

# Model Output Report & Data File User Guide

September 2021 - Version 1.0

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Less than 5,000

# **Change History**

Document Version	Date	Description of Significant Changes
Version 1.0	September 2021	Initial version of the document



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### Introduction

The purpose of this user guide is to provide Medicare Advantage (MA) and other Organizations<sup>1</sup> a comprehensive reference manual for using the Risk Adjustment Model Output Report (MOR) that is provided by the Centers for Medicare & Medicaid Services (CMS).

The MOR is a monthly report that enables MA and other Organizations to verify the hierarchical condition categories (HCCs) that are used to calculate risk scores for each beneficiary. The MOR also provides demographic variables for each beneficiary. The payment HCCs together with the demographic variables are used to calculate risk scores for each beneficiary enrolled in Medicare Advantage (MA) each time the risk adjustment models are run. While the HCCs and demographic information for each beneficiary do not change between model runs, each monthly report contains information for each MAO's enrollees for that month.

The MOR comprises two separate reports -- a PDF file and a flat file data version. In this user guide, we will refer to the MOR generally unless we specify one of these reports.

Also, in this user guide, we provide information on accessing the MOR file layouts, examples of records in a MOR, and an explanation of how to use the report to verify the payment HCCs that are used to calculate each beneficiary's Part C and/or Part D risk score. The record types used in the MOR, from Payment Year (PY) 2006 to the present, and a mapping of these record types to the CMS-HCC models & the RxHCC model<sup>2</sup> can be found in Appendix A, Table 3: Record Type Information.

2 The Advance Notice and Announcement, which are the main documents that outline payment policy for particular payment years, includes information regarding updates to the risk adjustment models and are available here: http://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents.html.



<sup>1</sup> Programs of All-Inclusive Care for the Elderly (PACE), Cost Plans, Demonstration Projects, and Third Party Submitters. In addition to collecting service-level risk adjustment data (i.e., encounter data) from MAOs, CMS collects service-level risk adjustment data for each item or service delivered to enrollees of section 1876 Cost Health Maintenance Organization and Competitive Medical Plans (HMOs/CMPs), Program of All-inclusive Care for the Elderly (PACE) organizations, and Medicare-Medicaid Plans (MMPs). We refer to all organizations that submit encounter data as MA and other Organizations for the remainder of this document.

### Background

Risk adjustment enables CMS to pay MA and other Organizations for the risk of MA beneficiaries they enroll based on the health status and demographic characteristics of their enrollees.<sup>3</sup> A risk score represents a beneficiary's expected medical costs relative to the average expected cost of beneficiaries entitled to Medicare Fee-For-Service (FFS) and enrolled in Part A and Part B.

The use of risk adjustment for MA was first required by the Balanced Budget Act (BBA) in 1997. CMS shifted from the original risk adjustment methodology, which considered diagnoses from inpatient hospital stays only, to the CMS-HCC risk adjustment model, in 2004 in response to the Benefits Improvement and Protection Act of 2000 (BIPA) that required the implementation of a risk adjustment model using not only diagnoses from inpatient hospital stays, but also from ambulatory settings. There have been numerous modifications and improvements to the CMS-HCC model since it was first implemented.

Risk scores for calculating payments to managed-care plans for healthcare (Medicare Part C) are based on the CMS Hierarchical Condition Category (HCC) risk model, and those for calculating payments for either a standalone drug benefit or one that is part of a managed-care plan (Medicare Part D) are computed using the Prescription Drug Hierarchical Condition Category (RxHCC) model.

The CMS-HCC is a prospective model, meaning diagnoses submitted in one year are used to predict costs in the following year. The model includes demographic variables and health condition factors, which are based on diagnoses, to predict costs. There is a separate set of coefficients for existing beneficiaries in the community, for existing beneficiaries in long-term care institutions, and for new enrollees (beneficiaries who are new to Medicare).

For PY 2020, in order to meet the requirements of the 21<sup>st</sup> Century Cures Act,<sup>4</sup> CMS finalized a revised model,<sup>5</sup> which adds variables that take into account the number of conditions a beneficiary may have in the risk adjustment model ("count variables") and HCCs for pressure ulcer and dementia.



<sup>3</sup> Section 1853 of the Social Security Act requires that payments to plans are risk adjusted using health status and other factors.

**<sup>4</sup>** Twenty First Century Cures Act.

<sup>5</sup> See the Advance Notice of Methodological Changes for Calendar Year (CY) 2020 for Medicare Advantage for information on the Alternative Payment Condition Count (APCC) model, also referred to as the "2020 model."

This model also includes conditions for mental health, substance use disorder, and chronic kidney disease, first included in the CMS-HCC model for PY 2019 in response to the 21<sup>st</sup> Century Cures Act.

### Diagnoses Codes and Hierarchical Condition Categories

Diagnoses are submitted to CMS in two different data formats:<sup>6</sup> (1) through the abbreviated Risk Adjustment Payment System (RAPS) data format and (2) through the X12 837 5010 format used to collect Encounter Data.

All diagnosis codes are mapped to condition categories (CCs). Each CC contains clinically related groups of diagnoses, such as colon cancer and rectal cancer, which have similar clinical characteristics, severities, and cost implications. Hierarchies are applied among related CCs, so that only the most severe manifestation of the condition is reflected in a beneficiary's risk score.

Not all HCCs are included in the model and used in payment. The decision to include a HCC in the model is based on the HCC's ability to predict costs for Medicare Parts A and B benefits. Each payment HCC has an estimated relative factor, and this relative factor is then included in the risk score calculation.

HCCs, demographic variables, interaction terms, and the associated relative factors to be used in adjusting annual capitation rates are published in the annual Rate Announcement whenever a new model is finalized. If a risk adjustment model update results in changes to the HCCs in a model, there will be an associated update to the MOR.

A HCC will be incorporated into the beneficiaries' risk score during a model run and reflected in the corresponding MOR when the following conditions are met: (1) a diagnosis that maps to the HCC is submitted and is accepted by the deadline for the particular model run, (2) the diagnosis is not deleted prior to the model run, and (3) the beneficiary does not have another HCC within a given condition category hierarchy that is of higher severity and results in the lower severity HCC being excluded from the risk score.



<sup>6</sup> Under 42 C.F.R. § 422.310, Medicare Advantage Organizations (MAOs) are required to submit Encounter Data for each item and service provided to an MA enrollee. As required under § 422.310(b): Each MAO organization must submit to CMS (in accordance with CMS instructions) the data necessary to characterize the context and purposes of each item and service provided to a Medicare enrollee by a provider, supplier, physician, or other practitioner. Additionally, under § 422.310(d): MAO organizations must submit data that conform to CMS' requirements for data equivalent to Medicare fee-for-service data, when appropriate, and to all relevant national standards.

# The Model Output Report (MOR)

### **Overview**

The MOR files are distributed to MA and other Organizations on a monthly basis through the Medicare Advantage Prescription Drug (MARx) mailboxes, are available on the MARx User Interface (UI), and the data for each beneficiary are updated each time risk adjustment model runs occur. The risk score model runs typically occur three times a year for Initial, Mid-Year, and Final payment. Information regarding the timing of model runs is released through the Health Plan Management System (HPMS) memo.

Each MOR is a series of record types; one record type is created for each CMS-HCC, Rx-HCC, PACE, and ESRD model version because each model has different diagnosis-to-HCC mappings. The **record type** data field on the MOR indicates the model version and denotes the data source<sup>7</sup> of the diagnosis code data (i.e., RAPS, Encounter Data). The models and the corresponding record types for each model year are listed in the Plan Communication User Guide (PCUG) for Medicare Advantage Prescription Drug Plans.<sup>8</sup>

### Frequency

As noted above, a MOR is created each time a model is run (Initial, Mid-Year, and Final). The monthly MORs are based on the most recent model run; therefore, between model runs, there are no changes in the monthly MOR with the exception of beneficiary enrollment updates. Specifically, the monthly MORs released during December through May are for payment months January through June and are based on the Initial model run data. The monthly MORs released during June through November are for payment months July through December and are based on the Mid-Year model run data.

A beneficiary can change MAO contracts in any month during the payment year. For the monthly MORs, the latest MAO contract the beneficiary is enrolled in will receive the demographic and HCC information. However, for the final payment MOR all MAO contracts the beneficiary enrolled in during the payment year will each receive

<sup>7</sup> From payment year 2003 through payment year 2015, the MORs contained data based on RAPS data submissions only. In payment year 2016, these files began accommodating the Encounter Data diagnoses submitted by MAO and other organizations as well. For PY2022 and onward, the MORs will contain data based on Encounter Data and FFS data. The PACE MORs will continue to use data from RAPS, FFS, and Encounter Data.

<sup>8</sup> The Plan Communications User Guide is posted at https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-technology/mapdhelpdesk/Plan Communications User Guide.

the beneficiary's demographic and HCC information. Please note that deceased beneficiaries are dropped from the subsequent monthly MORs for the payment year. For Final MORs, if the beneficiary was alive during any part of the payment year, then a MOR record will be generated for the MAO contract the beneficiary was enrolled in during the payment year. Please reference Table 1 below with payment year 2020 as an example.

Table 1: Examples of the	e Timing of Mode	Run, Payment	Month, MOR	Distribution
--------------------------	------------------	--------------	------------	--------------

			Months
2020 OT	e Through Dates	December 2019	January 2020
	7/01/2018 to	through	through
	06/30/2019	May 2020	June 2020
2020 O	e Through Dates	June 2020	July 2020
	1/01/2019 to	through	through
	12/31/2019	November 2020	December 2020
Eingl	e Through Dates 1/01/2019 to 12/31/2019	May 2021	June 2021

9 This references the Payment Year 2020 Interim Final Model Run that was performed in February 2021. CMS also performed a Payment Year 2020 Final Update Model Run in August 2021. Information on upcoming Risk Adjustment Model runs are referenced in HPMS Memos. For example, "Deadline for Submitting Risk Adjustment Data for Use in Risk Score Calculation Runs for Payment Years 2020, 2021, 2022, and 2023" HPMS memo dated January 15th, 2021.



### Accessing the MOR files

CMS distributes the MOR files to MA and other Organizations through the Enterprise File Transfer (EFT) mailboxes and the MARx UI. The MOR files are distributed through the MARx EFT mailboxes and are available for two weeks, after which MAOs may order archived reports through the MARx UI. (Please see Plan Communications User Guide for more information on establishing connectivity.)

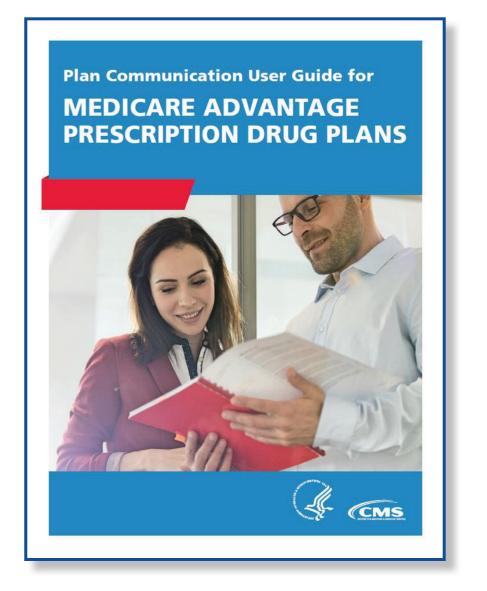




Table 2 outlines the file names of thereports by transfer protocol. The nam-ing conventions include the followinginformation:

### All connectivity methods:

- xxxxx is the contract number the MOR represents
- HCCMODR indicates the PDF
  report format of the MOR
- HCCMODD indicates the data file version of the MOR

### **EFT Mailbox:**

- zzzzzzzz is the Plan sponsor-provided high-level qualifiers for Connect:Direct Mainframe users
- yymm is the two-digit year, two-digit month of the payment year and month
- Thhmmsst is the timestamp, representing the time of file creation

### **MARx UI:**

 yyyymm is the four-digit year, two-digit month of the payment year and month

### Table 2: MOR Data File, File Naming Conventions<sup>10</sup>

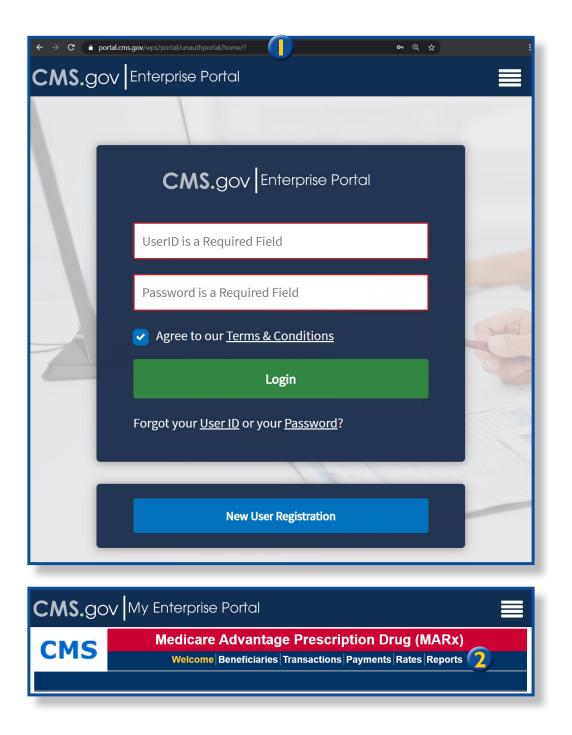
Data Transfer Protocol /Connecting to CMS	File Names of Reports
	Gentran Mailbox/TIBCO MFT Internet Server P.Rxxxxx.HCCMODR.Dyymm01.Thhmmsst P.Rxxxxx.HCCMODD.Dyymm01.Thhmmsst
EFT Mailbox	<b>Connect:Direct (Mainframe)</b> zzzzzzzz.Rxxxxx.HCCMODR.Dyymm01.Thhmmsst zzzzzzz.Rxxxxx.HCCMODD.Dyymm01.Thhmmsst
	<b>Connect:Direct (Non-Mainframe)</b> [directory]Rxxxxx.HCCMODR.Dyymm01.Thhmmsst [directory]Rxxxxx.HCCMODD.Dyymm01.Thhmmsst
MARX UI	P#MMA.@BDG5050.PLNxxxxx.Ryyyymm.HCCMODR P#MMA.@BDG5050.PLNxxxxx.Ryyyymm.HCCMODD

10 EFT mailbox and MARxUI are supported by the MAPD Help Desk: (mapdhelp@cms.hhs.gov).



MA and other Organizations can also order archived MOR files from the MARx UI following these steps:

- 1. Go to the CMS Enterprise Portal (portal.cms.gov/portal/)
- 2. Go to the "Reports" menu





Reports: Find (M601)	Role: FULL VIEW ROLE	Print Help
Pick frequency. Once a frequer	ncy is selected, enter criteria and select "Find.	
*Indicates req	uired field	LIS/LEP (ENDS 11/2014) OR LEP MONTHLY DATA FILE MA MEDICAID STATUS DATA FILE MBI CROSSWALK FILE
*Frequency	1	MONTHLY FULL ENROLLMENT MONTHLY MEMBERSHIP DETAIL RPT AND DATA FILE
		MONTHLY MEMBERSHIP REPORT - DRUG PLAN MONTHLY MEMBERSHIP SUMMARY REPORT AND DATA FILE MONTHLY MSP INFORMATION DATA FILE MONTHLY PREMIUM WITHHOLDING DATA FILE
		MONTHLY SUMMARY OF BILLS REPORT MSA DEPOSIT AND RECOVERY DATA FILE PART B CLAIMS DATA FILE PAYMENT RECORDS REPORT
Start Month	<b>5</b> <sup>*End Month</sup>	PLAN PAYMENT APPS REPORT AND DATA PTD RISK ADJUSTMENT MODEL OUTPUT RPT AND DATAFILE RISK ADJUSTMENT ELIGIBLE DIAGNOSIS REPORT RISK ADJUSTMENT MODEL OUTPUT RPT AND DATAFILE
File Type		TRANSACTION REPLY/MONTHLY ACTIVITY REPORT 6-YEAR BROKER COMPENSATION DATA FILE 820 FORMAT PAYMENT ADVICE DATA FILE PTD RISK ADJUSTMENT MODEL OUTPUT RPT AND DATAFILE
Report/Data Fi		3
8 Find Rese	et	

### Figure 1: Accessing MOR Files - MARx UI Screenshot

- 3. Select "Monthly" frequency
- Select "Start Month/Year" (The month should be the month the report is distributed. For example, 04/2020 would return the MOR report distributed in April.)
- 5. Select "End Month/Year"
- On the "Report/Data File" drop down select "Risk Adjustment Model Output RPT and Data File" for Part C MORs or "PTD Risk Adjustment Model Output RPT and Datafile" for Part D MORs.

- 7. Add your "Contract ID"
- 8. Select "Find"
- The reports will be resent to your MARx EFT mailbox and be available by the next day.
- NOTE: Do not specify file type.
- Although you may request multiple months of reports using a different Start Month and End Month, only one report may be ordered at a time.



### Format of MOR

The MOR file that is delivered as a PDF presents the beneficiary and HCC information in a format intended to be easily read by a reviewer. The MOR data file is a flat file. The Part C MOR Record layouts is 200-bytes in length and the Part D MOR Record layouts varies from 168-bytes to 180-bytes in length. The MOR data file format is machinereadable.

### Reading a MOR file and Description of Data Fields

As described above, the MORs contain information on the HCCs that are used to calculate Part C risk scores for each beneficiary and are produced with the Initial, Mid-Year, and Final model runs.

MORs are also produced for the Part D program and display the Prescription Drug Hierarchical Condition Categories (RxHCCs) which are used to calculate Part D risk scores for each beneficiary.

Below are several examples of a MOR PDF and the corresponding MOR data file. Two figures with descriptions are presented for each example. The first figure shows the MOR PDF and the second figure shows the corresponding MOR data file. Both figures contain the same data. In each figure, there is a line for each beneficiary, even if the beneficiary did not have any diagnoses that mapped to payment HCCs.

Readers may want to refer to the PCUG record layouts<sup>11</sup> when reviewing the examples presented in this user guide.

# Example of MOR PDF and MOR Data File

Examples 1–3 represent two Record Types produced for the 2019 initial model run for the CMS-HCC models for non-PACE and non-ESRD beneficiaries. The two different record types indicate the data source: Record type D shows the HCCs in the 2017 model assigned to each beneficiary using RAPS data and Record type I shows the HCCs in the 2019 model assigned to each beneficiary using Encounter Data for the non-PACE, non-ESRD beneficiaries.

Example 1 is illustrated in **Figures 2** and **3**, which depict a de-identified MOR PDF. These data fields are listed based on the corresponding fields on the current MOR record layout in the PCUG for Record Types 'D' and 'I.'

11 The Plan Communications User Guide is posted at <a href="https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-Technology/mapdhelpdesk/Plan Communica-tions-User Guide">https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-Technology/mapdhelpdesk/Plan Communica-tions-User Guide</a>.



In the top left corner of Figure 2, there are three items displayed: (1) the Contract Number, (2) the Run Date, and (3) the Payment Month and Year. The contract number in this example is reported below the heading "H####." This corresponds to the contract number under the Risk Adjustment Model Output Report heading. The run date, April 7, 2019 (20190407 in the CCYYM-MDD format), is the date the report was generated. The payment month shows as May 2019 (201905 in the YYYMM format), which indicates the month the payment will be made using the data shown in this MOR.

The next group of descriptions are related to selected detail level data fields also found in **Figure 2** below.

The (4) beneficiary ID, (5) beneficiary Last Name, (6) beneficiary First Name, (7) beneficiary Initial, are displayed under the Payment Month line. The beneficiary ID in **Figure 2** is listed after the beneficiary heading as "A111111111," followed by the beneficiary Last Name (LNAME1), beneficiary First Name (FNAME1), and beneficiary Middle Initial Name (MI1).

On the right-hand side of the report in Figure 2, there are four more data fields being displayed. These data fields are (8) Date of Birth which is listed in the format of YYYYMMDD, (9) Sex, (10) Age Group, and the (11) ESRD Indicator.<sup>12, 13</sup>

While the name and DOB have been de-identified for this example, we can see that this particular beneficiary is a Male in Age group 70–74. The beneficiary also does not qualify for ESRD as indicated by the "N" under the column heading "ESRD."

The source of the diagnosis information as shown by the record type are indicated along with the model version

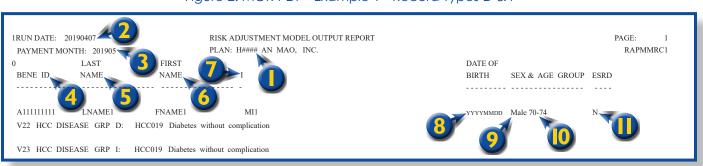


Figure 2: MOR PDF - Example 1 - Record Types D & I

12 The beneficiary's ESRD status as of the model run. Also indicates if the beneficiary was processed by the ESRD models in the model run.

13 The ESRD Indicator is only populated on the MOR report (PDF) for V22 (record type 'D') and V23 (record type 'I') and not populated on the MOR data files. In the V21 model, the ESRD status of a beneficiary is indicated by the record type and thus, there is no need for an ESRD Indicator on the MOR report.



used. HCCs resulting from RAPS data (record type 'D') are shown on the MOR PDF as "V22 HCC Disease Group D" and HCCs resulting from Encounter Data (record type "I") are shown on the MOR PDF as "V23 HCC Disease Group I." In this example, the diagnoses submitted from both RAPS and Encounter Data for this beneficiary generated HCC019 – Diabetes without Complication.

### Figure 3: MOR Data File – Example 1 - Record Types D & I

1HXXXX20190407201905
DA111111111 LNAME1 FNAME1 MI1 YYYYMMDD <b>1</b> 11111111000000000000000000000000000
IA111111111 LNAME1 FNAME1 MI1 MI1YYYYMMDD1111111110000000000000000000000

On the MOR data file, the source of the diagnosis information is shown just as it is in the MOR PDF, but the data are presented as switches to allow a program or system to read the file. For instance, in this example, the beneficiary has a leading '1' after the Date of Birth which indicates the beneficiary's sex as male, followed by another '1' that indicates the age group (70–74), and then another '1' for HCC019.

All these fields are highlighted in **Figure 3** above. This information is the same for both Record Type D and Record Type I.



Example 2 is illustrated in **Figures 4** and **5**. In this example, the diagnosis data submitted did not map to any payment HCCs. If this beneficiary is a new enrollee the payment for this individual is based solely from the demographic data.

As shown in **Figure 5**, the data field indicates that the beneficiary is a 'Male,' as is indicated with the leading '1' after the beneficiary's Date of Birth. The second '1' indicates the beneficiary's age group, which is age group 65–69. Since the beneficiary did not have any associated diagnoses there were no HCCs to display on this report.

#### Figure 4: MOR PDF - Example 2 - Record Types D & I

1RUN DATE: 20 PAYMENT MON			RISK ADJUSTMENT MODEL OUTPUT REPORT PLAN: H#### AN MAO, INC.			PAGE: RAPMI	2 MRC1
0 BENE ID	LAST NAME	FIRST NAME	I	DATE OF BIRTH	SEX & AGE GROUP	ESRD	
A222222222	LNAME2	FNAME2	MI2	YYYYMMDD	Male 65-69	Ν	

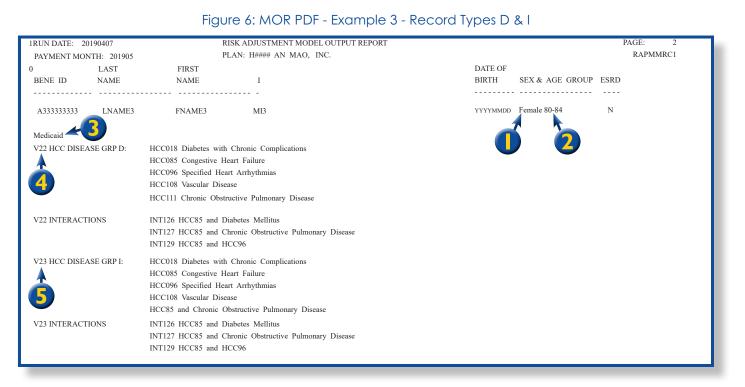
### Figure 5: MOR Data File - Example 2 - Record Types D & I

#### 1HXXXX20190407201905



Example 3 is illustrated in Figures 6 and 7. The beneficiary in Figure 6 is a (1) Female between the ages of (2) 80 and 84 and is (3) Medicaid eligible for Record Type D and for Record Type I. The record types for this example are still D and I, indicating that the data are from RAPS and Encounter Data, respectively, and the models used are (4) V22 and (5) V23, respectively. This individual has the same five HCCs and three interaction terms based on the RAPS and Encounter Data.

As shown in **Figure 7**, the data field indicates that the beneficiary is a 'Female,' as is indicated with the leading '2' after the beneficiary's Date of Birth. The first '1' indicates the beneficiary's age group, which is age group 80–84.



### Figure 7: MOR Data File - Example 3 - Record Types D & I



The HCC018, HCC085, HCC096, HCC108, and HCC111 are indicated by the '1s' as are the disease interaction terms<sup>14</sup> INTI26, INTI27, and INTI29. The last '1' in the string of Record Types D and I represent the Medicaid eligibility for the beneficiary, which is displayed in **Figure 6** above the V22 HCC Disease groupings for Record Type D.

### Example of MOR PDF and MOR Data File – Part C Record Types G & E

Example 4 differs from the prior examples in that it reflects record types G and E and are illustrated in **Figures 8** and **9**.

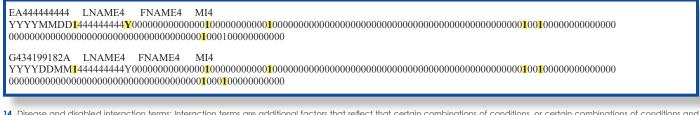
Record types G and E are associated with the CMS-HCC ESRD population. Record type E indicates that RAPS data are the source of information for the HCCs and the model used is the 2019 CMS-HCC ESRD model. Record type G indicates that Encounter Data are the source of information for the HCCs and the model used is the 2019 CMS-HCC ESRD model.

As shown in **Figure 9**, the data field that indicates the beneficiary is a male is the leading '1' after the beneficiary's Date of Birth. Next, a 'Y' is present in the RAS

		PAGE: 49 RAPMMRC1	
FIRST	DATE OF		
NAME I	BIRTH SEX & AGE GROUP ES	RD	
FNAME4 MI4	YYYYMMDD Male 45-54 Y		
(65)			
HCC085 Congestive Heart Failure			
HCC088 Angina Pectoris			
D-HCC085 DISABLED_HCC85			
HCC085 Congestive Heart Failure			
HCC088 Angina Pectoris			
D-HCC085 DISABLED_HCC85			
	PLAN: H#### AN MAO, T FIRST NAME I FNAME4 MI4 (365) HCC085 Congestive Heart Failure HCC085 Congestive Heart Failure HCC085 DISABLED_HCC85 HCC085 Congestive Heart Failure HCC085 Congestive Heart Failure	NAME     I     BIRTH     SEX & AGE GROUP     ES       FNAME4     MI4     YYYYMMDD     Male 45-54     Y       *65)     HCC085     Congestive Heart Failure     Y       HCC085     DISABLED_HCC85     HCC085     Congestive Heart Failure       HCC085     Congestive Heart Failure     HCC085     Congestive Heart Failure       HCC085     Congestive Heart Failure     HCC085     HCC085	FIRST NAME       I       DATE OF BIRTH       SEX & AGE GROUP       ESRD         FNAME4       MI4       YYYYMDD       Male 45-54       Y         *65       Orgestive Heart Failure HCC085       Orgestive Heart Failure HCC085       Y       YYYYMDD       Male 45-54       Y         HCC085       Congestive Heart Failure HCC085       DISABLED_HCC85       HCC085       DISABLED_HCC85       Y

### Figure 8: MOR PDF - Example 4 - Record Types G & E

### Figure 9: MOR Data File - Example 4 - Record Types G & E



14 Disease and disabled interaction terms: Interaction terms are additional factors that reflect that certain combinations of conditions, or certain combinations of conditions and disabled status, are indicative of higher costs. Interaction terms are additive factors, in addition to the factors associated with individual conditions.



ESRD Indicator Switch field to indicate that the beneficiary was processed by the ESRD model and has ESRD status. In addition, the beneficiary is in the 45–54 age group with Medicaid Male Disabled status as well as Medicaid eligibility. The HCC85 and HCC88 are indicated by the '1' later in the string of data. The disease interaction term DIS-ABLED\_HCC85 is indicated with a '1.'

### Example of MOR PDF and MOR Data File – Part C Record Type B

Example 5 represents Record Type 'B' for the CMS-HCC model used to pay Program of All-Inclusive Care for the Elderly (PACE) Organizations and is illustrated in Figures 10 and 11. This record type<sup>15</sup> is exclusive to PACE organizations and is not applicable to any other organization type. It is shown here as (1) "V21 HCC Disease Grp B." The record shows that the beneficiary has four HCCs and one disease interaction. The beneficiary in this example is a (2) Female (3) aged 95 or over.

As shown in **Figure 11**, the data field that indicates the beneficiary is a female is the leading '2' after the beneficiary's Date of Birth. Next, an 'N' is present to indicate that the beneficiary was not processed by the ESRD model and does not have ESRD status. In addi-

Figure 10: MOR PDF - Example 5 - Record Type B - PACE

1RUN DATE: 201			SK ADJUSTMENT MODEL OUTPUT I LAN: H#### AN MAO, INC.	REPORT				PAGE: RAPMM	1 RC1
PAYMENT MON 0 BENE ID	LAST NAME	FIRST NAME	I		DATE OF BIRTH	SEX & AGE GROUP	ESRD		KC1
A555555555 Medicaid Female Medicaid	LNAME5 Aged (Age><65)	FNAME5	M15		YYYYMMDD	Female 95-GT	N		
V21 HCC DISEAS	SE GRP B:	HCC052 Dementia With HCC057 Schizophrenia HCC079 Seizure Disord	*						
V21 INTERACTIO	ONS:	HCC096 Specified Hear INT120 SCHIZOPHRE	-						

Figure 11: MOR Data File - Example 5 - Record Type B - PACE



15 Prior to PY2016 Final Model Run, Record Type B was applicable to PACE (Part C & ESRD) and non-PACE ESRD for Model Version 21 HCCs only. Beginning with PY2016 Final Model Run, Record Type B was associated with the PACE only and PACE-specific ESRD & Part C Model Version 21 HCCs and Part D blend. Before starting in PY2020, PACE-specific Part C Model Version 22 HCCs are reported on Record Type K, while PACE-specific ESRD Model Version 21 HCCs continue to be reported on Record Type B.



tion, the beneficiary is in the 95 and over age group with Medicaid Female Aged status as well as Medicaid eligibility. HCC52, HCC057, HCC079, HCC096 are indicated by '1s' as is the disease interaction term INTI20.

### Example of MOR PDF and MOR Data File – Part D Record Types 2 & 4

Example 6 shows record types 2 and 4, which are related to the Part D Risk Adjustment MORs and are illustrated in Figures 12 and 13. This example dis-

plays the RxHCCs used to calculate the Part D risk scores. In this example, Record Types '2' and '4' are shown for RAPS-based and Encounter Databased RxHCCs, respectively.

As shown in **Figure 13**, the data field that indicates the beneficiary is a female is the leading '2' after the beneficiary's Date of Birth. The beneficiary is in the 80–84 age group. RxHCC030, RxHCC068, RxHCC186, RxHCC193, RxHCC216, and RxHCC226 are indicated by '1s' later in the string.

A6666666666666666666666666666666666666	FNAME6	MI6 YYYYMMDD Female 80-84	
RXHCC DISEASE GRP 2:	RXHCC030 Diabetes with Complications		
	RXHCC068 Esophageal Reflux and Other Disorders of Esophageal		
	RXHCC186 Congestive Heart Failure		
	RXHCC193 Atrial Arrhythmias		
	RXHCC216 Peripheral Vascular Disease		
	RXHCC226 Chronic Obstructive Pulmonary Disease and Asthma		
RUN DATE: 20190407	RISK ADJUSTMENT MODEL OUTPUT REPORT		PAGE: 3
PAYMENT MONTH: 201905	PLAN: H#### AN MAO, INC.		RAPMMRC1
0 LAST	FIRST	DATE OF	
BENE ID NAME	NAME	I BIRTH SEX & AGE GROUP	
A6666666666666666666666666666666666666	FNAME6	MI6 YYYYMMDD Female 80-84	
XHCC DISEASE GRP 4:	RXHCC030 Diabetes with Complications		
	RXHCC068 Esophageal Reflux and Other Disorders of Esophageal		
	RXHCC186 Congestive Heart Failure		
	RXHCC193 Atrial Arrhythmias		
	RXHCC216 Peripheral Vascular Disease		
	RXHCC226 Chronic Obstructive Pulmonary Disease and Asthma		

Figure 12: MOR PDF - Example 6 - Record Types 2 & 4 - Part D

### Figure 13: MOR Data File - Example 6 - Record Types 2 & 4 - Part D



## **Appendix A: Record Types**

### Table 3: Record Type Information

MOR Record Type	Model Version (Part C or Part D and Version)	Payment Years	Applicable Data Source
В	Part C V21 ESRD PACE	2012 - 2021	RAPS, FFS, and Encounter Data
E	Part C V21 ESRD	2012 – 2021	RAPS and FFS
G	Part C V21 ESRD	2012 - 2021	Encounter Data and FFS
с	Part C V22 Non-PACE and Non-ESRD	2014 – 2016	RAPS and FFS
F	Part C V22 Non-PACE and Non-ESRD	2014 – 2016	Encounter Data and FFS
D	Part C V22 Non-PACE and Non-ESRD	2017 – 2021	RAPS and FFS
I	Part C V23 Non-PACE and Non-ESRD	2019	Encounter Data and FFS
J 16	Part C V24 Non-PACE and Non-ESRD	2020 – 2021	Encounter Data and FFS
К	Part C V22 PACE Non-ESRD	2020 – 2021	RAPS, FFS, And Encounter Data
2	Part D V05	2016 – 2021	RAPS And FFS
4	Part D V05	2016 – 2021	Encounter Data and FFS
5	Part D V05 PACE	2016 – 2021	RAPS, FFS, And Encounter Data

16 Record type H was replaced with record type J under the V24 (2020) Part C model. For more information check HPMS "Updates to Payment Years (PY) 2017 and 2018 Model Output Report (MOR) dated March 12, 2018.

