



SOCIETY OF ACTUARIES

Article from:

Health Watch

January 2011 – Issue 65

Medicare Advantage Hierarchical Condition Categories:

Targeting Chart Reviews

by Corey Berger and Eric Goetsch

One of the keys to a successful Medicare Advantage (MA) plan is ensuring that the plan's payment from the Centers for Medicare & Medicaid Services (CMS) appropriately reflects the health status of the plan's population. The majority of the revenue received by MA plans is based on the risk scores of their members. CMS assigns a risk score to every MA member based on the member's characteristics, including age, gender, disability status, Medicaid status and "health" status. The "health" status of the member is based on the diseases the member had in the prior year. For 2010 and 2011, the CMS risk adjustment model has 70 unique hierarchical condition categories (HCCs) with an additive "risk adjustment factor" assigned to each HCC. A member is "flagged" with an HCC if an ICD-9 diagnosis code has been submitted to CMS for the prior year that maps to the HCC. For example, ICD-9 code 250.00 (diabetes mellitus without mention of complication) maps to HCC 19. If a member has this ICD-9 code submitted (and has no other diabetes-related ICD-9 code), then that member's risk score would increase by 0.162. This would result in an additional payment to a typical MA plan of about \$100 per member per month (PMPM). Hence, identifying and submitting all appropriate ICD-9 diagnosis codes to CMS will result in a higher risk score for the member and an increased payment to the MA plan.

The Revenue Opportunity in Accurate Diagnostic Coding

Ensuring that all appropriate diagnoses for its members are submitted to CMS is very important, as this is one of only a few areas where an MA plan can affect its revenue. Because CMS allows MA plans 13 months after the end of the year to submit diagnoses, MA plans can review physician and hospital charts, submit additional diagnoses to CMS and receive a retroactive payment for those additional diagnoses. Reviewing charts, however, requires paying coders as well as cooperation from the physicians and hospitals to allow the coders access to their charts. Hence, MA plans want to make sure that the cost of "chart review" is reason-

able relative to the expected increase in revenue. Understanding where the MA plan's diagnosis coding effort stands relative to the "upper limit" or to competitors is therefore important in determining the level of investment in chart review.

To help determine the "upper limit" as well as the variation in the market, we reviewed data for more than 80 unique CMS contract numbers (H numbers) that included more than 1 million unique members. The analysis is based on 2009 members and their 2008 diagnoses. The results are focused primarily on coordinated care plans (local HMOs, local PPOs and regional PPOs) and exclude private fee-for-service (PFFS) plans as well as chronic and institutional special needs plans (SNPs). In addition, we excluded new enrollees (because they do not have any published HCC information) and members who are flagged as institutional or end-stage renal disease (ESRD).

Study Results

The HCC analysis revealed a number of characteristics that can help an MA plan evaluate whether its population (or segments of its population) justify the cost of chart review. Key findings include:

- **Dual members have a significantly higher number of HCCs than non-dual members.** On average, non-dual members (non-duals) have 1.43 HCCs while dual members (duals) have 1.99 HCCs. Excluding employer group members in the non-dual category does not meaningfully affect these results.
- **The average number of HCCs varies meaningfully by organization, even after normalizing for age/gender and geography.** In organizations at the 25th percentile, non-duals have 1.31 HCCs and duals have 1.90 HCCs. In organizations at the 75th percentile, non-duals have 1.53 HCCs and duals have 2.21 HCCs. For both non-duals and duals, organizations at



Corey Berger, FSA, MAAA, is a consulting actuary with Milliman in Atlanta, Ga. He can be reached at 404.254.6782 or corey.berger@milliman.com.

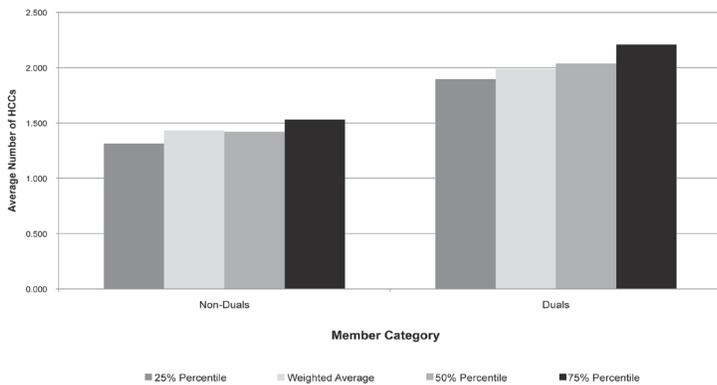


Eric Goetsch, FSA, MAAA, is a principal and consulting actuary with Milliman in Brookfield, Wis. He can be reached at 262.796.3433 or eric.goetsch@milliman.com.

CONTINUED ON PAGE 16

CHART 1
HCC Survey Results
Coordinated Care Plan members (1)
Includes All 70 HCCs (2)

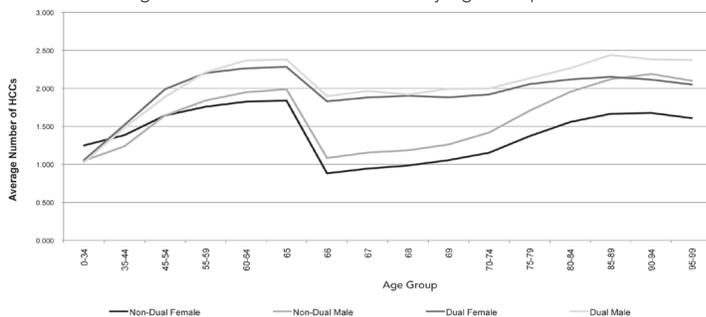
Average Number of HCCs Per Member by Percentile based on CMS Contract



(1) Excludes Chronic SNP, Institutional SNP, and PFFS Members and New Enrollee, Institutional, and ESRD members.
(2) Percentiles and Weighted Averages are after normalizing for age/gender and region.

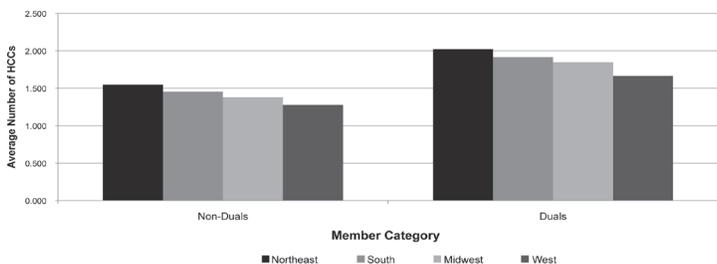
CHART 2
HCC Survey Results
Coordinated Care Plan members (1)
Includes All 70 HCCs

Average Number of HCCs Per Member by Age Group and Gender



(1) Excludes Chronic SNP, Institutional SNP, and PFFS Members and New Enrollee, Institutional, and ESRD members.

CHART 3
HCC Survey Results
Coordinated Care Plan members (1)
Includes All 70 HCCs



(1) Excludes Chronic SNP, Institutional SNP, and PFFS Members and New Enrollee, Institutional, and ESRD members.
(2) Regions are based on the U.S. census definitions.

the 75th percentile have about 16 percent more HCCs per member than organizations at the 25th percentile. Assuming an average risk score increase of 0.35 per HCC, this would indicate a difference in risk scores of 0.08 for non-duals and 0.11 for duals between organizations at the 25th and 75th percentiles. Chart 1 summarizes the average number of HCCs for non-duals and duals at the 25th, 50th and 75th percentiles, as well as the overall weighted average for all plans.

- **The number of HCCs increases steadily as members age.** From age 67 to 77, the average number of HCCs for both non-dual males and females increases by about 50 percent. The increase is less dramatic for duals, probably because they have more HCCs initially. Chart 2 provides a detailed summary of the average number of HCCs by age and gender for non-duals and duals. The decrease in average HCCs at age 66 is due to the inclusion of members eligible for Medicare due to age as opposed to disability. The data through age 65 is for disabled members only. The data does not include “aged” members in the age 65 bucket since most members who become eligible for Medicare by turning 65 do not have the required 12 months of historical diagnosis data to determine their HCCs.
- **Non-dual males have more HCCs than non-dual females.** The average number of HCCs for non-dual males is about 20 percent greater than the average for non-dual females. Dual males and females have approximately the same number of HCCs.

- **Geographic location has a significant impact on the average number of HCCs.** The average number of HCCs is materially impacted by the geographic location of the members. Both non-duals and duals in the Northeast have about 20 percent more HCCs than members in the West. Chart 3 provides a summary of the variation in HCCs by region.

- **Individual disease states also vary by age/ gender and geographic location, although not at the same magnitude as HCCs in total.**

What Should MA Plans be Reviewing?

Based on the data we reviewed for this study, MA plans need to first understand their current membership mixes in order to understand their potential for finding “missing” diagnoses. Key questions for an MA plan to ask are:

- Is the MA plan seeing a significant difference in the number of HCCs between dual and non-dual members? If not, it may want to focus on the dual members because those members are more likely to have “missing” diagnoses. If the gap is too wide relative to the gap in Chart 1, then maybe non-dual members are where the plan should focus its efforts.
- In what geographic location is the plan operating? An average of 1.4 HCCs per non-dual member may be closer to an upper limit in California than in New York, where 1.4 would be below average.
- Is the plan seeing an increase in the average number of HCCs by age? How much of an increase? If the increase is significant, then focusing on younger (and potentially newer) members may be better than focusing on older members, and vice versa if there is little increase by age.

Other Considerations

One additional significant consideration is that CMS will likely change the HCC model in 2012 to the model originally proposed for 2011. This new model has 87 HCCs instead of the 70 in the current model and will include ICD-9 diagnosis codes not included in the current model. MA plans need to begin planning now for that new model in order to ensure that physicians and hospitals are submitting those additional diagnoses so that their

payments are not negatively impacted in January 2012. Because the January 2012 payment will include diagnoses from both 2010 and 2011 dates of service, plans should focus on both years, not just 2011, or risk not receiving the appropriate payment for the first six months of 2012. ■

Key Methodological Considerations

Please note the following important information in reviewing and interpreting these results:

- For many of the plans included in this analysis, we received the “final” Model Output Report (MOR) data file which includes all 2008 diagnoses submitted through January 2010. Where available, this was the source of determining the HCCs for members included in the analysis. For plans that did not provide the “final” MOR file, we relied on MOR data from July through December of 2009. Any final Risk Adjustment Processing System (RAPS) data submissions would not be included for plans that did not provide “final” MORs, in which case their HCC counts may be slightly understated depending on the additional RAPS data submissions between March 2009 and January 2010.
- Because we did not observe significant differences in the overall average number of HCCs between employer group and individual members, we included both individual and employer group members in the analysis.
- The data included in this report was accumulated across organizations with different corporate structures (e.g., staff model HMOs versus independent practice associations), different membership volume/demographics/geographic location and other pertinent differences. Hence, the information may not be directly comparable to any specific organization. The survey authors did not verify the accuracy or completeness of the data included in the analysis. However, the data is considered fairly representative as a whole, such that reasonable conclusions may be drawn from it.
- In order to make the data more comparable, we also “normalized” the average number of HCCs included in the percentile chart for age/gender and geography. For example, all plans in the West had their average numbers of HCCs adjusted by the West geographic factor before being assigned a percentile.