

# Risky business

How risk adjustment and risk scores impact Medicare Advantage plans

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# Presenters



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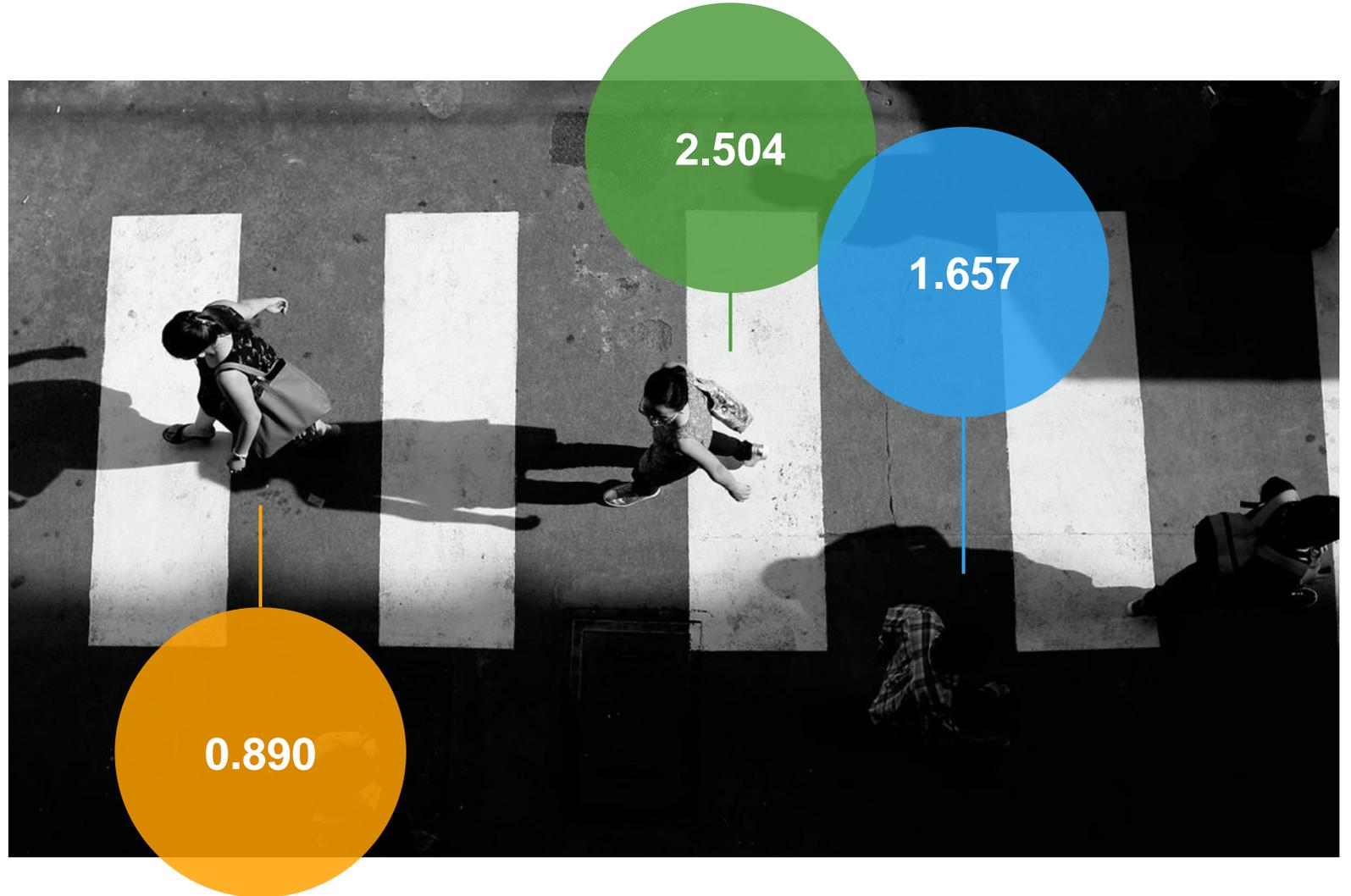
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# Background



# Medicare risk scores represent relative illness burden

- Relative numerical representation of expected future illness burden
- Unique to each individual and updated annually
- Based on demographics and medical diagnoses



# Goal of risk adjustment is to reflect the health status of enrolled members in CMS payments to plans

## 2000

Prior to 2000, Medicare+Choice plans were paid based primarily on the demographic characteristics of members.

- CMS paid the same amount for a 65-year-old marathon runner as they did for a 65-year-old with diabetes, COPD, and cancer

## 2000

Starting in 2000, CMS phased in a “Risk Adjustment Factor” to reflect the health status of members, based on diagnosis data for inpatient claims only

## 2004

Starting in 2004, outpatient and physician claims were added to the source data for risk scores

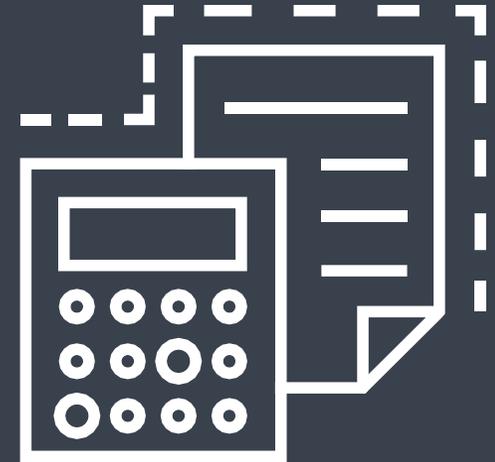
## 2006

Starting in 2006, Medicare+Choice was replaced with Medicare Advantage (MA)

## 2007

Starting in 2007, payments were 100% risk adjusted

# Basics of calculating risk scores



# Members are first assigned to a risk adjustment model

## New enrollee

Members who have been enrolled with Medicare (either MA or Traditional Medicare - FFS) for fewer than 12 months in the prior year



## ESRD

Member has permanent kidney failure that requires a regular course of dialysis or a kidney transplant, or has received a kidney transplant at least three months before the payment month



## Institutional

To qualify, a beneficiary must have been a resident of a qualifying facility for a minimum of 90 consecutive days immediately before the first day of the month



## Community

Enrolled for 12 months in the prior year and not in one of the other categories

- Part C: Full / Partial / Non-Dual
- Part D: Low Income (LI) / Non-LI



# I've been assigned a "model" – what now?

New enrollee edition

## Demographic factor assigned based on:

- Gender
- Age as of February 1
- Medicaid status
- Original eligibility for Medicare based on disability
- C-SNP enrollment

**Diagnoses do not impact the risk score for new enrollees; we're essentially back to a demographic model.**

# I've been assigned a "model" – what now?

Everyone else edition

## Base demographic factor assigned based on:

- Gender
- Age as of February 1
- Medicaid status
- Original eligibility for Medicare based on disability or ESRD

## Additional condition factors are added to the base factor:

- Based on diagnoses during the prior year
- Multiple factors can be added for members with multiple conditions
- Some conditions have different factors for different levels of severity (hierarchy)
- Additional factors for "interactions" between being disabled and certain diseases or interactions between multiple diseases
- Additional factors for members with four or more condition

# Risk scores – FFS normalization & MA coding pattern

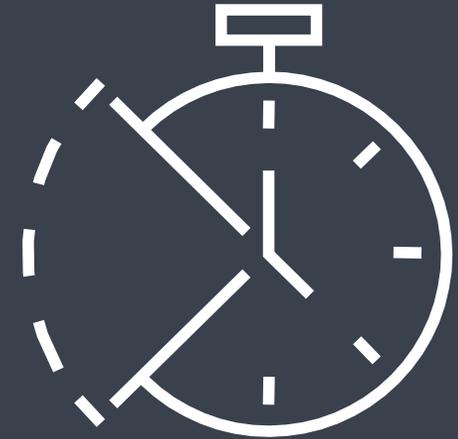
## FFS normalization

- Risk score models are calibrated on historical FFS data
- FFS average risk score generally increases over time and without normalization average risk score would be  $> 1.0$
- CMS targets factor for each payment year so expected average FFS risk score = 1.0

## MA coding pattern adjustment

- MA plans typically capture more diagnoses than FFS because it can increase plan revenue
- This adjustment is intended to adjust MA risk scores to bring them more in line with FFS

# Risk score timing (2021 payments)

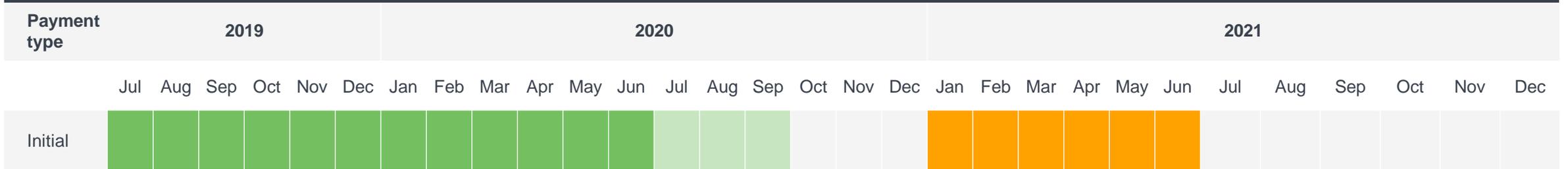


# Risk score timing (2021 payments)

January 2021 to June 2021 payments

Lagged and incomplete

## Typical timeline for 2021 risk adjustment submissions and payments



Payment based on 7/1/2019 through 6/30/2020 diagnoses submitted through 9/1/2020

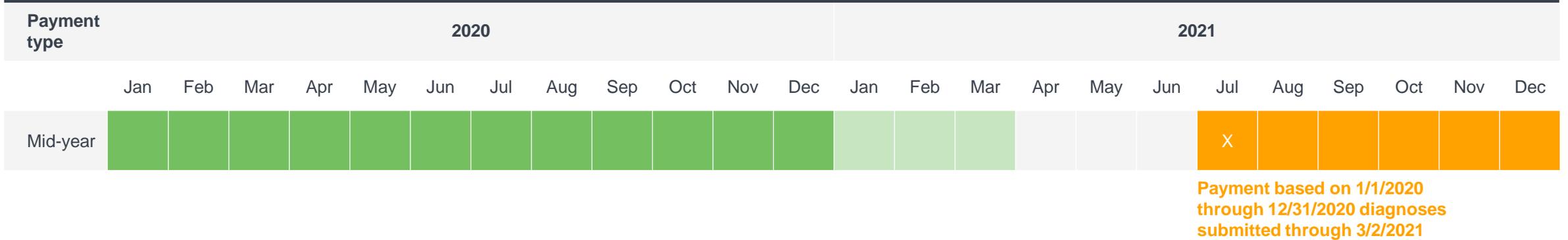
- Diagnosis period
- Diagnosis run-out
- Payment

# Risk score timing (2021 payments)

July 2021 to December 2021 payments

Non-lagged and incomplete

## Typical timeline for 2021 risk adjustment submissions and payments



- Diagnosis period
- Diagnosis run-out
- Payment
- ⊗ Mid-year restatement payment

# Risk score timing (2021 payments)

July 2021 final payment  
Non-lagged and complete

## Typical timeline for 2021 risk adjustment submissions and payments



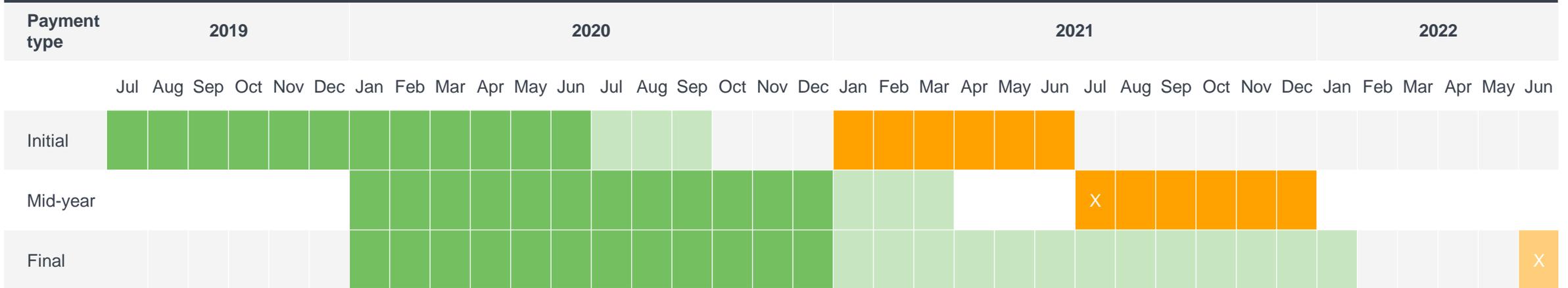
Payment based on 1/1/2020 through 12/31/2020 diagnoses submitted through 1/31/2022

- Diagnosis period
- Diagnosis run-out
- ⊗ Final settlement payment

# Risk score timing (2021 payments)

Complete timeline for 2021

## Typical timeline for 2021 risk adjustment submissions and payments



Payment based on 7/1/2019 through 6/30/2020 diagnoses submitted through 9/1/2020

Payment based on 1/1/2020 through 12/31/2020 diagnoses submitted through 3/2/2021

Payment based on 1/1/2020 through 12/31/2020 diagnoses submitted through 1/31/2022

- Diagnosis period
- Diagnosis run-out
- Payment
- ⊗ Mid-year restatement payment
- ⊗ Final settlement payment

# Calculating risk scores



# “Formula” for calculating risk scores for non-new enrollees

Start with demographic coefficient (age/gender/Medicaid status/model type)



Add coefficients for Medicaid (only if non-Community), originally disabled, or originally ESRD (ESRD model only)



Add coefficients for Hierarchical Condition Categories (HCCs) for all diseases based on the diagnoses submitted as RAPS or EDS, after removing any disease groups with a “higher morbidity”

- For example, if a member has both “Diabetes without Complications” and “Diabetes with Chronic Complications”, only include the factor for “Diabetes with Chronic Complications”



Add factors for any disease / disease or disabled / disease interactions / count of HCCs



Multiply by 1 minus the coding improvement factor



Divide by the Part C normalization factor

# 2021 Part C risk scores — EDS component at January 2021

## Jane Smith

- 72-year-old female
- Became eligible for Medicare when she turned 65
- Not eligible for Medicaid
- Has diagnoses with July 2019 through June 2020 dates of service that map to HCC 19 (Diabetes without Complications), HCC 85 (CHF), and HCC 108 (Vascular Disease)

### Calculation for the EDS model

72-year-old female, Community, NonDual, Aged	0.386
Diabetes without Complications (HCC 19)	0.105
CHF (HCC 85)	0.331
Vascular Disease (HCC 108)	0.288
Diabetes + CHF	0.121
<b>Total (sum)</b>	<b>1.231</b>
Coding Improvement adjustment (multiply): 1 - 0.0590	0.941
MA FFS Normalization (divide)	1.097
<b>Final risk score</b>	<b>1.056</b>

# 2021 Part C risk scores — EDS component at June 2021

## Jane Smith

- 72-year-old female
- Became eligible for Medicare when she turned 65
- Not eligible for Medicaid
- Has diagnoses with January 2020 through December 2020 dates of service that map to HCC 18 (Diabetes with Complications) and HCC 108 (Vascular Disease)

### Calculation for the EDS model

72-year-old female, Community, NonDual, Aged	0.386
Diabetes with Complications (HCC 18)	0.302
CHF (HCC 85)	-----
Vascular Disease (HCC 108)	0.288
Diabetes + CHF	-----
<b>Total (sum)</b>	<b>0.976</b>
Coding Improvement adjustment (multiply): 1 - 0.0590	0.941
MA FFS Normalization (divide)	1.097
<b>Final risk score</b>	<b>0.837</b>

## 2021 Part C risk scores — EDS component — it's your turn!

# Joan Smith

- 72-year-old female
- Originally enrolled for Medicare at age 62
- Has EDS diagnoses with 2020 dates of service that map to HCCs 18 (Diabetes), 80 (Coma), 85 (CHF), and 111 (COPD)
- Not eligible for Medicaid



**Wait – you want me to do what!**

# 2021 Part C risk scores — EDS component — it's your turn!

## Joan Smith

- 72-year-old female
- Originally enrolled for Medicare at age 62
- Has EDS diagnoses with 2020 dates of service that map to HCCs 18 (Diabetes), 80 (Coma), 85 (CHF), and 111 (COPD)
- Not eligible for Medicaid

### CMS published information

- Final 2021 Normalization Factors: 1.097
- Adjustment for MA Coding Pattern Differences for 2021: 5.90 percent

Variable	Community, NonDual, Aged	Community, FBDual, Aged
70-74 Years, female	0.386	0.519
Originally disabled, female	0.250	0.173
HCC 18 (Diabetes)	0.302	0.340
HCC 80 (Coma)	0.486	0.511
HCC 85 (CHF)	0.331	0.371
HCC 111 (COPD)	0.335	0.430
Diabetes + CHF	0.121	0.192
CHF + COPD	0.155	0.230
4 Payment HCCs	0.006	0.000

# 2021 Part C risk scores — EDS component — exercise answer

## Joan Smith

- 72-year-old female
- Originally enrolled for Medicare at age 62
- Has EDS diagnoses with 2020 dates of service that map to HCCs 18 (Diabetes), 80 (Coma), 85 (CHF), and 111 (COPD)
- Not eligible for Medicaid

Calculation	
72-year-old female, Community, NonDual, Aged	0.386
Originally Disabled, Female	0.250
HCC 18	0.302
HCC 80	0.486
HCC 85	0.331
HCC 111	0.335
Diabetes + CHF	0.121
CHF + COPD	0.155
4 HCCs	0.006
<b>Total (sum)</b>	<b>2.372</b>
MA Coding Improvement adjustment (multiply): 1-0.0590	0.941
MA FFS Normalization (divide)	1.097
<b>Final risk score</b>	<b>2.035</b>

# Beyond the basic calculations



# Risk score model updates

- CMS communicates changes to the risk score models annually through the “Announcement of Calendar Year Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies” (often referred to as the “Rate Announcement”)
- Non-ESRD Part C model updates
  - 2017: Separate factors for full/partial/non-dual members (phased out 2019-2021)
  - 2019: New HCCs added for chronic kidney disease and several MH/SA conditions
  - 2020: New variables added to reflect the number of conditions each member has (Payment Condition Count model)
- Part D model is updated frequently, most recently for Payment Years 2020 and 2022
- ESRD models were updated and phased in 2020-2021



# Sources of diagnosis data

Two methods: RAPS and EDS

MA plans must provide diagnosis data to CMS so that risk scores can be calculated for their members.



Diagnosis data must be filtered to exclude certain types of records:

- Non face to face visits
- Certain types of facilities
- Certain types of procedures



# Diagnosis submission via RAPS

## RAPS

- Prior to 2015, all diagnoses included in the risk score calculations came from the Risk Adjustment Processing System (RAPS)
- RAPS data was submitted by MA plans with limited information (member ID, date of birth, from and to date of service, type of provider, diagnosis codes)
- MA plans were responsible for submitting valid diagnosis codes based on CMS filtering logic guidance



# Diagnosis submission via EDS

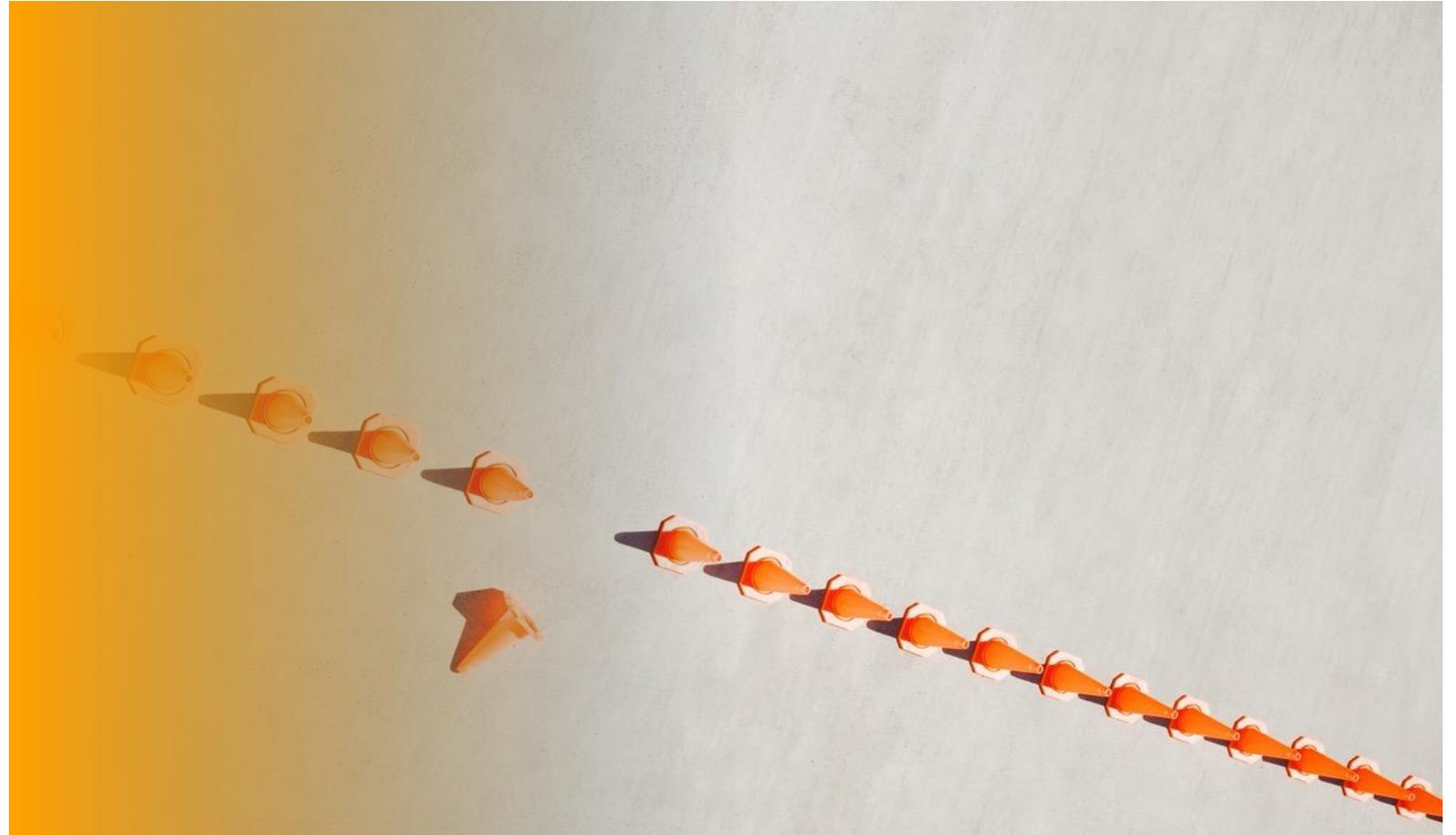
## EDS

- Starting in 2015, CMS began using diagnoses from the Encounter Data System (EDS) in addition to RAPS to calculate risk scores
- Encounter data includes significantly more data elements than RAPS data, including the provider NPI and charge and payment information
- CMS publishes and applies specified filtering logic to the EDS data to determine valid diagnosis codes
- CMS provides reports to each MA plan, such as MAO-004 files, which indicate which diagnoses will be included in the risk score calculations



# RAPS vs EDS

- Studies have shown that risk scores based on EDS data were historically lower than risk scores based on RAPS data, although the magnitude of the difference varied by MA plan
- To assist with the transition, CMS supplemented EDS risk scores through 2021 with diagnoses from inpatient RAPS
- As plans became more familiar with EDS, the gap between them has shrunk



# EDS phase-in percentages

Payment year	RAPS	EDS
2016	90%	10%
2017	75%	25%
2018	85%	15%
2019*	75%	25%
2020*	50%	50%
2021*	25%	75%
<b>2022*</b>	<b>0%</b>	<b>100%</b>

\*For 2019-2021, RAPS risk scores calculated using the 2017 HCC model were blended with EDS risk scores calculated using the 2019 or 2020 HCC model.

\*\*Prior to 2022, EDS risk scores also reflected diagnoses from Inpatient RAPS data. Starting in 2022, EDS risk scores will be calculated based on EDS submissions only.

# Projecting risk scores for bids



## Sample risk score projection for 2022 bids

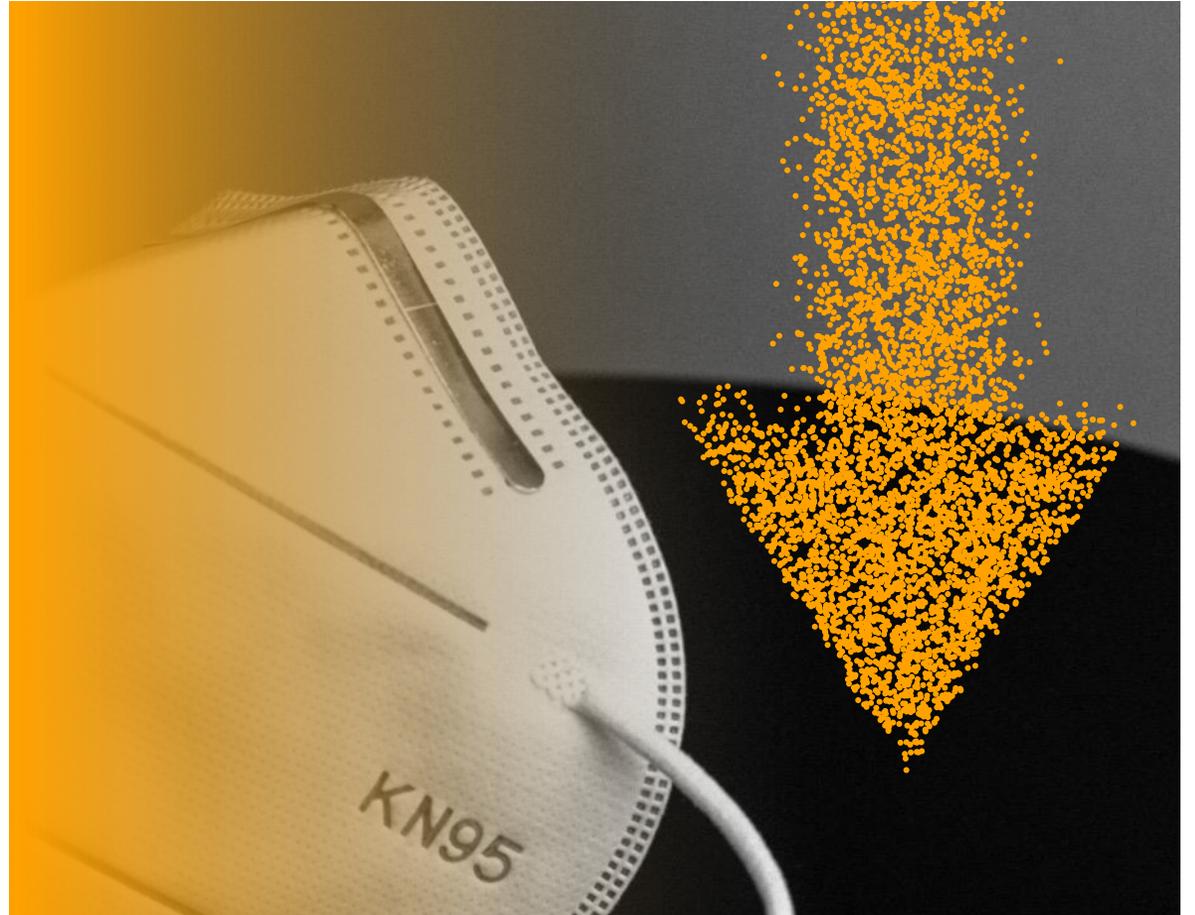
Adjustment	Risk score
2020 Risk Score from Beneficiary File*	0.900
FFS Normalization (1 / 1.118)	0.894
MA Coding Pattern Adjustment (1 – 0.059)	0.941
Runout of Diagnosis Data**	1.005
Bid Specific Coding Trend	1.030
Changes in Bid Population	1.000
Improvements to Diagnosis Data	1.020
<b>Projected 2022 risk score</b>	<b>0.800</b>

\*The beneficiary file reflects diagnoses submitted through the January cutoff, and is typically released by CMS in April to assist with bid development.

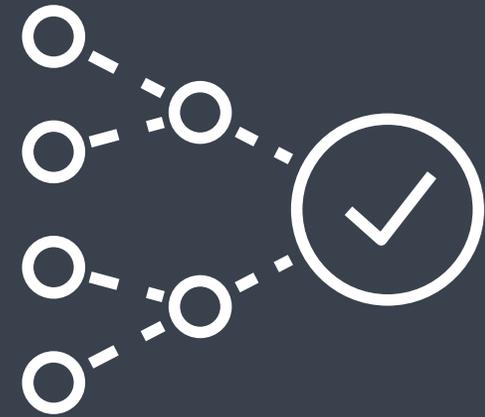
\*\*Additional runout may be assumed for years where submissions are permitted after the January cutoff. For 2020 risk scores, a second final cutoff will occur 8/1/2021.

# Impact of COVID-19 on risk scores

- Reduced (deferred or missed) care in 2020 can lead to lower risk scores in 2021
- In April 2020, Milliman estimated the potential risk score reduction using FFS data under multiple scenarios:  
<https://us.milliman.com/en/insight/how-far-will-medicare-advantage-2021-revenue-and-risk-scores-drop>
- Complete diagnosis data for 2020 is not yet available, but the scenarios that are most likely show a risk score reduction of 1% to 2%, which will vary by plan
- Risk score impact depends on volume and timing of reduced care which is affected by:
  - Area
  - Use of virtual care such as telehealth
  - Delivery system
  - Operational processes
- Use of 2019 risk scores and claims as the basis for 2022 bid projections requires additional adjustments



**Key to success –  
submitting complete  
and accurate diagnoses**



# Methods for collecting complete and accurate diagnoses

## Chart reviews

- Determine potentially missing diagnoses by reviewing medical records
- Ensure diagnoses submitted in claim records are supported by the medical records
- Advantage: only method for identifying diagnoses to add or delete from the prior year
- Disadvantage: diagnoses not supported in chart must be removed from submission



## Home visits / health risk assessments

- Real time interaction with members in the current year
- **Advantage:** can identify and submit diagnoses not included in a physician's chart since done in current year
- **Disadvantages:** more expensive than chart reviews, member may not enroll in same MA plan in following year



# Methods for identifying potential missing or erroneous diagnoses

## Prescription drug data

- Many prescription drugs are associated with certain diseases / HCCs
- Identifying members who take those drugs and do not have matching diagnoses can help create a “target” list for review
- Not all HCCs have drugs associated with them (i.e. amputations)
- Can also be used to validate that members with certain diagnoses are taking appropriate drugs to avoid emergency room visits and inpatient stays



## Other diagnoses

- Certain diagnoses or combination of diagnoses can indicate a member has other diagnoses which have not been submitted (or that the severity of a condition is likely higher than the diagnosis submitted)



## Prior year HCCs

- More than half of the HCCs are for “chronic” conditions that a member should have every year
- Reviewing prior year HCCs can identify potential “dropped” HCCs



# Questions?





# Thank you

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