



*Advising the Congress on Medicare issues*

# Risk adjustment in Medicare Advantage

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# Background

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- MA plans receive monthly capitated payments for each enrollee
- Each payment is the product of two factors
  - Base rate
  - Enrollee's risk score
- Risk scores
  - Come from the CMS Hierarchical Condition Categories (CMS-HCC) model
  - Represent enrollee's expected annual Medicare spending relative to national average

# Description of CMS-HCC

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- Uses enrollee's data to determine their risk scores
- Demographic information: age, sex, Medicaid, institutional status, aged but originally eligible because of disability
- Medical conditions
  - Uses conditions diagnosed in previous year
  - Represented in 70 HCCs
- Each demographic variable and HCC has a coefficient that is used to determine risk scores

# Example of how risk scores are calculated

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- Female, age 68, Medicaid, diagnosed with COPD
- These CMS-HCC coefficients apply:
  - Female, age 65-69: .30
  - Female, Medicaid, aged: .18
  - COPD: .40
- Risk score =  $.30 + .18 + .40 = .88$
- Each year, the national average risk score is 1.0

# Concerns over CMS-HCC

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- Systematic underpayments for plans focusing on specific groups (SNPs, PACE)
- May leave opportunities for favorable selection
- Regional differences in coding of conditions

# Variation in spending explained by CMS-HCC

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- CMS-HCC has R-square of .11, meaning it explains about 11% of variation in Medicare spending
- Research indicates at least 20-25% of variation can be predicted; the remainder is random (not predictable)
- CMS-HCC might explain half of predictable variation, suggesting systematic payment inaccuracies could occur

# Possible underlying reasons for payment inaccuracies

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- Within HCCs, beneficiary costliness varies
- Plans may experience financial losses by attracting the highest cost beneficiaries in a given HCC
- CMS-HCC model calibrated with FFS cost data
- Cost of treating given condition may differ between MA plans and FFS Medicare (Newhouse et al.)

# If systematic payment inaccuracies occur, how to address?

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- If it is due to cost variation within HCCs, add variables to the CMS-HCC
  - Conditions (HCCs)
  - Socioeconomic variables (race, income)
  - Number of conditions for each beneficiary
- If it is due to cost differences between FFS and MA: Use MA cost data to calibrate CMS-HCC



# Payment inaccuracies may adversely affect plans serving complex patients

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- Research indicates CMS-HCC systematically underpays for some groups and overpays for others
- For most plans, systematic underpayments for one group can be offset with overpayments in another
- However, SNPs and PACE may not be able to make these offsets because they focus on specific beneficiary groups

# Do plans serving complex patients face systematic underpayments?

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Category	Predictive ratio	
	Current CMS-HCC	Proposed CMS-HCC
Medicaid	.95	.97
Diabetes	1.03	1.00
Prostate cancer	1.09	1.06
Dementia	.80	.95
5+ conditions	.88	.89

Predictive ratio = (Predicted cost for group)/(Actual cost for group)

# Are regional differences in coding an issue for risk adjustment?

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- Song et al. indicate that in FFS Medicare conditions are coded more intensively in high-use regions (higher risk scores)
- If regional coding differences in MA, higher payments for plans in high-coding regions
- However, MA plans have incentive to code as much as possible
- Need to determine if regional coding differences occur in MA

# If MA has regional differences in coding, how to address?

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- Determine if MA plans have regional differences in coding intensity
- Evaluate whether regional differences in MA coding affect MA risk scores by region
- Adjust MA risk scores based on how much coding affects regional risk scores

# Immediate next steps

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- Determine if plans focusing on complex patients are systematically underpaid
- Evaluate alternatives for improving predictive power of CMS-HCC
- Investigate the extent of geographic differences in coding among MA plans?