Risk Adjustment Payment Transfer Methodology

Center for Consumer Information and Insurance Oversight

Centers for Medicare & Medicaid Services

Department of Health and Human Services

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CONTEXT

The contents of this presentation represent preliminary information with the purpose of soliciting stakeholder feedback. Draft policies for the risk adjustment program will be announced in the draft HHS notice of benefit and payment parameters, which will be subject to comment before finalized.

Risk Adjustment Goals

Overall goals:

- Mitigate the impacts of potential adverse selection

- Stabilize premiums in the individual and small group markets

Aim:

- Premiums reflect differences in benefits and plan efficiency, not health status of enrolled population
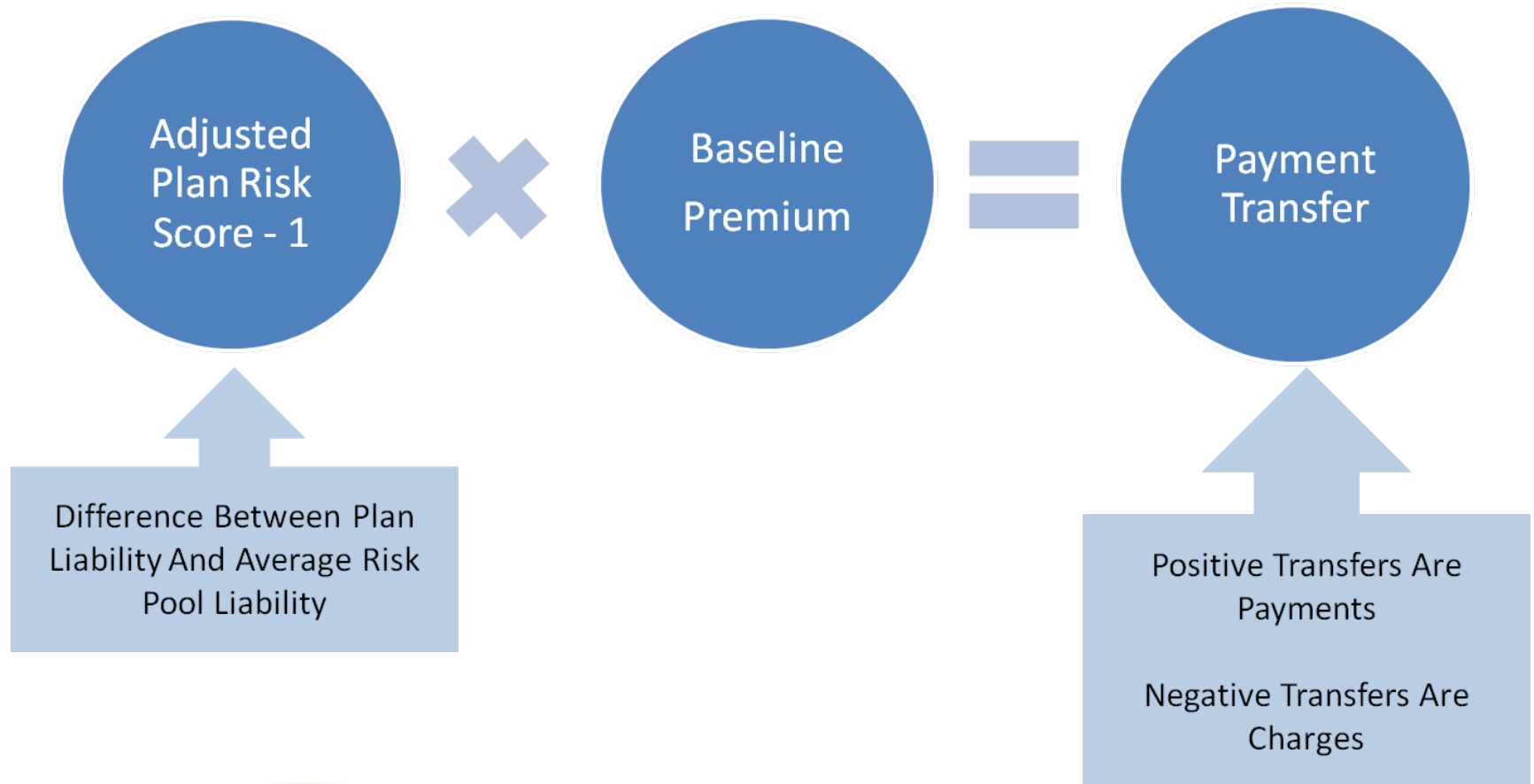
Sequence of Payment Transfer Process

Calculation of individual risk scores

Calculation of plan average risk score

Adjustments to plan average risk score

Payment transfer calculation based on adjusted plan average risk score

Basic Form of the Payment Transfer Calculation

Adjusted Plan Risk Score - 1

×

Baseline Premium

=

Payment Transfer

Difference Between Plan Liability And Average Risk Pool Liability

Positive Transfers Are Payments

Negative Transfers Are Charges

Example of the Payment Transfer Calculation

Plan A	
Plan risk score	1.1
Baseline premium	$1,000
Plan net claims cost	$1,100
Transfer = [Risk score -1]*Baseline premium *((1.1 – 1)*$1,000)*	$100
Post-transfer net claims cost *($1,100 -$100)*	$1,000

Methodology Elements

- <u>Actuarial Value Differences:</u> Risk scores must be adjusted to remove the impact of AV on predicted plan liability

- <u>Permissible Rating Variation:</u> Transfers must be adjusted to account for risk selection compensation that's built into plan's rating structure

- <u>Normalization:</u> RA model is based on a national sample. Risk scores must be adjusted to account for State differences in predicted liability

- <u>Balanced Transfers:</u> Payments and charges must net to zero

Sequence of Payment Transfer Process

Calculation of individual risk scores

Calculation of plan average risk score

Adjustments to plan average risk scores

- Normalization
- AV Adjustment
- Rating Adjustment

Payment transfer calculation based on adjusted plan average risk score

Balanced Transfers

Adjustments to Plan Average Risk Scores: Normalization

Risk Score Normalization

- Risk scores predict how a plan's liability will differ from the State average due to the health status of its enrollees

- The risk adjustment model is being developed using a national sample.

- Average predicted State costs may differ from the average predicted costs in the model sample.

- A State-specific adjustment must be applied to risk scores to account for the difference between the State average predicted cost and the average predicted cost in the model sample.

Risk Score Calculation

An enrollee's risk score is equal to the sum of the model coefficients for the relevant conditions
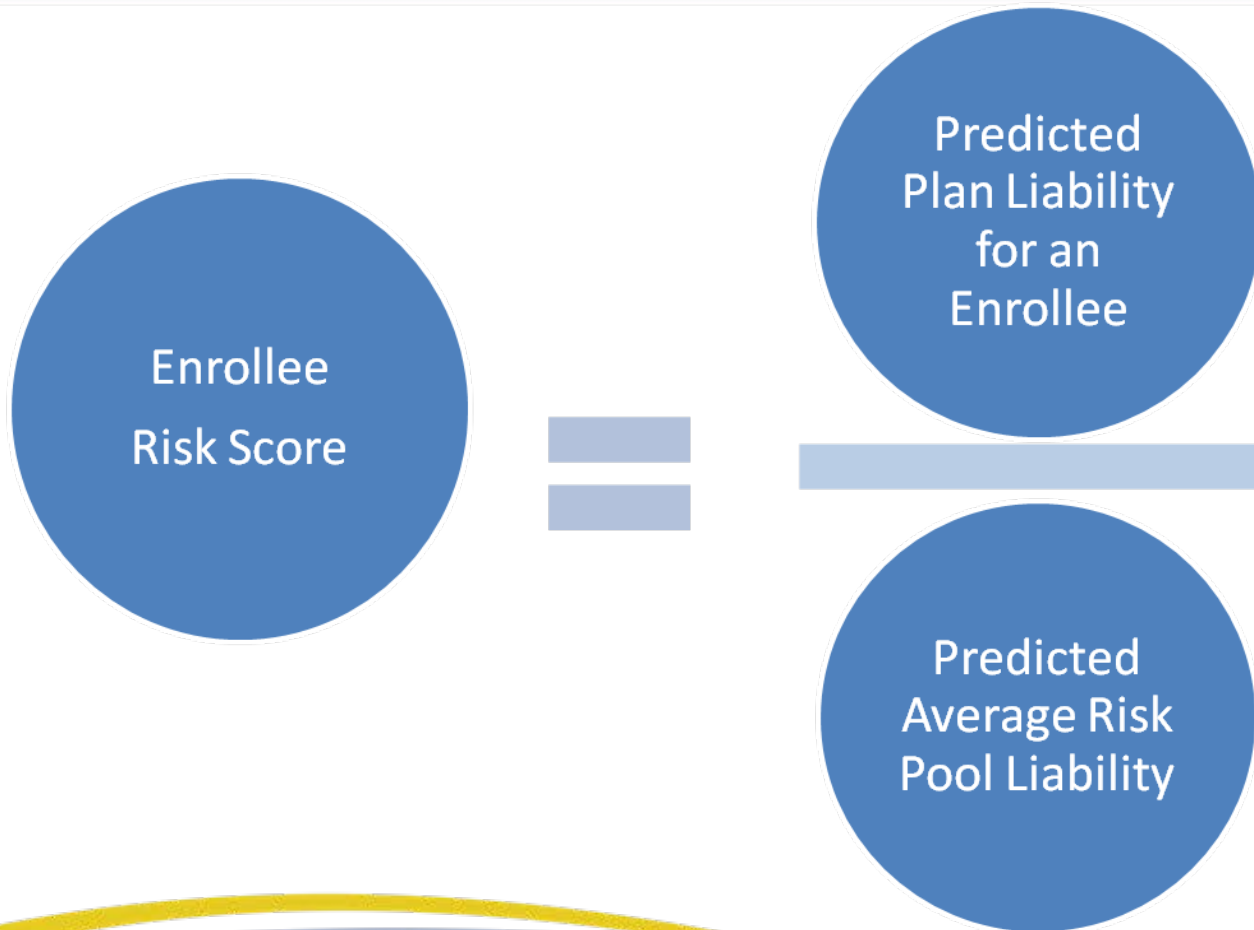
Enrollee Risk Score =

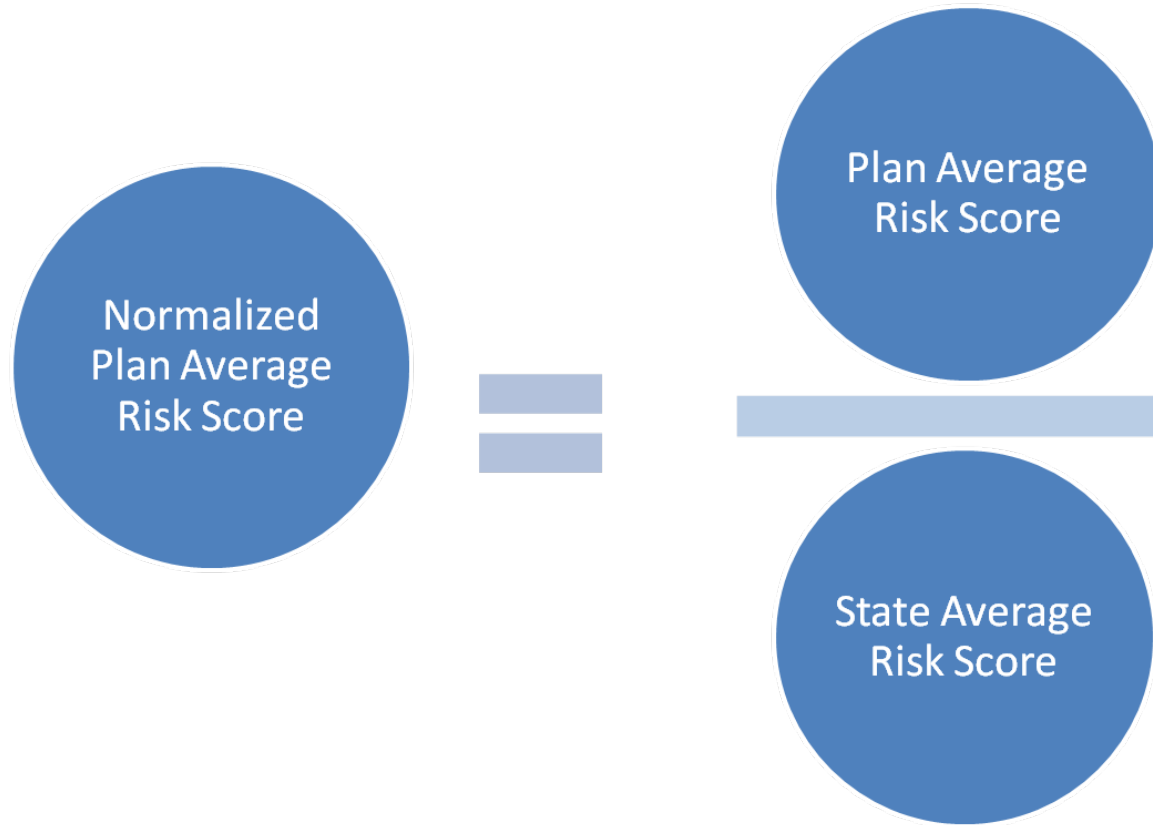.5[Condition A] + 1.3[Condition B] + .8[Condition C]…

Coefficients provide predicted relative costs

Coefficients equal the ratio of condition costs to average enrollee total costs

Risk Score Calculation

Enrollee Risk Score = Predicted Plan Liability for an Enrollee / Predicted Average Risk Pool Liability

Risk Score Normalization

Normalized Plan Average Risk Score = Plan Average Risk Score / State Average Risk Score
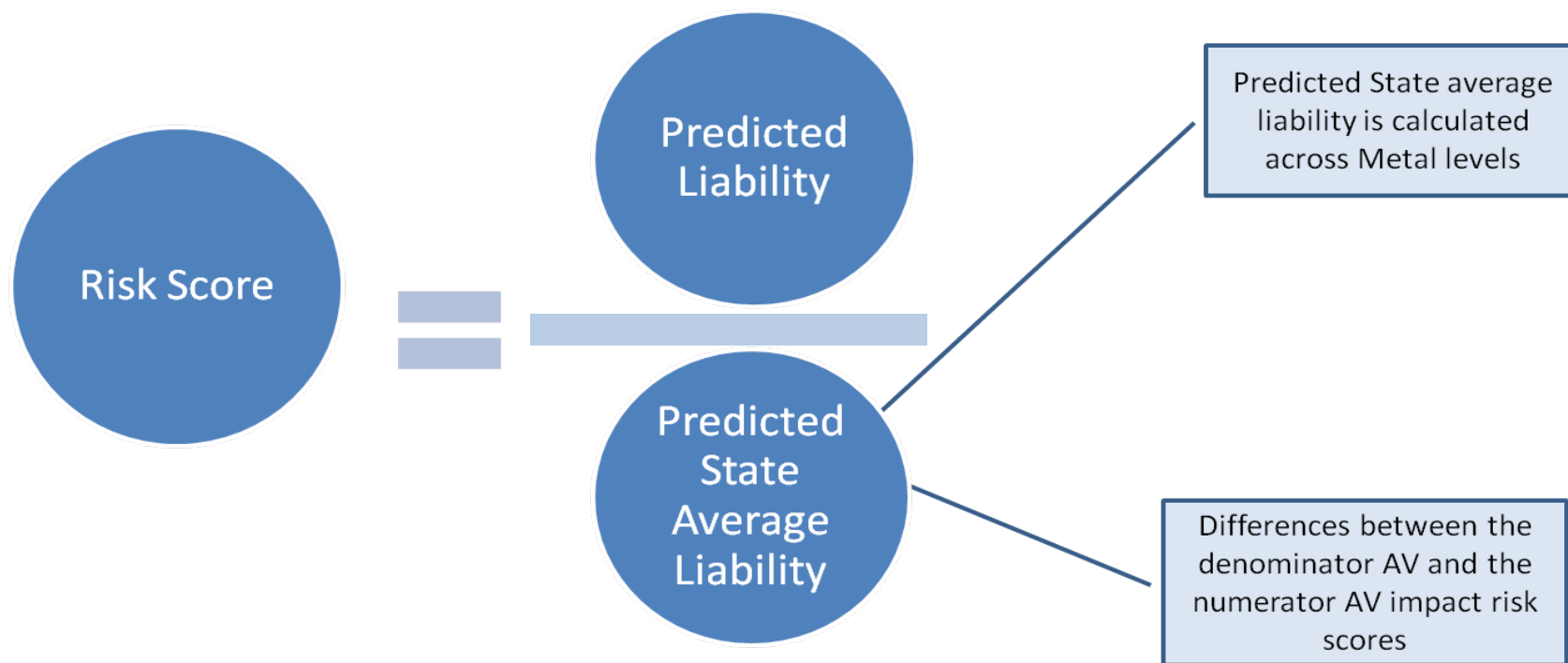
Adjustments to Plan Average Risk Scores: Actuarial Value Adjustment

Actuarial Value Adjustment

- Plan AV differences impact plan liability risk scores (e.g. Gold plans have higher risk scores than Bronze plans).

- Risk scores may be adjusted for AV in order to ensure that payment transfers do not compensate plans for actuarial value differences.

Unadjusted Risk Scores Reflect Differences in Plan Selection and AV

Risk Score $=$ $\dfrac{\text{Predicted Liability}}{\text{Predicted State Average Liability}}$

Predicted State average liability is calculated across Metal levels

Differences between the denominator AV and the numerator AV impact risk scores

Example of Impact of AV on Unadjusted Risk Scores

- In this example, there is no risk selection in either plan.
- The unadjusted risk scores do not equal 1.0 due to differences in the numerator and denominator of the AV in the risk score calculation

	Plan A	Plan B	Average
Actuarial value	.6	.8	.7
Predicted total expenditures	$1,000	$1,000	$1,000
Predicted liability	$600	$800	$700
Liability risk score	.86 ($600/$700)	1.14 ($800/$700)	1.0

Actuarial Value Adjustment

AV Adjustment =

$$\frac{\text{Plan Metal Level AV}}{\text{Enrollment-Weighted Average Risk Pool AV}}$$

- This adjustment provides the relative difference between a plan's AV and the risk pool average AV.
- This adjustment is subtracted from the risk score.

Actuarial Value Adjustment

AV Adjustment(p) = AV(p)/[ΣS(p)*AV(p)]

where

AV(p) = Metal-level AV for plan p

S(p) = Risk pool enrollment share of plan p

Actuarial Value Adjustment Example

	Plan A	Plan B	Average/Total
Actuarial value	.6	.8	.7
Predicted total expenditures	$1,000	$1,000	$1,000
Predicted liability	$600	$800	$700
Unadjusted liability risk score	.86 ($600/$700)	1.14 ($800/$700)	1.0
AV adjustment	.86 (.6/.7)	1.14 (.8/.7)	
Adjusted risk score	1.0 (.86 − .86+1)	1.0 (1.14 − 1.14 +1)	

Adjustments to Plan Average Risk Scores: Permissible Rating Variation Adjustment

Permissible Rating Variation Adjustment

- Under the Affordable Care Act, issuers are only permitted to vary rates based on:

  - Age (up to 3:1)

  - Tobacco use (up to 1.5:1)

  - Family size

  - Geography

- Payment transfers should not compensate plans for health status related liability that is already built into the premium rating structure

Permissible Rating Variation Adjustment Example

- Rating provides partial compensation for risk selection
- Risk adjustment aims to compensate for liability that is not built into a plan's rating structure

Plan A Rating Cells	Total Expenditures	Bronze Plan Liability	Maximum Allowable Age-Rated Premiums
Younger cohort	$200	$120	Young Cohort Premium
Older cohort	$1,200	$760	3 X Young Cohort Premium

Plan Liability is 6 times higher in the Old cohort

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Permissible Rating Variation Adjustment

Risk Score Rating Adjustment =

$$\frac{\text{Plan Premium Rating Factor}}{\text{Enrollment-Weighted Average Premium Rating Factor}}$$

- This adjustment shows the extent to which a plan's premiums are affected by rating variation relative to the market average. This adjustment would be subtracted from risk scores.

Permissible Rating Variation Adjustment

RF Adjustment(p) = RF(p)/[ΣS(p)*RF(p)]

where

RF(p) = rating factor for plan p

S(p) = risk pool enrollment share of plan p

Permissible Rating Variation Adjustment Example

1. Market Consists of four plans

2. One market rating structure with a Young and Old rate

3. In this example, the Old cohort premiums are 3 times higher than the Young cohort's premiums

Bronze Plans	% Young Enrollees	% Old Enrollees	Rating Factor
Plan 1	100%	0%	1.0 $((1*1) + 0*3))$
Plan 2	50%	50%	2.0 $((.5*1) + (.5*3))$
Plan 3	25%	75%	2.5 $((.25*1) + .75*3))$
Plan 4	0%	100%	3.0 $((0*1) + (1*3))$
Total/Average	43.8%	56.3%	2.13

4. Rating Factor shows how much the average plan premium is scaled up or down based on the rating structure and plan enrollment

Permissible Rating Variation Adjustment Example (Cont'd)

Bronze Plans	% Young Enrollees	% Old Enrollees	Rating Factor	Rating Factor Adjustment
Plan 1	100%	0%	1.0	0.47 *(1/2.13)*
Plan 2	50%	50%	2.0	0.94 *(2/2.13)*
Plan 3	25%	75%	2.5	1.18 *(2.5/2.13)*
Plan 4	0%	100%	3.0	1.41 *(3/2.13)*
Total/ Average	43.8%	56.3%	2.13	1.00

The rating factor adjustment is calculated as the ratio of the plan rating factor to the average market rating factor

Plan 4's premiums are scaled upwards due to age rating 41% more than the market average

Permissible Rating Variation Example (Cont'd)

Bronze Plans	Rating Factor	Predicted Liability Per Enrollee	Rating Factor Adjustment	Unadjusted Plan Liability Risk Score	Adjusted Risk Score
Plan 1	1.0	$200	.47 (1/2.13)	.26 ($200/$762)	.79 (.26 - .47 +1)
Plan 2	2.0	$700	.94 (2/2.13)	.92 ($700/$762)	.98 (.92 - .94 +1)
Plan 3	2.5	$950	1.18 (2.5/2.13)	1.25 ($950/$762)	1.07 (1.25 -1.18 +1)
Plan 4	3.0	$1,200	1.41 (3/2.13)	1.57 ($1,200/$762)	1.16 (1.57 - 1.41 +1)
Total/ Average	2.13	$762	1.00	1.00	1.00

The rating adjustment reduces plan 4's risk score by 41%

Payment Transfer Calculation

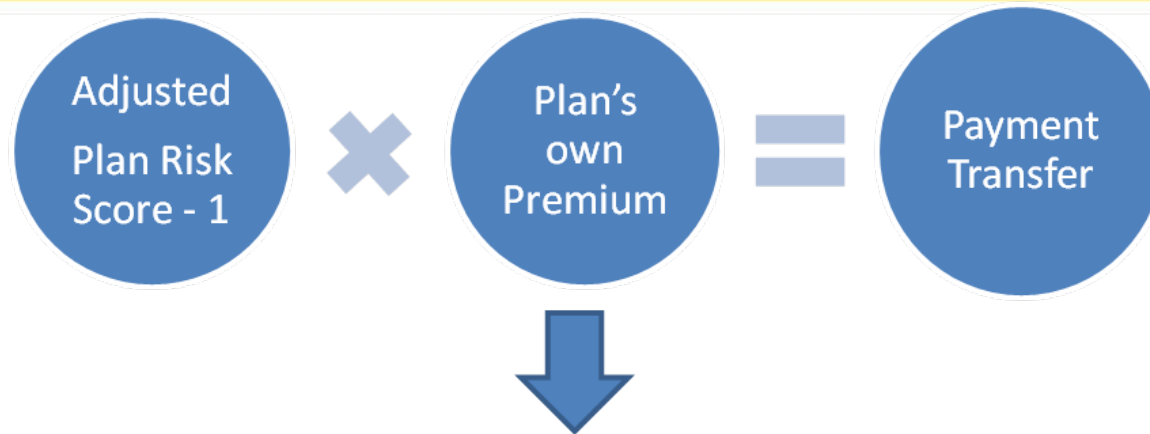# Impact of Balanced Transfers Requirement on Payment Transfers

	Plan A	Plan B	Average/Total
Actuarial value	.6	.8	.7
Predicted total expenditures	$900	$1,100	$1,000
Predicted liability	$540 (.6*$900)	$880 (.8*$1,100)	$710
Liability for an average risk enrollee (risk standardized premium)	$600 (.6*$1,000)	$800 (.8*$1,000)	$700
Transfer required to remove selection	-$60 ($540-$600)	$80 ($880-$800)	

Plan B's payment exceeds Plan A's charge

Options for Addressing Imbalances in Payments and Charges

1. Plans' own premiums can be used as the basis for determining transfers and a balancing adjustment can be applied to transfers

2. The risk pool average premium can be used to set transfers. Under this approach no post-transfer balancing is required

# Risk Adjusting on a Plan's Own Premiums Could Lead to Payment Imbalances

Adjusted Plan Risk Score - 1 × Plan's own Premium = Payment Transfer

	Plan A	Plan B
Actuarial value	.6	.8
Predicted total expenditures	$900	$1,100
Predicted liability	$540	$880
Transfers	-$60	$80

Using the State Average Premium as the Baseline Premium

- HHS is considering using a payment methodology based on the State average premium.

- This approach could:

  - Results in balanced transfers

  - Provide a practical and straightforward approach to calculating transfers

- Aim is for transfers that promote premiums that reflect differences in actuarial value

Payment Transfers Using the State Average Premium

AV adjustment and Rating adjustment are multiplicative factors
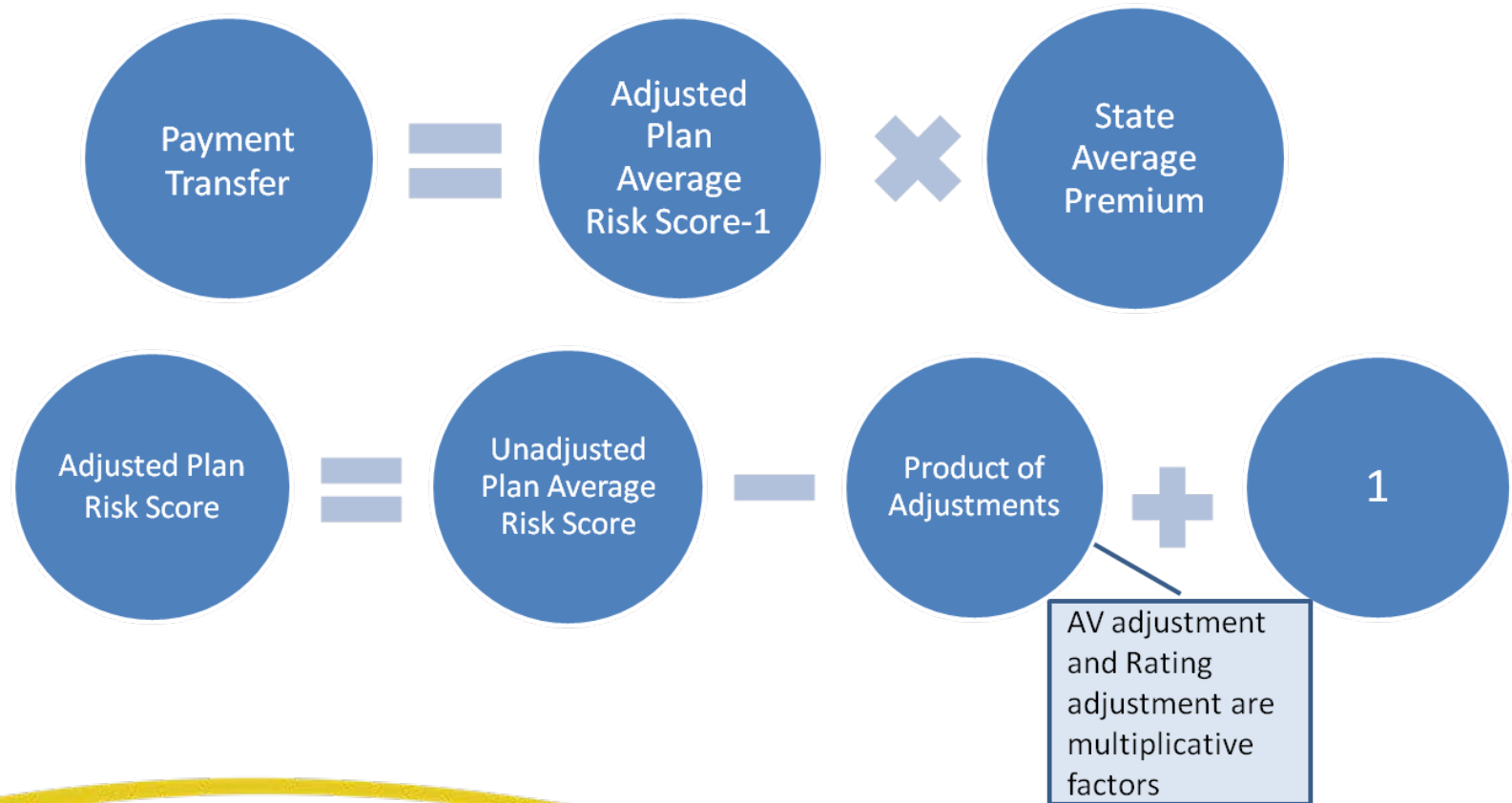
Risk Score Adjustment

Adjustment (p) = [AV(p)*RF(p)] / [ΣS(p)*AV(p)*RF(p)]

Where

Adjustment (p) = risks score adjustment for plan p

RF(p) = rating factor of plan p

AV(p) = metal level actuarial value for plan p

S(p) = risk pool enrollment share for plan p

State Average Methodology Example

	Plan A	Plan B	Average/Total
Actuarial value	.6	.8	.7
Predicted total expenditures	$4,900	$5,100	$5,000
Predicted liability	$2,940 (.6*$4,900)	$4,080 (.8*$5,100)	$3,510
Plan risk score	.84 ($2,940/$3,510)	1.16 ($4,080/$3,510)	1.0
AV adjustment	.86 (.6/.7)	1.14 (.8/.7)	1.0
Adjusted plan risk score	.98 (.84-.86+1)	1.02 1.16-(1.14+1)	1.0

State Average Methodology Example (Cont'd)

	Plan A	Plan B	Average/Total
Actuarial value	.6	.8	.7
Predicted total expenditures	$4,900	$5,100	$5,000
Predicted liability	$2,940 *(.6*$4,900)*	$4,080 *(.8*$5,100)*	$3,510
Adjusted plan risk score	.98 *(.84-.86+1)*	1.02 *1.16-(1.14+1)*	1.0
Transfer	-$68.57 *((.98-1)*($3,510))*	$68.57 *(($1.02-1)*($3,510))*	$0
Plan premiums (premiums are set to cover liability and transfer)	$3,009 *($2,940 +$68.57)*	$4,011 *($4,080-$68.57)*	$3,510

State Average Methodology Example (Continued)

	Plan A	Plan B	Average
Predicted liability for an average enrollee (risk standardized premium)	$3,000 ($5,000*.6)	$4,000 (5,000*.8)	$3,500
Plan premium	$3,009 ($2,940 + $68.57)	$4,011 ($4,080-$68.57)	$3,510
Ratio of premium to risk standardized premium	1.003 ($3009/$3000)	1.003 ($4011/$4000)	1.003

Next Steps

- HHS is still working on developing the payment transfer methodology. Draft policies will be announced in the draft HHS payment notice

- HHS would like feedback on the methodology described in this presentation

- HHS is considering adding adjustments to this methodology to account for geography, tobacco use, and induced utilization

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Next Steps (cont'd)

- HHS is aware that geographic cost differences across State rating areas can impact risk adjustment payments and charges when the State average premium is used as the baseline premium

- It is possible to develop a transfer equation that controls for geographic cost differences:
  - Requires using the rating area average premium for the baseline premium
  - Requires using a more complex transfer equation