1.0 Executive Summary

The Centers for Medicare & Medicaid Services (CMS) completed its first review round of Medicare Advantage (MA) online provider directories between February and August of 2016. This review round examined the accuracy of 108 providers’ locations selected from the online provider directories of 54 Medicare Advantage Organizations (MAOs) (representing approximately one-third of all MAOs, with 5,832 providers reviewed in total). The review found that 45.1% of provider directory locations listed in these online directories were inaccurate. Types of inaccuracies included:

- The provider was not at the location listed
- The phone number was incorrect, or
- The provider was not accepting new patients when the directory indicated they were

Within each MAO directory, the percent of inaccurate locations ranged from 1.77% to 86.53%, with an average inaccuracy rate by location of 41.37% across the MAOs reviewed. The majority of the MAOs (37/54) had between 30% and 60% inaccurate locations. Because MAO members rely on provider directories to locate an in-network provider, these inaccuracies pose a significant access to care barrier. Inaccuracies with the highest likelihood of preventing access to care were found in 38.4% of all locations. In response to these findings, CMS has issued appropriate compliance actions in order to drive industry improvement in the accuracy of provider directories for MA beneficiaries.

2.0 Background and Methods

Provider directories are an important tool used by MA enrollees to select and contact their physicians and other contracted providers who deliver their medical care. Beneficiaries and their caregivers rely on these provider directories to make informed decisions regarding their health care choices. Inaccurate provider directories can create a barrier to care and raise questions regarding the adequacy and validity of the MAO’s network as a whole.

CMS’s concerns with provider directories began with a beneficiary complaint. The resulting follow-up indicated that there may be reason to question provider directory accuracy. Soon after CMS began this process, MA provider directories were raised in *JAMA Dermatology* (October, 2014). The research conducted for that study found that among 4,754 total dermatologist listings in the largest MA plans in 12 metropolitan areas in the United States, 45.5% represented duplicates in the same plan directory. Among the remaining unique listings, only 48.9% of dermatologists were reachable, accepted the listed plan, and offered an appointment for a
fictitious patient. In response to concerns over these findings, CMS conducted a follow-up review of the provider directories for those organizations named in the *JAMA Dermatology* article. The CMS review focused on primary care providers (PCPs), and while the results were slightly more favorable, they echoed many of the same issues identified in the *JAMA Dermatology* article.

To address issues with online provider directories, CMS strengthened existing sub-regulatory guidance and communicated concerns about and expectations for provider directories via a Health Plan Management System (HPMS) memo, as well as in the Contract Year (CY) 2016 and CY 2017 Call Letters. As a part of the message conveyed in the 2016 Call Letter, CMS announced it would verify the accuracy of online provider directories for plans offered by MAOs. (Note these are also referred to as “Parent Organizations” or “POs.”)

CMS then undertook a study that examined the accuracy of the information in online directories. CMS intends to review all MAOs over the course of three years, or review rounds, by reviewing approximately one-third of all MAOs each year. The goal is to gain a better understanding of provider directory accuracy, identify any best practices, and, through appropriate compliance actions, drive industry improvement in providing more accurate provider directories.

Between February and August of 2016, CMS completed the first review round, which included 54 MAOs encompassing a total of 5,832 providers reviewed (representing 11,646 locations). Each MAO had 108 providers reviewed, selected from four of the most commonly used provider types – Cardiologist, Oncologist, Ophthalmologist, and Primary Care Physicians (See Table 1).

<table>
<thead>
<tr>
<th>Table 1: Provider Types and Locations Reviewed During Round 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Provider Type</strong></td>
</tr>
<tr>
<td>Cardiology</td>
</tr>
<tr>
<td>Oncology</td>
</tr>
<tr>
<td>Ophthalmology</td>
</tr>
<tr>
<td>PCP</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

Note: This report is accompanied by a spreadsheet that provides a detailed look at the review results, both at the individual MAO level as well as the aggregate level. To facilitate the ease of use and understanding of the spreadsheet’s content, the first tab contains sample data with a key explaining the various fields. The second tab contains the results for all MAOs. The third tab presents the aggregated Base Year data, and the fourth tab presents the overall compliance score as well as the compliance action taken.

Survey process: Reviewers in the study placed calls to each provider’s office(s), verifying the accuracy of the information listed in the provider directory. During the calls, reviewers asked the following questions, in the following order, to determine directory accuracy:

- Does the provider see patients at this location?
- Does the provider accept the MA-PD plan at this location?
- Does the provider accept (or not accept) new patients who have this MA-PD plan? *(The provider directory is considered accurate if it correctly indicates if the provider is or is not accepting new patients)*
- Is the provider a (PCP, cardiologist, oncologist, or ophthalmologist)?
- Is the address correct?
- Is the telephone number correct? *(Usually confirmed by dialing the phone number)*
- Is the provider’s name correct?
- Is the practice name correct?

Additional details on the study design and methods can be found in Appendix 1.

Deficiency scoring methodology: CMS designed a scoring methodology to: (1) differentiate between the severity of final deficiencies (e.g., an incorrect suite number is less of a barrier to a beneficiary accessing a provider than is an incorrect phone number); and (2) control for MA-PD plans that had a greater number of locations listed, which would increase their likelihood of having a greater number of final deficiencies. This allows for fair comparison between MA-PD plans with varying numbers of provider locations and does not penalize MA-PD plans that list many provider locations. To assess the severity of the inaccuracies, CMS assigned each type of final deficiency a weight between 0 and 3 points, based on the severity of the finding(s). Table 2 lists the weight for each type of final deficiency. Deficiencies where the provider should not have been listed at the location, or with an incorrect phone number, or where the provider was found to not be accepting new patients were assigned the highest weight (3), indicating the severity of this problem in regards to access to care. In contrast, an incorrect suite number was assigned the lowest weight (1) because it was not perceived to be a significant barrier to accessing care.

CMS then assigned a deficiency score to each location with at least one final deficiency. A location with multiple types of final deficiencies was assigned a score that equaled the weight of the most significant final deficiency. For example, a provider location listing with an patient indicator stating they are not taking new patients when they are accepting new patients (weight of 1), an incorrect address (weight of 2), and an incorrect phone number (weight of 3) received a score of 3.

<table>
<thead>
<tr>
<th>Final Deficiency</th>
<th>Deficiency Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider should not be listed in the directory at this location</td>
<td>3</td>
</tr>
<tr>
<td>Phone number needs to be updated</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 2: Deficiency Types and Weight
After assigning a score to each of the MAO’s deficient location(s), CMS summed the location deficiency scores. For each MAO, the maximum possible score is equal to the number of MAO locations reviewed multiplied by three, the maximum score for a single location. To control for the fact that the number of locations reviewed for each MAO varied considerably, the sum of the MAO’s location deficiency score was divided by the MAO’s maximum possible score.

Table 3 provides three examples of how CMS calculated the scoring for each MAO. MAO A had 154 provider locations reviewed with 33 having an associated deficiency. The total number of deficiency scores for MAO A was 88 out of a maximum possible 462 deficiency score for a final score of 19.1%. Similar findings were found for MAO B that had about 15% more provider locations that MAO A, but had a similar final deficiency score (20.7%). In contrast, MAO C had a much higher final deficiency score (43.9%), with about half of its locations found to have a deficiency (213 of 419 locations).

### Table 3: Examples of Final Deficiency Scoring

<table>
<thead>
<tr>
<th>MAO</th>
<th>Provider Locations Reviewed</th>
<th>Deficient Locations</th>
<th>Sum of Location Deficiency Scores</th>
<th>Maximum Possible Deficiency Score (3 x Locations Reviewed)</th>
<th>Weighted Final Deficiency Score (Sum of Location Deficiency Scores / Maximum Possible Score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“A”</td>
<td>154</td>
<td>33</td>
<td>88</td>
<td>462</td>
<td>19.1%</td>
</tr>
<tr>
<td>“B”</td>
<td>177</td>
<td>43</td>
<td>110</td>
<td>531</td>
<td>20.7%</td>
</tr>
<tr>
<td>“C”</td>
<td>419</td>
<td>213</td>
<td>552</td>
<td>1,257</td>
<td>43.9%</td>
</tr>
</tbody>
</table>

### 3.0 Findings

Overall, of the 5,832 providers in the review, 46.9% (2,737) of providers had at least one deficiency. Of the 11,646 locations reviewed 45.1% (5,257) of the locations had at least one deficiency.
Of the 11,646 locations reviewed, providers were not located at 31% (3,617) of the locations (2,455 + 1162, as shown in Table 4). In 1,162 of these instances, the provider should not have been listed at any of the locations in the directory. There were 521 phone numbers that were wrong or disconnected and 450 incorrect addresses. Finally, there were 338 instances (about 6%) where the provider was NOT found to be accepting new patients, although the directory indicated a different status. Table 4 provides a breakdown of deficiencies identified by CMS during the review process.

Combining the three deficiencies which carried the heaviest weight of “3” results in a total of 4,476 deficiencies (out of a total of 5,352 total deficiencies). The 4,476 deficiencies were found in 4,469 locations (as some locations had multiple deficiencies). When viewing the results as a percentage of the total for all locations reviewed, these deficiencies, which are those that present the highest likelihood of representing a barrier to care, were found in 38.4% of all locations.

### Table 4: Deficiency Types by Occurrence

<table>
<thead>
<tr>
<th>Deficiency Type</th>
<th>Number of Deficiencies Identified</th>
<th>Percentage Of Total Deficiencies (Number of Deficiencies Identified Divided by the Total of 5,352 Deficiencies Found)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider should not be listed in the directory at this location</td>
<td>2,455</td>
<td>45.9%</td>
</tr>
<tr>
<td>Provider should not be listed at any of the directory-indicated locations</td>
<td>1,162</td>
<td>21.7%</td>
</tr>
<tr>
<td>Phone number was wrong or disconnected</td>
<td>521</td>
<td>9.7%</td>
</tr>
<tr>
<td>Address was incorrect</td>
<td>450</td>
<td>8.4%</td>
</tr>
<tr>
<td>Provider is NOT accepting new patients</td>
<td>338</td>
<td>6.3%</td>
</tr>
<tr>
<td>Deficiency Type</td>
<td>Number of Deficiencies Identified</td>
<td>Percentage Of Total Deficiencies (Number of Deficiencies Identified Divided by the Total of 5,352 Deficiencies Found)</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>-----------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Suite Number incorrect</td>
<td>221</td>
<td>4.1%</td>
</tr>
<tr>
<td>Provide IS accepting new patients</td>
<td>169</td>
<td>3.2%</td>
</tr>
<tr>
<td>Provider name needs to be updated or Specialty needs to be updated</td>
<td>36</td>
<td>0.7%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,352</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Note: Some locations had more than one deficiency; therefore the total number of deficiencies is greater than total number of locations with deficiencies.

4.0 Implications

Results of the first review round identified significant errors within online provider directories. Many of the findings suggest that the discrepancies at a minimum will increase the member’s frustration with the MAO and where inaccuracies are frequent, may significantly prevent sufficient access to care. Because MAO members rely on provider directories to locate an in-network provider, the accuracy of this information is critical. Directories that include locations where a provider does not practice or state that providers are accepting new patients when they are not call into question the adequacy and validity of the MAO’s network as a whole. These inaccuracies can create barriers for members to receive services critical for their health and wellbeing.

We found that providers were not located at about 31% of the locations listed in the provider directory. This finding means that if a member were to look up a provider/location in an MAO directory, he/she would be unable to make an appointment with that provider because the provider did not work at that location. In about 1,162 of these cases, the provider associated with these locations did not work at any of the locations identified in the online directory. For example, if a provider were listed at three locations in the directory, CMS’s review found that the provider was not at any of the three locations identified. Given that the provider was not at any location listed in the directory, this finding raises concerns about whether these providers are even part of the network.

CMS’s review uncovered 521 instances where the phone number was incorrect or disconnected. Online provider directories listed phone numbers of other businesses, providers’ personal phone numbers, and actual home numbers of random individuals. Wrong or disconnected phone numbers prevent plan members from contacting the provider; therefore the member cannot make an appointment, even if the provider is at that location, in the network, and accepting new
patients. Not being able to connect with a provider’s office is the same as not being able to make an appointment, which again may limit the enrollee’s access to care.

The category “Providers not accepting new patients” was identified as a deficiency 338 times because the online directory stated that the provider was accepting new patients. However, when the location was called, our review found that the provider’s panel was closed to new patients. Members rely on the information in the directory to make informed health care choices. When an enrollee relies on a directory’s statement that a provider is accepting new patients and finds that the provider is not, it calls into question the adequacy of the plan’s network and suggests that the MAO may be unable to meet the beneficiary’s health care needs.

In considering the deficiencies that are most likely to impact access to care, 85% of those identified (4,476/5,352) were of the highest weighted, most egregious errors. These findings suggest that MAOs are not reviewing the accuracy of their provider directories to ensure they are valid. CMS found that these findings were widespread in the sample reviewed. That is, these findings were not skewed by a few organizations. The results reflect that very few organizations performed well in our review. Table 5 below provides a breakdown of organizations and the percentage of total locations that were found to have deficiencies. The average deficiency rate by location was 41.37%, with the majority (37) of MAOs having deficiencies between 30% and 60%.

<table>
<thead>
<tr>
<th>Deficiency Rates by Location</th>
<th>Number of MAOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0% - 19.9%</td>
<td>2</td>
</tr>
<tr>
<td>20.0% - 29.9%</td>
<td>10</td>
</tr>
<tr>
<td>30.0% - 39.9%</td>
<td>17</td>
</tr>
<tr>
<td>40.0% - 49.9%</td>
<td>9</td>
</tr>
<tr>
<td>50.0% - 59.9%</td>
<td>11</td>
</tr>
<tr>
<td>60.0% - 69.9%</td>
<td>3</td>
</tr>
<tr>
<td>70.0% - 79.9%</td>
<td>1</td>
</tr>
<tr>
<td>80.0% - 89.9%</td>
<td>1</td>
</tr>
<tr>
<td>90.0% - 100%</td>
<td>0</td>
</tr>
</tbody>
</table>

### 5.0 Common Drivers of Deficiencies

We identified several common drivers that may be contributing to provider directory inaccuracies. First, group practices appear to provide data at the group level rather than at the provider level. A group practice often lists a provider at a location because the group has an office there, even if that specific provider rarely or never sees patients at that location. To ensure
that beneficiaries can connect with the contracted providers at the location listed, it is critical that
the provider directory does not convey an inflated number of locations where the provider
practices.

Second, we saw a general lack of internal audit and testing of directory accuracy among many
MAOs. Instead, MAOs placed full faith in credentialing services and vendor support, and even in
provider responses. Based on plan’s responses, these practices, while typical, have not been
found to be reliable. Moreover, if MAOs had implemented routine oversight of their processes
for data validation, errors in the provider directory would have become apparent.

Finally, we encountered several instances where a call to a provider’s office resulted in
determining that the provider had been retired or deceased for a long period of time, sometimes
years. In some cases, MAOs contacted providers or provider groups and the providers
themselves had validated information that was subsequently found to be incorrect when CMS
directly called the office. Both MAOs and their contracted providers are responsible for ensuring
that provider directory data is accurate. However, MAOs cannot assume that they will be
informed when a change in provider location occurs. Instead, MAOs need to implement routine
processes that drive more accurate information reflected in their directories. MAOs that take a
reactionary approach to relying solely on provider-based notification are not going to have valid
provider directories. MAOs must proactively reach out to providers for updated information on a
routine basis. They should actively use the data available to them, such as claims, to identify
provider inactivity that could prompt further investigation.

6.0 Next Steps

CMS is currently conducting the second review round which will examine online provider
directories of 64 MAOs. The MAO selection methodology has been updated to include MAOs
new to the MA program, although MAOs scheduled for programmatic audit will not be targeted,
based on their audit, for review. CMS is including the current top ten MAOs by enrollment (nine
of which were reviewed during the first round) in the second review round. CMS then selected
the remainder of MAOs via random sample, excluding MAOs reviewed during the first round.
During the second review round, CMS will continue to focus on the same four commonly
utilized provider types, and will employ the same review methodology to allow for comparison
across review rounds.

MAOs are clearly in the best position to ensure the accuracy of their plan provider directories.
We also note that the active participation and engagement of plan contracted providers is key to
improving directory accuracy. CMS is encouraged by several ongoing pilot programs aimed at
developing a centralized repository for provider data that are accessible to multiple stakeholders.
A centralized approach, such as those being tested now, would make data collection and
verification more efficient and less burdensome for MAOs and providers and may result in more
accurate and timely data sharing. A centralized database approach will take time and does not
obviate the short-term, immediate need of MAOs to improve directories. CMS expects MAOs to
continue to focus on improving directory accuracy and will continue to evaluate the accuracy of
MAO’s directories. CMS has issued compliance actions based on the results of our reviews. 31 Notices of Non-Compliance, 18 Warning Letters, and 3 Warning Letters with a Request for a Business Plan were issued. We encourage MAOs to look for more near-term solutions to improving directory accuracy, such as performing self-audits of directory data, working with group practices to ensure that providers are only listed at locations where they accept appointments, and developing better internal processes for members to report directory errors.
Appendix 1 - Review Methodology

MAO Plan Selection
For the first round, CMS selected MAOs for review based on three criteria, listed below by selection priority:

1. Top ten MAOs by total enrollment size
2. MAOs scheduled for programmatic audit in CY2016
3. Random sample from remaining eligible MAOs

After identifying the MAOs to be included for review, CMS randomly sampled one MA Prescription Drug (MA-PD) contract offered by each MAO, then randomly sampled a Plan Benefit Package (PBP), or “MA-PD plan,” from each contract. CMS then selected every fifth contract as rural and the rest of the contracts as urban to ensure a mix of urban and rural service areas. If the selected contract did not have the assigned designation (only urban when contract was selected to be rural) then the contract was re-designated urban, with another contract being selected for a rural review. Because many online provider directories require users to enter a zip code to search for providers, CMS selected a county within each MA-PD plan’s service area, and then selected a zip code within the search county to use as the ‘search zip code.’

Provider Selection
CMS reviewed four types of specialists from each MA-PD plan: PCPs, cardiologists, ophthalmologists, and oncologists. CMS reviewed these specialists because they are among the providers most frequently utilized by both MA and fee-for-service (FFS) Medicare beneficiaries. CMS reviewed 108 providers from each MA-PD plan, randomly sampling 27 of each of the four provider types from the MA-PD plan’s online provider directory.²

Review Calls to Provider Offices
Reviewers captured the provider directory information for each of the sampled providers (108 providers for each MAO), including all locations listed for each provider. Reviewers then placed calls to each provider’s office(s), verifying the accuracy of the information listed in the provider directory. During the calls, reviewers asked the following questions, in this order, to determine directory accuracy:

- Does the provider see patients at this location?
- Does the provider accept the MA-PD plan at this location?

² In some cases, an MA-PD plan’s network did not contain enough of one provider type to meet the sample size of 27. If the contract had another PBP, it was used as a back-up MA-PD plan, and CMS completed the sample size by selecting providers from the back-up MA-PD plan. If a back-up MA-PD plan was not available, or if it did not contain additional unique providers, CMS sampled additional PCPs from the primary MA-PD plan to meet the sample size.
• Does the provider accept (or not accept) new patients who have this MA-PD plan? (The provider directory is considered accurate if it correctly indicates if the provider is or is not accepting new patients)
• Is the provider a (PCP, cardiologist, oncologist, or ophthalmologist)?
• Is the address correct?
• Is the telephone number correct? (Usually confirmed by dialing the phone number)
• Is the provider’s name correct?
• Is the practice name correct?

When calls were made for a provider with multiple locations, the reviewer attempted to verify information about all the provider’s locations during the first call. If the person at the provider’s office was unable to verify information for the other locations, the reviewer called the next location, and continued until all information was verified. When a location was not reached on the first call attempt, reviewers made at least two more attempts to reach a provider’s office, placing calls on different days and at different times. Reviewers recorded results for each provider location in a spreadsheet, noting any inaccuracies identified during the review call. Calls that could not be verified because of not being answered were marked as a deficiency. Locations that could not be verified because the respondent did not want to participate were replaced with another location. As a note, less than 1% of locations refused to participate.

Sharing Results with MAOs
CMS shared the initial findings with each MAO, including any inaccuracies the reviewer identified in the provider directory. The MAO was given two weeks to review the findings and to ‘concur’ or ‘non-concur’ with the inaccuracies identified. CMS asked MAOs to provide supporting documentation to support ‘non-concur’ responses.

CMS then reviewed the MAO’s responses and made final determinations, identifying if the provider directory’s listing of a provider’s location contained a “final deficiency,” an error which must be correct in order for the provider directory to be accurate. During the determination process, CMS made additional calls to providers’ offices to confirm information. CMS shared the final results with the MAO, providing the MAO 30 days to make all necessary corrections in the MA-PD plan’s provider directory.