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**Medicare Advantage Risk Adjustment  
Data Validation CMS-HCC Pilot Study**

**Report to Medicare Advantage Organizations**

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**JULY 27, 2004**

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**TABLE OF CONTENTS**

1	Introduction.....	2
2	Methods.....	2
2.1	Sample.....	2
2.2	Medical Record Procurement.....	5
2.3	Validation of HCCs.....	5
3	Findings.....	6
3.1	MA Organization Feedback.....	7
3.2	Response Rates.....	8
3.2.1	Number of Beneficiaries with Medical Records.....	8
3.2.2	Beneficiary HCCs With Medical Records.....	8
3.3	HCC Discrepancies.....	9
3.3.1	HCC Discrepancy Rates.....	9
3.3.2	Upcoding and Downcoding.....	10
3.4	General Summary of Medical Record Review Findings.....	12
4	Conclusions.....	12

## 1 Introduction

The Centers for Medicare & Medicaid Services (CMS) conducted a pilot study to refine the data validation approach that will be implemented for the CMS-Hierarchical Condition Category (CMS-HCC) risk adjustment model beginning with CY2004 risk adjusted payment data. The CMS-HCC data validation pilot study exclusively examined the process of obtaining physician medical records and validating physician ICD-9-CM (International Classification of Diseases, 9<sup>th</sup> Revision, Clinical Modification) diagnoses that resulted in a CMS-HCC assignment. Data validation was accomplished by medical record review. This study was not an exact replication of the data validation process that will be implemented for data validation of CY2004 data. CY2004 CMS-HCC data validation will be based on medical record reviews of data submitted from three provider types—hospital inpatient, hospital outpatient, and physician.

The primary purpose of the pilot study was to inform the data validation approach for the CMS-HCC model. With this pilot study, CMS also sought to understand how plans located and selected medical records as well as to identify challenges associated with the review process and validation of risk adjustment physician data. This information will help refine the methods that will be used for the CY2004 study.

CMS contracted with BearingPoint, Inc. to coordinate and conduct the risk adjustment data validation activities. BearingPoint subcontracted with the Island Peer Review Organization, Inc. (IPRO), a Quality Improvement Organization, to perform the medical record reviews.

## 2 Methods

Nine Medicare Advantage (MA) organizations (formerly known as Medicare+Choice organizations) volunteered to participate in this pilot study. Each organization was asked to send medical records for 20 beneficiaries (for a total of 180 beneficiaries) to support HCCs based on diagnoses submitted from physician provider types during the data collection period of July 2001 through June 2002 (CY2004 estimator data). Certified medical record coders reviewed the medical records according to nationally accepted ICD-9-CM coding guidelines. This section describes the sample, the process of obtaining medical records, and the validation of physician diagnoses and resulting CMS-HCC (HCC) assignments.

### 2.1 Sample

For each plan, CMS identified all beneficiaries enrolled in September 2002 who had all of their claims with the plan during the data collection period of July 2001 through June 2002. There were no beneficiaries who had fee-for-service (FFS) claims or claims from other plans included

in the data set. From this set of beneficiaries we identified those diagnoses from physician settings that were submitted to CMS.

Plans were given two beneficiary lists from which to select medical records—List A and List B. List A included 20 beneficiaries and was the priority selection list. Medical record response rates were calculated using List A. List B provided 10 additional beneficiaries for plans to substitute from to ensure there were enough records to review if beneficiary records from List A could not be located. The List A response rate was 83.3 percent (medical records were sent for 150 of 180 requested beneficiaries). The response rate for Lists A and B combined rose to 95 percent (171 of 180 requested beneficiaries).

A targeted sample was used to capture suspected problematic diagnosis coding. CMS targeted some HCCs including: HCC19 (diabetes without complications), HCC71 (polyneuropathy), HCC73 (Parkinson’s disease), HCC83 (angina), HCC105 (vascular disease), HCC108 (COPD/asthma/bronchitis), and HCC112 (pneumococcal pneumonia). CMS also targeted HCC55 (major depressive, bipolar and paranoid disorders) and HCC80 (congestive heart failure).

The results of the sampling for the nine plans are shown in Table 1. Plans sent medical records for 171 of 180 requested beneficiaries. There was a total of 261 HCCs in the sample for the 171 beneficiaries (an average of 1.5 HCCs per beneficiary). Most sampled beneficiaries had one HCC (62%), another 26 percent had 2 HCCs and almost 12 percent had 3 or more HCCs.

**Table 1. The Number of HCCs for Sampled Beneficiaries in Nine Plans**

Number of Beneficiaries		Number of HCCs for 171 Beneficiaries	Number and Percent of Beneficiaries with							
Requested	Received		1 HCC		2 HCCs		3 HCCs		4+ HCCs	
N	n	n	n	%	n	%	n	%	n	%
180	171	261	106	62.0	45	26.3	16	9.4	4	2.3

- 1 HCC = total number of beneficiaries in the pilot with 1 HCC divided by total number of beneficiaries in the pilot sample (171).
- 2 HCCs = total number of beneficiaries in the pilot with 2 HCCs divided by total number of beneficiaries in the pilot sample (171).
- 3 HCCs = total number of beneficiaries in the pilot with 3 HCCs divided by total number of beneficiaries in the pilot sample (171).
- 4+ HCCs = total number of beneficiaries in the pilot with 4 or more HCCs divided by total number of beneficiaries in the pilot sample (171).

Table 2 on the next page shows the distribution of the 261 HCCs that were in the sample for all plans in the pilot study. HCC 19 (diabetes without complications) represents the majority of HCCs in the sample at 23%. HCC92 (specified heart arrhythmias), HCC10 (breast, prostate, colorectal and other cancers), HCC108 (COPD), and HCC80 (congestive heart failure) each represent approximately 8% to 12% of all HCCs in the sample.

**Table 2. Risk Adjustment HCCs in Pilot Sample**

HCC	Short Description	Number in Sample
19	Diabetes with No or Unspecified Complications	61
92	Specified Heart Arrhythmias	32
10	Breast, Prostate, Colorectal and Other Cancers and Tumors	29
108	COPD	28
80	Congestive Heart Failure	21
105	Vascular Disease	16
83	Angina Pectoris/Old MI	12
15	Diabetes with Renal Manifestation	8
38	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	6
71	Polyneuropathy	5
16	Diabetes with Neurologic or Peripheral Circulatory Manifestation	4
18	Diabetes with Ophthalmologic Manifestation	4
96	Ischemic or Unspecified Stroke	4
45	Disorders of Immunity	3
131	Renal Failure	3
149	Chronic Ulcer of Skin, Except Decubitus	3
157	Vertebral Fractures	3
158	Hip Fracture/Dislocation	3
73	Parkinson's and Huntington's Diseases	2
82	Unstable Angina & Other Acute Ischemic Heart Disease	2
8	Lung, Upper Digestive Tract, and Other Severe Cancers	1
9	Lymphatic, Head and Neck, Brain, and Other Major Cancers	1
17	Diabetes with Acute Complications	1
26	Cirrhosis Liver	1
27	Chronic Hepatitis	1
44	Severe Hematological Disorders	1
55	Schizo.& Major Depressive Disorders	1
72	Multiple Sclerosis	1
74	Seizure Disorders and Convulsions	1
112	Pneumococcal Pneumonia, Emyema, Lung Abscess	1
119	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	1
164	Major Complications of Medical Care and Trauma	1
<b>Total</b>		<b>261</b>

## 2.2 Medical Record Procurement

Contact information for each plan was collected and a comprehensive instruction/medical record request package was sent to the plan contact(s) along with a beneficiary list for requesting medical records. The request package also included a HIPAA (Health Insurance Portability and Accountability Act) fact sheet and a letter from CMS to physicians. CMS, BearingPoint, and IPRO held two conference calls with participating plans to review the request package and to answer questions related to the pilot study process.

Plans were requested to obtain the complete medical record for the entire data collection period (July 1, 2001 through June 30, 2002) from physicians providing health care services for the selected beneficiaries. Pilot plans were provided with the complete physician diagnostic data profile (based on submitted data) for each selected beneficiary. Multiple medical records could support an individual HCC; therefore, plans were asked to submit the “one best medical record” to support each HCC selected for validation. In addition, one medical record could support more than one HCC for a beneficiary with multiple HCCs.

Each HCC being validated had a corresponding pre-printed coversheet. For each coversheet, plans had to identify the date of service and ICD-9 code for the submitted medical record. Pilot plans were allowed to submit “additional medical records”. An “additional medical record” is related to a physician service that has not been submitted to CMS but is from the data validation time period. All HCC coversheets for the 171 beneficiaries that were not accompanied by a medical record were deemed missing medical records.

MA organizations were given 10 weeks to submit all requested physician medical records.

## 2.3 Validation of HCCs

Certified ICD-9 coders reviewed the medical records. Each reviewer validated the beneficiary name, date of service and ICD-9 diagnosis code identified by the plan on the medical record coversheet using the documentation in the medical record. Each reviewer examined the medical record documentation to locate the selected date of service and then determined if the documentation supported the ICD-9 code from the coversheet. There were three possible outcomes: 1) a matching ICD-9 code was abstracted based on the documentation; 2) another code was abstracted based on the documentation; or 3) no code was abstracted due to insufficient or invalid documentation. Abstracted ICD-9 codes were entered into an electronic data tool that was programmed to identify if a HCC was mapped to the abstracted ICD-9 code. If the abstracted ICD-9 code did not match the code identified by the plan on the coversheet, then the diagnosis was discrepant. Discrepant ICD-9 codes that changed the HCC assignment were identified as HCC discrepancies. Please note that not all discrepant diagnosis codes led to HCC discrepancies. Missing medical records were designated HCC discrepancies.

In addition to validating the diagnosis code, the reviewers did additional data checks and captured additional information in the electronic tool including:

- ◆ Checking for a provider signature for each note
- ◆ Capturing a yes/no indicator for date of service within data collection period
- ◆ Checking criteria for determining appropriate provider type
- ◆ Capturing whether the provider was a primary care provider or a specialist
- ◆ Capturing coder notes on review decision

The main types of discrepancies were invalid medical record, incorrect code assignment, incorrect specificity, and missing medical record. Table 3 shows the discrepancy types.

**Table 3. Definitions of Discrepancy Types**

Invalid medical record	A medical record from: <ul style="list-style-type: none"> <li>▪ Inpatient or outpatient hospital setting (for the pilot study only)</li> <li>▪ Laboratory services</li> <li>▪ Skilled nursing facility</li> <li>▪ Emergency room</li> <li>▪ Outside the data collection period</li> </ul>
Incorrect code assignment	Mismatch between the diagnosis submitted by the plan and diagnosis code abstracted during medical record review.
Incorrect specificity	The medical record documentation supported a specific condition type (at the fourth or fifth digit) and the submitted diagnosis is an unspecified code for the condition.
Missing medical record	No medical record documentation was submitted.

### 3 Findings

The primary purpose of the pilot study was to inform the data validation approach for the CMS-HCC model. The specific goals of the pilot study were: 1) to understand how plans located and selected medical records and 2) to identify challenges associated with the review process and validation of risk adjustment physician data. In order to achieve these goals, CMS sought feedback from pilot plans about the request and selection of medical records, determined a response rate for receipt of physician medical records, and calculated HCC discrepancy rates for the submitted physician medical records.

*Attachment A provides summary findings for the pilot study.*

### **3.1 MA Organization Feedback on Obtaining and Selecting Physician Medical Records**

CMS conducted conference calls with participating plans to obtain feedback regarding the request and selection of medical records to submit for review. In addition, after medical record reviews were complete and the initial data analyzed, BearingPoint held a conference call with each participating plan to discuss their findings.

MA organization feedback and comments about the pilot study are classified into two categories: 1) obtaining physician medical records and 2) selecting the “one best medical record” to support a HCC.

#### **1) *Obtaining Physician Medical Records***

- ◆ Although the average time to obtain and submit medical records was consistent with previous hospital inpatient medical record requests, the participating plans stated that obtaining physician medical records seemed more difficult and time intensive.
- ◆ Some physicians had issues with HIPAA and required more education; CMS provided a HIPAA fact sheet that plans generally considered helpful to physicians.
- ◆ Generally, plans had more problems obtaining medical records from specialists and non-contracted providers than with contracted providers.
- ◆ It was necessary for plans to track requests and follow-up with physician office staff in order to obtain the requested medical records.
- ◆ Some common plan practices for obtaining physician medical records included:
  - Establishing a contact person at the physician office.
  - Notifying physicians prior to sending the medical record request.
  - Confirming the receipt of the medical record request package with the physician’s office.
  - Periodically reminding physicians to send medical records.
  - When practical, sent staff to physician offices to obtain medical records.
- ◆ Some plans had to pay a fee prior to receiving requested medical records.

#### **2) *Selecting the “One Best Medical Record”***

- ◆ Selecting the medical records to submit for review was more challenging for pilot plans.
- ◆ Some MA organizations felt that knowledge of ICD-9 coding was necessary to identify the best medical record.

- ◆ To select the “one best medical record” to support a HCC, some plans assigned personnel (e.g., nurse, coding expert, or medical director) to review medical records for adequate documentation and to ensure the date of service was within the data collection period.

### 3.2 Response Rates

Plan level response rates were calculated to measure how successful plans were in obtaining physician medical records for a sample of 20 beneficiaries. Each HCC for a beneficiary in the sample required supporting medical record documentation. Some beneficiaries had more than one HCC in their diagnostic profile and may have required more than one medical record to be submitted for review. A total of 194 medical records were received for 171 beneficiaries and 261 HCCs.

#### 3.2.1 Number of Beneficiaries with Medical Records

Table 4 shows the average medical record response rates. Plans were given two beneficiary lists from which to select medical records—List A and List B. List A included 20 beneficiaries and was the priority selection list. The average List A response rate was 83.3 percent (150 of 180 beneficiaries). List B provided a list of 10 substitute beneficiaries if medical records for all List A beneficiaries could not be obtained. When including beneficiaries chosen from List B, the average response rate increased to 95 percent (171 of 180 beneficiaries). The range of List A response rates for all plans in the pilot study was 70% to 100%.

**Table 4. CMS-HCC Medical Record Response Rates Based on Beneficiaries in Nine Plans**

Requested from List A	Number of Beneficiaries with Medical Records Received					
	List A		List B		Lists A+B	
N	n	%	n	%	n	%
180	150	83.3	21	11.7	171	95.0

- List A response rate = number of beneficiaries from List A divided by total number of requested beneficiaries.
- List B response rate = number of beneficiaries from List B divided by total number of requested beneficiaries.
- List A+B response rate = number of beneficiaries from Lists A and B divided by total number of requested beneficiaries.

#### 3.2.2 Beneficiary HCCs With Medical Records

A beneficiary’s HCC was the unit of analysis for the pilot study. Table 5 shows there were a total of 261 HCCs for 171 beneficiaries in the reviewed sample (an average of 1.5 HCCs per beneficiary). Medical records were received for 93.5 percent of the HCCs. Seventeen HCCs did not have a medical record to review and were identified as missing medical records. For the 17 HCCs with missing medical records, the reasons for not submitting the records were:

- ◆ Medical record does not support HCC (7 cases)
- ◆ Physician unable to locate medical record (3 cases)
- ◆ Reason not specified (2 cases)
- ◆ Diagnosis from a non-physician visit (4 cases)
- ◆ Other (1 case).

**Table 5. CMS-HCC Medical Record Response Rates Based on Beneficiary HCCs**

Requested for 171 Beneficiaries	Number of Beneficiary HCCs with Medical Records Received					
	List A		List B		Lists A+B	
	n	%	n	%	n	%
N 261	222	85.1	22	8.4	244	93.5

- List A response rate = number of beneficiary HCCs from List A with medical records divided by total number of HCCs (261) for 171 beneficiaries.
- List B response rate = number of beneficiary HCCs from List B with medical records divided by total number of HCCs (261) for 171 beneficiaries.
- List A+B response rate = number of beneficiary HCCs from List A and B with medical records divided by total number of HCCs (261) for 171 beneficiaries.

### 3.3 HCC Discrepancies

HCCs resulting from abstracted medical record review diagnoses were compared to HCCs assigned based on diagnostic data submitted to CMS. A change in the HCC assignment after medical record review resulted in a HCC discrepancy. If there was no medical record submitted for a HCC, then the HCC was discrepant.

#### 3.3.1 HCC Discrepancy Rates

Table 6 shows the number of discrepancies among the 261 HCCs in the sample. There were 92 discrepant HCCs of the 261 HCCs validated resulting in an average discrepancy rate of 35%. Of the 92 discrepant HCCs, 60% were due to coding discrepancies, 19% were discrepant because of missing medical records, 12% had coding specificity discrepancies, 4% had an additional medical record submitted that did not support the HCC, and 5% had incomplete or invalid medical records for which the reviewer could not determine a diagnosis. Individual plan HCC discrepancy rates ranged from 16% to 50%.

**Table 6. HCC Discrepancy Rates**

Number of HCCs Requested	Discrepant HCCs		Number and Percent of HCC Discrepancies Due To:									
			Coding Discrepancies		Specificity Discrepancies		Additional (Substitute) Medical Record Did Not Support HCC		Incomplete or Invalid Medical Record—Cannot Determine Diagnosis Code		No Medical Record Submitted to Support HCC (Missing)	
	n	%	n	%	n	%	n	%	n	%	n	%
261	92	35.2	55	59.8	11	12.0	4	4.3	5	5.4	17	18.5

- Discrepant HCCs = number of HCCs that did not match original HCCs (75) after review plus missing medical records (17) divided by total number of HCCs (261) for 171 beneficiaries.
- Coding Discrepancies = number of abstracted HCC codes that did not match coversheet codes divided by total number of discrepant HCCs (92) for 171 beneficiaries. Note: A coding discrepancy may not affect the HCC assignment.
- Specificity Discrepancies = number of abstracted HCC codes that did not match coversheet codes at the 4<sup>th</sup> and 5<sup>th</sup> digit level divided by total number of discrepant HCCs (92) for 171 beneficiaries.
- Additional Medical Record Discrepancies = number of additional medical records submitted that did not support the validation HCC divided by the total number of discrepant HCCs (92) for 171 beneficiaries.
- Incomplete or Invalid Medical Record Discrepancies = number of incomplete or invalid medical records submitted that did not support the validation HCC divided by the total number of discrepant HCCs (92) for 171 beneficiaries.
- No Medical Record Submitted (Missing) = number of missing medical records for beneficiary HCCs divided by the total number of discrepant HCCs (92) for 171 beneficiaries.

### 3.3.2 Upcoding and Downcoding

Table 7 shows the number of HCC discrepancies that were upcoded and downcoded. Upcoding occurs when the HCC assigned based on risk adjustment data has a higher risk factor than the HCC assigned after medical record review. Downcoding occurs when the HCC assigned based on risk adjustment data has a lower risk factor than the HCC assigned after medical record review. Among the 92 discrepant HCCs, 89 (96.7%) were upcoded and 3 (3.3%) were downcoded.

**Table 7. HCC Discrepancies By Upcoding and Downcoding**

Number of HCCs Requested	Discrepant HCCs				Number and Percent of HCC Discrepancies That Were					
	Including missing		Missing only		Upcoded (including missing)		Upcoded (excluding missing)		Downcoded	
	n	%	n	%	n	%	n	%	n	%
261	92	35.2	17	6.5	89	96.7	72	78.3	3	3.3

- Discrepant HCCs Including Missing = number of HCCs that did not match original HCCs (75) after review plus missing medical records (17) divided by total number of HCCs (261) for 171 beneficiaries.
- Discrepant HCCs Missing Only = number of missing medical records for beneficiary HCCs divided by the total number of HCCs (261) for 171 beneficiaries.
- Upcoded HCCs = total number of discrepant HCCs plus missing medical records that were upcoded divided by the total number of discrepant HCCs (92) for 171 beneficiaries.
- Upcoded HCCs = total number of discrepant HCCs minus missing medical records that were upcoded divided by the total number of discrepant HCCs (92) for 171 beneficiaries.
- Downcoded HCCs = total number of discrepant HCCs that were downcoded divided by the total number of discrepant HCCs (92) for 171 beneficiaries.

*Attachment B describes the frequency of all upcoded HCC discrepancies.*

*Attachment C shows the frequency of HCC discrepancies due to missing medical records (missing medical records are automatic upcoded HCC discrepancies).*

*Attachment D describes the frequency of all downcoded HCC discrepancies.*

**Upcoded Medical Records.** Of the 89 upcoded discrepancies, 74 (83%) were recoded to a diagnosis that resulted in no HCC assignment (see Attachment B). This means the medical record documentation was insufficient to support the original ICD-9 code that triggered the HCC. Some of the original HCCs assigned based on risk adjustment data included: HCC10 (breast, prostate, colorectal and other cancers), HCC19 (diabetes without complications), HCC80 (congestive heart failure), HCC83 (angina/old myocardial infarction), and HCC92 (specified heart arrhythmias).

Fifteen upcoded discrepancies resulted in another HCC assignment, 8 (53%) were HCCs based on diabetes with complication diagnosis codes that were recoded to uncomplicated diabetes because the documentation did not support the specificity of the original diagnosis.

**Downcoded Medical Records.** There were three downcoded medical records among the 92 HCC discrepancies. One medical record supported HCC105 (vascular disease) instead of HCC38 (rheumatoid arthritis/inflammatory connective tissue disease). Another record supported HCC80 (congestive heart failure) instead of HCC92 (specified heart arrhythmias). The third record supported HCC104 (vascular disease with complications) instead of HCC105 (vascular disease).

### 3.4 General Summary of Medical Record Review Findings

The following issues describe common coding problems found during review of physician medical records:

- ◆ Documentation to substantiate the diagnosis code was not in the medical record. There was no evidence that the beneficiary had the condition at the time of the visit. (*See Attachment E, cases #6, 8, and 9*)
- ◆ For chronic conditions, the physician probably was aware of the beneficiary's condition(s) – especially if the beneficiary had the condition for some time, but the physician did not document the diagnosis in the medical record at the time of the visit. The most common chronic condition not documented was diabetes. (*See Attachment E, cases #35, 36, and 41*)
- ◆ Documentation was not in the medical record to support the specificity of conditions (most common—diabetic complications). For example, a physician coded ICD-9 250.7 (diabetes with peripheral circulatory disorders) but the medical record supported ICD-9 250.00 (Type II diabetes mellitus without mention of complication). Also, the physician ICD-9 code was missing a fifth digit. (*See Attachment E, cases #23, 24, and 26*)
- ◆ Truncated codes were a problem – codes that should be coded to the fourth or fifth digit as per coding guidelines. (*See Attachment E, cases #30, 34, and 56*)
- ◆ Confirmed diagnosis missing because documentation was from a laboratory, radiology or other diagnostic study report. (*See Attachment E, cases #1 and 18*)
- ◆ Diagnoses were submitted that were coding “rule out,” questionable or suspected conditions; these should not be submitted for payment from physician data sources (only applies to hospital inpatient diagnoses). (*See Attachment E, cases #12, 14, and 15*)
- ◆ Diagnoses were submitted for acute conditions when the beneficiary was status post or had a history of the condition; these should not be submitted for payment, for example, coding CVA (stroke) when the beneficiary had a history of CVA. (*See Attachment E, cases #16, 69, and 75*)
- ◆ There were a total of nine “additional medical records” submitted. Some plans submitted new diagnoses that did not map to the HCC being validated and resulted in discrepant HCCs. (*See Attachment E, cases #25, 42, 63*)

## 4 Conclusions

The CMS-HCC pilot study was designed to inform the data validation approach for CY2004 and to learn about physician medical records. In addition, the pilot study sampling approach was biased for problematic coding. The results of the pilot study have aided CMS in identifying

important information and policies regarding the data validation approach for the CMS-HCC model.

CMS learned that MA organizations were able to locate physician medical records and submit them within a reasonable timeframe (10 weeks) that is comparable to previous hospital inpatient medical record requests. We also learned that more communication was required between the plan and the physician providers in order to obtain medical records by the submission deadline. Even though the sample of medical records was small when compared to previous hospital inpatient samples, the average response rate was lower (83.3% for List A only) than the average for hospital inpatient medical records (approx. 95%). A contributing factor to the lower response rate could be that CMS did not conduct extensive follow-up with plans to increase response rates as with previous medical record requests. MA organizations may need to alter or enhance their medical record request process for data validation of HCCs.

The pilot study data validation provided valuable insight about physician medical record documentation. Several types of coding errors were identified. These errors included insufficient documentation to validate specificity of diabetes ICD-9 codes. In several instances more severe manifestations of diabetes were not supported by the documentation. Moreover, diabetes without complications (HCC19) was frequently unsupported because there was no documentation for the date of service. Other coding errors were related to the incorrect assignment of active conditions when only a “history of” code was appropriate based on the documentation. Each of these error types implies the need for more physician education. CMS suggests that plans utilize the CMS physician training CD (“Physicians and Medicare+Choice Risk Adjustment”). Also, plans may wish to advise physician offices regarding the importance of using outpatient “Coding Clinic” guidelines (this is a subscription service). These tools could aid physicians or their office staff in more accurately coding patient medical records. In the future, CMS will investigate ways to increase awareness of ICD-9 coding for Medicare physicians who treat MA beneficiaries.

Another issue that was identified relates to the use of physician office superbills. CMS believes that the lack of complete documentation for ICD-9 coding specificity as well as the absence of documentation of chronic conditions is symptomatic of physicians utilizing the superbill to record chronic conditions. Superbills are not acceptable medical record documentation.

The pilot study also identified medical record documentation issues with diagnostic radiology reports. Some plans that participated in the pilot study submitted a radiologist’s medical record to substantiate HCC assignment. This documentation lacked a confirmed diagnosis. Given this finding, CMS determined that diagnostic radiology medical records are generally insufficient to validate a HCC; therefore, CMS intends to eliminate radiology from the CMS-HCC model in 2006.

Although the average discrepancy rate is higher than the discrepancy rate for the PIP-DCG\* (Principal Inpatient Diagnostic Cost Group) model, there is a fundamental difference between data validation under the PIP-DCG and CMS-HCC models. The PIP-DCG discrepancy rate is based on one PIP assignment per beneficiary in a MA organization's data validation sample. In contrast, under the CMS-HCC model, the discrepancy rate is based on each beneficiary's HCC assignment because beneficiaries may have more than one HCC assigned. This means the discrepancy rate may be higher than the discrepancy rate under the PIP-DCG model for a plan that is selected for data validation in CY2004.

A challenge that was discovered by the pilot study was how MA organizations select the "one best medical record" to support HCC assignment. The discrepancy rate and feedback from pilot plans seem to indicate that some knowledge of diagnostic coding and medical record documentation is needed to be successful. Also, some plans had problems submitting "additional medical records" by filling out a non-HCC ICD-9 code on the coversheet or selecting an incorrect date of service. The two most likely options for MA organizations to consider when selecting medical records for data validation are:

- 1) Involve experienced medical record review staff (e.g. certified coders, medical directors, etc.) during the medical record selection phase to minimize HCC discrepancies.
- OR
- 2) When the request for medical records is made, make the best possible effort to select a medical record and date of service for a validation HCC. If a HCC discrepancy is found and a payment adjustment\*\* is actually made, then use medical record coding experts for an appeal of the discrepant finding. That is, identify an alternative date of service and/or medical record to support an appeal.

The results of the CMS-HCC pilot study informed CMS' understanding of physician medical records and identified important coding documentation issues. Even though the pilot study sample was designed to capture problematic coding, only two of the targeted HCCs (HCC19-diabetes without complications and HCC80-congestive heart failure) showed significant discrepancies. Other targeted HCCs (HCC83, HCC105 and HCC108) showed moderate discrepancies (less than 10%). Moreover, another HCC that was not targeted (HCC92-specified heart arrhythmias) also showed coding discrepancies that affected HCC assignment after medical record review.

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\* PIP-DCG was the first risk adjustment payment model that was validated. Only hospital inpatient medical records were validated under the PIP-DCG model.

\*\* All HCC discrepancies could be subject to payment adjustment beginning with CY2004 data validation. The CMS Administrator decides if payment will be adjusted.

In summary, the pilot study afforded CMS an opportunity to identify and understand issues with physician medical records. This study was critical because physician data is the largest source of risk adjustment data for the majority of MA beneficiaries. MA organizations should consider how their organization will prepare to respond to medical record requests in the future and take steps to improve the selection of the “one best medical record”.

### ICD-9-CM CODING RESOURCES

- ◆ Coding Clinic subscription, go to: [www.ahaonlinestore.org/](http://www.ahaonlinestore.org/)
- ◆ ICD-9-CM Official Guidelines for Coding and Reporting, October 1, 2003 (Section IV is specific to ambulatory coding), <http://www.cdc.gov/nchs/data/icd9/icdguide.pdf>
- ◆ ICD-9 Coding Clinic Guidelines
- ◆ CMS 2003 Physicians and Medicare+Choice Risk Adjustment CD (email Aspen Systems at [encounterdata@aspensys.com](mailto:encounterdata@aspensys.com))
- ◆ American Health Information Management Association, <http://www.ahima.org/>
- ◆ American Medical Association, <http://www.ama-assn.org/>
- ◆ *Bates Guide to the Physical Examination and History Taking*, 7<sup>th</sup> Edition, Chapter 21 (The Patient’s Record)
- ◆ *Fundamentals of Clinical Practice*, Mengel, Holleman, and Fields (Eds.), Kluwer Academic/Plenum Publishers, Chapter 12 (Record Keeping and Presentation)