DEPARTMENT OF HEALTH & HUMAN SERVICES
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CENTER FOR MEDICARE

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TO: All Current and Prospective Medicare Advantage Organizations

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SUBJECT: Contract Year (CY) 2012 Automated Health Services Delivery (HSD) Review Process in HPMS

This memorandum provides a high-level description of the methodology used by CMS to measure network adequacy in the application review process to assist applicants in preparing their CY 2012 Medicare Advantage (MA) application network submissions.

CMS designed the automated HSD review using a combination of third party software and custom development in HPMS to measure applicants against standardized criteria. The criteria for CY 2012 were released in December 2010 and are available on the CMS public website, along with an overview of the methodology for developing the criteria at http://www.cms.hhs.gov/MedicareAdvantageApps/. The standardized criteria consist of three components: a) the number of providers by county and specialty type; b) the travel distance to providers and facilities by county and specialty type; and c) the travel time to providers and facilities by county and specialty type. The automated HSD review employs various technical solutions to measure applicants' networks against these access criteria, as described below.

Address Analysis and Geocoding

Following the successful upload and unload of an HSD submission, CMS geocodes the provider and facility addresses by assigning latitude and longitude coordinates based on their street-level locations. These coordinates are later utilized to calculate travel distances and times from beneficiaries.

The geocoding software uses several techniques to match addresses to its source data (e.g., adapting to alternate street or city names, adjusting for common abbreviations). CMS has found that, on average, a small percentage of addresses (less than 5 percent of the total addresses

submitted) will not be successfully geocoded in this manner. In these cases, CMS initiates a second tier of geocoding. For those addresses that cannot be geocoded at the street-level, CMS uses zip code data and population patterns to estimate a provider or facility location within a zip code, which allows these records to be included in the automated checks. The Address Information Report lists all addresses for which this second tier of geocoding is invoked. The status assigned to these addresses is "zip-distributive." Please note that the same zip-distributed geocode will be assigned to a specific address in each subsequent HSD upload.

Beneficiary Census File

CMS contracted with a third party vendor to develop a sample beneficiary census file to be used in the calculations of travel time and distance to providers and facilities. Medicare enrollment counts at the zip code level were used to create the full beneficiary census file. In order to facilitate greater data processing efficiency in the automated HSD checks, the contractor applied a sampling technique to decrease the overall size of the full beneficiary census file by reducing the number of beneficiaries in each zip code uniformly across each county. The resulting sample beneficiary census file contains 1.6 million records, a 3.4 percent sample of the full file. Testing indicates that the sample beneficiary census file produces consistent results of travel time and distance access analysis when compared to the results produced using the full beneficiary census file.

An algorithm that factors in population patterns within a given zip code was then applied to the sample beneficiary census file to plot geographic coordinates. These geographic coordinates are intended to represent beneficiary locations; these are not actual Medicare beneficiary addresses. CMS uses these beneficiary geographic coordinates in concert with the provider and facility geographic coordinates to perform the travel time and distance analysis.

This year, CMS has made the official sample beneficiary census file available to MA applicants in HPMS. Applicants can download the file using the "Sample Beneficiary File" link on the Submit Application Data screen in Contract Management. However, please note that applicants will be presented a pop-up box with the following disclaimer before downloading the sample beneficiary file:

> "This database and contents therein shall only be utilized for the purposes of measuring network adequacy requirements in support of CMS Medicare Advantage and Part D requirements. Any other uses and attempts to reverse engineer or decompile are strictly forbidden without the consent of CMS and Quest Analytics."

Applicants must indicate that they accept this pop-up disclaimer in order for the file download to begin. Conversely, failure to accept the pop-up disclaimer will prohibit the file download.

Minimum Number of Providers

For the first component of the process, HPMS aggregates the number of providers of a particular specialty type listed as serving a given county and then compares that number to the MA Reference File. Only those providers who are within the specified time and/or distance to at

least one beneficiary from the sample beneficiary file for the given SSA state/county will be included in the calculation.

If the number of providers is equal to or greater than the corresponding number in the MA Reference File, HPMS will assign a "yes" to the Met status for that particular county/specialty type for the minimum provider number criteria.

Travel Distance to Providers and Facilities

The second component of the review process tests the percentage of beneficiaries residing in a given county with access to a particular specialty type within the maximum travel distance. For a given county and specialty type, CMS uses the geographic coordinates for the associated providers or facilities and the geographic coordinates for the beneficiaries that reside in the county and calculates the travel distance between them. The travel distance is calculated using a formula to determine the estimated driving distance (in miles) between the latitude and longitude coordinates and provides an average for the total beneficiaries in the given county.

If at least 90 percent of the beneficiaries residing in that county have access to at least one provider or facility for the given specialty type within the maximum travel distance, then HPMS will assign a "yes" to the Met status for that particular county/specialty type for the travel distance criteria.

Travel Time to Providers and Facilities

The third component of the review process tests the percentage of beneficiaries residing in a given county with access to a particular specialty type within the maximum travel time. For a given county and specialty type, CMS uses the geographic coordinates for the associated providers or facilities and the geographic coordinates for the beneficiaries that reside in the county and calculates the travel time between them. The travel time (estimated driving time in minutes) is calculated by applying a driving MPH (miles per hour) based on the geographic area (i.e., urban - 30 mph, suburban - 45 mph, or rural - 55 mph) to the estimated distance measurement outcome.

If at least 90 percent of the beneficiaries residing in that county have access to at least one provider or facility for the given specialty type within the maximum travel time, then HPMS will assign a "yes" to the Met status for that particular county/specialty type for the travel time criteria.

During the pre-check and application review processes, CMS is applying the travel time check only to those counties designated as "large metro" in the MA Reference File. CMS anticipates assessing travel time for some or all of the counties in the other geographic categories prior to making contract awards in September 2011.

Determination of Overall Status from Automated Review

HPMS will consider the results of all three components of the automated review in order to assign an overall status for a given county and specialty type. In order to achieve a "pass" status for a county/specialty type, you must have a Met status of "yes" in all measured categories (i.e., number of providers, travel distance, and where applicable, travel time).

Please keep in mind that receiving a Met status of "yes" or an overall status of "pass" from the automated review is only one step on the path to network approval, application approval, and ultimate contract award. Not all providers and facilities are subject to the automated review process and standardized criteria; in those cases, they are instead subject to manual review and approval. Moreover, applicants must demonstrate that they meet all requirements laid out in the MA application, receive approval of their submitted bids, and meet any other defined requirements in order to be awarded MA contracts.

For questions regarding this memo, please contact Greg Buglio at either gregory.buglio@cms.hhs.gov or 410-786-6562.