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OFFICE OF AUDIT SERVICES FINDINGS AND OPINIONS

The designation of financial or management practices as questionable, a recommendation for the disallowance of costs incurred or claimed, and any other conclusions and recommendations in this report represent the findings and opinions of OAS. Authorized officials of the HHS operating divisions will make final determination on these matters.
Why OIG Did This Audit
Under the Medicare Advantage (MA) program, the Centers for Medicare & Medicaid Services (CMS) makes monthly payments to MA organizations according to a system of risk adjustment that depends on the health status of each enrollee. Accordingly, MA organizations are paid more for providing benefits to enrollees with diagnoses associated with more intensive use of health care resources than to healthier enrollees, who would be expected to require fewer health care resources.

To determine the health status of enrollees, CMS relies on MA organizations to collect diagnosis codes from their providers and submit these codes to CMS. Some diagnoses are at higher risk for being miscoded, which may result in overpayments from CMS.

For this audit, we reviewed one MA organization, Blue Cross Blue Shield of Michigan (BCBSM), and focused on seven groups of high-risk diagnosis codes. Our objective was to determine whether selected diagnosis codes that BCBSM submitted to CMS for use in CMS’s risk adjustment program complied with Federal requirements.

How OIG Did This Audit
We sampled 248 unique enrollee-years with the high-risk diagnosis codes for which BCBSM received higher payments for 2015 through 2016. We limited our review to the portions of the payments that were associated with these high-risk diagnosis codes, which totaled $963,544.

Medicare Advantage Compliance Audit of Specific Diagnosis Codes That Blue Cross Blue Shield of Michigan (Contract H9572) Submitted to CMS

What OIG Found
Most of the selected diagnosis codes that BCBSM submitted to CMS for use in CMS’s risk adjustment program did not comply with Federal requirements. For 188 of the 248 enrollee-years, the diagnosis codes that BCBSM submitted to CMS were not supported in the medical records and resulted in net overpayments of $668,264.

These errors occurred because the policies and procedures that BCBSM had to detect and correct noncompliance with CMS’s program requirements, as mandated by Federal regulations, were not always effective. On the basis of our sample results, we estimated that BCBSM received at least $14.5 million of net overpayments for these high-risk diagnosis codes in 2015 and 2016.

What OIG Recommends and BCBSM Comments
We recommend that BCBSM (1) refund to the Federal Government the $14.5 million of net overpayments; (2) identify, for the high-risk diagnoses included in this report, similar instances of noncompliance that occurred before or after our audit period and refund any resulting overpayments to the Federal Government; and (3) examine its existing compliance procedures to identify areas where improvements can be made to ensure diagnosis codes that are at high risk for being miscoded comply with Federal requirements and take the necessary steps to enhance those procedures.

In written comments on our draft report, BCBSM concurred with our recommendations and described actions it has taken and plans to take to address them. Specifically, BCBSM indicated that it will refund $14.5 million to the Federal Government but noted that it submitted “delete files” to CMS totaling $406,237 for our audit period and that it will work with CMS on the remaining amount to effectuate timely repayment. BCBSM also stated that it will review high-risk diagnoses for years prior to and after our audit period and consider any resulting overpayments. Lastly, BCBSM described the improvements it has made and plans to make to ensure high-risk diagnosis codes comply with Federal requirements. We commend BCBSM for the actions it has taken and plans to take to address our recommendations.

The full report can be found at https://oig.hhs.gov/oas/reports/region2/21801028.asp.
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INTRODUCTION

WHY WE DID THIS AUDIT

Under the Medicare Advantage (MA) program, the Centers for Medicare & Medicaid Services (CMS) makes monthly payments to MA organizations based in part on the characteristics of the enrollees being covered. Using a system of risk adjustment, CMS pays MA organizations the anticipated cost of providing Medicare benefits to a given enrollee, depending on such risk factors as the age, sex, and health status of that individual. Accordingly, MA organizations are paid more for providing benefits to enrollees with diagnoses associated with more intensive use of health care resources relative to healthier enrollees, who would be expected to require fewer health care resources. To determine the health status of enrollees, CMS relies on MA organizations to collect diagnosis codes\(^1\) from their providers and submit these codes to CMS. We are auditing MA organizations because some diagnoses are at higher risk for being miscoded, which may result in overpayments from CMS.

This audit is part of a series of audits in which we are reviewing the accuracy of diagnosis codes that MA organizations submitted to CMS.\(^2\) Using data mining techniques and considering discussions with medical professionals, we identified diagnoses that were at higher risk for being miscoded and consolidated those diagnoses into specific groups. (For example, we consolidated 28 major depressive disorder diagnoses into 1 group.) This audit covered Blue Cross Blue Shield of Michigan\(^3\) (BCBSM) for contract number H9572\(^4\) and focused on seven groups of high-risk diagnosis codes.

OBJECTIVE

Our objective was to determine whether selected diagnosis codes that BCBSM submitted to CMS for use in CMS’s risk adjustment program complied with Federal requirements.

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\(^1\) Providers code diagnoses using the International Classification of Diseases (ICD), Clinical Modification (CM), Official Guidelines for Coding and Reporting (ICD Coding Guidelines). The ICD is a coding system that is used by physicians and other health care providers to classify and code all diagnoses, symptoms, and procedures. Effective October 1, 2015, CMS transitioned from the ninth revision of the ICD coding guidelines (ICD-9-CM) to the tenth revision (ICD-10-CM). Each revision includes different diagnosis code sets.

\(^2\) One report in this series of audits has been issued, Some Diagnosis Codes That Essence Healthcare, Inc., Submitted to CMS Did Not Comply With Federal Requirements (A-07-17-01170) April 30, 2019.

\(^3\) The MA organization is incorporated as Blue Cross Blue Shield of Michigan Mutual Insurance Company but does business as Blue Cross Blue Shield of Michigan.

\(^4\) All subsequent references to “BCBSM” in this report refer solely to contract number H9572.
BACKGROUND

Medicare Advantage Program

The MA program\(^5\) offers beneficiaries managed care options by allowing them to enroll in private health care plans rather than having their care covered through Medicare’s traditional fee-for-service program. Beneficiaries who enroll in these plans are known as enrollees. To provide benefits to enrollees, CMS contracts with MA organizations, which in turn contract with providers (including hospitals) and physicians.

Under the MA program, CMS makes advance payments each month to MA organizations for the expected costs of providing health care coverage to enrollees. These payments are not adjusted to reflect the actual costs that the organizations incurred for providing benefits and services. Thus, MA organizations will either realize profits if their actual costs of providing coverage are less than the CMS payments or incur losses if their costs exceed the CMS payments.

For 2017, CMS paid MA organizations $209 billion, which represented 35 percent of all Medicare payments for that year.

Risk Adjustment Program

Federal requirements mandate that payments to MA organizations be based on the anticipated cost of providing Medicare benefits to a given enrollee and, in doing so, also account for variations in the demographic characteristics and health status of each enrollee.\(^6\)

CMS uses two principal components to calculate the risk-adjusted payment that it will make to an MA organization for an enrollee: a base rate that CMS sets using bid amounts received from the MA organization and the risk score for that enrollee. These are described as follows:

- **Base rate**: Before the start of each year, each MA organization submits bids to CMS that reflect the MA organization’s estimate of the monthly revenue required to cover an enrollee with an average risk profile.\(^7\) CMS compares each bid to a specific benchmark amount for each geographic area to determine the base rate that an MA organization is paid for each of its enrollees.\(^8\)

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\(^6\) The Social Security Act (the Act) §§ 1853(a)(1)(C) and (a)(3); 42 CFR § 422.308(c).

\(^7\) The Act § 1854(a)(6); 42 CFR § 422.254 et seq.

\(^8\) CMS’s bid-benchmark comparison also determines whether the MA organization must offer supplemental benefits or must charge a basic beneficiary premium for the benefits.
- **Risk score:** A risk score is a relative measure that reflects the additional or reduced costs that each enrollee is expected to incur compared with the costs incurred by an average enrollee. CMS calculates risk scores based on an enrollee’s health status (discussed below) and demographic characteristics (such as the enrollee’s age and sex). This process results in an individualized risk score for each enrollee, which CMS calculates annually.

To determine an enrollee’s health status for purposes of calculating the risk score, CMS uses diagnoses that the enrollee receives from face-to-face encounters with a physician (in an office or in an inpatient or outpatient setting). MA organizations collect the diagnosis codes that physicians document on the medical records and submit these codes to CMS. CMS then maps certain diagnosis codes, on the basis of similar clinical characteristics and severity and cost implications, into Hierarchical Condition Categories (HCCs). Each HCC has a factor (which is a numerical value) assigned to it for use in each enrollee’s risk score.

As a part of the risk adjustment program, CMS consolidates certain HCCs into related-disease groups. Within each of these groups, CMS assigns an HCC for only the most severe manifestation of a disease in a related-disease group. Thus, if MA organizations submit diagnosis codes for an enrollee that map to more than one of the HCCs in a related-disease group, only the most severe HCC will be used in determining the enrollee’s risk score.

For enrollees who have certain combinations of HCCs (in either the Version 12 model or the Version 22 model), CMS assigns a separate factor that further increases the risk score. CMS refers to these combinations as disease interactions. For example, if MA organizations submit diagnosis codes (in the Version 12 model) for an enrollee that map to the HCCs for acute stroke, acute myocardial infarction, and chronic obstructive pulmonary disease (COPD), CMS assigns a separate factor for this disease interaction. By doing so, CMS increases the enrollee’s risk score for each of the three HCC factors and by an additional factor for the disease interaction.

The risk adjustment program is prospective. Specifically, CMS uses the diagnosis codes that the enrollee received during 1 calendar year (known as the service year) to determine HCCs and calculate risk scores for the following calendar year (known as the payment year). Thus, an enrollee’s risk score does not change for the year in which a diagnosis is made. Instead, the risk score changes for the entirety of the year after the diagnosis has been made. Further, the risk score calculation is an additive process—as HCC factors (and, when applicable, disease interaction factors) accumulate, an enrollee’s risk score increases, and the monthly risk-adjusted payment to the MA organization also increases. In this way, the risk adjustment

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9 CMS transitioned from one HCC payment model to another during our audit period. As part of this transition, for 2015, CMS calculated risk scores based on both payment models. CMS refers to these models as the Version 12 model and the Version 22 model, each of which has unique HCCs. CMS blended the two separate risk scores into a single risk score that it used to calculate a risk-adjusted payment. Accordingly, for these years, an enrollee’s blended risk score is based on the HCCs from both payment models. For 2016, CMS calculated risk scores on the Version 22 model.
program compensates MA organizations for the additional risk for providing coverage to enrollees expected to require more health care resources.

CMS multiplies the risk scores by the base rates to calculate the total monthly payment that an MA organization receives for each enrollee. Miscoded diagnoses submitted to CMS may result in HCCs that are not validated and incorrect enrollee risk scores, which may lead to improper payments (overpayments) from CMS to MA organizations. Conversely, correctly coded diagnoses that MA organizations do not submit to CMS may lead to improper payments (underpayments).

**High-Risk Groups of Diagnoses**

Using data mining techniques and discussions with medical professionals, we identified diagnoses that were at higher risk for being miscoded and consolidated those diagnoses into specific groups. For this audit, we focused on seven high-risk groups:

- **Acute stroke**: An enrollee received one acute stroke diagnosis (which maps to the HCC for Ischemic or Unspecified Stroke) on one physician claim during the service year but did not have that diagnosis on a corresponding inpatient hospital claim. A diagnosis of history of stroke (an indication that the provider is evaluating or treating residual conditions left behind by a prior stroke, which does not map to an HCC) typically should have been used.

- **Acute heart attack**: An enrollee received one diagnosis that mapped to either the HCC for Acute Myocardial Infarction or to the HCC for Unstable Angina and Other Acute Ischemic Heart Disease (Acute Heart Attack HCCs) on only one physician claim but did not have that diagnosis on a corresponding inpatient hospital claim (either within 60 days before or 60 days after the physician’s claim). A diagnosis for a less severe manifestation of a disease in the related-disease group typically should have been used.

- **Acute stroke and acute heart attack combination**: An enrollee met the conditions of both the acute stroke and acute heart attack high-risk groups in the same year.\(^{10}\)

- **Embolism**: An enrollee received one diagnosis that mapped to either the HCC for Vascular Disease or to the HCC for Vascular Disease With Complications (Embolism HCCs) but did not have an anticoagulant medication dispensed on his or her behalf. An anti-coagulant medication is typically used to treat an embolism. A diagnosis of history

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\(^{10}\) We combined these enrollees into one group because an individual’s risk scores could have been further increased if that enrollee also had a COPD diagnosis (which was not part of our audit). If our audit identified an error that invalidated either the acute stroke or acute heart attack HCC, then the disease interaction factor would also be identified as an error. By combining these enrollees in one group, we eliminated the possibility of including the disease interaction factor twice in overpayment calculations (if any).
of embolism (an indication that the provider is evaluating a prior acute embolism diagnosis, which does not map to an HCC) typically should have been used.

- **Vascular claudication**: An enrollee received one diagnosis related to vascular claudication (which maps to the HCC for Vascular Disease) but had medication dispensed on his or her behalf that is frequently dispensed for a diagnosis of neurogenic claudication. In these instances, the vascular claudication diagnoses may not be supported in the medical records.

- **Major depressive disorder**: An enrollee received a major depressive disorder diagnosis (which maps to the HCC entitled Major Depressive, Bipolar, and Paranoid Disorders) on one claim during the service year but did not have an antidepressant medication dispensed on his or her behalf. In these instances, the major depressive disorder diagnoses may not be supported in the medical records.

- **Potentially miskeyed diagnosis codes**: An enrollee received multiple diagnoses for a condition but received only one—potentially miskeyed—diagnosis for an unrelated condition (which mapped to a possibly unvalidated HCC). For example, ICD-9 diagnosis code 250.00 (which maps to the HCC for Diabetes Without Complication) could be transposed as diagnosis code 205.00 (which maps to the HCC for Metastatic Cancer and Acute Leukemia and in this example would be unvalidated). Using an analytical tool that we developed, we identified 811 scenarios in which diagnosis codes miskeyed because of data transposition or other data entry errors could have resulted in the assignment of an unvalidated HCC.

In this report, we refer to the diagnosis codes associated with these groups as “high-risk diagnosis codes.”

**BCBS Michigan**

BCBSM is an MA organization based in Detroit, Michigan. As of December 31, 2016, BCBSM provided coverage under contract number H9572 to approximately 353,748 enrollees. For the 2015 through 2016 payment years (audit period), CMS paid BCBSM approximately $6.4 billion to provide coverage to all of its enrollees.

**HOW WE CONDUCTED THIS AUDIT**

Our audit included enrollees on whose behalf providers documented diagnosis codes that mapped to one of the seven high-risk groups during the 2014 through 2015 service years, for

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11 Vascular claudication and neurogenic claudication are different diagnoses. Vascular claudication is a condition that can result in leg pain while walking and is caused by insufficient blood flow. Neurogenic claudication is a condition that can also result in leg pain but is caused by damage to the neurological system, namely the spinal cord and nerves.
which BCBSM received increased risk-adjusted payments for payment years 2015 through 2016, respectively. Because enrollees could have high-risk diagnosis codes documented in more than 1 year, we classified these individuals according to the condition and the payment year, which we refer to as “enrollee-years.” We identified 8,841 unique enrollee-years and limited our review to the portions of the payments that were associated with these high-risk diagnosis codes ($25,742,613). We selected for audit a sample of 248 enrollee-years, which comprised (1) a stratified random sample of 200 (out of 8,721) enrollee-years for the first 6 high-risk groups and (2) a non-statistical sample of 48 (out of 120) enrollee-years for the remaining high-risk group.

Table 1 breaks out the 248 sampled enrollee-years associated with each of the 7 high-risk groups.

<table>
<thead>
<tr>
<th>High-Risk Group</th>
<th>Number of Sampled Enrollee-Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acute Stroke</td>
<td>56</td>
</tr>
<tr>
<td>2. Acute Heart Attack</td>
<td>30</td>
</tr>
<tr>
<td>3. Acute Stroke/Acute Heart Attack Combination</td>
<td>24</td>
</tr>
<tr>
<td>4. Embolism</td>
<td>30</td>
</tr>
<tr>
<td>5. Vascular Claudication</td>
<td>30</td>
</tr>
<tr>
<td>6. Major Depressive Disorder</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total for Stratified Random Sample</strong></td>
<td><strong>200</strong></td>
</tr>
<tr>
<td>7. Potentially Miskeyed Diagnosis Codes</td>
<td>48</td>
</tr>
<tr>
<td><strong>Total for All High-Risk Groups</strong></td>
<td><strong>248</strong></td>
</tr>
</tbody>
</table>

BCBSM provided medical records as support for the selected diagnosis codes associated with the 248 enrollee-years. We used an independent medical review contractor to review the medical records to determine whether the selected diagnosis codes that BCBSM submitted to CMS were supported. If the contractor identified a diagnosis code that should have been submitted to CMS instead of the selected diagnosis code, we included the financial impact of the resulting HCC (if any) in our calculation of overpayments.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix A contains the details of our audit scope and methodology, Appendix B contains our statistical sampling methodology, and Appendix C contains our sample results and estimates.
FINDINGS

Most of the selected diagnosis codes that BCBSM submitted to CMS for use in CMS’s risk adjustment program did not comply with Federal requirements. For 60 of the 248 sampled enrollee-years, the medical records supported the diagnosis codes that BCBSM submitted to CMS. However, for the remaining 188 enrollee-years, the diagnosis codes were not supported in the medical records.

These errors occurred because the policies and procedures that BCBSM had to detect and correct noncompliance with CMS’s program requirements, as mandated by Federal regulations, were not always effective. As a result, the HCCs for these high-risk diagnosis codes were not validated. On the basis of our sample results, we estimated that BCBSM received at least $14.5 million of net overpayments for 2015 and 2016.12

FEDERAL REQUIREMENTS

Payments to MA organizations are adjusted for risk factors, including the health status of each enrollee (the Act § 1853(a)). CMS applies a risk factor based on data obtained from the MA organizations (42 CFR § 422.308).

Federal regulations state that MA organizations must follow CMS’s instructions and submit to CMS the data necessary to characterize the context and purposes of each service provided to a Medicare enrollee by a provider, supplier, physician, or other practitioner (42 CFR § 422.310(b)). MA organizations must obtain risk adjustment data required by CMS from the provider, supplier, physician, or other practitioner that furnished the item or service (42 CFR § 422.310(d)(3)).

Federal regulations also state that MA organizations are responsible for the accuracy, completeness, and truthfulness of the data submitted to CMS for payment purposes and that such data must conform to all relevant national standards (42 CFR § 422.504(l) and 42 CFR § 422.310(d)(1)). In addition, MA organizations must contract with CMS and agree to follow CMS’s instructions, including the Medicare Managed Care Manual (the Manual) (See 42 CFR § 422.504(a)).

CMS has provided instructions to MA organizations regarding the submission of data for risk scoring purposes (the Manual, chap.7 (last rev. Sept. 19, 2014)). Specifically, CMS requires all submitted diagnosis codes to be documented in the medical record and to be documented as a result of a face-to-face encounter (the Manual, chap. 7, § 40). The diagnosis must be coded according to the International Classification of Diseases (ICD), Clinical Modification, Official

12 Specifically, we estimated that BCBSM received at least $14,534,375 of net overpayments. To be conservative, we recommend recovery of overpayments at the lower limit of a two-sided 90-percent confidence interval. Lower limits calculated in this manner are designed to be less than the actual overpayment total 95 percent of the time. The net overpayment for the non-statistical sample ($221,951) was added to the estimate for the statistical sample ($14,312,424) to obtain the total reported net overpayment amount.
**Guidelines for Coding and Reporting** (ICD Coding Guidelines). Further, the MA organizations must implement procedures to ensure that diagnoses come only from acceptable data sources, which include hospital inpatient facilities, hospital outpatient facilities, and physicians (the Manual, chap. 7, § 40).

Federal regulations state that MA organizations must monitor the data that they receive from providers and submit to CMS. Federal regulations also state that MA organizations must “adopt and implement an effective compliance program, which must include measures that prevent, detect, and correct non-compliance with CMS’ program requirements . . . .” Further, MA organizations must establish and implement an effective system for routine monitoring and identification of compliance risks (42 CFR § 422.503(b)(4)(vi), Appendix D).

**MOST OF THE SELECTED HIGH-RISK DIAGNOSIS CODES THAT BCBS MICHIGAN SUBMITTED TO CMS DID NOT COMPLY WITH FEDERAL REQUIREMENTS**

Most of the selected high-risk diagnosis codes that BCBSM submitted to CMS for use in CMS’s risk adjustment program did not comply with Federal requirements. As shown in the figure below, the medical records for 188 of the 248 sampled enrollee-years did not support the diagnosis codes. In these instances, BCBSM should not have submitted the diagnosis codes to CMS and received the resulting net overpayments.

**Figure: Analysis of High-Risk Groups**
Incorrectly Submitted Diagnosis Codes for Acute Stroke

BCBSM incorrectly submitted diagnosis codes for acute stroke for all 56 sampled enrollee-years. Specifically:

- For 55 enrollee-years, the medical records did not support an acute stroke diagnosis:
  - For 33 enrollee-years, the medical records for each sampled enrollee-year indicated that the individual had previously had a stroke, but the records did not justify an acute stroke diagnosis at the time of the physician’s service.

    For example, for 1 enrollee-year, the medical record (for a service that occurred in 2015) indicated that the individual had an acute stroke in 2011. The independent medical review contractor noted that “there is no evidence of an acute stroke or any related condition that would result in an assignment of the submitted HCC [Ischemic or Unspecified Stroke]. . . . There is mention of a history of a stroke [diagnosis code] but no description of residuals or sequelae that should be coded.”

    o For 17 enrollee-years, the medical records did not contain sufficient information to support an acute stroke diagnosis.

    For example, for 1 enrollee-year, the independent medical review contractor stated that “there is no evidence of an acute stroke or any related condition that would result in an assignment of the submitted HCC [Ischemic or Unspecified Stroke]. . . . There is mention of suspicion of a stroke but it is not verified by the information in the medical record.”

    o For 4 enrollee-years, BCBSM submitted an acute stroke diagnosis code (which was not supported in the medical records) instead of a diagnosis code for hemiparesis\(^{13}\) (which was supported in the medical records). These errors caused underpayments for all 4 enrollee-years.

    For example, for 1 enrollee-year, the independent medical review contractor did not find support for an acute stroke but noted that “the patient has hemiparesis from an old stroke that should be coded with [late effects of cerebrovascular disease, hemiplegia affecting unspecified side] and would result in the assignment of HCC [Hemiplegia/Hemiparesis].”

    o For 1 enrollee-year, BCBSM submitted an acute stroke diagnosis code (which was not supported in the medical record) instead of a diagnosis code for

\(^{13}\) Muscular weakness or partial paralysis restricted to one side of the body.
monoplegia\textsuperscript{14} (which was supported in the medical record). The independent medical review contractor noted that “the patient has [monoplegia] of the lower limb from an old stroke that should be coded with [late effects of cerebrovascular disease, monoplegia of lower limb affecting unspecified side] and would result in the assignment of HCC [Cerebral Palsy and Other Paralytic Syndromes (Version 12)/ Monoplegia, Other Paralytic Syndromes (Version 22)].” Accordingly, BCBSM should not have received an increased payment for the Ischemic or Unspecified Stroke HCC but should have received a lesser increased payment for the Cerebral Palsy and Other Paralytic Syndromes (Version 12)/Monoplegia, Other Paralytic Syndromes (Version 22) HCC.

- For the 1 remaining enrollee-year, BCBSM did not provide any medical records to support the acute stroke diagnosis; therefore, the HCC for Ischemic or Unspecified Stroke was not validated.

As a result of these errors, the HCCs for Ischemic or Unspecified Stroke were not validated, and BCBSM received $144,786 of net overpayments for these 56 sampled enrollee-years.

**Incorrectly Submitted Diagnosis Codes for Acute Heart Attack**

BCBSM incorrectly submitted diagnosis codes for acute heart attack for 28 of 30 sampled enrollee-years. Specifically:

- For 24 enrollee-years, the medical records did not support an acute myocardial infarction diagnosis. However, we identified support for a diagnosis of a less severe manifestation of the related-disease group:
  - For 16 enrollee-years, which occurred in 2015, we identified support for an old myocardial infarction diagnosis which mapped to an HCC for a less severe manifestation of the related-disease group. Accordingly, BCBSM should not have received an increased payment for the acute myocardial infarction diagnosis but should have received a lesser increased payment for the old myocardial infarction diagnosis.

  For example, for 1 enrollee-year, the independent medical review contractor noted that “there is no documentation of any condition that will result in assignment of [a diagnosis] code that translates to the assignment of [an Acute Heart Attack] HCC. The medical record does contain evidence of an old [myocardial infarction] . . . .”

\textsuperscript{14} Paralysis of one limb.

*Medicare Advantage Compliance Audit of Specific Diagnosis Codes That Blue Cross Blue Shield of Michigan (H9572) Submitted to CMS (A-02-18-01028)*
For 6 enrollee-years, which occurred in 2016, we identified support for an old myocardial infarction diagnosis which did not map to an HCC. Accordingly, BCBSM should not have received an increased payment for acute myocardial infarction.

For 1 enrollee-year, we identified support for an acute ischemic heart disease diagnosis code, which mapped to an HCC for a less severe manifestation of the related-disease group. Accordingly, BCBSM should not have received an increased payment for the acute myocardial infarction diagnosis but should have received a lesser increased payment for the acute ischemic heart disease diagnosis.

For 1 enrollee-year, we identified support for other and unspecified angina pectoris diagnosis code, which mapped to an HCC for a less severe manifestation of the related-disease group. Accordingly, BCBSM should not have received an increased payment for the acute myocardial infarction diagnosis but should have received a lesser increased payment for the other and unspecified angina pectoris diagnosis.

- For 3 enrollee-years, the medical records did not support either an acute myocardial infarction diagnosis or an old myocardial infarction diagnosis. For example, for 1 enrollee-year, the independent medical review contractor noted that “the record states that [a myocardial infarction] was suspected, however, there is no confirmation from the physician that supports this diagnosis.”

- For the 1 remaining enrollee-year, BCBSM did not provide any medical records to support the acute myocardial infarction diagnosis; therefore, the HCC for Acute Heart Attack was not validated.

As a result of these errors, the Acute Heart Attack HCCs were not validated, and BCBSM received $50,532 of net overpayments for these 28 sampled enrollee-years.

Incorrectly Submitted Diagnosis Codes for Acute Stroke and Acute Heart Attack Combination

For 24 sampled enrollee-years, BCBSM submitted diagnosis codes for which the physicians had documented conditions for both the acute stroke and acute heart attack high-risk groups in the same year (footnote 10). We found errors for all 24 enrollee-years. This included 23 enrollee-years for which the medical records did not support either the acute stroke diagnosis, the acute

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15 In contrast to the enrollee-years that occurred in 2015 (for which CMS used the Version 12 model), for 2016, CMS used only the Version 22 model, which did not include an HCC for Old Myocardial Infarction, to calculate risk scores (footnote 9).
myocardial infarction diagnosis, or both, and 1 enrollee-year for which BCBSM did not provide any medical records to support either diagnosis.

See Table 2 for a breakdown of the independent medical reviewer’s determinations for the 23 enrollee-years for which the medical records did not support the submitted diagnosis codes.

### Table 2: Acute Stroke and Acute Heart Attack Combination Findings

<table>
<thead>
<tr>
<th>Count of Enrollee-Years</th>
<th>Acute Stroke Diagnosis</th>
<th>Acute Heart Attack Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medical Record Supported Diagnosis</td>
<td>Support for Different Diagnosis Found</td>
</tr>
<tr>
<td>11</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>7</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>1$^{†}$</td>
<td>No</td>
<td>Yes - Hemiparesis/Hemiplegia</td>
</tr>
<tr>
<td>1</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>1</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

$^{†}$ For this 1 enrollee-year, the independent medical review contractor noted that “there is no evidence of an acute stroke, however the patient has hemiparesis from an old stroke that should be coded with [late effects of cerebrovascular disease, hemiplegia affecting unspecified side] and would result in the assignment of [the Hemiplegia/Hemiparesis HCC]”. In addition, the contractor noted that “there is no documentation of any condition that will result in the assignment of [an Acute Heart Attack] HCC. The medical record does contain evidence of an old [Myocardial Infarction]. . . .” Accordingly, BCBSM should not have received an increased payment for the Ischemic or Unspecified Stroke HCC and Acute Heart Attack HCC, but it should have received a payment for the Hemiplegia/Hemiparesis HCC and the Old Myocardial Infarction HCC. These errors caused a net underpayment.

$^{16}$ For 6 enrollee-years, which occurred in 2015, the old myocardial infarction diagnosis mapped to an HCC for a less severe manifestation of the related-disease group. For the remaining 5 enrollee-years, which occurred in 2016, the old myocardial infarction diagnosis did not map to an HCC (footnote 9).

$^{17}$ BCBSM submitted a diagnosis code that mapped to the Unstable Angina and Other Acute Ischemic Heart Disease HCC (one of the Acute Heart Attack HCCs), which was not supported by the medical record. However, we found support for a diagnosis code that mapped to the Acute Myocardial Infarction HCC (also one of the Acute Heart Attack HCCs). Thus, our calculation of the overpayment included the Acute Myocardial Infarction HCC that should have been assigned, which has a higher risk score factor and results in a higher risk-adjusted payment than the Unstable Angina and Other Acute Ischemic Heart Disease HCC that was assigned.
As a result of these errors, either the HCCs for Ischemic or Unspecified Stroke or Acute Heart Attack were not validated, and BCBSM received $116,865 of net overpayments for these 24 sampled enrollee-years.

Incorrectly Submitted Diagnosis Codes for Embolism

BCBSM incorrectly submitted diagnosis codes for embolism for 19 of 30 sampled enrollee-years. Specifically:

- For 17 enrollee-years, the medical records did not support an embolism diagnosis. For example, for 1 enrollee-year, the independent medical review contractor noted “there is no documentation of any condition that will result in assignment of [a diagnosis] code that translates to the assignment of HCC [Vascular Disease]. [The] provider documents, ‘No sign of DVT [deep vein thrombosis].’”

- For the remaining 2 enrollee-years, BCBSM did not provide any medical records to support the embolism diagnoses; therefore, the Embolism HCCs were not validated.

As a result of these errors, the Embolism HCCs were not validated, and BCBSM received $64,982 of overpayments for these 19 sampled enrollee-years.

Incorrectly Submitted Diagnosis Codes for Vascular Claudication

BCBSM incorrectly submitted diagnosis codes for vascular claudication for 7 of 30 sampled enrollee-years. Specifically, the medical records did not support a vascular claudication diagnosis.

For example, for 1 enrollee-year, the independent medical review contractor noted “there is no documentation of any condition that will result in assignment of [a diagnosis] code that translates to the assignment of HCC [Vascular Disease]. Medical record mentions claudication, however, it is not confirmed as associated with PVD [peripheral vascular disease].”

As a result of these errors, the HCCs for Vascular Disease were not validated, and BCBSM received $19,857 of overpayments for these 7 sampled enrollee-years.

Incorrectly Submitted Diagnosis Codes for Major Depressive Disorder

BCBSM incorrectly submitted diagnosis codes for major depressive disorder for 16 of 30 sampled enrollee-years. Specifically:
• For 13 enrollee-years, the medical records did not support a major depressive disorder diagnosis.¹⁸

For example, for 1 enrollee-year, the independent medical review contractor noted that “there is no documentation of any condition that will result in assignment of [a diagnosis] code that translates to the assignment of HCC [Major Depressive, Bipolar, and Paranoid Disorders]; however, there is documentation of mild depression [diagnosis] which does not result in an HCC.”

• For the remaining 3 enrollee-years, BCBSM did not provide any medical records to support the major depressive disorder diagnoses; therefore, the HCCs for Major Depressive, Bipolar, and Paranoid Disorders were not validated.

As a result of these errors, the HCCs for Major Depressive, Bipolar, and Paranoid Disorders were not validated, and BCBSM received $49,291 of overpayments for these 16 sampled enrollee-years.

**Potentially Miskeyed Diagnosis Codes**

BCBSM submitted potentially miskeyed diagnosis codes for 38 of 48 enrollee-years. In each of these cases, the enrollee-years were associated with multiple diagnoses for a condition but only one diagnosis was potentially miskeyed for an unrelated condition. Appendix E contains details about the potentially miskeyed diagnosis codes that we identified for the 38 enrollee-years. Specifically:

• For 31 enrollee-years, the medical records did not support the diagnosis for the unrelated condition. Because of these errors, BCBSM submitted unsupported diagnosis codes that mapped to unvalidated HCCs to CMS.

For example, for 1 enrollee-year, BCBSM submitted 82 diagnosis codes for acute myeloid leukemia (205.00) and only one diagnosis code for diabetes mellitus (250.00) to CMS. The independent medical review contractor limited its review to the diabetes mellitus diagnosis, for which it did not find support.

• For 4 enrollee-years, the medical records did not support the diagnosis code submitted to CMS; however, we found support for a different diagnosis code that mapped to an HCC for a less severe manifestation of the related-disease group. Appendix E contains details about the HCCs that were not validated and the HCCs for the less severe manifestation of the related disease group that were supported for the 4 enrollee-years.

¹⁸ In seven of these cases, the independent medical review contractor identified support for a diagnosis code for a lesser form of depression, which does not map to an HCC.
For example, for 1 enrollee-year, BCBSM submitted seven diagnosis codes for diabetes mellitus (250.00) and only 1 diagnosis code for acute myeloid leukemia (205.00) to CMS. The independent medical review contractor noted that “there is no documentation of any condition that will result in assignment of [a diagnosis] code that translates to the assignment of HCC [Metastatic Cancer and Acute Leukemia]. The medical record confirms the diagnosis chronic myelomonocytic leukemia in remission which is coded as [diagnosis] and assigned to [the Lung, Upper Digestive Tract, and Other Severe Cancers (Version 12)/Lung and Other Severe Cancers (Version 22) HCC].” Accordingly, BCBSM should not have received an increased payment for the Metastatic Cancer and Acute Leukemia HCC but should have received a lesser increased payment for the Lung, Upper Digestive Tract, and Other Severe Cancers (Version 12)/Lung and Other Severe Cancers (Version 22) HCC.

- For the remaining 3 enrollee-years, BCBSM did not provide any medical records to support the potentially miskeyed diagnosis code; therefore, the HCCs associated with the potentially miskeyed diagnosis codes were not validated.  

As a result of these errors, the HCCs associated with the potentially miskeyed diagnosis codes were not validated, and BCBSM received $221,951 of net overpayments for these 38 sampled enrollee-years.

THE POLICIES AND PROCEDURES THAT BCBS MICHIGAN USED TO DETECT AND CORRECT NONCOMPLIANCE WITH FEDERAL REQUIREMENTS WERE NOT ALWAYS EFFECTIVE

The errors we identified occurred because the policies and procedures that BCBSM had to detect and correct noncompliance with CMS’s program requirements, as mandated by Federal regulations (42 CFR § 422.503(b)(4)(vi) (Appendix D)), were not always effective.

BCBSM had compliance procedures to determine whether the diagnosis codes that it submitted to CMS to calculate risk-adjusted payments were correct. These procedures included routine internal medical reviews to compare diagnosis codes from a sample of claims to the diagnoses that were documented on the associated medical records. These internal medical reviews included targeted areas associated with HCCs that BCBSM identified as problematic during a specific service year, including major depressive disorder, acute stroke, acute heart attack, embolism, and vascular claudication. If BCBSM detected compliance problems, it corrected the reviewed claims and expanded its review to other claims not initially selected. In addition, the results of these internal medical reviews were used to develop provider education materials which informed providers of high-risk diagnosis areas. The education materials highlighted coding errors identified during BCBSM’s internal reviews and provided additional guidance on how to avoid these errors. However, because the diagnosis codes for 188 of the 248 sampled

19 For 1 enrollee-year, we found other support in CMS’ systems for a different diagnosis code that mapped to an HCC for a less severe manifestation of the related-disease group, which we included in our calculation of the overpayment.

Medicare Advantage Compliance Audit of Specific Diagnosis Codes That Blue Cross Blue Shield of Michigan (H9572) Submitted to CMS (A-02-18-01028)
enrollee-years were not supported by the medical records, we do not believe that BCBSM’s compliance procedures were effective.

**BCBS MICHIGAN RECEIVED NET OVERPAYMENTS**

As a result of the errors we identified, the HCCs for these high-risk diagnosis codes were not validated. On the basis of our sample results, we estimated that BCBSM received at least $14,534,375 of net overpayments ($14,312,424 for the statistically sampled high-risk groups plus $221,951 for the potentially miskeyed diagnosis group) in 2015 and 2016 (see Appendix C for Sample Results and Estimates).

**RECOMMENDATIONS**

We recommend that Blue Cross Blue Shield of Michigan:

- refund to the Federal Government the $14,534,375 of net overpayments;
- identify, for the high-risk diagnoses included in this report, similar instances of noncompliance that occurred before or after our audit period and refund any resulting overpayments to the Federal Government; and
- examine its existing compliance procedures to identify areas where improvements can be made to ensure diagnosis codes that are at high risk for being miscoded comply with Federal requirements (when submitted to CMS for use in CMS’s risk adjustment program) and take the necessary steps to enhance those procedures.

**BCBS MICHIGAN COMMENTS AND OFFICE OF INSPECTOR GENERAL RESPONSE**

In written comments on our draft report, BCBSM concurred with our recommendations and described actions it has taken and plans to take to address them. Specifically, BCBSM indicated that it will refund $14.5 million to the Federal Government but noted that it submitted “delete files” to CMS totaling $406,237 for our audit period and that it will work with CMS on the remaining amount to effectuate timely repayment. BCBSM also stated that it will review high-risk diagnoses for years prior to and after the OIG’s audit period and consider any resulting overpayments. Lastly, BCBSM described improvements it has made and plans to make to ensure high-risk diagnosis codes comply with Federal requirements, including additional education to physicians, providers, coders and billers, and enhanced internal audits to target high risk diagnoses.

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20 MA organizations may submit “delete files” to CMS to remove unsupported diagnosis codes used in calculating risk-adjusted payments. BCBSM stated that it submitted delete files in the amounts of $232,754 for 2014 and $173,483 for 2015.
We commend BCBSM for the actions it has taken and plans to take to address our recommendations. We note that after our draft report was issued, we discovered a minor error in the methodology we used to calculate the original amounts CMS paid to BCBSM for the enrollee-years included in our audit and associated overpayment amounts. Accordingly, we adjusted our calculations, which resulted in a decrease in our estimated net overpayment amount of less than $550.

BCBSM’s comments are included in their entirety as Appendix F.
APPENDIX A: AUDIT SCOPE AND METHODOLOGY

SCOPE

CMS paid BCBSM $6,388,767,065 to provide coverage to its enrollees for 2015 and 2016. We identified a sampling frame of 8,841 unique enrollee-years on whose behalf providers documented high-risk diagnosis codes during the 2014 and 2015 service years, for which BCBSM received $158,058,223 in payments from CMS for these enrollee-years for 2015 and 2016. We selected for audit 248 enrollee-years with payments totaling $5,093,490.

The 248 enrollee-years included 56 acute stroke diagnoses, 30 acute heart attack diagnoses, 24 acute stroke and acute heart attack diagnoses combinations, 30 embolism diagnoses, 30 vascular claudication diagnoses, 30 major depressive disorder diagnoses, and 48 potentially miskeyed diagnoses. We limited our review to the portions of the payments that were associated with these high-risk diagnosis codes, which totaled $963,544 for our sample.

Our audit objective did not require an understanding or assessment of BCBSM’s complete internal control structure, and we limited our review of internal controls to those directly related to our objective.

We performed audit work from October 2018 through August 2020.

METHODOLOGY

To accomplish our objective, we performed the following steps:

- We reviewed applicable Federal laws, regulations, and guidance.
- We discussed with CMS program officials the Federal requirements that MA organizations should follow when submitting diagnosis codes to CMS.
- We identified, through data mining and discussions with medical professionals at a Medicare administrative contractor, diagnosis codes and HCCs that were at high risk for noncompliance. We also identified the diagnosis codes that potentially should have been used for cases in which the high-risk diagnoses were miscoded.
- We consolidated the high-risk diagnosis codes into specific groups, which included:
  - 6 diagnosis codes for acute stroke,
  - 35 diagnosis codes for acute heart attack,
  - 58 diagnosis codes for embolism,
  - 4 diagnosis codes for vascular claudication, and
  - 28 diagnosis codes for major depressive disorder.
We developed an analytical tool that identified 811 scenarios in which diagnosis codes that, when miskeyed into an electronic claim because of a data transposition or other data entry error, could result in the assignment of an incorrect HCC to an enrollee’s risk score. For each of the 811 occurrences, the tool identified a potentially miskeyed diagnosis code and the likely correct diagnosis code. Accordingly, we considered the potentially miskeyed diagnosis codes to be high risk.

We used CMS’s systems to identify the enrollee-years on whose behalf providers documented the high-risk diagnosis codes. Specifically, we used extracts from CMS’s:

- Risk Adjustment Processing System (RAPS)\(^{21}\) to identify enrollees who received high-risk diagnosis codes from a physician during the service years,
- Risk Adjustment System (RAS)\(^{22}\) to identify enrollees who received an HCC for the high-risk diagnosis codes,
- Medicare Advantage Prescription Drug (MARx)\(^{23}\) to identify the total payments that CMS made to BCBSM for the payment years, and
- Prescription Drug Event (PDE)\(^{24}\) to identify enrollees who had certain medications dispensed on their behalf.

We interviewed BCBSM officials to gain an understanding of (1) the policies and procedures that BCBSM followed to submit diagnosis codes to CMS for use in the risk-adjustment program and (2) BCBSM’s monitoring of those diagnosis codes to identify and detect noncompliance with Federal requirements.

We selected for audit a sample of 248 enrollee-years that included (1) a stratified random sample of 200 enrollee-years and (2) a non-statistical sample of 48 enrollee-years.

We used an independent medical review contractor to perform a coding review for the 248 enrollee-years to determine whether the high-risk diagnosis codes submitted to CMS complied with Federal requirements.

The independent medical review contractor’s coding review followed a specific process to determine whether there was support for a diagnosis code and the associated HCC:

\(^{21}\) MA organizations use the RAPS to submit diagnosis codes to CMS.

\(^{22}\) The RAS identifies the HCCs that CMS factors into each enrollee’s risk score calculation.

\(^{23}\) The MARx identifies the payments made to MA organizations.

\(^{24}\) The PDE file contains information on prescription drugs that have been dispensed to enrollees.
If the first senior coder found support for the diagnosis code on the medical record, the HCC was considered validated.

If the first senior coder did not find support on the medical record, a second senior coder performed a separate review of the same medical record:

- If the second senior coder also did not find support, the HCC was considered to be not validated.

- If the second senior coder found support, then a physician independently reviewed the medical record to make the final determination.

If either the first or second senior coder asked a physician for assistance, the physician’s decision became the final determination.

- We used the results of the independent medical review contractor to calculate overpayments or underpayments for each enrollee-year. Specifically, we calculated:
  - a revised risk score in accordance with CMS’s risk adjustment program and
  - the payment that CMS should have made for each enrollee-year.

- We estimated the total net overpayment made to BCBSM during the audit period.

- We discussed the results of our audit with BCBSM officials.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.
APPENDIX B: STATISTICAL SAMPLING METHODOLOGY

SAMPLING FRAME

We identified BCBSM enrollees who (1) were continuously enrolled in BCBSM throughout all of the 2014 or 2015 service year and January of the following year, (2) were not classified as being enrolled in hospice or as having end-stage renal disease status at any time during 2014 or 2015 or in January of the following year, and (3) received a high-risk diagnosis during 2014 or 2015 that caused an increased payment to BCBSM for 2015 or 2016, respectively.

We presented the data for these enrollees to BCBSM for verification and performed an analysis of the data included on CMS’s systems to ensure that the high-risk diagnosis codes increased CMS’s payments to BCBSM. We removed any enrollees whose managed care data could not be verified and we classified these individuals according to the condition and the payment year (enrollee-years). Our finalized sampling frame consisted of 8,841 enrollee-years.

SAMPLE UNIT

The sample unit was an enrollee-year, which covered either payment year 2015 or 2016.

SAMPLE DESIGN

The design for our statistical sample comprised of six strata of enrollee-years with either:

- an acute stroke diagnosis (which maps to the HCC Ischemic or Unspecified Stroke) on one physician claim during the service year but did not have that diagnosis on a corresponding inpatient hospital claim (2,827 enrollee-years),

- a diagnosis that mapped to an acute heart attack HCC on only one physician claim but did not have that diagnosis on a corresponding inpatient hospital claim either 60 days before or 60 days after the physician claim (1,725 enrollee-years),

- an acute stroke diagnosis and a diagnosis that mapped to an acute heart attack HCC in the same year and met the criteria mentioned in the previous two bullets (24 enrollee-years),

- a diagnosis that mapped to an embolism HCC but for which an anticoagulant medication was not dispensed (1,088 enrollee-years),

- a vascular claudication diagnosis (which maps to HCC for Vascular Disease) but for which medication was dispensed for neurogenic claudication (1,961 enrollee-years), or
• a major depressive disorder diagnosis (which maps to the HCC entitled Major Depressive, Bipolar, and Paranoid Disorders) on one claim during the service year but for which antidepressant medication was not dispensed (1,096 enrollee-years).

The specific strata are shown below in Table 3.

**Table 3: Sample Design for Audited High-Risk Groups**

<table>
<thead>
<tr>
<th>Stratum (High-Risk Groups)</th>
<th>Frame Count of Enrollee-Years</th>
<th>CMS Payment for HCCs in Audited High-Risk Groups*</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Acute Stroke</td>
<td>2,827</td>
<td>$8,241,863</td>
<td>56</td>
</tr>
<tr>
<td>2 – Acute Heart Attack</td>
<td>1,725</td>
<td>4,320,407</td>
<td>30</td>
</tr>
<tr>
<td>3 – Acute Stroke / Acute Heart Attack Combination</td>
<td>24</td>
<td>139,253</td>
<td>24</td>
</tr>
<tr>
<td>4 – Embolism</td>
<td>1,088</td>
<td>3,552,162</td>
<td>30</td>
</tr>
<tr>
<td>5 – Vascular Claudication</td>
<td>1,961</td>
<td>5,342,878</td>
<td>30</td>
</tr>
<tr>
<td>6 – Major Depressive Disorder</td>
<td>1,096</td>
<td>3,462,423</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total – First Six Strata</strong></td>
<td><strong>8,721</strong></td>
<td><strong>$25,058,986</strong></td>
<td><strong>200</strong></td>
</tr>
</tbody>
</table>

*Rounded to the nearest whole dollar amount.

After we selected the 200 enrollee-years, we identified an additional group of 120 enrollee-years, for which we non-statistically selected 48 enrollee-years (for a total of 248 sampled enrollee-years) that represented individuals who received 1 of the 811 potentially miskeyed diagnosis codes (which mapped to a potentially unvalidated HCC) and multiple instances of diagnosis codes that were likely keyed correctly.²⁵

**SOURCE OF RANDOM NUMBERS**

We generated the random numbers with the Office of Inspector General (OIG), Office of Audit Services (OAS), statistical software.

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²⁵ The non-statistical sample of 48 enrollee-years was systematically selected (i.e., every nᵗʰ item), with some judgmental substitutions. Judgmental substitutions were selected because for some of the enrollee-years originally selected for review, BCBSM did not receive an increased payment for the potentially miskeyed diagnosis codes.
METHOD FOR SELECTING SAMPLE ITEMS

We consecutively numbered the items in each stratum in the stratified sampling frame. We generated the random numbers for our sample according to our sample design, and we then selected the corresponding frame items for review. We also non-statistically selected 48 items from the potentially miskeyed group.

ESTIMATION METHODOLOGY

We used the OIG, OAS, statistical software to estimate the total amount of net overpayments to BCBSM at the lower limit of the two-sided 90-percent confidence interval (Appendix C). Lower limits calculated in this manner are designed to be less than the actual overpayment total 95 percent of the time. We also identified all net overpayments in the sample of 48 items for the potentially miskeyed group. The net overpayment for the non-statistical sample was added to the estimate for the statistical sample to obtain the total reported net overpayment amount.
## Table 4: Sample Results

<table>
<thead>
<tr>
<th>Audited High-Risk Groups</th>
<th>Frame Size</th>
<th>CMS Payment for HCCs in Audited High-Risk Groups (for Enrollee-Years in Frame)</th>
<th>Sample Size</th>
<th>CMS Payment for HCCs in Audited High-Risk Groups (for Sampled Enrollee-Years)</th>
<th>Number of Sampled Enrollee-Years With Incorrect Diagnosis Codes</th>
<th>Net Overpayment for Unvalidated HCCs (for Sampled Enrollee-Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Acute Stroke</td>
<td>2,827</td>
<td>$8,241,863</td>
<td>56</td>
<td>$167,438</td>
<td>56</td>
<td>$144,786</td>
</tr>
<tr>
<td>2 – Acute Heart Attack</td>
<td>1,725</td>
<td>4,320,407</td>
<td>30</td>
<td>80,114</td>
<td>28</td>
<td>50,532</td>
</tr>
<tr>
<td>3 – Acute Stroke/Acute Heart Attack Combination</td>
<td>24</td>
<td>139,253</td>
<td>24</td>
<td>139,253</td>
<td>24</td>
<td>116,865</td>
</tr>
<tr>
<td>4 – Embolism</td>
<td>1,088</td>
<td>3,552,162</td>
<td>30</td>
<td>96,653</td>
<td>19</td>
<td>64,982</td>
</tr>
<tr>
<td>5 – Vascular Claudication</td>
<td>1,961</td>
<td>5,342,878</td>
<td>30</td>
<td>82,807</td>
<td>7</td>
<td>19,857</td>
</tr>
<tr>
<td>6 – Major Depressive Disorder</td>
<td>1,096</td>
<td>3,462,423</td>
<td>30</td>
<td>94,090</td>
<td>16</td>
<td>49,291</td>
</tr>
<tr>
<td>Totals for Statistical Sample</td>
<td>8,721</td>
<td>$25,058,986</td>
<td>200</td>
<td>660,355</td>
<td>150</td>
<td>$446,313</td>
</tr>
<tr>
<td>7 – Potentially Miskeyed Diagnoses</td>
<td>120</td>
<td>$683,627</td>
<td>48</td>
<td>$303,189</td>
<td>38</td>
<td>$221,951</td>
</tr>
<tr>
<td>Totals – All Strata</td>
<td>8,841</td>
<td>$25,742,613</td>
<td>248</td>
<td>$963,544</td>
<td>188</td>
<td>$668,264</td>
</tr>
</tbody>
</table>
Table 5: Estimated Net Overpayments in the Sampling Frame  
(*Limits Calculated at the 90-Percent Confidence Level*)

<table>
<thead>
<tr>
<th></th>
<th>Net Overpayment Estimated from the Statistical Sample</th>
<th>Overpayment for Potentially Miskeyed Diagnosis Group</th>
<th>Total Estimated Net Overpayments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Point estimate</td>
<td>$15,787,002</td>
<td>$221,951</td>
<td>$16,008,953</td>
</tr>
<tr>
<td>Lower limit</td>
<td>$14,312,424</td>
<td>$221,951</td>
<td>$14,534,375</td>
</tr>
<tr>
<td>Upper limit</td>
<td>$17,261,580</td>
<td>$221,951</td>
<td>$17,483,531</td>
</tr>
</tbody>
</table>
Federal regulations (42 CFR § 422.503(b)) state:

Any entity seeking to contract as an MA organization must . . . .

(4) Have administrative and management arrangements satisfactory to CMS, as demonstrated by at least the following . . . .

(vi) Adopt and implement an effective compliance program, which must include measures that prevent, detect, and correct non-compliance with CMS’ program requirements as well as measures that prevent, detect, and correct fraud, waste, and abuse. The compliance program must, at a minimum, include the following core requirements:

(A) Written policies, procedures, and standards of conduct that—

(1) Articulate the organization’s commitment to comply with all applicable Federal and State standards;

(2) Describe compliance expectations as embodied in the standards of conduct;

(3) Implement the operation of the compliance program;

(4) Provide guidance to employees and others on dealing with potential compliance issues;

(5) Identify how to communicate compliance issues to appropriate compliance personnel;

(6) Describe how potential compliance issues are investigated and resolved by the organization; and

(7) Include a policy of non-intimidation and non-retaliation for good faith participation in the compliance program, including but not limited to reporting potential issues, investigating issues, conducting self-evaluations, audits and remedial actions, and reporting to appropriate officials. . . .
(F) Establishment and implementation of an effective system for routine monitoring and identification of compliance risks. The system should include internal monitoring and audits and, as appropriate, external audits, to evaluate the MA organization, including first tier entities’, compliance with CMS requirements and the overall effectiveness of the compliance program.

(G) Establishment and implementation of procedures and a system for promptly responding to compliance issues as they are raised, investigating potential compliance problems as identified in the course of self-evaluations and audits, correcting such problems promptly and thoroughly to reduce the potential for recurrence, and ensure ongoing compliance with CMS requirements.

(1) If the MA organization discovers evidence of misconduct related to payment or delivery of items or services under the contract, it must conduct a timely, reasonable inquiry into that conduct.

(2) The MA organization must conduct appropriate corrective actions (for example, repayment of overpayments, disciplinary actions against responsible employees) in response to the potential violation referenced in paragraph (b)(4)(vi)(G)(1) of this section.

(3) The MA organization should have procedures to voluntarily self-report potential fraud or misconduct related to the MA program to CMS or its designee.
### APPENDIX E: DETAILS OF POTENTIALLY MISKEYED DIAGNOSIS CODES

Table 6: Potentially Miskeyed Diagnosis Codes and Associated Overpayments

<table>
<thead>
<tr>
<th>Number of Enrollee-Years</th>
<th>Diagnosis Code</th>
<th>Description</th>
<th>Diagnosis Code</th>
<th>Description</th>
<th>Overpayment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>205.00</td>
<td>Acute myeloid leukemia, without mention of having achieved remission</td>
<td>250.00</td>
<td>Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled</td>
<td>$86,165</td>
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<td></td>
<td>482.0</td>
<td>Pneumonia due to Klebsiella pneumoniae</td>
<td>428.0</td>
<td>Congestive heart failure, unspecified</td>
<td>15,566</td>
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<tr>
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<td>441.00</td>
<td>Dissection of aorta, unspecified site</td>
<td>414.00</td>
<td>Coronary atherosclerosis of unspecified type of vessel, native or graft</td>
<td>9,650</td>
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<tr>
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<td>250.00</td>
<td>Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled</td>
<td>205.00</td>
<td>Acute myeloid leukemia, without mention of having achieved remission</td>
<td>4,028</td>
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<tr>
<td></td>
<td>205.02</td>
<td>Acute myeloid leukemia, in relapse</td>
<td>250.02</td>
<td>Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled</td>
<td>42,569</td>
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<tr>
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<td>714.9</td>
<td>Unspecified inflammatory polyarthropathy</td>
<td>174.9</td>
<td>Malignant neoplasm of breast (female), unspecified</td>
<td>6,541</td>
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<tr>
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<td>E32.9</td>
<td>Disease of thymus, unspecified</td>
<td>F32.9</td>
<td>Major depressive disorder, single episode, unspecified</td>
<td>4,666</td>
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<tr>
<td></td>
<td>174.0</td>
<td>Malignant neoplasm of nipple and areola of female breast</td>
<td>714.0</td>
<td>Rheumatoid arthritis</td>
<td>3,378</td>
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<tr>
<td>Number of Enrollee-Years</td>
<td>One Diagnosis for a Condition (Determined to be Incorrect)</td>
<td>Multiple Diagnoses for a Condition (Not Reviewed)</td>
<td>Overpayment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>------------------------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>-------------</td>
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<tr>
<td>2</td>
<td>Diagnosis Code: 174.9 Diagnosis Code Description: Malignant neoplasm of breast (female), unspecified</td>
<td>Diagnosis Code: 714.9 Diagnosis Code Description: Unspecified inflammatory polyarthritis</td>
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<td>Diagnosis Code: 493.20 Diagnosis Code Description: Chronic obstructive asthma, unspecified</td>
<td>Diagnosis Code: 493.02 Diagnosis Code Description: Extrinsic asthma with (acute) exacerbation</td>
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<td>Diagnosis Code: 279.9 Diagnosis Code Description: Unspecified disorder of immune mechanism</td>
<td>Diagnosis Code: 297.9 Diagnosis Code Description: Unspecified paranoid state</td>
<td>7,186</td>
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<td>Diagnosis Code: 200.00 Diagnosis Code Description: Reticulosarcoma, unspecified site, extranodal and solid organ sites</td>
<td>Diagnosis Code: 250.00 Diagnosis Code Description: Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled</td>
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<tr>
<td>1</td>
<td>Diagnosis Code: 250.12 Diagnosis Code Description: Diabetes with ketoacidosis, type II or unspecified type, uncontrolled</td>
<td>Diagnosis Code: 205.12 Diagnosis Code Description: Chronic myeloid leukemia, in relapse</td>
<td>4,458</td>
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<tr>
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<td>Diagnosis Code: 297.3 Diagnosis Code Description: Shared psychotic disorder</td>
<td>Diagnosis Code: 279.3 Diagnosis Code Description: Unspecified immunity deficiency</td>
<td>3,298</td>
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<td>Diagnosis Code: 205.80 Diagnosis Code Description: Other myeloid leukemia, without mention of having achieved remission</td>
<td>Diagnosis Code: 250.80 Diagnosis Code Description: Diabetes with other specified manifestations, type II or unspecified type, not stated as uncontrolled</td>
<td>2,806</td>
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<td>Diagnosis Code: I47.9 Diagnosis Code Description: Paroxysmal tachycardia, unspecified</td>
<td>Diagnosis Code: I74.9 Diagnosis Code Description: Embolism and thrombosis of unspecified artery</td>
<td>2,767</td>
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<td>Diagnosis Code: 441.9 Diagnosis Code Description: Aortic aneurysm of unspecified site without mention of rupture</td>
<td>Diagnosis Code: 414.9 Diagnosis Code Description: Chronic ischemic heart disease, unspecified</td>
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<td>Diagnosis Code: I24.9 Diagnosis Code Description: Acute ischemic heart disease, unspecified</td>
<td>Diagnosis Code: I42.9 Diagnosis Code Description: Cardiomyopathy, unspecified</td>
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<td>Diagnosis Code: 482.30 Diagnosis Code Description: Pneumonia due to Streptococcus, unspecified</td>
<td>Diagnosis Code: 428.30 Diagnosis Code Description: Diastolic heart failure, unspecified</td>
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<tr>
<td>Number of Enrollee-Years</td>
<td>Diagnosis Code</td>
<td>Diagnosis Code Description</td>
<td>Diagnosis Code</td>
<td>Diagnosis Code Description</td>
<td>Overpayment</td>
</tr>
<tr>
<td>-------------------------</td>
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<td>----------------</td>
<td>---------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>1</td>
<td>227.4</td>
<td>Benign neoplasm of pineal gland</td>
<td>272.4</td>
<td>Other and unspecified hyperlipidemia</td>
<td>1,743</td>
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<tr>
<td>1</td>
<td>249.10</td>
<td>Secondary diabetes mellitus with ketoacidosis, not stated as uncontrolled, or unspecified</td>
<td>294.10</td>
<td>Dementia in conditions classified elsewhere without behavioral disturbance</td>
<td>1,058</td>
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<td>1</td>
<td>343.3</td>
<td>Congenital monoplegia</td>
<td>334.3</td>
<td>Other cerebellar ataxia</td>
<td>948</td>
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<td>250.10</td>
<td>Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled</td>
<td>205.10</td>
<td>Chronic myeloid leukemia, without mention of having achieved remission</td>
<td>602</td>
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<tr>
<td>38</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$221,951^26</td>
</tr>
</tbody>
</table>

Table 7: Hierarchical Condition Categories (HCC) That Were Not Validated, However We Found Support for an HCC for a Less Severe Manifestation of the Related-Disease Group

<table>
<thead>
<tr>
<th>Count of Enrollee-Years</th>
<th>More Severe Hierarchical Condition Category That Was Not Validated</th>
<th>Less Severe Hierarchical Condition Category That Was Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Vascular Disease With Complications</td>
<td>Vascular Disease</td>
</tr>
<tr>
<td>2</td>
<td>Metastatic Cancer and Acute Leukemia</td>
<td>Lung, Upper Digestive Tract, and Other Severe Cancers (Version 12 model) And Lung and Other Severe Cancers (Version 22 model)</td>
</tr>
</tbody>
</table>

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^26 Difference in total is due to rounding.
February 1, 2021

Brenda M. Tierney, Regional Inspector General for Audit Services  
Office of Inspector General  
Office of Audit Services, Region VII  
Jacob K. Javits Federal Building  
26 Federal Plaza, Room 3900  
New York, NY 10278

RE: Report Number A-02-18-01028

Ms. Tierney,

In response to your letter and draft audit report dated January 4, 2021, please find below Blue Cross Blue Shield of Michigan’s response to the report and the noted recommendations.

OIG Recommendations

1. Refund to the Federal Government the $14,534,919 in overpayments

   Concur: Blue Cross Blue Shield of Michigan concurs with the recommendation to refund the $14,534,919 but notes that it submitted delete files to CMS for 175 diagnosis in the amount $232,754 in 2014 and $173,483 in 2015. As for the remaining amount, Blue Cross Blue Shield of Michigan will work with CMS to effectuate timely repayment.

2. Identify, for the diagnoses included in this report, instances of noncompliance in the enrollee years that occurred (1) during our audit period, but were not included in our judgmental sample, and (2) before and after our audit period, and refund any resulting overpayments to the Federal Government.

   Concur: Blue Cross Blue Shield of Michigan concurs with this recommendation and will continue to review the diagnoses targeted in the audit period, in addition to years preceding and subsequent to the audit and consider any resulting overpayments.

3. Enhance its policies and procedures to detect and correct noncompliance with Federal requirements for all diagnosis codes used to calculate risk-adjusted payments.

   Concur: Blue Cross Blue Shield of Michigan concurs with this recommendation and based on the findings, we have made the following improvements to ensure high risk diagnosis codes:

   - Additional education to physicians via webinars, one-on-one and group meetings specific to the acute diagnosis that are not appropriate to submit in the outpatient setting like acute stroke, acute heart attack, embolism, etc.
   - Develop additional educational materials on documentation requirements for high risk diagnosis for providers, coders and billers.
Enhance internal audits to target high risk diagnosis. Blue Cross Blue Shield of Michigan’s current program will be expanded to include additional targeted HCC categories to reflect the findings from this audit.

We appreciate the efforts and collaboration of the OIG during the audit. Please advise if there are any questions on the above.

Sincerely,

Ronald John Loch
Medicare Compliance Officer
Blue Cross Blue Shield of Michigan, Mutual Insurance Company

CC Daniel Loeppe, President and CEO
Mark Bartlett, Executive Vice President and Chief Financial Officer
Kate Calhoun, President, Advantasure
Tricia Keith, Executive Vice President and President Emerging Markets
Laurine Parmely, Senior Vice President and General Counsel
Michele Samuels, Senior Vice President, General Audit and Corporate Compliance
Krista Winright, Executive Vice President, Senior Health Services