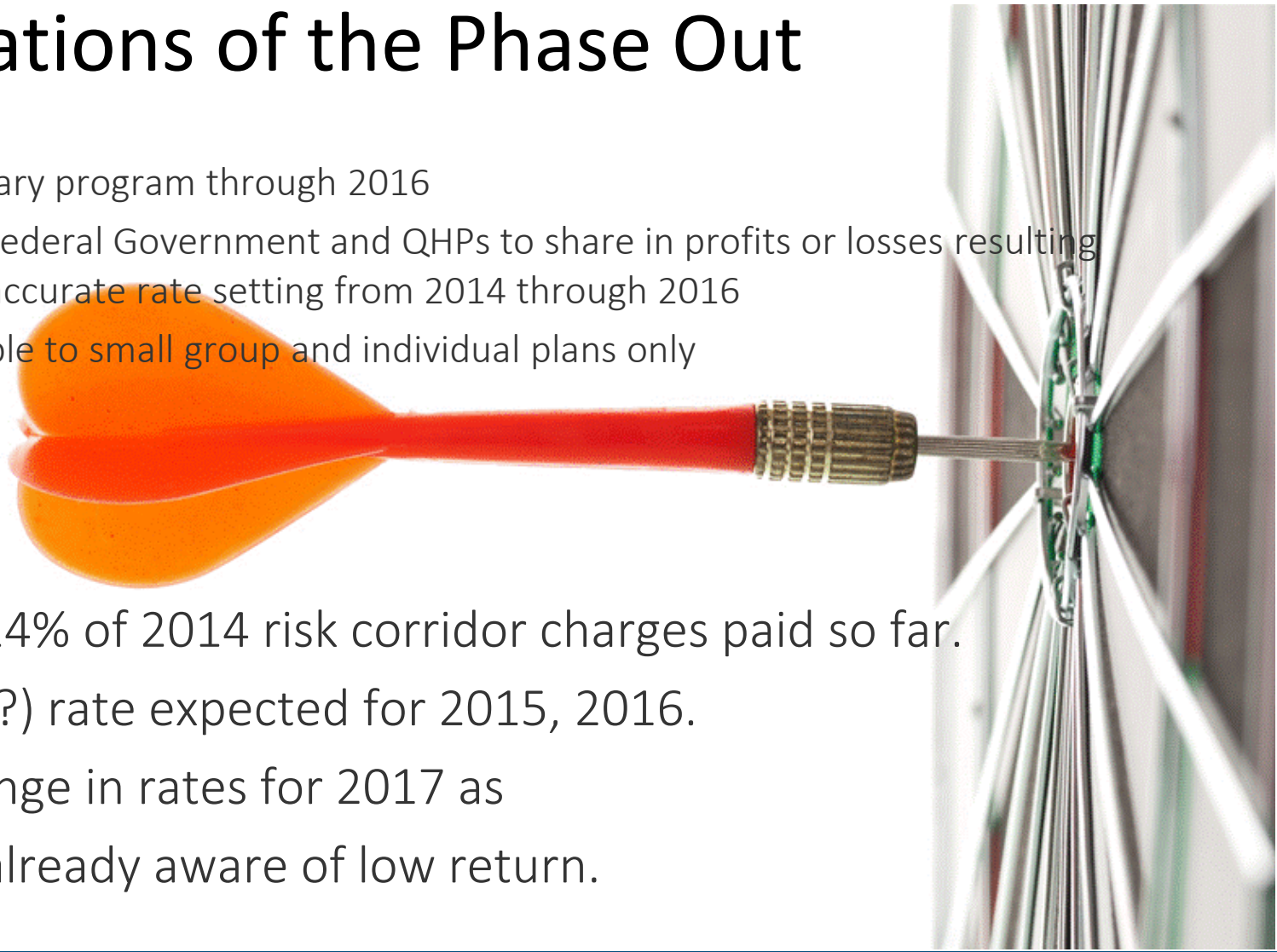
- Reinsurance recovery payments so far have been increased and accelerated
- For 2017 benefit year, however, additional commercial reinsurance will create upward pressure on rates

Small and Large Group Market Issuers

- These issuers have helped fund the program.
- Starting in 2017, no longer making reinsurance contributions. This could results in some downward pressure on rates

3Rs – Risk Corridors: Implications of the Phase Out

- Recall:
  - Temporary program through 2016
  - Allows Federal Government and QHPs to share in profits or losses resulting from inaccurate rate setting from 2014 through 2016
  - Applicable to small group and individual plans only



- Only 13-14% of 2014 risk corridor charges paid so far.

  Low (zero?) rate expected for 2015, 2016.
- Little change in rates for 2017 as

  insurers already aware of low return.

3Rs – Risk Adjustment: Overview

- Goal: Normalize the impact of differences in health status among carriers within a market
  - Transfers funds from plans with lower risk members to plans with higher risk members
  - Unlike the other programs, Risk Adjustment is permanent
- Affects all non-grandfathered individual and small group products, on and off the exchange

3Rs – Risk Adjustment: Formula

ARF: Allowable Rating Factor

HHS factors for variation by age

AV: Actuarial Value

Benefit richness adjustment

RS: Risk Score

Includes age, gender, and health status

IDF: Induced Demand Factor

HHS factor to adjust for increased utilization from more rich benefits

GCF: Geographical Cost Factor

Factor to adjust for cost of care variations between regions within a market

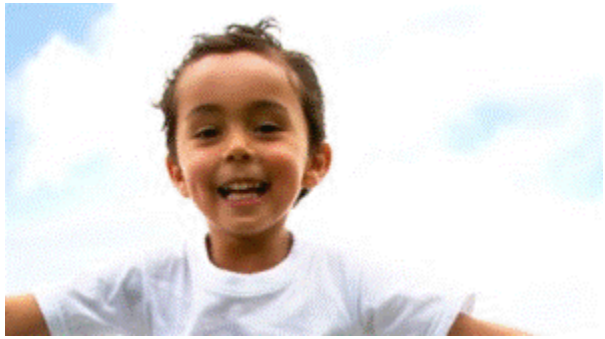
3Rs – Risk Adjustment: Overview

- Risk scores developed from carrier claims data will be compared to market average risk scores to determine payments
- What risk adjuster model will be used?
  - Most states: Federal HCC risk adjuster
  - Model has been released in detail
  - Concurrent Model
- Risk scores are based on demographics, diagnoses, and other data such as CPT codes – but NOT prescription drugs.

3 Rs – Risk Adjustment

19 %

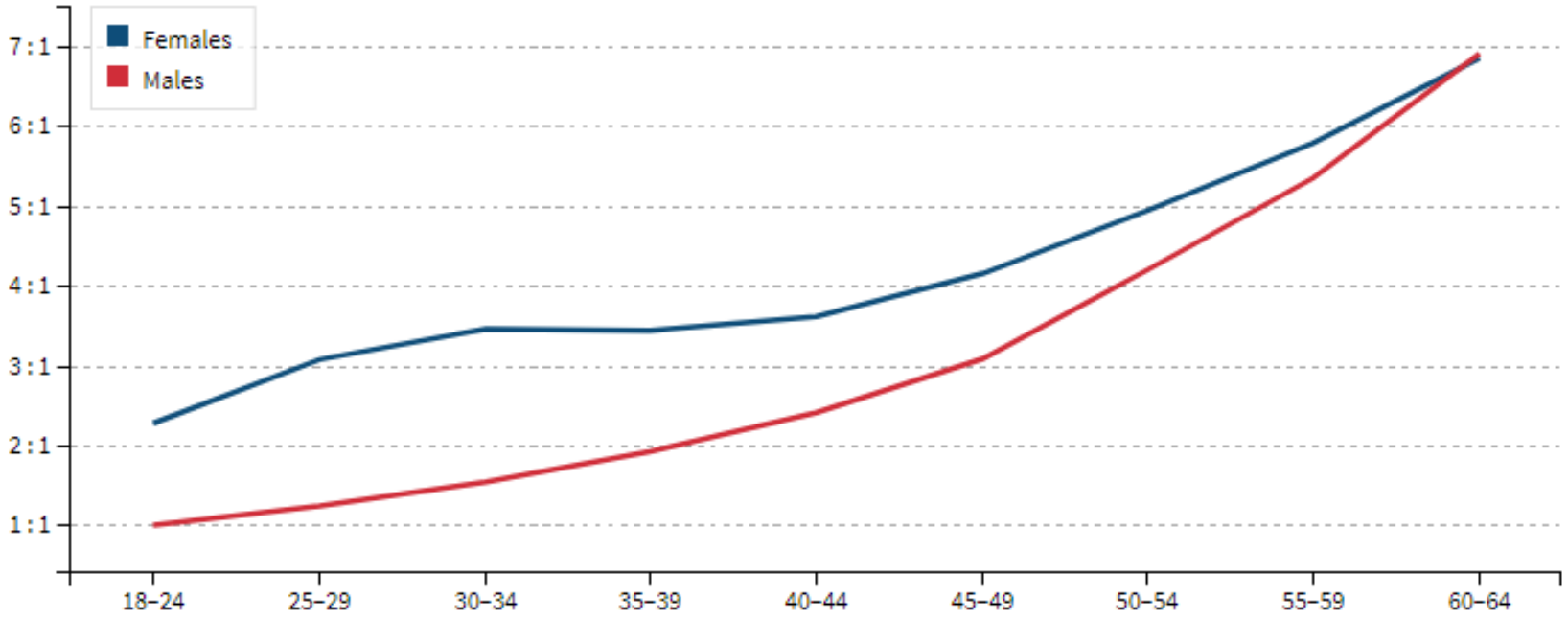
9 %



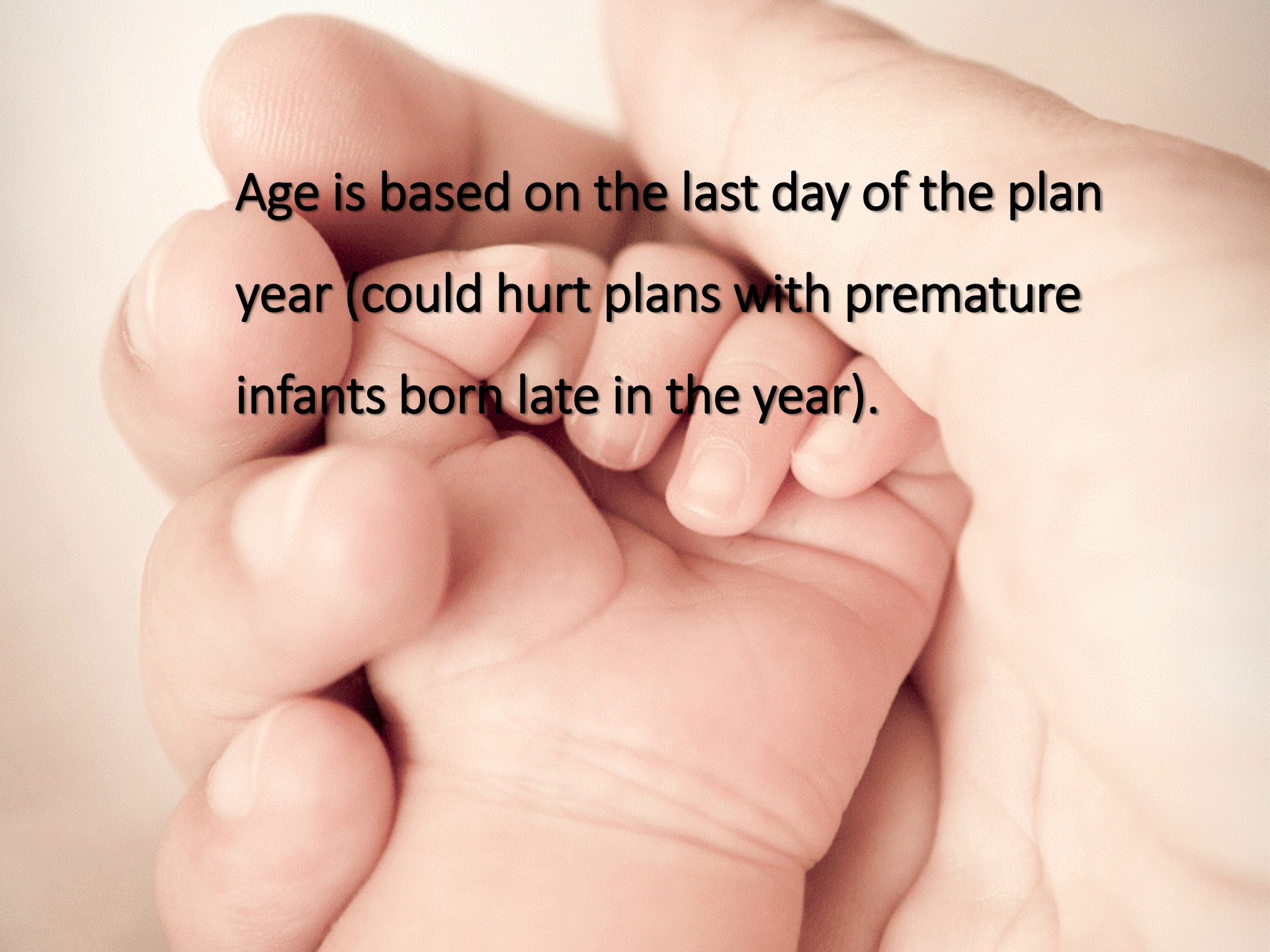
45 %

Age/gender: actual vs. allowed

Figure 2: Allowed Claim Cost Relativities by Age/Gender, Commercially Insured Adults



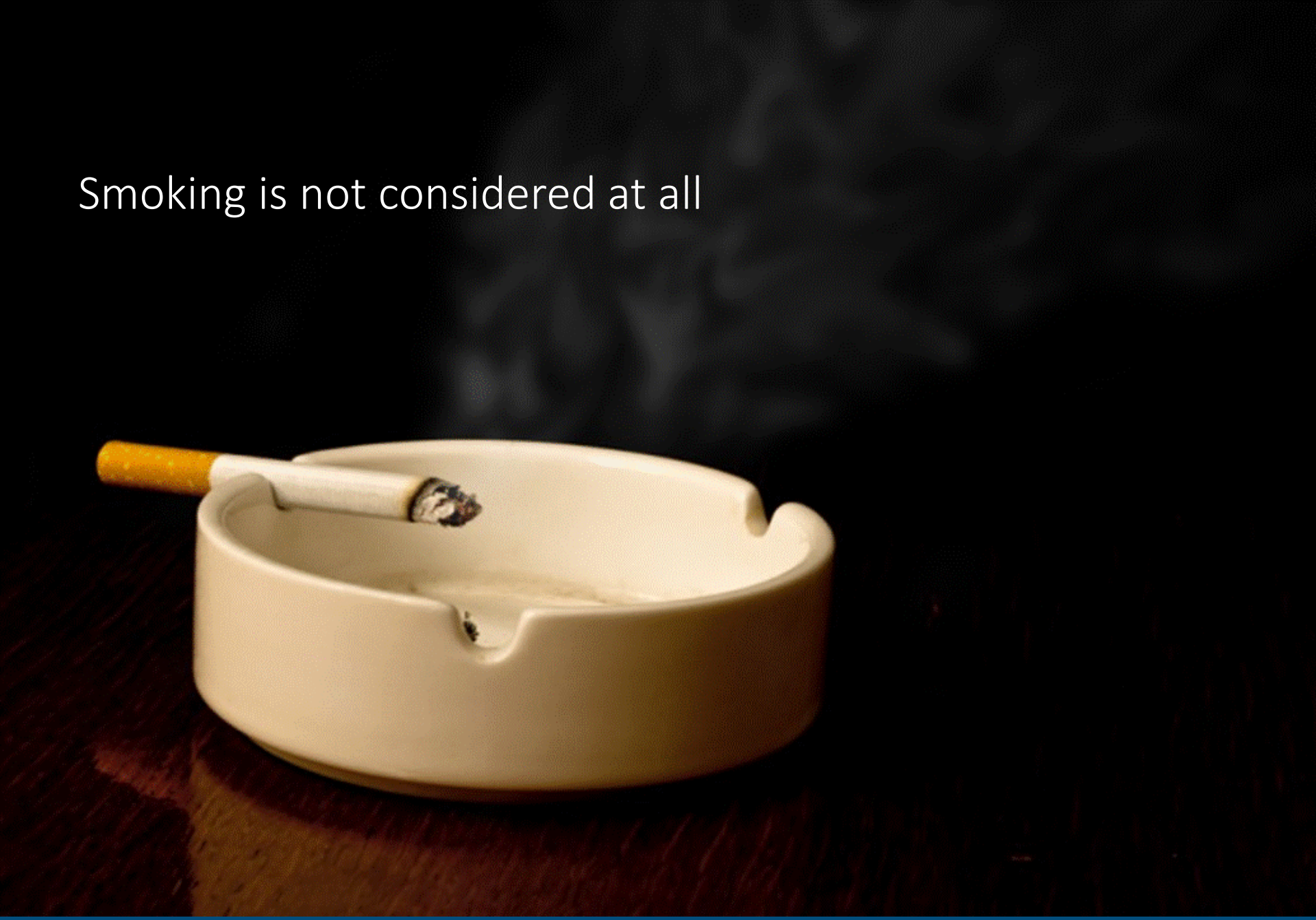
Source: Milliman 2017 Health Cost Guidelines—Commercial


Age is based on the last day of the plan year (could hurt plans with premature infants born late in the year).

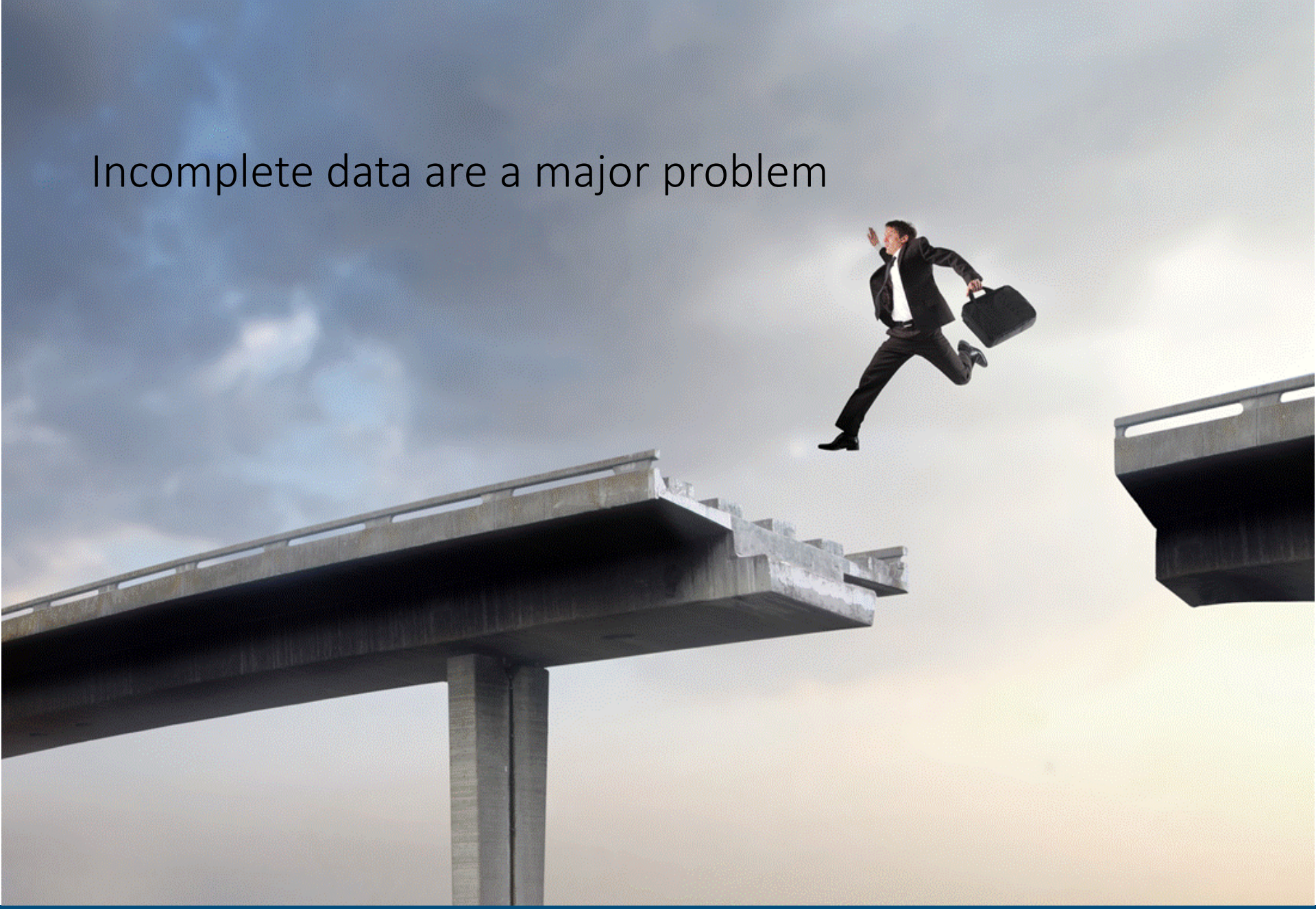
For some chronic conditions, the score of the condition (without complications) is the same as the score of the condition (with complications).

No conditions related to injuries (wounds, fractures, sprains, trauma) even though the RA is concurrent and these conditions can be costly.

Smoking is not considered at all



Incomplete data are a major problem



You do not get the payment transfers for up to 18 months after the claim occurs

Risk Adjustment: Profitability and Financial Reporting

- Profitable members were once low-cost members, now may be risky members incurring claims
- Reserving for risk adjustment payments
  - May have significant impact on MLR and profitability
  - Must know carrier risk score as well as market risk score
  - Risk scores may be volatile from year-to-year for the carrier and the market
- Risk Adjustment is not settled until June of the following year, payments in August
  - Well after Supplemental Exhibit and annual statement are due
  - May wait over 18 months after paying claims for a high risk member

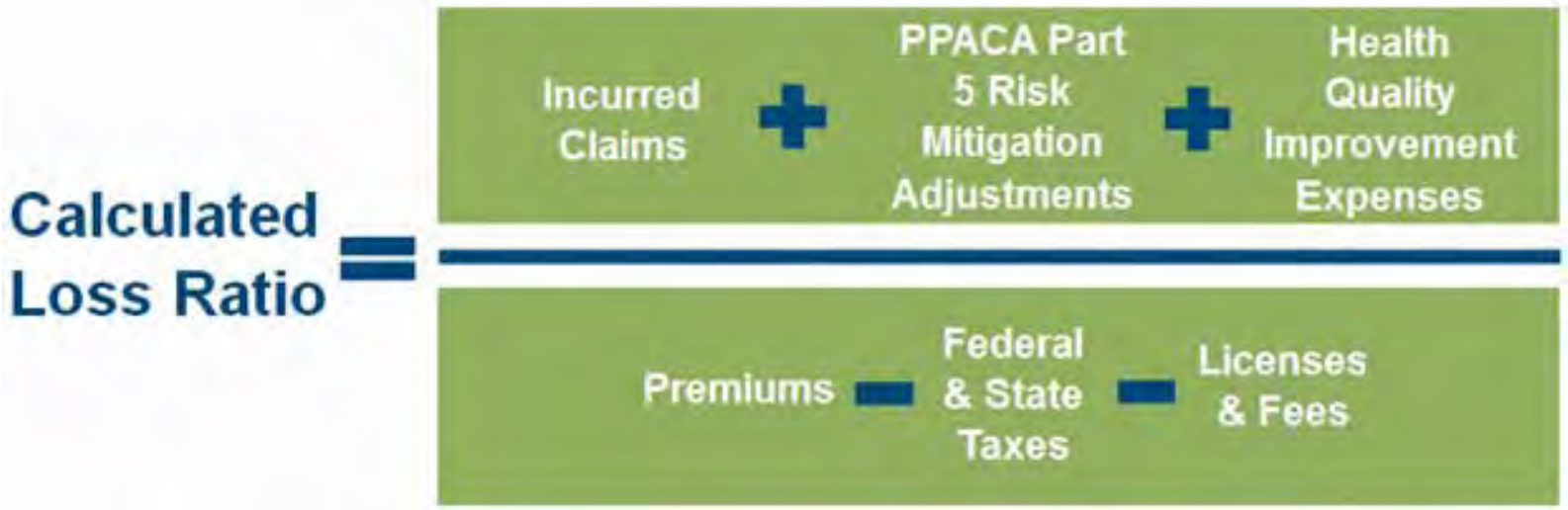
Risk Adjustment: Optimizing Risk Scores

- Effort to trigger as many conditions as possible
  - Many conditions are underdiagnosed
  - Important to reach out to members which may have conditions
    - This strategy is already prevalent with Medicare risk adjustment
    - Past claims history can be used to determine patterns in claims that may trigger risk adjuster conditions
- Follow-up/checkup procedures could trigger conditions in multiple years
- Urge accurate coding by physicians

Risk Adjustment: Ch-ch-ch-changes

- 2017 plan year:
  - Partial year enrollment
- 2018 plan year:
  - (Some) prescription drug utilization
  - High-cost risk pool (60% of costs beyond $1 million)
  - 14% administrative adjustment to statewide premium
- 2019 plan year:
  - EDGE data calibration

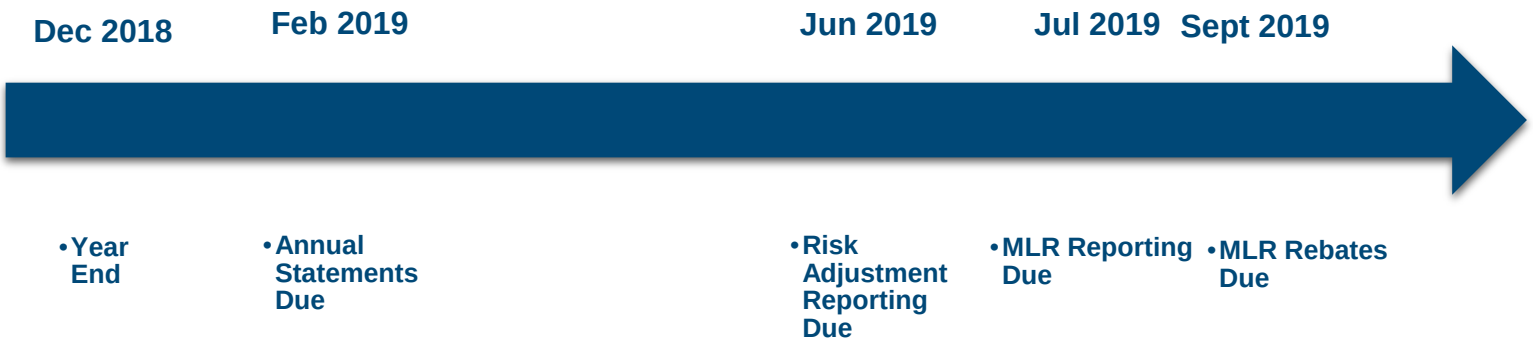
MLR: Overview



- Large group: 85% requirement
- Small group and individual: 80% requirement

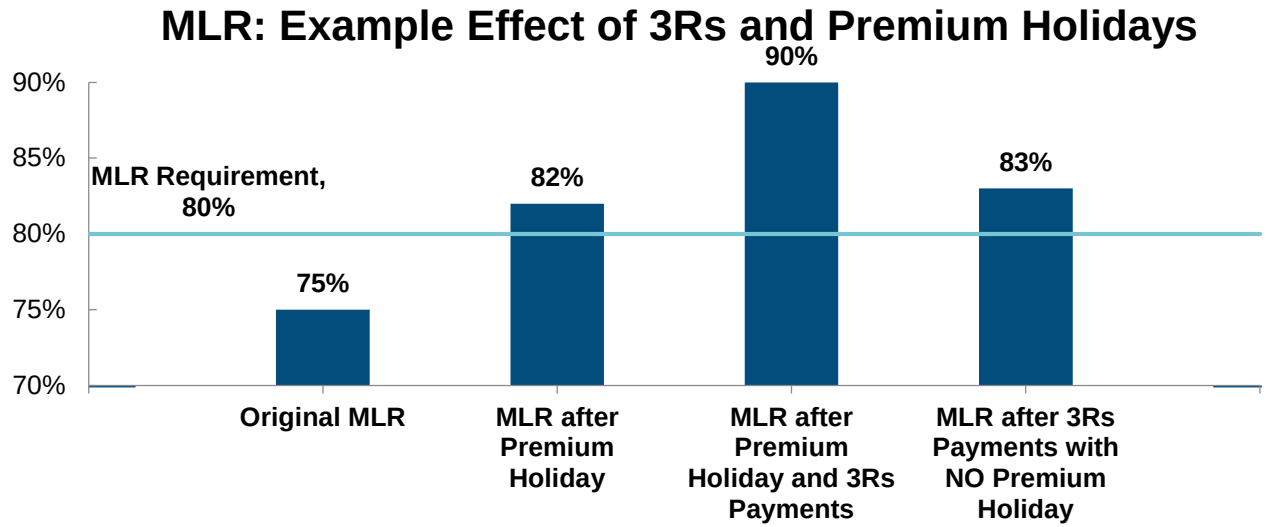
MLR: Timing of 3Rs

- Risk adjustment payments will not be settled until after the year ends
- Risk adjustment reporting due June of the following year
- Insurers had to file MLR reports to the Secretary by July 31st beginning with the 2014 MLR reporting year
- The new MLR rebate due date of September 30th
- In practice, many of these deadlines were delayed in year one



MLR: Avoiding MLR Rebates

- Past strategy: Premium holidays
  - Avoids rebates by not charging premium
  - Unwise to implement without knowing Risk Adjustment scores



- Past strategy:Increasing allowable expenses to maximize Risk Corridor payments
  - Increases risk of paying rebates

Risk Adjustment: Example 1

- **Factor**: 1.24 – 1.33 = -0.09
- **Market Average Premium**: $4,200 *per year*
- **Transfer**: -$378 *per member per year*
  - Carrier must pay $378 per member per year into the risk adjustment pool

Risk Adjustment: Example 2

- Consider the following example:

Measure	Factor
Risk Score	0.93
Induced Demand Factor	1.05
Geographic Cost Factor	1.02
Actuarial Value Adjustment	0.70
Allowable Rating Factor Adj.	1.30
Mkt. Avg. Premium Adj.	1.00
Mkt. Avg. Premium w/o Adj.	1.02
Market Average Premium	$350 PMPM
Issuer membership	250,000 member months

- What is the expected risk adjustment payment or receipt?

Risk Adjustment: Example 2

Premium Factor with Risk Adjustment:

$$\frac{(RS \times IDF \times GCF)}{\text{Market Average}}$$

$$\frac{0.93 * 1.05 * 1.02}{1.00}$$

=

Premium Factor without Risk Adjustment:

$$\frac{(AV \times ARF \times IDF \times GCF)}{\text{Market Average}}$$

$$\frac{0.70 * 1.30 * 1.05 * 1.02}{1.02}$$

=

=

Relative Adjustment Factor

0.99603 – 0.95550 = 0.04053

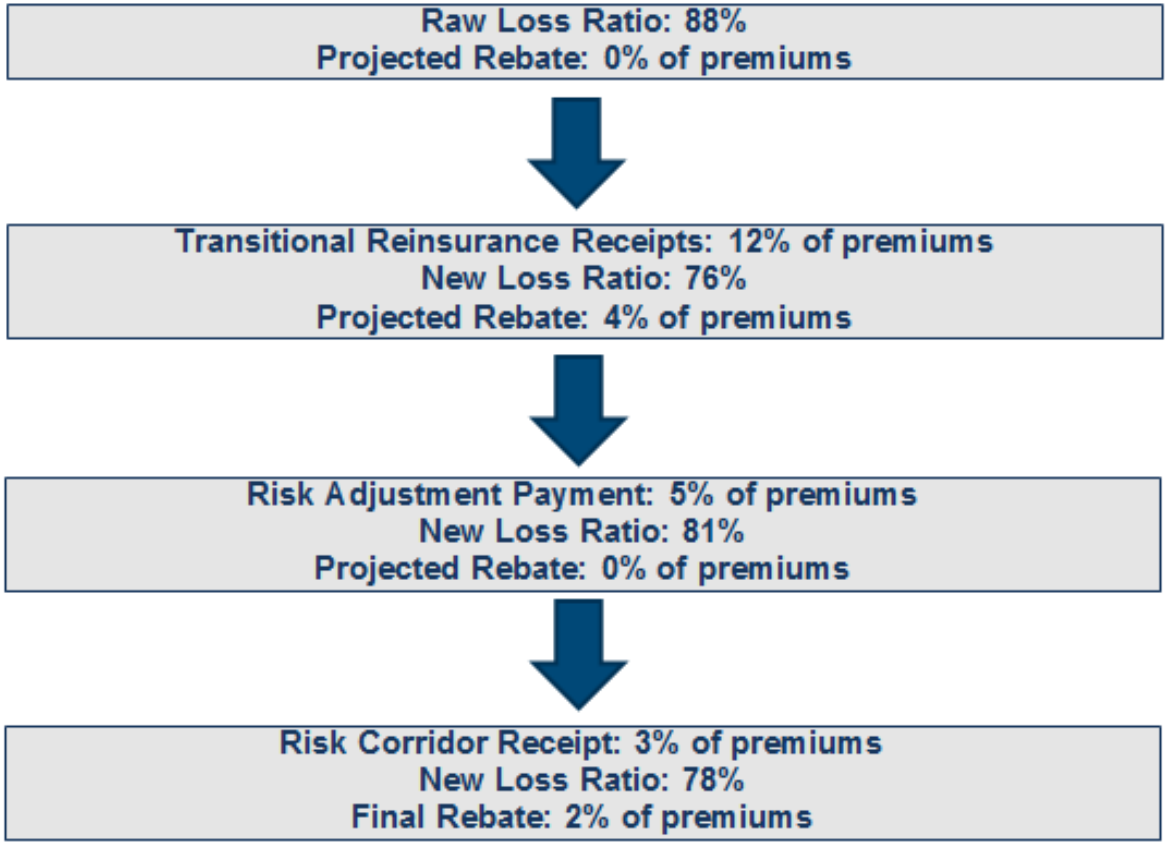
Risk Adjustment: Example 2

- **Factor**: 0.99603 – 0.95550 = 0.04053
- **Market Avg Premium**: $350 PMPM
- **Transfer PMPM**: 0.04053 * $350 = $14.19 PMPM
  - *Carrier receives **$14.19 PMPM** from risk adjustment pool*
- **Total Payment**: $14.19 PMPM * 250,000 = $3.5 M

3 Rs and MLR Rebates: Example

- Example:
  - Individual Market
  - Raw Loss Ratio (Claims / Premiums): 88%
  - Transitional Reinsurance: Receipts of 12% of premiums
  - Risk Adjustment: Payment of 5% of premiums
  - Risk Corridors: Receipt of 3% of premiums
- What is the MLR Rebate (if any)?

3Rs and MLR Rebates



- At each step, the 3Rs affect the Loss Ratio and MLR Rebate

Financial Gain/(Loss) of Actual 3R Results Relative to Accrued Amounts

as of December 31, 2014 (millions)

3R Program	Accrued Amounts	Actual Results	Gain/(Loss)
Risk Adjustment	$230.2	$0	($230.2)
Reinsurance	$6,873.0	$7,886.0	$1,013.0
Risk Corridors	$1,038.6	$0	($1,038.6)
Aggregate	**$8,141.9**	**$7,886.0**	**($255.9)**

Financial Gain/(Loss) of Actual to Accrued 3R Results

as of December 31, 2014 (millions)

3R Program	Total Dollars	PMPM	% of Premium
Risk Adjustment	($230.2)	($1.53)	(0.4%)
Reinsurance	$1,013.0	$6.73	1.8%
Risk Corridors	($1,038.6)	($6.90)	(1.8%)
Aggregate	**($255.9)**	**($1.70)**	**(0.4%)**

Number of ACA Health Plan Issuers With Potential RBC Event Triggered By Actual-to-Accrued Variation

as of December 31, 2014 (millions)

RBC Event	RBC Range	Number of Plans
Company Action Level	150% - 200%	3
Regulatory Action Level	100% - 150%	0
Authorized Control Level	70% - 100%	0
Mandatory Control Level	0% - 70%	4
Accounting Insolvency	< 0%	5

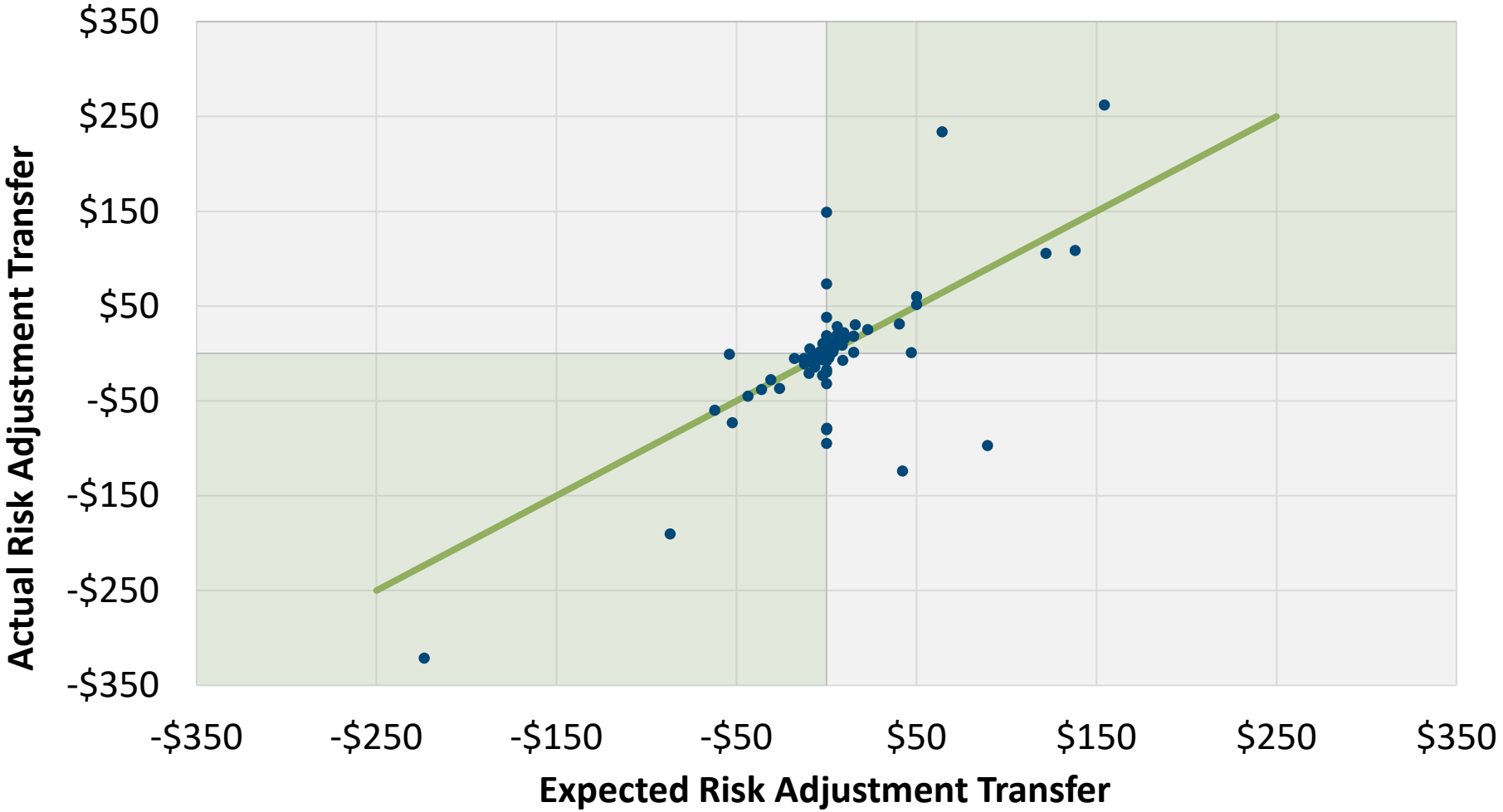
Financial Gain/(Loss) of Actual to Accrued 3R Results

as of December 31, 2014 (millions)

	Actual Receipts	Actual Payments	No Actual Receipts	Actual Total
Accrued Receipts	21%	5%	0%	26%
Accrued Payments	3%	20%	0%	23%
Accrued No Transfer	23%	28%	0%	51%
Accrued Total	**47%**	**53%**	**0%**	**100%**

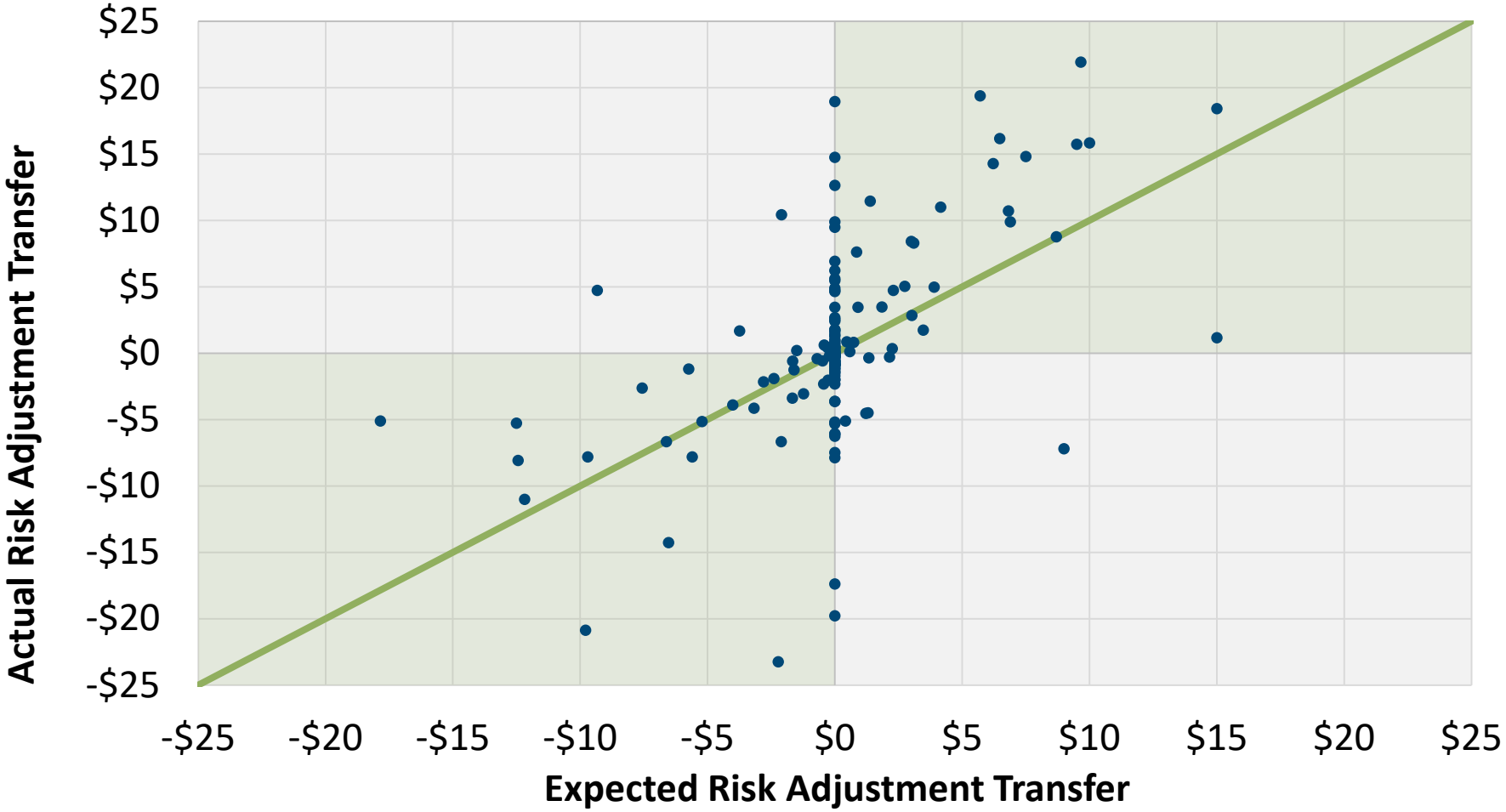
Actual-to-Expected ACA Health Plan Risk Adjustment Transfers

as of December 31, 2014 (millions)



Actual-to-Expected ACA Health Plan Risk Adjustment Transfers

as of December 31, 2014 (millions)



Transitional Reinsurance Estimate Attribution

as of December 31, 2014 (millions)

Item	Amount
Amount Accrued by ACA Plan Issuers	$6,873.0
Coinsurance Variation	$1,718.3
Other Variation	($705.3)
Actual Reinsurance Amount	**$7,886.0**

Summary of 2015 Risk Adjustment

- Direction of risk adjustment accruals, 2014 vs. 2015

		2015 Accruals				
		Accrued receivable	**Accrued payable**	**Accrued zero**	**No 2015 statement**	**Total**
2014	**Accrued receivable**	18%	5%	2%	0%	**25%**
	Accrued payable	3%	18%	1%	1%	**21%**
	Accrued zero	14%	18%	12%	5%	**48%**
	New in 2015	0%	2%	4%	0%	**6%**
	Total	**34%**	**42%**	**18%**	**6%**	**100%**

- 48% of issuers accrued in the same direction as 2014
- A significantly smaller number of issuers accrued zero

Summary of 2015 Risk Adjustment

- Reaction to 2014 actual results

		2015 Accruals				
		Accrued receivable	Accrued payable	Accrued zero	No 2015 statement	Total
2014	Actual receivable	29%	10%	6%	0%	45%
	Actual payable	5%	30%	8%	6%	49%
	New in 2015	0%	2%	4%	0%	6%
	Total	34%	42%	18%	6%	100%

		2015			
		Accrued receivable	Accrued payable	Accrued zero	Total
2014	Actual receivable	33%	12%	7%	51%
	Actual payable	6%	34%	9%	49%
	Total	38%	46%	16%	100%

  - Setting aside non-filers, two-thirds accrued the same direction they actually experienced in 2014

Summary of 2015 Risk Adjustment

- Change in magnitude of accrual

		2015 Accruals					
		Increase in magnitude	Decrease in magnitude	Different direction	Accrued zero	No 2015 statement	Total
2014	Overshot	7%	2%	3%	1%	0%	**14%**
	Undershot	18%	5%	2%	1%	1%	**25%**
	Accrued zero	0%	0%	31%	12%	5%	**48%**
	Direction incorrect	3%	1%	3%	1%	0%	**7%**
	New in 2015			6%			**6%**
	Total	**28%**	**8%**	**39%**	**14%**	**6%**	**100%**

- Much more common to increase magnitude than decrease it

Summary of 2015 Risk Adjustment Accruals

- Comparisons to 2014
  - Significantly smaller “optimism gap”
  - Greater impact from missing data (non-filers)
  - 2014 actuals seem to have influenced 2015 accruals

- Aggregate plausibility vs. individual company results

2015 Risk Adjustment Actual Results

- Released by CMS on June 30, 2016
- Transfer amounts available by company, state, market
- Can compare to both 2014 results and 2015 accruals

2015 Risk Adjustment Actual Results

- Most transfers were in the same direction as 2014
- More money changed hands in aggregate
- Companies newly accruing a transfer accrued correct direction most of the time
- Still frequent underestimates of magnitudes
- Missing data mattered a lot

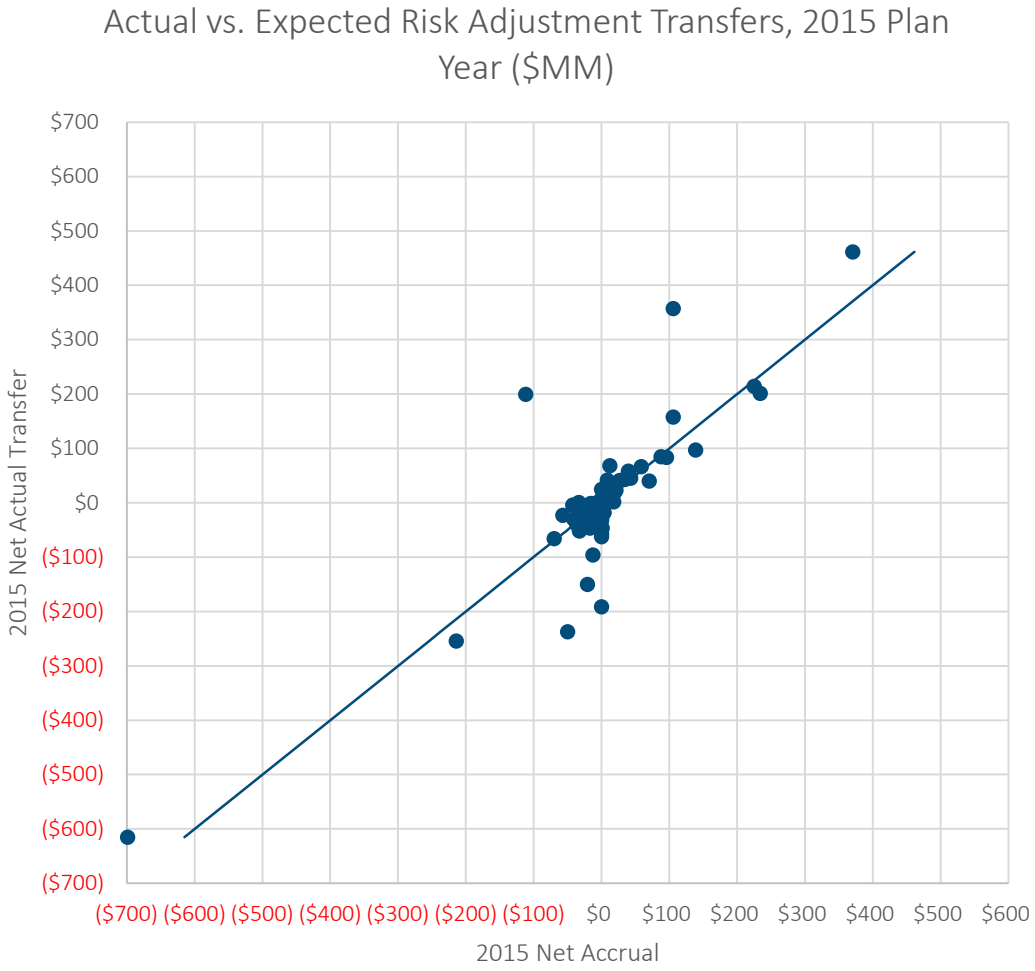
2015 Risk Adjustment: Actual vs. Accrued

- Similar directional results as 2014

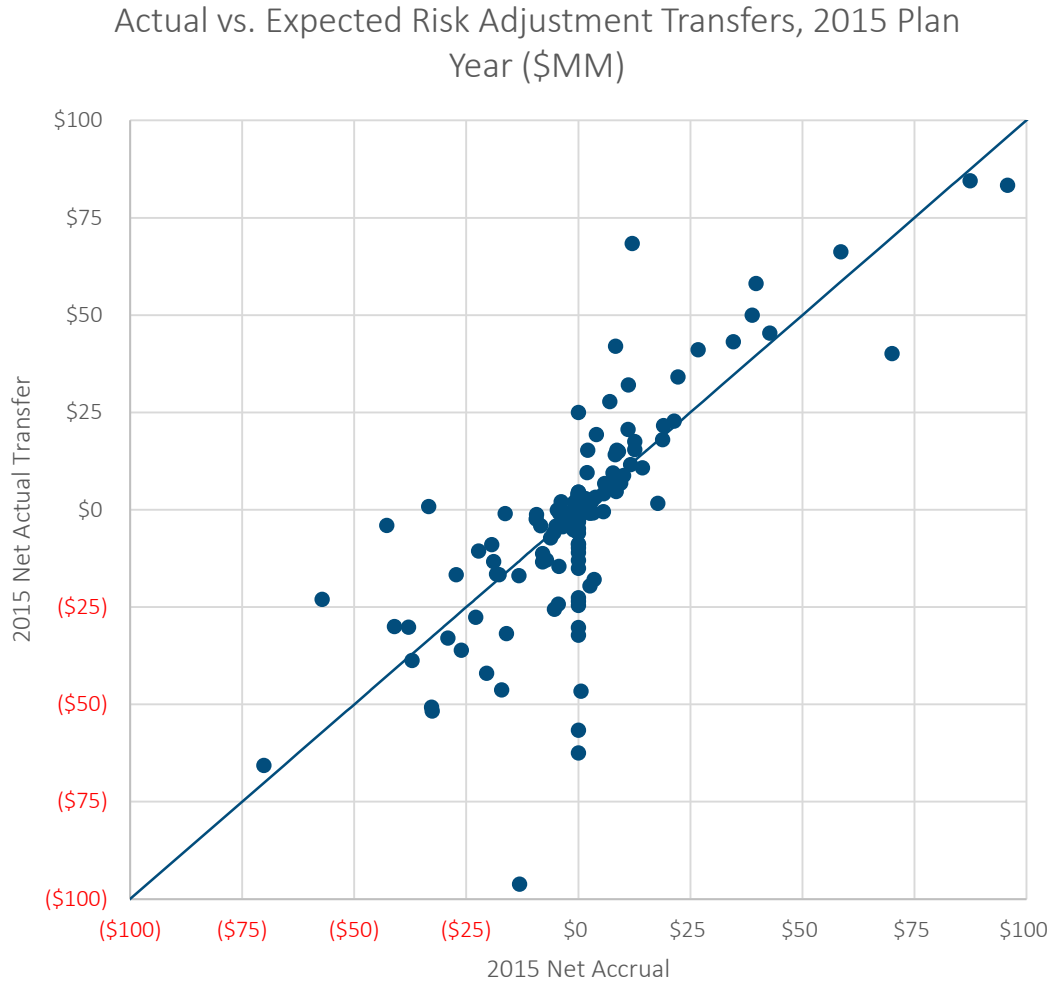
		2015 Actual			
		Actual receivable	Actual payable	No transfer for 2015	Total
2015 Accrual	Accrued receivable	29%	4%	1%	**34%**
	Accrued payable	4%	38%	1%	**42%**
	Accrued zero	5%	11%	2%	**18%**
	No 2015 statement	1%	5%	0%	**6%**
	Total	**39%**	**58%**	**3%**	**100%**

- As with 2014, companies accruing zero were more likely to be payers

2015 Risk Adjustment: Actual vs. Accrued



2015 Risk Adjustment: Actual vs. Accrued



2015 Risk Adjustment: Directional Shifts

- Most companies transferred in the same direction as 2014

		2015 Actual			
		Actual receivable	Actual payable	No transfer for 2015	Total
2014 Actual	Actual receivable	32%	11%	2%	45%
	Actual payable	6%	42%	1%	49%
	New in 2015	1%	5%	0%	6%
	Total	39%	58%	3%	100%

- Of companies in the data both years, 81% transferred in the same direction both years

2015 Risk Adjustment: Directional Accuracy

- As noted earlier, most companies accurately projected direction of transfer

		2015				
		Direction correct	Direction incorrect	Accrued zero	No 2015 statement	Total
2014	Direction correct	34%	3%	2%	1%	**39%**
	Direction incorrect	5%	1%	1%	0%	**7%**
	Accrued zero	26%	5%	12%	5%	**48%**
	New in 2015	2%	0%	4%	0%	**6%**
	Total	**67%**	**9%**	**18%**	**6%**	**100%**

- Compared to 2014, many fewer zero accruals
- Companies making a projection for the first time got the direction right most of the time (83%)

2015 Risk Adjustment: Magnitude

- Companies continue to underestimate magnitude of transfers, in both directions

		2015					
		Overshot	Undershot	Accrued zero	Direction incorrect	No 2015 statement	Total
2014	Overshot	7%	5%	1%	1%	0%	**14%**
	Undershot	8%	14%	1%	3%	1%	**25%**
	Accrued zero	11%	15%	12%	5%	5%	**48%**
	Direction incorrect	2%	3%	1%	1%	0%	**7%**
	New in 2015	1%	2%	4%	0%	0%	**6%**
	Total	**28%**	**39%**	**18%**	**9%**	**6%**	**100%**

2015 Risk Adjustment: Missing Data Bias?

- In aggregate, companies accrued for a net $94 million risk adjustment receivable
- Some companies who participate in risk adjustment did not file annual statements
- Actual risk adjustment transfers for these 11 companies totaled to a $371 million payment
  - 10 payments, 1 receipt
- Among the set of companies that did file annual statements, there was aggregate *pessimism* for 2015

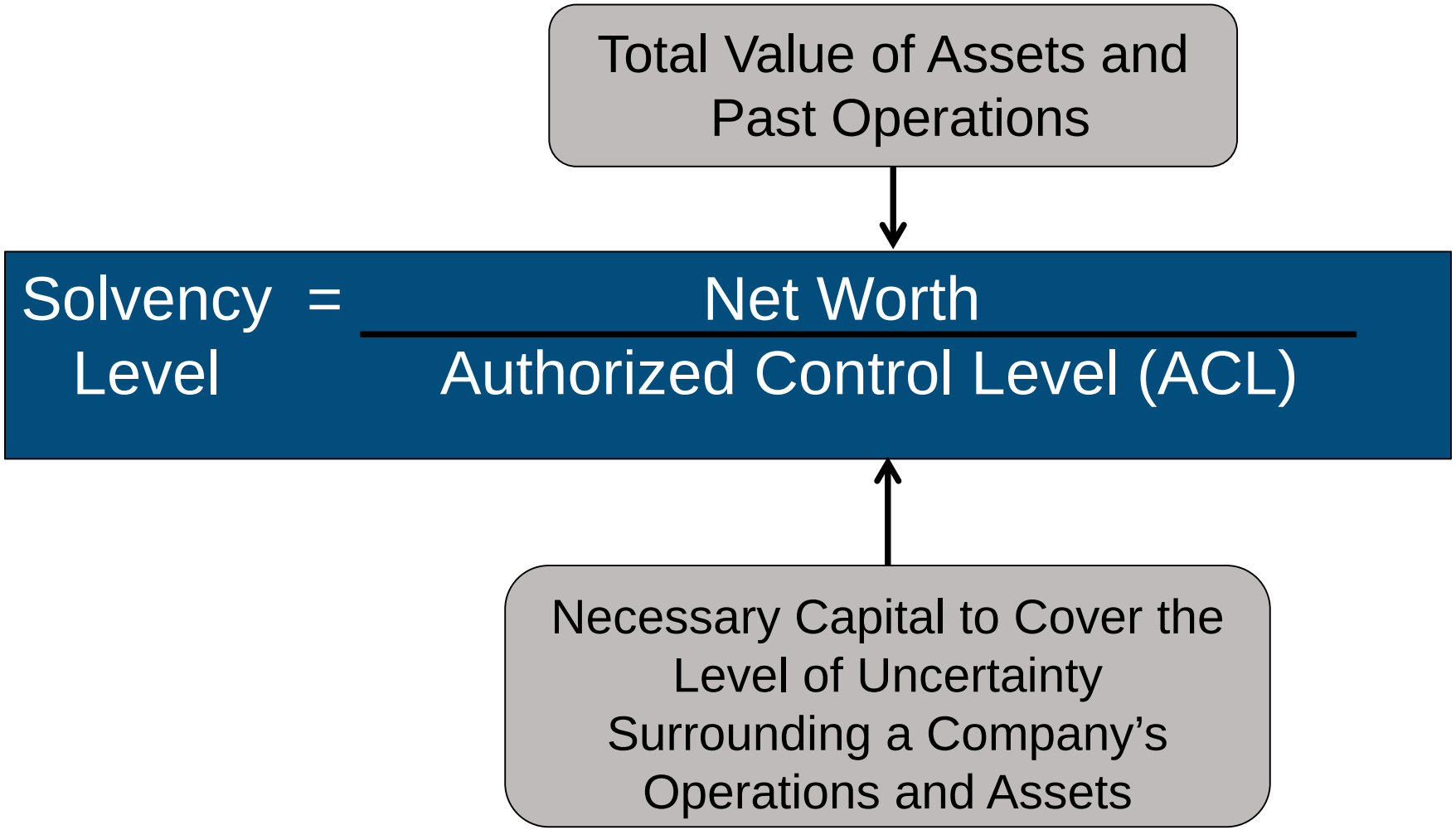
Risk Adjustment Case Study

- End of today: 3:15-5p

Risk Based Capital

SOCIETY OF ACTUARIES

Determining an Entity's Solvency Level



ACL Control Levels

$$\text{Solvency Level} = \frac{\text{Net Worth}}{\text{Authorized Control Level (ACL)}}$$

200% of ACL	150% of ACL	100% of ACL	70% of ACL
Company Action Level	**Regulatory Action Level**	**Authorized Control Level**	**Mandatory Control Level**
Below this, regulators require a formal plan to increase capital.	Below this, regulators can order capital increasing actions.	Below this, regulators *may* assume control.	Below this, regulators *must* assume control.

Company Action Level Formula

$$Company\ Action\ Level = H0\ risk + \sqrt{(H1\ risk)^2 + (H2\ risk)^2 + (H3\ risk)^2 + (H4\ risk)^2}$$

H0: Affiliate Risk
Pro rata share of each affiliate's RBC requirement attributed to the parent.

H1: Asset Risk
Accounts for risk that an insurer's invested assets will decline in value.

H2: Underwriting Risk
Accounts for risk that claim costs will exceed premium revenue.

H3: Credit Risk
Accounts for risk of default and capitation payment credit risk.

H4: Business Risk
Accounts for risk that administrative expenses will be higher than expected.

Avoiding Regulator Control

- Minimize the ACL
  - Minimize claims to reduce starting point for H2 calculation
  - Lower reinsurance attachment points
  - Share risk with providers
  - Maximize capitation discount factor in H2 calculation by fixing capitation payment for at least 12 months
  - Lease or rent assets rather than purchase

Avoiding Regulator Control

- Maximize capital and surplus
  - Maximize profit
  - Increase administrative spending on quality improvement items
  - Minimize overall admin spending
  - Obtain more capital by issuing stock or surplus notes

Calculations and Penalties

H1: Asset Risk
Accounts for risk that an insurer's invested assets will decline in value.

- Value of each of the assets is multiplied by an RBC factor (which is larger for riskier assets)
- Resulting products are summed to get total H1
- Additional penalty applied to portfolios that are concentrated in smaller number of securities issuers

Calculations and Penalties

- Determine claims (net of reinsurance recoveries) from annual statement
- Multiply by a factor that varies by line of business and premium volume
- Reduce result by managed care discount factor, determined by allocating claim costs to five categories

H2: Underwriting Risk
Accounts for risk that claim costs will exceed premium revenue.

Calculations and Penalties

H3: Credit Risk
Accounts for risk of default and capitation payment credit risk.

- Each type of receivable included in the RBC formula has an associated factor
- Resulting products are summed to get total H3 risk

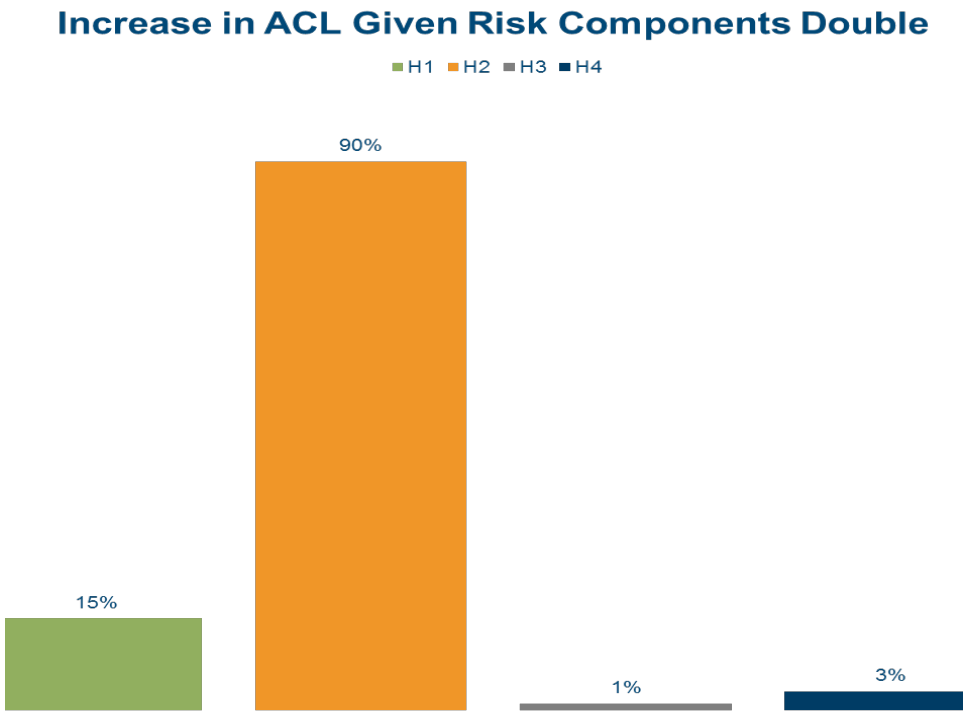
Calculations and Penalties

- Determine administrative costs and multiply by an RBC factor
- Penalty applied to entities growing too quickly
- Avoidable if H2 risk does not increase more than 10 percentage points faster than growth in premium

H4: Business Risk
Accounts for risk that administrative expenses will be higher than expected.

Why is H2 So Important?

$$\sqrt{H1^2 + H2^2 + H3^2 + H4^2} \approx \sqrt{\quad} = H2$$



ORSA: Own Risk Solvency Assessment

- What is an Own Risk Solvency Assessment?
  - Enterprise Risk Management (ERM) practice
  - Structured implementation of ERM within health
  - Requires insurance companies to issue their own assessment of their current and future risk
    - Internal risk self-assessment process
    - Will allow regulators to form an enhanced view of an insurer's ability to withstand financial stress

All states were expected to have adopted ORSA by the end of 2017.

ORSA: Own Risk Solvency Assessment

ORSA: Own Risk Solvency Assessment

- The battle: identifying health insurer risks
  - By nature of an ORSA, I cannot list your risks here
  - With that said:
    - Environmental risk
    - Financial risk
    - Pricing risk
    - Operational risk
    - Reputational risk
    - Strategic risk
  - You may have to talk to, and work with, non-actuaries!

ORSA: Do I Need to Care?

- Who is required to conduct an ORSA?
  - ORSA applies to insurers (subsidiary level) with $500 million or more in annual premium
  - Also to members of insurance group if group has $1 billion or more in annual premium
- Annual requirement
  - Could be necessary to conduct more frequently
- Divisions of Insurance are allowed to ask for things
  - DOIs can also grant exemptions

Statement of Actuarial Opinion

SOCIETY OF ACTUARIES

Statement of Actuarial Opinion

An opinion relating to claim reserves and any other actuarial items

- Made by appointed actuary (what's that?)
- Opinion is at December 31
- Filing deadline of March 1 (following year)

(These slides will focus on the Orange Blank – health business - requirements)

Caveat: These slides do not intend to represent a self-contained set of complete materials necessary to complete an SAO successfully.

SAO: Who can sign?

- Code of Professional Conduct
  - Mirror Test
- AAA Qualification Standards
  - http://www.actuary.org/files/imce/qualification_standards.pdf
  - MAAA; FSA, ASA, FCAS, ACAS, et cetera
  - Three years responsible actuarial experience
    - Relevant to SAO under review of qualified actuary
  - Knowledgeable about relevant law
  - Relevant exam experience
  - Continuing education
    - 30 hours/year, 3 hours professionalism, 6 organized
    - Specific Qualification Standards

SAO: Who can sign?

- Must be qualified health actuary (see prior slide)
- Must be appointed by board of directors (or committee of the board) by December 31 of the year in which the opinion is rendered.
  - There are very specific rules about how to change appointed actuaries.

SAO: More than just IBNR!

- IBNR (Incurred But Not Reported)
- Medical Loss Ratio
- 3Rs (hopefully one R at this point)
- Unearned premium
- Premium deficiency reserves
- Policy reserves
- More

SAO: What's included?

- Methodology is consistent with ASOPs
- Methodology complies with relevant law
- Reserves are good and sufficient
- Development consistent with prior year-end
- Include provisions for all actuarial items (even if zero)
- Data reliance

SAO: The Sections

- Table of Key Indicators
- Identification Section
- Scope Section
- Reliance Section
- Opinion Section
- Relevant Comments

SAO: Table of Key Indicators

Table of Key Indicators

This Opinion is	☑ Unqualified	☐ Qualified	☐ Adverse	☐ Inconclusive
Identification Section	☐ Prescribed Wording Only	☑ Prescribed Wording with Additional Wording		☐ Revised Wording
Scope Section	☑ Prescribed Wording Only	☐ Prescribed Wording with Additional Wording		☐ Revised Wording
Reliance Section	☑ Prescribed Wording Only	☐ Prescribed Wording with Additional Wording		☐ Revised Wording
Opinion Section	☐ Prescribed Wording Only	☐ Prescribed Wording with Additional Wording		☑ Revised Wording
Relevant Comments				☑ Revised Wording
☐ The Actuarial Memorandum includes "Deviation from Standard" wording regarding conformity with an Actuarial Standard of Practice.				

SAO: Identification Section

This section should specifically indicate:

- The appointed actuary's relationship to the company,
- Qualifications for acting as appointed actuary,
- Date of appointment, and
- Should specify that the appointment was made by the Board of Directors.

"I, (name and title of actuary), am an employee of (named organization) and a member of the American Academy of Actuaries. I was appointed on [date appointed] in accordance with the requirements of the annual statement instructions. I meet the Academy qualification standards for rendering this opinion."

(See NAIC Instructions for alternate prescribed wording)

SAO: Scope Section

"I have examined the assumptions and methods used in determining loss reserves, actuarial liabilities and related items listed below, as shown in the annual statement of the organization as prepared for filing with state regulatory officials, as of December 31, 20__."

A. Claims unpaid (Page 3, Line 1);

B. Accrued medical incentive pool and bonus payments (Page 3, Line 2);

C. Unpaid claims adjustment expenses (Page 3, Line 3);

D. Aggregate health policy reserves (Page 3, Line 4) including unearned premium reserves, premium deficiency reserves and additional policy reserves from the Underwriting and Investment Exhibit Part 2D;

E. Aggregate life policy reserves (Page 3, Line 5);

F. Property/casualty unearned premium reserves (Page 3, Line 6);

G. Aggregate health claim reserves (Page 3, Line 7);

H. Any other loss reserves, actuarial liabilities, or related items presented as liabilities in the annual statement; and

I. Specified actuarial items presented as assets in the annual statement."

SAO: Reliance Section

Have you reviewed the underlying liability records?

- If you did, then say that you did (prescribed wording)
- If you did not, but relied upon data provided by the company, than say who you relied upon (prescribed wording).
  - Attach statements
  - Precise identification of items subject to reliance

SAO: Opinion Section

"In my opinion, the amounts carried in the balance sheet on account of items identified above:

- Are in accordance with accepted actuarial standards consistently applied and are fairly stated in accordance with sound actuarial principles;
- Are based on actuarial assumptions relevant to contract provisions and appropriate for the purpose for which the statement was prepared;
- Meet the requirements of the Insurance Laws and regulations of the state of [state of domicile] and are at least as great as the minimum aggregate amounts required by any state;
- Make a good and sufficient provision for all unpaid claims and other actuarial liabilities of the organization under the terms of its contracts and agreements;
- Are computed on the basis of assumptions and methods consistent with those used in computing the corresponding items in the annual statement of the preceding year-end; and
- Include appropriate provision for all actuarial items that ought to be established.

The Underwriting and Investment Exhibit, Part 2B was reviewed for reasonableness and consistency with the applicable Actuarial Standards of Practice.

Actuarial methods, considerations, and analyses used in forming my opinion conform to the relevant Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis of this statement of opinion."

SAO: Relevant Comments

Optional section at discretion of appointed actuary.

- Changes to methodology or assumptions
- Topics of regulatory importance
- Qualification of actuary's opinion
- Additional explanation of Annual Statement items
- Additional reliance
- Caveats

SAO: Actuarial Memorandum

- Supports the Actuarial Opinion
- Must be available by May 1st (potentially sooner)
- Proprietary information – will be held confidential
- Retain for seven years

SAO: Actuarial Memorandum

- Both narrative and technical
  - Should provide sufficient detail to clearly explain findings, recommendations, and conclusions
  - Should provide sufficient documentation and disclosure for another qualified actuary to evaluate the work.
  - Must show analysis from basic data (such as claim lags) to the conclusions.
- Other requirements

SAO: Last But Not Least

- This information is NOT COMPLETE
- Read, learn, and be aware of all of this (list is not complete):
  - NAIC Health Reserve Guidance Manual
  - NAIC Annual Statement Instructions
  - Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States
  - AAA Practice Notes:
    - Revised Actuarial Statement of Opinion Instructions for the NAIC Health Annual Statement Effective December 31, 2010
    - Large Group Medical Insurance Reserves, Liabilities, and Actuarial Assets
    - Small Group Medical Insurance Reserves and Liabilities
    - Practices for Preparing Health Contract Reserves
  - ASOPs 1, 5, 7, 11, 22, 23, 28, 41, 42, 45
  - SSAPs 54, 55, 61, 107

Rate Filings and Actuarial Memoranda

SOCIETY OF ACTUARIES

Filing of Rates

- Part I - Standardized data template
- Part II - Written description justifying the rate increase
- Part III - Rating filing documentation
- Rates Template
- Other templates you might need to know?

Rate Filing

- For any product subject to a rate increase, a Rate Filing Justification must be submitted
  - Rate increases under review threshold (such as 10%) – Parts I & III
  - Rate increase above review threshold – Parts I, II, and III

URRT

- Part I (Standardized Data Template)
  - Historical and projected claim experience
  - Trend projections related to utilization and service or unit cost
  - Claims assumptions related to benefit changes
  - Allocation of overall rate increase to claims and non-claims costs
  - Per enrollee per month allocation of current and projected premium
  - Three year history of rate increases for the product

Worksheet 1

Unified Rate Review v2.0.3 [Add Product] [Validate] [Finalize]

Company Legal Name:	**ABC Insurer**	State:	**CO**
HIOS Issuer ID:	**00000**	Market:	**Individual**
Effective Date of Rate Change(s	**1/1/2016**		

Market Level Calculations (Same for all Plans)

Section I: Experience period data

Experience Period: 1/1/2014 to 12/31/2014

	Period Aggregate Amount	PMPM	% of Prem
Premiums (net of MLR Rebate) in Experience Period:	$22,695,911	$314.59	100.00%
Incurred Claims in Experience Period	$18,484,878	256.22	81.45%
Allowed Claims:	$22,716,349	314.88	100.09%
Index Rate of Experience Period		$315.00	
Experience Period Member Months	72,144		

Section II: Allowed Claims, PMPM basis

Projection Period: 1/1/2016 to 12/31/2016 Mid-point to Mid-point, Experience to Projection: 24 months

	Experience Period on Actual Experience Allowed				Adj't. from Experience to Projection Period		Annualized Trend Factors		Projections, before credibility Adjustment			Credibility Manual		
Benefit Category	**Utilization Description**	**Utilization per 1,000**	**Average Cost/Service**	**PMPM**	**Pop'l risk Morbidity**	**Other**	**Cost**	**Util**	**Utilization per 1,000**	**Average Cost/Service**	**PMPM**	**Utilization per 1,000**	**Average Cost/Service**	**PMPM**
Inpatient Hospital	Days	297.67	$3,151.10	$78.17	0.973	0.901	1.047	0.996	287.32	$3,112.29	$74.52	391.88	$3,112.29	$101.64
Outpatient Hospital	Services	1,307.13	900.11	98.05	0.973	0.901	1.067	1.006	1,287.14	923.31	99.04	1755.52	923.31	135.07
Professional	Services	11,677.79	99.44	96.77	0.973	0.901	1.052	1.006	11,499.25	99.16	95.02	15683.66	99.16	129.59
Other Medical	Services	536.01	151.00	6.74	0.973	0.901	1.052	1.006	527.81	150.57	6.62	719.87	150.57	9.03
Capitation	Services	0.00	0.00	0.00	0.973	0.900	1.007	0.996	0.00	0.00	0.00	0.00	0.00	0.00
Prescription Drug	Services	4,719.36	89.37	35.15	0.973	0.901	1.084	1.007	4,656.45	94.62	36.72	6350.86	94.62	50.08
Total				$314.88							$311.91			$425.41

Section III: Projected Experience:

			After Credibility	Projected Period Totals
Projected Allowed Experience Claims PMPM (w/applied credibility if applicable)	44.77%	55.23%	$374.60	$193,103,453
Paid to Allowed Average Factor in Projection Period			0.711	
Projected Incurred Claims, before ACA rein & Risk Adj't, PMPM			$266.34	$137,296,555
Projected Risk Adjustments PMPM			-12.55	(6,469,387)
Projected Incurred Claims, before reinsurance recoveries, net of rein prem, PMPM			$278.89	$143,765,942
Projected ACA reinsurance recoveries, net of rein prem, PMPM			10.37	5,345,621
Projected Incurred Claims			$268.52	$138,420,321
Administrative Expense Load		12.74%	43.25	22,294,246

Worksheet 2

Product-Plan Data Collection [Add Product] [Validate] [Finalize]

Company Legal Name: **ABC Insurer**
HIOS Issuer ID: **00000**
Effective Date of Rate Change(s): **1/1/2016**

Product/Plan Level Calculations

Section I: General Product and Plan Information

Product		ABC Insurer HMO							
Product ID:		00000CO001							
Metal:		Gold	Silver	Bronze	Bronze	Catastrophic	Silver	Silver	
AV Metal Value		0.783	0.700	0.619	0.600	0.590	0.681	0.686	0.
AV Pricing Value		0.976	0.867	0.648	0.010	0.743	0.779	0.774	0
Plan Type:		HMO	HMO	HMO	HMO	HMO	HMO	HMO	P
Plan Name		HMO Gold	HMO Silver Plus	HMO Bronze	HMO Bronze Elite	HMO Catastrophic	HMO Silver	HMO HDHP Silver	PP(
Plan ID (Standard Component ID):		00000CO0010001	0000CO0010002	0000CO0010003	0000CO0010004	0000CO0010005	0000CO0010006	0000CO0010007	00000C
Exchange Plan?		Yes	Yes	Yes	No	Yes	Yes	No	
Historical Rate Increase - Calendar Year - 2		0.00%							
Historical Rate Increase - Calendar Year - 1		0.00%							
Historical Rate Increase - Calendar Year 0		-8.57%							
Effective Date of Proposed Rates		1/1/2016	1/1/2016	1/1/2016	1/1/2016	1/1/2016	1/1/2016	1/1/2016	1/1
Rate Change % (over prior filing)		15.57%	16.50%	12.21%	0.00%	4.72%	0.00%	0.00%	
Cum'tive Rate Change % (over 12 mos prior)		15.57%	16.50%	12.21%	-999.00%	4.72%	-999.00%	-999.00%	-
Proj'd Per Rate Change % (over Exper.		16.01%	-2.41%	-0.76%	#DIV/0!	138.97%	7.28%	#DIV/0!	-
Product Threshold Rate Increase %		15.47%							

Section II: Components of Premium Increase (PMPM Dollar Amount above Current Average Rate PMPM)

Plan ID (Standard Component ID):	Total	0000CO0010001	000CO0010002	000CO0010003	000CO0010004	000CO0010005	000CO0010006	000CO0010007	000CC
Inpatient	$8.58	$9.32	$8.70	$5.30	$0.00	$1.17	$0.00	$0.00	
Outpatient	$11.40	$12.38	$11.56	$7.04	$0.00	$1.56	$0.00	$0.00	
Professional	$10.94	$11.88	$11.09	$6.75	$0.00	$1.50	$0.00	$0.00	
Prescription Drug	$4.23	$4.59	$4.29	$2.61	$0.00	$0.58	$0.00	$0.00	
Other	$0.76	$0.83	$0.77	$0.47	$0.00	$0.10	$0.00	$0.00	
Capitation	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Administration	$5.83	$6.33	$5.91	$3.60	$0.00	$0.80	$0.00	$0.00	
Taxes & Fees	$2.65	$2.88	$2.69	$1.64	$0.00	$0.36	$0.00	$0.00	
Risk & Profit Charge	$1.37	$1.49	$1.39	$0.85	$0.00	$0.19	$0.00	$0.00	
Total Rate Increase	$45.76	$49.70	$46.40	$28.26	$0.00	$6.26	$0.00	$0.00	
Member Cost Share Increase	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	

Average Current Rate PMPM	$296.26	$319.28	$281.30	$231.46		$132.78	$294.58	$292.49	
Projected Member Months	515,489	87,633	128,796	51,549		711	87,633	51,549	

Worksheet 2, cont'd.

Section III: Experience Period Information

Warning Alert	Wsht 1 Total		Plan ID (Standard Component ID):	Total	00000CO0010001	00000CO0010002	00000CO0010003	00000CO0010004	00000CO0010005	00000CO0010006	00000CO0010007	00000CO0020001	00000CO0020002	00000CO0
OK	$ 314.59		Plan Adjusted Index Rate	$314.59	$316.96	$334.64	$260.79	$0.00	$117.13	$273.64	$0.00	$373.30	$378.02	
OK	72,144	Premium Information	Member Months	72,144	13,760	22,893	22,459	0	171	366	0	5,734	6,761	
OK	$22,695,911		Total Premium (TP)	$22,695,843	$4,361,370	$7,660,914	$5,857,083	$0	$20,029	$100,152	$0	$2,140,502	$2,555,793	
			EHB Percent of TP, [see instructions]	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	1
			state mandated benefits portion of TP that are other than EHB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
			Other benefits portion of TP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
OK	$22,716,349		Total Allowed Claims (TAC)	$22,716,349	$4,849,210	$7,524,286	$3,988,687	$0	$10,789	$96,688	$0	$3,073,590	$3,173,099	
			EHB Percent of TAC, [see instructions]	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	1
			state mandated benefits portion of TAC that are other than EHB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
			Other benefits portion of TAC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
		Claims Information	Allowed Claims which are not the issuer's obligation:	$4,231,472	$783,797	$859,743	$1,464,648	$0	$194	$9,030	$0	$600,824	$513,235	
			Portion of above payable by HHS's funds on behalf of insured person, in dollars	$0	$0	$0	$0		$0	$0		$0	$0	
			Portion of above payable by HHS on behalf of insured person, as %	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%		0.00%	0.00%	#DIV/
OK	$18,484,878		Total Incurred claims, payable with issuer	$18,484,878	$4,065,413	$6,664,543	$2,524,039	$0	$10,595	$87,658	$0	$2,472,766	$2,659,864	
			Net Amt of Rein	$1,784,999.22	$347,351.06	$692,980.19	$366,000.46	$0.00	$0.00	$0.00	$0.00	$159,740.65	$218,926.86	
			Net Amt of Risk Adj	-$3,778,999.99	-$806,695.01	-$1,251,709.80	-$663,541.81	$0.00	-$1,794.79	-$16,084.66	$0.00	-$511,310.00	-$527,863.92	
OK	$ 256.22		Incurred Claims PMPM	$256.22	$295.45	$291.12	$112.38	#DIV/0!	$61.96	$239.50	#DIV/0!	$431.25	$393.41	#DIV/
OK	$ 314.88		Allowed Claims PMPM	$314.88	$352.41	$328.67	$177.60	#DIV/0!	$63.09	$264.18	#DIV/0!	$536.03	$469.32	#DIV/
			EHB portion of Allowed Claims, PMPM	$314.88	$352.41	$328.67	$177.60	#DIV/0!	$63.09	$264.18	#DIV/0!	$536.03	$469.32	#DIV/

Worksheet 2, cont'd.

Section IV: Projected (12 months following effective date)

Warning Alert	Wsht 1 Total		Plan ID (Standard Component ID):	Total	00000CO0010001	00000CO0010002	00000CO0010003	00000CO0010004	00000CO0010005	00000CO0010006	00000CO0010007	00000CO0020
OK	$ 339.47		Plan Adjusted Index Rate	$338.66	$367.70	$326.56	$258.82	$0.00	$279.90	$293.55	$291.47	$(
OK	515,489	Premium Information	Member Months	515,489	87,633	128,796	51,549	-	711	87,633	51,549	-
OK	$174,994,085		Total Premium (TP)	$174,577,634	$32,222,654	$42,059,622	$13,341,912	$0	$199,009	$25,724,667	$15,024,987	
			EHB Percent of TP, [see instructions]	99.56%	99.62%	99.57%	99.46%		99.50%	99.61%	99.42%	
			state mandated benefits portion of TP that are other than EHB	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	
			Other benefits portion of TP	0.44%	0.38%	0.43%	0.54%	100.00%	0.50%	0.39%	0.58%	100.(
OK	193,103,453	Claims Information	Total Allowed Claims (TAC)	$192,987,519	$31,797,035	$44,584,760	$16,707,394	$0	$114,488	$30,335,540	$17,844,497	
			EHB Percent of TAC, [see instructions]	99.56%	99.62%	99.57%	99.46%		99.50%	99.61%	99.42%	
			state mandated benefits portion of TAC that are other than EHB	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	
			Other benefits portion of TAC	0.44%	0.38%	0.43%	0.54%	100.00%	0.50%	0.39%	0.58%	100.(
			Allowed Claims which are not the issuer's obligation	$55,778,693	$6,150,691	$11,249,839	$6,639,599	$0	$46,219	$10,041,179	$5,995,241	
			Portion of above payable by HHS's funds on behalf of insured person, in dollars	$10,249,718	$6,062	$3,979,316	$261,513		$0	$3,553,973		
			Portion of above payable by HHS on behalf of insured person, as %	18.38%	0.10%	35.37%	3.94%		0.00%	35.39%		#DIV/0!
OK	138,420,321		Total Incurred claims, payable with issuer funds	$137,208,826	$25,646,344	$33,334,921	$10,067,795	$0	$68,268	$20,294,361	$11,849,256	
OK	5,345,621		Net Amt of Rein	$5,344,568	$986,471	$1,287,633	$408,446	$0	$6,092	$787,547	$459,975	
			Net Amt of Risk Adj	-$6,470,042	-$1,194,205	-$1,558,786	-$494,458	$0	-$7,375	-$953,391	-$556,838	
OK	$ 268.52		Incurred Claims PMPM	$266.17	$292.66	$258.82	$195.31	#DIV/0!	$96.02	$231.58	$229.86	#DIV/0!
OK	$ 374.60		Allowed Claims PMPM	$374.38	$362.84	$346.17	$324.11	#DIV/0!	$161.02	$346.17	$346.17	#DIV/0!
			EHB portion of Allowed Claims, PMPM	$372.71	$361.46	$344.68	$322.36	#DIV/0!	$160.22	$344.82	$344.16	#DIV/0!

Rate Filing

- Comments on URRT
  - Index rate, as used in the URRT, has a wholly different meaning than is typically used in manual rating.
  - Profit & Risk Load on Worksheet 1, Section III: Previously it was unclear whether it means profits before or after federal income tax. This should be an after-tax amount.
  - Individual market submissions must have an experience period that is a full calendar year and in all cases should be 12 months long.

Rate Filing

- Comments on URRT
  - Brand new carriers have no previous experience.
  - On Worksheet 2, does not allow for the deletion and addition of columns, need to start from the beginning as product offerings change.
  - On Worksheet 2, for terminating products, 0.01 used for the pricing value.
    - Terminated non-ACA plans included in the experience pool should be grouped together and listed as catastrophic plans
    - Terminated ACA plans should be listed in their own column

Rate Filing

- Comments on URRT
  - Many insurers don’t price in the exact order or format as the URRT illustrates, so are left filling in the appropriate cells at the end
  - Many insurers do not calculate "change" in premiums at the level asked for in Worksheet 2 (IP, OP, PR, Rx). Additionally, many insurers do not have an "Other" bucket (ambulance, etc..), or do not have an "Other" definition that matches up to the definition used in the URRT.

Rate Filing

- Part II, Written Justification
  - Only submitted for rate increases over threshold (state may decide otherwise)
  - A simple and brief narrative describing the data and assumptions that were used to develop the rate increase, including:
    - Explanation of the most significant factors causing the rate increase including the relevant claim and non-claim expense increases
    - Brief description of the overall experience of the policy including historical and projected expenses and loss ratios

Rate Filing

- Part III
  - An actuarial memorandum containing the reasoning and assumptions supporting the data contained in Part I.
    - To be submitted for all rate increases
    - Specified format by CMS

Actuarial Memo Contents

- Part III, Rate Filing Documentation
  - Actuarial Memorandum Contents Outline
    - General Information
    - Proposed Rate Increase(s)
    - Experience Period Premium and Claims
    - Benefit Categories
    - Projection Factors
    - Credibility Manual Rate Development
    - Credibility of Experience
    - Paid to Allowed Ratio
    - Risk Adjustment and Reinsurance

Actuarial Memo Contents

- Part III, Rate Filing Documentation
  - Actuarial Memorandum Contents Outline (cont'd)
    - Non-Benefit Expenses and Profit & Risk
    - Projected Loss Ratio
    - Single Risk Pool
    - Index Rate
    - Market Adjusted Index Rate
    - Plan Adjusted Index Rates
    - Calibration
    - Consumer Adjusted Premium Rate Development
    - AV Metal Values
    - AV Pricing Values

Actuarial Memo Contents

- Part III, Rate Filing Documentation
  - Actuarial Memorandum Contents Outline (cont'd)
    - Membership Projections
    - Terminated Products
    - Plan Type
    - Warning Alerts
    - Effective Rate Review Information (Optional)
    - Reliance
    - Actuarial Certification
  - Data Sources, Assumptions, Methods, and more on each element in enough detail to comply with directions in instructions as well as ASOPs

Professionalism and Pricing

SOCIETY OF ACTUARIES

Code of Conduct

SOCIETY OF ACTUARIES

Code of Conduct
Precept 1: Professional Integrity

- Be honest
- Use Skill and Care
  - Don’t be deceitful or intentionally misrepresent
- Don’t do anything illegal, or that would hurt our reputation
  - Includes using third party relationships to engage in improper activity

Code of Conduct
Precept 2: Qualification Standards

- Make sure you are qualified
  - Basic education
  - Experience
  - Continuing education
- Must be qualified even if qualification standards for a particular assignment do not exist

Code of Conduct
Precept 3: Standards of Practice

- You must satisfy applicable Standards of Practice
  - It is your responsibility to know what these are and keep up with changes
  - If no Standard applies to the work, use professional judgment and generally accepted actuarial principles and practices
  - If you depart from the Standards, you must justify the departure

Code of Conduct Precepts 4, 5 and 6: Communications and Disclosure

- Actuarial communications must:
  - Be clear and appropriate
  - Identify the responsible actuary
  - Indicate who can provide supplementary information
  - Identify the Principal
- You must disclose sources of compensation in relation to an assignment
- If you are not independent you must disclose this to the Principal
- Disclosure is required based on your firm, regardless of your operating location versus other work done in other locations for the Principal

Code of Conduct
Precept 7: Conflict of Interest

- You should not perform Actuarial Services involving an actual OR potential conflict of interest, unless:
  - You are able to act fairly
  - You have disclosed the conflict to all Principals
  - All Principals have agreed on your performance of the services

"There is no moral precept that does not have something inconvenient about it." Denis Diderot

Code of Conduct
Precept 8: Control of Work Product

- You should make sure your work is not used to mislead others
  - Recognize the risks of misquotation and misinterpretation
  - Construct and present your Actuarial Communication to avoid this
  - Include limitations on the distribution and utilization of the Communication

Code of Conduct
Precept 9: Confidentiality

- Do not disclose confidential information
  - Unless Principal authorizes
  - Unless required by Law

Code of Conduct
Precept 10: Courtesy and Cooperation

- Use courtesy and respect
- Cooperate with others in the Principal's interest
  - Differing opinions are ok; sharing your thoughts on another actuary's work should be objective, thoughtful and respectful
  - You can work for a Principal even if another actuary is already doing so
  - It is ok to give alternative opinions to a Principal
  - You can (should) consult with the prior/current actuary, but only with consent of the Principal
  - And if you are the prior actuary, you should cooperate with the new actuary

Code of Conduct
Precept 11: Advertising

- Do not use false or misleading advertisement for Actuarial Services
  - Including the need for actuarial services
  - Including one actuary versus another
  - Includes all media trying to influence any person or organization

Code of Conduct
Precept 12: Titles and Designations

- Your title and designation should be only used in a way that is authorized by the organization
  - “Title” means from an actuarial organization

Code of Conduct Precept 13 and 14: Violations of the Code

- If you are aware of a material violation of the Code by another Actuary:
  - First, discuss it with the other actuary
  - If not resolved, then you should disclose to the Counseling and Discipline body
    - Unless contrary to law, or violating confidentiality
- Material violation:
  - Important
  - Affects the outcome of a situation

Code of Conduct Precept 13 and 14: Violations of the Code

- If you are asked to provide information or cooperate with a counseling or disciplinary body, you should do so promptly and truthfully
  - Subject to restrictions of the Law, or confidentiality

- The ABCD stresses the “C”
  - http://www.abcdboard.org/

Applicability Guidelines (under revision process)

SOCIETY OF ACTUARIES

Applicability of ASOPs to Health Pricing Work

Task: *Estimate incurred health claim liabilities*

Possible ASOPs:

ASOP 1 – Introductory Actuarial Standard of Practice
ASOP 5 – Incurred Health and Disability Claims
ASOP 11 – Financial Statement Treatment of Reinsurance Transactions Involving Life or Health Insurance
ASOP 12 – Risk Classification (for All Practice Areas)
ASOP 21 – Responding to or Assisting Auditors or Examiners in Connection with Financial Statements for All Practice Areas
ASOP 23 – Data Quality
ASOP 25 – Credibility Procedures Applicable to Accident and Health, Group Term Life, and Property/Casualty Coverages
ASOP 28 – Statements of Actuarial Opinion Regarding Health Insurance Liabilities and Assets
ASOP 41 – Actuarial Communications
ASOP 45 – The Use of Health Status Based Risk Adjustment Methodologies

Applicability of ASOPs to Health Pricing Work

Task: *Perform trend analysis (aggregate and components)*

Possible ASOPs:

ASOP 1 – Introductory Actuarial Standard of Practice
ASOP 5 – Incurred Health and Disability Claims
ASOP 7 – Analysis of Life, Health, or Property/Casualty Insurer Cash Flows
ASOP 8 – Regulatory Filings for Health Plan Entities
ASOP 12 – Risk Classification (for All Practice Areas)
ASOP 23 – Data Quality
ASOP 25 – Credibility Procedures Applicable to Accident and Health, Group Term Life, and Property/Casualty Coverages
ASOP 41 – Actuarial Communications
ASOP 42 – Determining Health and Disability Liabilities Other Than Liabilities for Incurred Claims
ASOP 45 – The Use of Health Status Based Risk Adjustment Methodologies

Applicability of ASOPs to Health Pricing Work

Task: *Design, use, and/or update risk classification systems*

Possible ASOPs:

ASOP 1 – Introductory Actuarial Standard of Practice
ASOP 12 – Risk Classification (for All Practice Areas)
ASOP 23 – Data Quality
ASOP 25 – Credibility Procedures Applicable to Accident and Health, Group Term Life, and Property/Casualty Coverages
ASOP 41 – Actuarial Communications
ASOP 42 – Determining Health and Disability Liabilities Other Than Liabilities for Incurred Claims
ASOP 45 – The Use of Health Status Based Risk Adjustment Methodologies

Applicability of ASOPs to Health Pricing Work

Task: *Prepare actuarial certification of compliance for small group carriers*

Possible ASOPs:

ASOP 1 – Introductory Actuarial Standard of Practice

ASOP 23 – Data Quality

ASOP 26 – Compliance with Statutory and Regulatory. Requirements for the Actuarial Certification of Small Employer Health Benefit Plans

ASOP 41 – Actuarial Communications

Applicability of ASOPs to Health Pricing Work

Task: *Develop rates, plan design, quality standards, data/claims analysis for products and self-funded plans.*

Possible ASOPs:

1, 3, 4, 5, 6, 7, 8, 11, 12, 17, 18, 23, 25, 26, 27, 35, 41, 42, 44, 45, new MV/AV ASOP

Applicability of ASOPs to Health Pricing Work

Task: *Provide analysis on risk-sharing programs, including reinsurance, risk corridor, risk adjustment, experience rating, and rate stabilization funds.*

Possible ASOPs:

1, 3, 5, 7, 8, 11, 12, 18, 23, 25, 41, 42, 45

Applicability of ASOPs to Health Pricing Work

Task: *ACA-related filings, including rate filing, cost-sharing reduction calculations, reinsurance, risk adjustment, risk corridors, medical loss ratios, and actuarial value (AV) and minimum value (MV) certifications.*

Possible ASOPs:

1,5, 7, 8, 11, 12, 17, 23, 25, 41, 42, 45, and new AV/MV ASOP

ASOP 41: Actuarial Communications

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ASOP 41:
Actuarial Communications

Requirements for Actuarial Communications

Form and content: appropriate to the circumstances

Clarity: uses appropriate language, taking into account intended users

Timing: reasonable, considering needs of intended users

Identification of Responsible actuary

ASOP 41: Actuarial Communications

Actuarial Report

- Should be completed if the actuary intends the findings to be relied upon by any intended user
  - One or several documents, could be different formats
- Report contents:
  - Actuarial findings
  - Methods, procedures, assumptions and data
  - Clear enough for another actuary to make an appraisal of reasonableness
- Specific Circumstances: Can limit the content, but must be prepared to identify such circumstances and justify limiting the content of the actuarial report.

ASOP 41: Actuarial Communications

All communications should disclose:

- Identification of Responsible Actuary
- Identification of Actuarial Documents
- Disclosure in actuarial reports:
  - Intended users, scope and intended purpose
  - Acknowledgment of qualification
  - Limitations or constraints on the findings
  - Documents comprising the actuarial report
  - Assumptions or methods prescribed by law
  - Deviation from the guidance of an ASOP

ASOP 41: Actuarial Communications

Additional Disclosures Within an Actuarial Report

- Uncertainty or Risk
- Conflict of Interest
- Reliance on Other Sources
- Responsibility for assumptions and methods – next slide
- Information Date of Report (data)
- Subsequent Events -- disclose if:
  - Becomes known after the information date, but before the report is issued
  - Material effect if reflected in findings, and
  - Impractical to revise the report

ASOP 41: Actuarial Communications

If an assumption or method is specified by law or selected by another party, 3 choices:

1. If it does not conflict with your judgment, no disclosure obligation
2. If it significantly conflicts with your judgment, must disclose
    a. Assumption or method set by another party
    b. The party who set it
    c. The reason they are setting it and not you
    d. That it conflicts with your judgment or you are unable to judge
3. If you are unable to judge the reasonableness, disclose per #2 above

ASOP 41: Actuarial Communications

- Other requirements
  - Explanation of material differences
  - Oral communications
  - Responsibility to other users
  - Retention of other materials

ASOP 23: Data Quality

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ASOP 23 - Data Quality

- Revised December 2004
- Accuracy and validity of analysis depends on quality of data
- Reliance ranges for accepting without any checking to complete verification
- Standard does not require audit of data

ASOP 23 - Data Quality

- Considerations on Selecting Data
  - Intended purpose
  - Reasonableness and comprehensiveness
  - Internal and external consistency
  - Cost, feasibility, and benefit of obtaining alternative data
  - Sampling method

ASOP 23 - Data Quality

- May rely on data supplied by others
- Accuracy of data supplied by others is their responsibility
- Should disclose such reliance
- Should review to identify values that are questionable

ASOP 23 - Data Quality

- Disclosures
  - Source of data
  - Potential bias due to imperfect data
  - Adjustments made
  - Extent of reliance on data by other
  - If reviewed and if not reviewed, any limitations on work product
  - Any limitations due to uncertainty about the quality of the data
  - Any unresolved concerns
  - Any conflicts with law, regulation, etc.

Literature Review and Resources

SOCIETY OF ACTUARIES

Start With - Your Company Website

- Intranet
  - Branded
  - Reviewed by Legal
- Internet
  - Some companies share information

Actuarial Organizations

- Society of Actuaries (http://www.soa.org)
  - Research
  - Presentation archives
- American Academy of Actuaries (http://www.actuary.org)

Think Tanks/Publications

- Rand Corporation (http://www.rand.org)
- Kaiser Family Foundation (http://www.kff.org)
- Robert Woods Johnson Foundation (http://www.rwjf.org)
- Health Affairs (http://www.HealthAffairs.org)

Government Agencies

- CMS (http://www.cms.gov)
- Congressional Budget Office (http://www.cbo.gov)
- MedPac (http://www.medpac.gov)
- Centers for Disease Control (http://cdc.gov)
- National Center for Health Statistics (http://cdc.gov/nchs)

Consultant Websites

- Milliman (http://www.milliman.com)
- Towers Watson (http://www.towerswatson.com)
- AONHewitt (http://www.aonhewitt.com)
- Mercer (http://www.mercer.com)
- Wakely (https://www.wakely.com/)

And, last but not least…

- Google (http://www.google.com)

Literature Review and Resources

APPENDIX

SOCIETY OF ACTUARIES

Literature Review
American Academy of Actuaries

Exposure draft of an addendum to the October 2012 practice note,

Actuarial Practices Relating to Preparing, Reviewing, and Commenting on Rate Filings Prepared in Accordance with the Affordable Care Act for 2015 and Beyond. (September 1, 2014)
https://www.actuary.org/files/RRPN_exposure_draft_092614.pdf

Society of Actuaries
Commercial Health Care: What's Next?

http://www.theactuarymagazine.org/category/web-exclusives/commercial-health-care-whats-next/

- The Old and the Beautiful (Norris, Leida, Rode, Gray)
  - http://www.theactuarymagazine.org/the-old-and-the-beautiful/
- The Next Generation High Risk Pool (Leif, Bykerk)
  - http://www.theactuarymagazine.org/next-generation-high-risk-pool/
- The Entrepreneur and the Specter of Health Care (Swacker)
  - http://www.theactuarymagazine.org/entrepreneur-specter-health-care/
- Creating Stability in Uncertain Times (Peper, Hilson, Cohen)
  - https://theactuarymagazine.org/creating-stability-unstable-times/
- Coverage for One and for All? (Lee, Akopyan)
  - https://theactuarymagazine.org/coverage-for-one-and-for-all/
- New Rules to Expand Association Health Plans (Corlette, Hammerquist, Nakahata)
  - https://theactuarymagazine.org/new-rules-to-expand-association-health-plans/
- And more?

Literature Review and Resources
Other Society of Actuaries Research

Provider Payment Arrangements, Provider Risks, and Their Relationship with the Cost of Health Care, by Juliet M. Spector, FSA, MAAA, Brian Studebaker, MA, and Ethan J. Menges
https://www.soa.org/Research/Research-Projects/Health/2015-provider-payments-arrangements-risk.aspx

Indications of Pent-up Demand, by Rebecca Owen, FSA, MAAA and Daniel Maeng, PhD
https://www.soa.org/Research/Research-Projects/Health/2015-pent-up-demand-health.aspx

Modeling Long Term Healthcare Cost Trends, by Thomas E. Getzen, iHEA and Temple University
https://www.soa.org/research/research-projects/health/research-hlthcare-trends.aspx

Health Care Costs – From Birth to Death (joint project HCCI/SOA), by Dale Yamamoto
http://www.soa.org/Research/Research-Projects/Health/research-health-care-birth-death.aspx

For more on SOA health research, please visit
http://www.soa.org/research/research-projects/health/default.aspx

Literature Review and Resources
SOA's Health Watch August 2015 Issue

- The ACA's Medical Loss Ratio Provisions: Looking Back By Rowen Bell
- Health Care Reform: Essential Health Benefits and Actuarial Value By Catherine Knuth
- A Regulatory Perspective on Rate Review Before and After the Affordable Care Act By Annette James and Jaakob Sundberg
- The Individual Market and ACA Products: Starting from First Actuarial Principles By Kurt Wrobel
- 30 Surplus and the ACA By Daniel Pribe
- The Affordable Care Act's Five-Year Anniversary—Wall of Comments: A compilation of feedback from the actuaries in the Health Section
- Medicaid and the ACA By Rebecca Owen
- 39 Medicare Advantage: Five Years after the ACA By Andrew Mueller and Caroline Li
- ACA Impact on Employers—The Road Ahead and the Road Behind By Sujaritha Tansen and Brian Stentz
- The Role of the Affordable Care Act in Payment Reform By Juliet Spector
- Taxes and Fees Introduced by the ACA By Rowen Bell and Mike Gaal
- The CLASS Act and Its Aftermath By Robert Yee
- https://www.soa.org/Library/Newsletters/ACA@5/2015/August/aca-2015-iss1.pdf

Literature Review and Resources
Society of Actuaries Recordings

2014 Health Meeting sessions

Sessions 5, 18, 27: Overview and breakdowns of the 3 Rs
Session 6: Rate Review 101
Session 8: Specialty Drugs
Session 7: The ACA's Effect on Large Employers
Session 19: ACA-Rate Review
Session 20: The ACA and the Economy
Session 22: Behavioral Finance for Health Actuaries
Session 28: Exchanges 101
Session 29: Post-ACA Medical Benefit Plan Design
Session 31: Creative Ways to Bend Trend
Session 33: Predictive Models in Healthcare
Session 43: Exchanges – What Happened? What is Going to Happen?
Session 86: Private Exchanges: New Directions in Employer Benefits
Session 90: ORSA for Health Actuaries – Getting the Most Out of It
Session 101: Professionalism Consideration for Pricing Actuaries

https://www.soa.org/Professional-Development/Event-Calendar/2014/Health-Meeting/Agenda-Day-2.aspx
https://www.soa.org/Event-Calendar/2014/Health-Meeting/Agenda-Day3/
https://www.soa.org/Professional-Development/Event-Calendar/2014/Health-Meeting/Agenda-Day-4.aspx

Literature Review and Resources
Society of Actuaries Recordings

2015 Health Meeting sessions

Session 7: Statistics 101 for Health Actuaries
Session 8: Financial Reporting and the Affordable Care Act
Session 10: Actuarial Opinions Revisited
Session 12: The Latest on the ACA: From the Industry, Congress, and the Supreme Court
Session 13: Big Data, Behavioral Data and Predicting Health Outcomes
Session 21: Statistics 102 for Health Actuaries
Session 25: Doctors without Networks: Alternative Arrangements for Medical Benefits
Session 26: The Affordable Care Act and Dental: Past, Present, and Future
Session 34: Rate Review Hot Topics
Session 51: The Latest on Public Exchanges
Session 52: Evolving Guidance for Capitation Rate Setting
Session 63: Pricing in the ACA for 2016: Commercial Rate Filings – "The Uncertainty Continues"
Session 72: Predictive Modeling: What's New, and How to Use It
Session 99: Enterprise Risk Management and ORSA

https://www.soa.org/Professional-Development/Event-Calendar/2015/Health-Meeting/Agenda-Day-2.aspx
https://www.soa.org/Professional-Development/Event-Calendar/2015/Health-Meeting/Agenda-Day-3.aspx
https://www.soa.org/Professional-Development/Event-Calendar/2015/Health-Meeting/Agenda-Day-4.aspx

Literature Review and Resources Payment Reform Initiatives Outcomes

Visit the payment reform webpage and join the list serve

- Monthly informal calls on this issue
- Lots of free continuing education

http://www.chqpr.org/index.html

Literature Review and Resources American Academy of Actuaries

CMS ACA Regulation Review Video Modules Members have access to videos prepared by CMS on several key regulations implementing provisions of the ACA. To access the site, log in to the Academy's members-only page and select the link for ACA Regulation Review Videos.

Academy Committees oriented on policy: get involved, earn free CE:

http://www.actuary.org/content/health-practice-council-committees

Professionalism committees are created as needed to develop and revise ASOPs.

Examples of Health Practice Council committees (policy):

- Individual and Small Group Markets Committee
- AV/MV Work Group
- Risk Sharing Subcommittee
- Premium Review Work Group
- Financial reporting and Solvency Committee
- Health Solvency Subcommittee

Communications and deliverables on website (issue briefs, letters to policymakers, practice notes)

Literature Review and Resources American Academy of Actuaries

American Academy of Actuaries Professional Webcast Recordings:
http://www.actuary.org/professionalism-webinars

Webcasts for pricing health actuaries:

- Unknown Unknowns: Challenges to Professionalism
- New Report on Actuaries' Perceptions of Key Ethical Issues Facing Profession
- Up to Code: Are You Keeping Up to Code?
- Disclosure in the Real World: ASOP No. 41 Case Studies
- Precept 13: Preserving Integrity and Public Trust
- Where the Rubber Meets the Road: Applying the Code of Professional Conduct and ASOPs in Your Daily Work
- Setting the Ground Rules: Revised ASOP No. 1 and Other Key Information for Actuaries
- Professionalism Webinar: Improving Your Practice Through Peer Review
- Webinar: Precept 13—How Do I Comply in a Self-Regulating Profession?
- Professionalism Webinar: ABCD Requests for Guidance—Insight and Case Studies
- Professionalism webinar: U.S. Qualification Standards—Key Aspects and your FAQs Answered
- Code of Professional Conduct webinar: Applying the same code in uncertain economic times
- The Profession's Responsibility to the Public Webinar
- Webinar: Revised ASOP No. 41: Actuarial Communications
- Academy Webinar: Best of "Up to Code"
- You've got Qualification Standards questions? The Academy has answers
- The Importance and Benefits of Understanding the Code

Literature Review and Resources Great Links

CMS Information Hub on Exchange and 3Rs The CMS Regtap series provides useful information on implementing health reform. To register for access to the site, visit http://www.regtap.info/login.php.

CCIIO's Regulation and Guidance http://www.cms.gov/cciio/Resources/Regulations-and-Guidance/index.html

The Robert Wood Johnson Foundation and the George Washington University's Hirsh Health Law and Policy Program teamed together to provide a helpful resource on a variety of topics of the ACA, including delivery system reform, Medicaid, Medicare and tax policy. http://www.healthreformgps.org/.

Visit HealthShare TV to hear thoughts from industry experts on all kinds of issues, including Medicaid expansion, health care delivery improvement, cost, quality, ACOs and much more. http://www.healthsharetv.com/

Literature Review and Resources
Health Affairs

Health Affairs Theme Issues that would appeal to a health pricing actuary. Visit http://misc.soa.org/HealthAffairs.pdf for directions on how Health Section members get free access to Health Affairs.

April 2015: Cost and Quality of Cancer Care
December 2014: Children's Health
November 2014: Collaborating For Community Health
October 2014: Specialty Pharmaceutical Spending And Policy
September 2014: Advancing Global Health Policy
June 2014: Economics of Health Care: Costs, Savings, and Value
March 2014: The ACA and Vulnerable Americans: HIV/Aids; Jails
February 2014: Early Evidence, Future Promise of Connected Health
December 2013: The Future of Emergency Medicine: Challenges and Opportunities
October 2013: Economic Trends And Quality Trade-Offs
September 2013: Navigating The Thorns That Await The ACA
August 2013: Health IT, Payment And Practice Reforms
July 2013: States, Medicaid And Countdown To Reform
June 2013: Medicaid Expansion And Vulnerable Populations
May 2013: Tackling The Cost Conundrum

Literature Review and Resources Congressional Budget Office (CBO)

CBO Publications on a variety of the topics mentioned earlier:

- Budgetary and Economic Effects of Repealing the Affordable Care Act
- The 2015 Long-Term Budget Outlook
- Effects of the Affordable Care Act on Health Insurance Coverage – Baseline Projections
- Proposals for Health Care Programs – CBO's Estimate of the President's Fiscal Year 2016 Budget
- Payments of Penalties for Being Uninsured Under the Affordable Care Act: 2014 Update

http://www.cbo.gov/topics/health-care

Literature Review and Resources Medical Inflation

ALTARUM INSTITUTE Health Sector Indicators Briefs (monthly)

http://altarum.org/our-work/cshs-health-sector-economic-indicators-briefs

Health Care Cost Institute (HCCI) Trend Reports
http://www.healthcostinstitute.org/2013-health-care-cost-and-utilization-report

NHE Projections Released CMS' Office of the Actuary published their widely read annual article on National Health Expenditures Projections.

Literature Review and Resources Employer Actions

Employer Penalty Flowchart
Kaiser Family Foundation's flowchart is an excellent visual summary of the 2014 and beyond affect of not offering affordable health insurance. http://kff.org/infographic/employer-responsibility-under-the-affordable-care-act/attachment/employer-penalty-flowchart-v3-071513/

Employer-Sponsored Insurance and Health Reform: Doing the Math
NIHCR Research Brief No. 11 This research brief describes the financial considerations around employers' decision to offer and not offer health insurance, and why for most but not all employers, continuing to offer health insurance makes sense financially. http://www.nihcr.org/ESI-and-Health-Reform

Changing the ACA's Definition of Full-Time Work
Discussion of how the ACA's definition of full-time employment (at least 30 hours per week, compared to the traditional 40 hour week) may affect employment.
http://americanactionforum.org/research/changing-the-acas-definition-of-full-time-work

Literature Review and Resources Reference Based Pricing

Reference Pricing: Stimulating Cost-Conscious Purchasing and Countering Provider Market Power In this essay, author James Robinson describes how this design has increased consumerism and put pressure on providers' prices. http://www.nihcm.org/expert-voices-reference-pricing-stimulating-cost-conscious-purchasing-and-countering-provider-market-power

Literature Review and Resources Specific Coverages

National Institute for Health Care Reform (NIHCR): State mandates
www.nihcr.org/State_Benefit_Mandates.html

Does Bariatric Surgery Impact Medical Costs Associated With Obesity?
A team of researchers from the School of Medicine and the Bloomberg School of Public Health at the Johns Hopkins recently undertook a multi-year analysis of health insurance claims data to examine this question and found that although the procedure's success rate is well-documented, the surgery does not have a similar "reducing" impact on health care costs.
http://www.jhsph.edu/news/news-releases/2013/weiner-bariatric-surgery.html

AHRQ Research on Medication Adherence As part of AHRQ's *Closing the Quality Gap: Revisiting the State of the Science* series, the Medication Adherence Interventions report summarizes the evidence available on the comparative effectiveness of interventions and policy approaches to improve medication adherence, as well as demographic and delivery mode influences on results, and unintended consequences of interventions. The research includes references to the connection of adherence to health outcomes. http://effectivehealthcare.ahrq.gov/index.cfm/search-for-guides-reviews-and-reports/?productid=1249&pageaction=displayproduct

GAO Reports on Savings from Generic Drugs The U.S. Government Accountability Office (GAO) released a literature review on the cost savings achieved by greater generic drug use.
http://www.gao.gov/assets/590/588064.pdf

Literature Review and Resources
Pent Up Demand / Induced Demand

Indications of Pent-up Demand

This is preliminary examination of the use of services that are likely to be deferred or even avoided due to financial constraints as a result of lack of health insurance.

https://www.soa.org/Research/Research-Projects/Health/2015-pent-up-demand-health.aspx

Oregon Medicaid Lottery Studies

Pent Up Demand of the Newly Insured In this Milliman Health Reform Briefing Paper, actuary Rob Damler shows how early efforts in Indiana can help inform other States and actuaries on what may occur as they venture into the new health insurance exchange marketplace in 2014. http://publications.milliman.com/research/health-rr/pdfs/experience-under-healthy-indiana.pdf

RAND Corporation Research Briefs: Skin in the Game How Consumer-Directed Plans Affect the Cost and Use of Health Care By Amelia Haviland, Roland McDevitt, M. Susan Marquis, Neerai Sood, Melinda Beeuwkes Buntin http://www.rand.org/pubs/research_briefs/RB9672.html

Literature Review and Resources Geographical Variation

Affordable Care Act Plans and Premiums in Rural America The National Advisory Committee on Rural Health and Human Services discusses pricing and premiums for rural populations with regards to the 2014 market. http://www.hrsa.gov/advisorycommittees/rural/publications/plansruralamerica.pdf

Study Concluded that Spending Variation Driven by Regional Differences in Health Status and Hospital www.nihcr.org/spending_variation.html

Geographical Variation in Health Care Spending The National Institute for Health Care Reform (NIHCR) Research Brief No. 7 by Chapin White, finds that health status and hospital prices are major factors that drive differences in regional health care spending. http://www.nihcr.org/spending_variation.html

The Dartmouth Atlas of Health Care has collected a wealth of data on geographic differences by region, by hospital and by topic and much more. Also related to this topic, Nancy Walczak, FSA, was featured at a Society of Actuaries webcast on January 14, 2013 on this same subject, giving actuaries an overview of findings from a recent 20-month long study of private health plans that was commissioned through the Affordable Care Act is available for purchase on the SOA's website archive. http://www.dartmouthatlas.org/

Medicare Payment Advisory Commission's June 2013 Report: Medicare and the Health Care Delivery System has a chapter devoted to geographic adjustment of payments for the work of physicians and other health professionals. http://www.medpac.gov/documents/Jun13_EntireReport.pdf

Literature Review and Resources 3Rs

Headwinds cause 2014 risk corridor funding shortfall By Scott Katterman, FSA, MAAA
http://www.milliman.com/insight/2015/Headwinds-cause-2014-risk-corridor-funding-shortfall/

Transitional reinsurance at 100% coinsurance: What it means for 2014 and beyond By Hans K. Leida PhD, FSA, MAAA, Doug Norris, PhD, FSA, MAAA, Daniel Perlman, FSA, MAAA,
http://us.milliman.com/insight/2015/Transitional-reinsurance-at-100-coinsurance-What-it-means-for-2014-and-beyond/

Risk adjustment: overview and opportunity: Top 10 notable issues related to the federal risk adjuster By Mary van der Heijde, FSA, MAAA and Jordan Paulus, FSA, MAAA
http://us.milliman.com/insight/2015/Risk-adjustment-Overview-and-opportunity-Top-10-notable-issues-related-to-the-federal-risk-adjuster/

Risk Corridors Episode IV: No New Hope By Hans K. Leida PhD, FSA, MAAA, Doug Norris, PhD, FSA, MAAA, Daniel Perlman, FSA, MAAA,
http://us.milliman.com/uploadedFiles/insight/2014/risk-corridors-no-new-hope.pdf