February 16, 2007

NOTE TO: Medicare Advantage Organizations and Other Interested Parties

SUBJECT: Advance Notice of Methodological Changes for Calendar Year 2008 for Medicare Advantage (MA) Capitation Rates

In accordance with Section 1853(b)(2) of the Social Security Act (the Act), we are notifying you of proposed changes in the MA capitation rate methodology and risk adjustment methodology applied under Part C of the Act for CY 2008. Preliminary estimates of the national per capita MA growth percentage and other MA payment methodology changes for CY 2008 are also discussed. For 2008, CMS will announce the MA capitation rates on the first Monday in April 2007, in accordance with the timetable established in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA). This Advance Notice is published 45 days before that date.

For 2008, all non-ESRD rates will be minimum percentage increase rates. As permitted under section 1853(c)(1)(D)(ii), CMS will not rebase the amount representing the actuarial value of costs under the original Medicare fee-for-service program for 2008. (CMS rebased these costs for 2007.) Attachment I shows the preliminary estimates of the national per capita MA growth percentage component of the minimum percentage increase. See Attachment II, section E2, for a discussion of ESRD rates for 2008. Attachment II sets forth in detail the changes in payment methodology for 2008 for MA organizations.

Any changes to employer/union-only group waiver plan payment for 2008 will be issued in future guidance.

Comments or questions may be submitted electronically to the following address: AdvanceNotice2008@cms.hhs.gov. Comments or questions also may be mailed to:

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In order to receive consideration prior to the April 2, 2007 Announcement of Calendar Year (CY) 2008 Medicare Advantage Capitation Rates and Payment Policies, comments must be received by 6:00 PM EST on Friday, March 2, 2007.

/ s /
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/ s /
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Attachments

Attachment I
Preliminary Estimate of the National Per Capita Growth Percentage for Calendar Year (CY) 2008

Section 1853(c)(1) of the Social Security Act (the Act) provides that, for years when CMS is not "rebasing" the amount representing the actuarial value of costs under original fee-for-service (FFS) Medicare, MA capitation rates will be based on the minimum percentage increase, which is the higher of two percent or the national per capita MA growth percentage, with no adjustment to this percentage for over- or under-estimates for years before 2004.

The current estimate of the change in the national per capita MA growth percentage for aged and disabled enrollees combined in CY 2008 is 4.1 percent. This estimate reflects an underlying trend change for CY 2008 in per capita costs of 3.4 percent and adjustments to the estimates for CY 2007, CY 2006, CY 2005, and CY 2004 aged and disabled MA growth percentages of 1.9 percent, -0.5 percent, -0.3 percent, and -0.5 percent, respectively. Our new estimates for these years are lower than the estimates actually used in calculating the CY 2007 capitation rate book for CY 2004 to 2006 and higher for CY 2007 than was published April 3, 2006, and are required by Section 1853(c)(6)(C) of the Act.

The following table summarizes the estimates for the change in the national per capita MA growth percentage.

Table I-1. National Per Capita MA Growth Percentage

	Aged	Disabled	ESRD	Aged+Disabled
2008 Trend Change	3.3%	4.2%	-0.1%	3.4%
Revision to CY 2007 Estimate	1.9%	2.1%	5.6%	1.9%
Revision to CY 2006 Estimate	-0.5%	-0.4%	-0.6%	-0.5%
Revision to CY 2005 Estimate	-0.3%	-0.4%	0.9%	-0.3%
Revision to CY 2004 Estimate	-0.4%	-0.4%	-1.1%	-0.5%
Total Change	4.0%	5.2 %	4.7%	4.1%

Notes: (1) The total percentage change is multiplicative, not additive and may not exactly match due to rounding.
(2) Starting in 2008, the trend change for ESRD will reflect an estimate of the trend for dialysis-only beneficiaries.

These estimates are preliminary and could change before the final rates are announced on April 2, 2007 in the Announcement of Calendar Year (CY) 2008 Medicare Advantage Capitation Rates and Payment Policies. Further details on the derivation of the national per capita MA growth percentage will also be presented in the Announcement.

Attachment II
Changes in the Payment Methodology for Original Medicare Benefits for CY 2008

Section A. Frailty Adjustment

Since 2004, CMS has applied a frailty adjustment to payments for enrollees in PACE organizations and certain demonstration plans. Frailty adjustment allows for improved prediction of Medicare expenditures for community populations with functional impairments that are not reflected in the CMS-HCC risk adjustment factors. The sections below discuss CMS' proposed changes in the calculation and application of frailty adjustment, starting in 2008.

A1. No Program-Wide Application of Frailty Adjustment

CMS has conducted research to determine whether or not to apply a frailty adjustment to all MA plans in 2008. We have determined that for 2008 there will not be program-wide application of frailty factors due to several methodological issues associated with use of survey data for calculating payments for entire program.

Background. In developing the frailty adjustment model that is currently used for enrollees in PACE organizations and certain demonstration plans, CMS adopted the approach taken by many researchers and clinicians of defining frailty as functional impairment, and using counts of difficulty in performing Activities of Daily Living (ADLs) as the core measure of functional impairment. Individuals are grouped according to their difficulties with ADLs: 0 ADLs, 1 to 2 ADLs, 3 to 4 ADLs, and 5 to 6 ADLs. The frailty adjustment model consists of payment factors that are associated with different levels of functional impairment.

CMS calibrated the current frailty factors using 1994 to 1997 data from the Medicare Current Beneficiary Surveys (MCBS). At the time we created the initial frailty model, these survey data were the only comprehensive data available that allowed CMS to link individual-level functional impairment data to Medicare claims data. Information from the MCBS survey was used to predict expenditures unexplained by the CMS-HCC model (residual expenditures calculated as the difference between actual expenditures and predicted payments). Actual frailty scores are calculated at the contract level (rather than the plan benefit package (PBP) level) using these frailty factors and an estimate of the ADL limitations of enrollees collected from Health Outcomes Survey (HOS) data. These frailty scores are added to the risk adjustment factors in payment.

Rationale for not applying frailty adjustment program-wide. Methodological concerns have led us to conclude that the application of frailty adjustment program-wide in 2008 would not improve payment accuracy.

First, the HOS data used currently to determine frailty scores for payment is sampled only at the contract level and, therefore, does not allow us to calculate accurate frailty scores at the plan benefit package (PBP) level. Because bids and plan benefit designs are made at the PBP level,

applying a contract-level frailty score would lead to inconsistent payments across plans and beneficiaries.

Second, if frailty were applied program wide, MA organizations would need to project a frailty score in their plan bids. However, when CMS pays plans, we use frailty scores calculated after the bid has been submitted. Due to the changing nature of the marketplace and the different enrollment profiles of plans from year to year, this creates a risk that the level of frailty assumed by a plan in its bid would not reflect its actual frailty score in the payment year. PACE plans do not bid on Part C benefits, and would not be affected by this issue.

CMS will continue to explore ways to incorporate factors into the CMS-HCC model that will predict costs associated with the frailty of individual beneficiaries.

A2. Update to Frailty Factors for PACE

CMS has updated and refined the current frailty adjustment factors. Effective 2008, CMS will apply these new frailty factors to PACE organization payments on a phase-in schedule (discussed at the end of this section).

CMS changed the source of data used to calibrate the frailty factors so that the methodologies used to gather ADL-related data for both calibration and payment would be similar, avoiding a bias that comes from using different data collection methodologies. As noted above, the current frailty factors were calibrated using ADL limitation information from MCBS. These MCBS data are gathered through in-person surveys. CAHPS data, which we used to recalibrate the frailty factors, and HOS data, which we use to calculate frailty scores for payment, both collect ADL information via mail surveys with telephone follow-up. We added questions regarding ADLs to the FFS CAHPS collected between March 2003 and February 2004 to obtain data from that source, used claims data for the beneficiaries in the sample from the 12 months following this period, and recalibrated the frailty factors with these data.

CMS also refined the frailty adjustment model to compute two sets of frailty factors: one for those Medicare beneficiaries who are dually eligible for Medicaid and another set for those who are not. Table II-1 below contains the new frailty factors. Medicaid beneficiaries have different cost patterns than non-Medicaid beneficiaries and this difference is incorporated into the CMS-HCC risk adjustment model. Our research shows that that there are significant differences in the relationship between unexplained expenditures from the CMS-HCC model and functional impairment for those Medicare beneficiaries who are dually eligible for Medicaid and those who are not. While the sample size of the MCBS that we used to develop the current frailty model did not allow us to reliably estimate separate models for Medicaid and non-Medicaid beneficiaries, we can do so for the recalibrated model because the CAHPS sample is much larger. The revised factors differ because the additional predicted expenditures associated with Medicaid status in the CMS-HCC model account for some portion of frailty-related spending. Using this revised model produces the appropriate factors for each population.

Table II-1. Revised Frailty Factors

ADL	Current Factor	Revised Model Factors (Non-Medicaid)	Revised Model Factors (Medicaid)
0	-0.141	-0.089	-0.183
1-2	+0.171	+0.110	+0.024
3-4	+0.344	+0.200	+0.132
5-6	+1.088	+0.377	+0.188

The revised frailty factors are generally lower for at least two reasons. The main source of the change is the decrease in home health payments mandated by the BBA, which took effect in years following the 1994-1997 MCBS data used to calibrate the current frailty factors. This decrease in home health payments partially explains the decrease in the frailty factors because, in a community setting, frailty is highly correlated to home health expenditures.

A second reason the new frailty factors are different is the survey methodology. As noted above, MCBS is a face-to-face survey, whereas CAHPS is a mail survey. Survey research has shown that respondents may be less willing to share what could be perceived as negative personal information with someone in a face-to-face interview than they would in a written, more anonymous, survey. The experience with MCBS and CAHPS bears this out: 68 percent of the MCBS sample indicated that they had no difficulty with an ADL, yet 61.5 percent of the CAHPS sample reported no difficulty with an ADL. At the other end of the scale, 4.3 percent of the MCBS respondents indicated problems with 5 or 6 ADLs compared to 6.4 percent of the CAHPS respondents. The respondents who report high numbers of ADLs in a face-to-face situation tend to be frailer and have higher costs. When respondents are given the opportunity to report limitations in ADLs anonymously, the rate of reporting increases but this broader population is less frail with lower average costs. This means that the incremental dollars associated with ADL reporting (and, therefore, the frailty factors) are lower when more respondents admit to functional impairment.

Table II-2. MCBS and CAHPS Distributions of Activities of Daily Living

ADL Categories	MCBS: % of Respondents	CAHPS: % of Respondents
0	67.9%	61.5
1-2	21.0%	23.7%
3-4	6.8%	8.4%
5-6	4.3%	6.4%

As shown in Table II-2, our results confirm the known survey bias that occurs with face-to-face interviews, as compared with mail surveys. Through the use of a mail survey, beneficiaries more accurately report their ADLs, and their residual expenditures are more accurately accounted for, thus making the frailty factors more accurate with the mail survey data (CAHPS) than with face-to-face survey data (MCBS).

CMS will transition PACE organization payments to 100 percent of the revised frailty factors over a four-year period. In each year, the monthly PACE organization payment would be based

on the A/B risk score, plus the frailty component determined under the following transition schedule:

- In 2008 (year 1): 75% of the current frailty factors and 25% of the revised frailty factors.
- In 2009 (year 2) 50% of the current frailty factors and 50% of the revised frailty factors.
- In 2010 (year 3) 25% of the current frailty factors and 75% of the revised frailty factors.
- In 2011, 100% of the revised frailty factors.

A3. Frailty Adjustment for Certain Demonstrations

Since January 2004, CMS has applied a frailty adjustment to payments for enrollees in Social Health Maintenance Organizations (S/HMOs), Minnesota Senior Health Options (MSHO)/ Minnesota Disability Health Options (MnDHO), Wisconsin Partnership Program (WPP) and Massachusetts Senior Care Options (SCO) demonstrations.

CMS will phase-out the frailty payments to these plans over a four-year period. In each year, the monthly plan payment would be based on the A/B risk score, plus the frailty component determined under the following transition schedule:

- In 2008 (year 1): 75% of the current frailty factors
- In 2009 (year 2) 50% of the current frailty factors
- In 2010 (year 3) 25% of the current frailty factors
- In 2011, 0% of the current frailty factors

Section B. Adjustment for MA Coding Intensity

Section 1853(k)(2)(B)(iv)(III) requires CMS to reflect in its risk adjustment for Part C payment "differences in coding patterns between Medicare Advantage plans and providers under part A and B to the extent that the Secretary has identified such differences." The Conference Report for the Deficit Reduction Act of 2005, which added section 1853(k), calls upon the Secretary to "conduct an analysis" in order to attempt to identify such differences in coding patterns, and that "[t]he conferees intend that any adjustments made for differences in coding patterns be made for differences resulting from inaccurate coding." The Report further provides that "[t]o the extent that the Secretary identifies any differences, they are to be incorporated into calculations of the risk rates and the budget neutrality factor in 2008, 2009, and 2010."

CMS calibrates the risk factors under the CMS-HCC model on the diagnoses and expenditure data of fee-for-service Medicare beneficiaries. Risk scores are then developed for each Medicare beneficiary (including those in managed care) using their own diagnoses. These individual risk scores are used to adjust Part C payments to MA organizations for each plan enrollee. An upward trend in fee-for-service coding results in average risk scores that are greater than 1.0 after the calibration year. Increases in risk scores over time are a result of changes in diagnostic coding over time which, in turn, can be a result of more specific coding, increased illness, or more severe manifestations of illness. In order to keep the average risk score at 1.0, CMS adjusts the CMS-HCC risk scores for these changes in fee-for-service coding patterns using a fee-for-service normalization factor (in 2007, this factor is 1.45 percent per year). A key reason for

normalizing risk scores is to keep them tied to the county ratebook, which is standardized with the average county FFS risk scores.

Because the CMS-HCC model is calibrated on fee-for-service data and the resulting risk scores are adjusted for fee-for-service normalization, MA coding patterns that differ from patterns in fee-for-service may result in risk scores that are not equivalent to the risk scores of the FFS beneficiaries used to calculate the county rates.

CMS is conducting studies designed to assess the degree of coding patterns differences that may be identified between FFS and MA and the extent to which any differences could be appropriately addressed by an adjustment to the CMS-HCC risk scores. Below is a description of two pending studies.

1. Differences in disease progression between MA and FFS. The goal of this study is to assess any differences in coding patterns by comparing overall changes in risk scores and the disease component of the risk scores for beneficiaries in FFS and in MA. This study is being conducted to test the hypothesis that MA plans code more thoroughly and, therefore, similarly situated beneficiaries appear sicker. To conduct this study, CMS will analyze the change in risk scores from 2004 to 2006 among beneficiaries in FFS and MA. We will also explore the extent to which changes in risk scores are attributable to case mix in FFS and MA plans by separately analyzing changes among continuing enrollees (stayers), leavers, and joiners. The analysis of case mix will allow us to decompose the overall trends in risk scores into the effect of changes in enrollee composition versus changes due to differences in coding patterns.

2. Differences in persistence. The goal of this study is to assess any differences in coding patterns by comparing the differences in the 'persistence' of HCCs among continuing enrollees in FFS and in MA. This study is being conducted to test the hypothesis that greater coding in MA is reflected in greater persistence in of diseases (HCCs) across years. To conduct this study, CMS will analyze rates of persistence and changes in the rates of persistence for specific diseases in the CMS-HCC model from 2004 to 2006 among beneficiaries in FFS and MA. We will explore whether persistence rates differ between FFS and MA. This analysis will specifically address rates of persistence among those who remain continuously enrolled in FFS and MA over time.

CMS will use the results of these studies and additional analysis (if any), once completed, to determine the necessity for, and if necessary the magnitude of, an adjustment to the Part C risk scores based on differences in coding patterns between MA and FFS. To the extent that these studies produce valid results that identify differences in coding prior to the April 2, 2007 Announcement, that Announcement will reflect any warranted adjustments based on these differences. If there are no conclusive results as of that date, no adjustment will be made for 2008. We invite public comment on the relative strengths of each of these studies as well as suggestions for alternative studies that could help identify differences in coding patterns.

Section C. Normalization of the Aged-Disabled CMS-HCC Model

The FFS normalization factor for the aged-disabled CMS-HCC model, used to adjust for population and coding changes between the data years used in model calibration and the payment year, has been updated to include more recent data.

Background. When we calibrate a risk adjustment model and normalize the risk scores to 1.0, we produce a fixed set of dollar expenditures and coefficients appropriate to the population and data for that calibration year. When the model with fixed coefficients is used to predict expenditures for other years, predictions for prior years are lower and predictions for succeeding years are higher than for the calibration year. Because average predicted FFS expenditures increase after the model calibration year due to coding and population changes, CMS applies a normalization factor to adjust beneficiaries' risk scores so that the average risk score is 1.0 in subsequent years.

The normalization factor is derived by first using the model to predict risk scores for the FFS population for each year in which data are available. Next, we trend the risk scores to determine the average percent change in the risk score. This amount is then compounded by the number of years between the model calibration year and the payment year to produce the normalization factor.

Factor for 2008. On April 3, 2006 CMS announced that the FFS normalization factor for 2007 is 2.9%. This factor was calculated based on an estimate of the average annual increase in predicted expenditures of 1.45 percent for the two years from 2005 (the year on which the model coefficients are denominated) to 2007. For 2008, the FFS normalization will reflect an estimate for three years, i.e., from 2005 to 2008. The preliminary estimate of the FFS normalization factor for 2008, calculated based on data from 1999 to 2006, is 4.0 percent. This figure represents more recent trends in FFS coding changes. The final FFS normalization factor will be included in the April 2, 2007 Announcement.

As in 2007, CMS will continue to apply the FFS normalization factor to the risk scores when calculating the beneficiary-level monthly payment amounts for aged and disabled enrollees.

Section D. Budget Neutrality

From 2003 through 2006, CMS implemented risk adjusted payments in a budget neutral manner by applying to the risk rates 100 percent of the Budget Neutrality (BN) factor, which is calculated as the estimated difference between payments to MA organizations at 100 percent of the demographic rates and payments at 100 percent of the risk rates. As previously announced by CMS on February 17, 2006 in the Advance Notice for 2007, and as summarized in Table II-3, the phase-out of budget-neutral risk adjusted payments began in 2007 and will be completed by 2011, when plans will receive no budget neutrality payment adjustment. For 2008, 40 percent of the BN factor will be applied to the risk rates.

Since CMS cannot calculate the BN factor until the final capitation rates are determined, the factor will be announced in the April 2, 2007 Rate Announcement. The size of the total BN factor is determined by the difference in aggregate payments made to MA organizations under the risk model and aggregate payments made under the demographic only model.

Table II-3. Schedule for Phase-out of Budget Neutral Risk Adjusted Payments

Year	Budget Neutrality Percentage
2007	55%
2008	40%
2009	25%
2010	5%
2011	0%

Section E. ESRD Bidding and Payment

Pursuant to Section 1853(a)(1)(H) of the Act, CMS has the authority to determine whether to apply the competitive bidding methodology to ESRD enrollees, and must establish "separate rates of payment" with respect to ESRD beneficiaries.

E1. ESRD Bidding Policy

For 2008, CMS will continue the policy of excluding costs for ESRD enrollees in the plan A/B bid. CMS continues to work toward including ESRD costs into MA plans bids. However, we need additional time to further evaluate different methodological approaches for incorporating ESRD costs. Therefore, for 2008, ESRD enrollee costs will not be included in the plan A/B bid. As a result, the 2008 payment methodology for ESRD enrollees in MA plans is unchanged from 2007. CMS will release Bidding Instructions for 2008 with guidance on the option of adjusting A/B mandatory supplemental premiums to reflect the costs or savings for ESRD enrollees in the basic and supplemental benefits.

E2. Refinement of Growth Trend for ESRD State Rates

Effective with the 2005 implementation of the ESRD CMS-HCC model, CMS changed how ESRD payments were made: the State rates became dialysis/transplant-only rates, and payments for functioning graft beneficiaries were determined using the county capitation rates. CMS is recalculating the State rates using more recent data and for 2008 will apply a dialysis-only growth trend for the first time. The dialysis-only trend will be applied to the State rates for 2008 and subsequent years. (See section E5 below for discussion of the proposed phase-in schedule for these new State rates).

To calculate the 2008 State rates, CMS used Medicare FFS claims data by State for beneficiaries in dialysis status between the years 2001 and 2005 to determine the average geographic adjustment (AGA) for each State and to determine the 2005 national average per capita FFS dialysis cost. CMS then adjusted the 2005 national average by each State AGA to determine revised 2005 State rates. To develop the 2008 ESRD State ratebook, CMS will apply the dialysis-only trend to this revised 2005 rate for 2007 to 2008, and will also account for claims run-out and provider cost reports and will develop growth trend factors based on 2001-2005 FFS ESRD dialysis costs by state. The final 2008 State rates will be developed by taking into account the Graduate Medical Education (GME) carve-out and the $5.25 ESRD user fee.

The distribution of changes in payment across plans using the revised State rates will depend on how many ESRD dialysis enrollees are enrolled in each plan, as well as the change in the ESRD State rates.

E3. Recalibration of the ESRD CMS-HCC Risk Adjustment Model

In 2008, CMS will implement an updated version of the current ESRD CMS-HCC risk adjustment model. Fee-for-service (FFS) claims data for the years 2002 and 2003 are used in the recalibration of the model. (Diagnostic data for 2002 predict 2003 expenditures.)

The current ESRD CMS-HCC model is calibrated on 1999 and 2000 data, and recalibrating the model on more current data results in more appropriate relative weights for each HCC because they reflect more recent coding and expenditure patterns in FFS Medicare. In addition, recalibrating updates the total costs associated with ESRD dialysis beneficiaries.

Both updates (total costs and relative cost factors) can potentially result in changes in risk scores for individual ESRD dialysis beneficiaries and for average plan ESRD risk scores. Depending on an individual beneficiary's combination of diagnoses, the newly recalibrated model may result in a different ESRD risk score for that beneficiary.

All segments of the ESRD risk adjustment model will be updated (the full-risk and new enrollee dialysis factors, the transplant factors, the post-graft full-risk community, full-risk institutional and new enrollee factors). In this notice, we are providing the relative factors for each HCC for each segment of the model (see Exhibit 1). Disease groupings are the same as in past models; however, the factors are different.

The MSP factor remains at 0.215.

E4. Normalization of ESRD CMS-HCC Model

Normalization of risk scores is done in order to maintain a 1.0 average risk score in the FFS population on which the factors were calibrated. Without normalization, risk scores rise over time in response to population and coding changes between the data years used in model calibration and the payment year. See the background discussion in Section C above for further detail on FFS normalization.

CMS is applying an ESRD normalization factor for the first time in 2008, calculated based on data from 1999-2004. For 2008, the ESRD FFS normalization factor will reflect an estimate for five years, i.e., from 2003 to 2008. The preliminary estimate of the 2008 ESRD FFS normalization factor (dialysis model) is 3.9 percent. This normalization factor will applied under the transition schedule set forth in section E5. The final FFS normalization factor will be included in the April 2, 2007 Announcement.

E5. Transition to New ESRD Payment

CMS will phase-in the revised State rates by blending payments based on the current ratebook and the ratebook based on the dialysis-only trend. Over a four-year period, we will apply the payment blend according to the schedule described below. During the transition period, we will continue to trend forward the current and the revised State rates using the same dialysis-only growth trend.

- In 2008 (year 1), CMS payments for ESRD dialysis beneficiaries enrolled in MA plans will be a blend of 75% current ratebook-based payments and 25% revised ratebook-based payments.
- In 2009 (year 2), CMS payments for ESRD dialysis beneficiaries enrolled in MA plans will be a blend of 50% current ratebook-based payment and 50% revised ratebook-based payments.
- In 2010 (year 3), CMS payments for ESRD dialysis beneficiaries enrolled in MA plans will be a blend of 25% current ratebook-based payments and 75% revised ratebook-based payments.
- In 2011, CMS payments for ESRD dialysis beneficiaries enrolled in MA plans will be based on 100% of the revised ratebook.

In States where the revised ratebook is higher than the current ratebook, we will apply the revised ESRD State rate, beginning with 2008 payments.

Section F. Transition Payment Blends

From 2004 through 2006, risk adjusted payment was phased-in for all MA plan payments, with one portion of CMS' payment to plans based on the demographic-only method and the other portion based on the CMS-HCC risk adjustment model. For 2007, Part C payments are 100 percent risk adjusted. CMS pays the Program of All-Inclusive Care for the Elderly (PACE) organizations and certain demonstrations at the announced blend for 2007 – the final year before their transition to fully risk-adjusted payments.

Starting in 2008, 100 percent of payments will be risk adjusted for PACE organizations and those plans that have been operating under demonstration authority: Social Health Maintenance Organizations (S/HMOs), Minnesota Senior Health Options (MSHO)/ Minnesota Disability Health Options (MnDHO), Wisconsin Partnership Program (WPP), and Massachusetts Senior Care Options (SCO) demonstrations. See section A3 on application of the frailty adjusters.

Section G. Regional Plan Stabilization Fund

Section 221 of the MMA added Section 1858(e) to the Act to create a new MA Regional Plan Stabilization Fund. The purpose of the fund is to provide financial incentives to MA organizations to offer MA regional PPO plans in each MA region, and to retain MA regional PPO plans in regions with relatively low MA market penetration.

Section 301 of Division B, Title III, of the Tax Relief and Health Care Act of 2006 – enacted December 20, 2006 – delayed Stabilization Fund payments until January 1, 2012.

Section H. Continuation of Clinical Trial Policy
In 2008, we will continue the policy of paying on a fee-for-service basis for clinical trial items and services covered under the September 2000 National Coverage Determination that are provided to MA plan members.

Section I. Operational Policies

Section I1. Reporting of Medicaid Status for Part C Payment
For 2008, to assign Medicaid status for Part C risk adjustment payments, CMS will begin using information regarding title XIX eligibility from the MMA Medicare/Medicaid Dual Eligible monthly submission file, which all States are required to submit to CMS under provisions of the MMA and which CMS currently uses as a source of Medicaid status for Part D. Using these files as a data source for Medicaid status under the Part C CMS-HCC model promotes consistency across Part C and Part D.

The MMA Medicare/Medicaid Dual Eligible monthly files (referred to as the "MMA State files" below) provide monthly identification of each actively enrolled Medicare/Medicare dual eligible beneficiary, including a person-month record for each Medicare/Medicaid dual eligible in a State Medicaid program in the reporting month. The MMA State files also report information on changes in the circumstances for individuals in a prior month. The MMA state files were tested during a validation period of March-May 2005 and have been in production since June 2005. The files continue to be validated monthly by a CMS contractor. The files include those eligible for comprehensive Medicaid benefits (whether eligible through the state plan or a section 1115 demonstration), as well as those for whom the State pays Medicare premiums and/or cost sharing (Qualified Medicare Beneficiaries, Specified Low-Income Medicare Beneficiaries, and Qualifying Individuals).

In 2005, when we proposed transitioning to the use of the then-new MMA State files for 2006, respondents had several concerns: the schedule for transitioning to use of the MMA State files for payment, the accuracy and reliability of the new data, and availability of a process by which plans could report Medicaid status if the CMS system did not accurately reflect the enrollees' status. Currently, CMS has used the MMA State files for well over a year in the Part D program, and we have been able to assess the completeness of the information provided by these files, compared to information obtained from the Third Party Buy-In files and plan-reported files. CMS has determined that the MMA State files more precisely identify dual eligibles. For example, there are an estimated 974,000 individuals reported on MMA files but not on Third Party-Buy In files because they are dual eligibles for whom States do not pay the Part B premium, so the State Third-Party Buy-In file does not include them. These individuals, however, do meet the criteria for Medicaid status for Part C risk adjustment.

Implementation. We are not proposing any changes to how we assign Medicaid status for payment purposes under Part D. This section only proposes changes to how we assign such status for Part C risk adjustment purposes. Currently, CMS assigns Medicaid status for Part C

risk adjustment based on two sources: (1) the Third Party Buy-In file for beneficiaries on whose behalf States report paying Part B premiums and (2) plan-reported Medicaid status.

For the payment year 2008 and beyond, CMS intends to implement the following approaches.

Full risk enrollees. CMS considers full risk Medicare beneficiaries as dually eligible if they were eligible for title XIX during any month in the year prior to the payment year. Full risk Medicare beneficiaries have 12 months of Part B in the year prior to the payment year.

- **Payment year 2008**: For risk scores applied to 2008 payment, CMS will determine Medicaid status during 2007 using the current sources of Medicaid status (plan-reported and Third Party) as well as the MMA State files.
- **Payment years starting in 2009:** CMS will no longer use plan-reported or Third Party files as sources of Medicaid status for risk scores based on data from 2008 and subsequent years (applied to payment calculations in 2009 and subsequent years). For example, for 2009 payment, we will assign Medicaid status in 2008 using data submitted on the MMA State files.

New enrollees. CMS assigns Medicaid status for new enrollees on a concurrent basis, i.e., if a newly-enrolled Medicare beneficiary is eligible for title XIX during any month during the payment year, they are considered Medicaid for that year. For new enrollees, starting with the 2008 payment year, CMS will assign concurrent Medicaid status based only on the MMA State files.

Exceptions process. In 2008, CMS will implement an exceptions process to address situations where an MMA State file record does not accurately reflect a beneficiary's status. Additional information regarding how the exceptions process will work is forthcoming.

Section I2. Standard Set of ICD-9 Diagnosis Codes for Risk Adjustment

Each year, CMS publishes on its website a list of the valid ICD-9-CM codes for the following fiscal year, based on the recommendations of the ICD-9-CM Coordination and Maintenance Committee. All final decisions on codes are made by the Director of the National Center for Health Statistics (NCHS) and the Administrator of CMS. NCHS, a component of the Centers for Disease Control, has the lead on ICD-9-CM diagnosis issues. The published code sets can be found at http://www.cdc.gov/nchs/icd9.htm. More information on the process for updating ICD-9 codes can be found at http://www.cms.hhs.gov/ICD9ProviderDiagnosticCodes/01_overview.asp#TopOfPage.

As described in Table II-4 below, starting with 2008 payment, the list of acceptable ICD-9-CM codes for the CMS-HCC, ESRD, and RxHCC risk adjustment models for risk adjustment for any given payment year will comprise the list of published NCHS/CMS codes for the three fiscal years prior to and including the payment year.

Table II-4. Phase-in Schedule for New Lists of Diagnosis Codes for Risk Adjustment

Year of Payment	Date Collection Period	Description/source of codes
2007	1/06 – 12/06	All of the following: 1) All risk model codes previously posted on CMS website, 2) IBM's list of risk adjustment codes, 3) Diagnoses codes included in the CMS-HCC and RxHCC model formats published through December 31st, 2006.
2008	1/07 – 12/07	Valid diagnoses in Fiscal Years 2006, 2007, or 2008
2009	1/08 – 12/08	Valid diagnoses in Fiscal Years 2007, 2008, or 2009
2010	1/09 – 12/09	Valid diagnoses in Fiscal Years 2008, 2009, or 2010
2011	1/10 – 12/10	Valid diagnoses in Fiscal Years 2009, 2010, or 2011

Section I3. MSA Plan Submission of Risk Adjustment Data

Section 1853(a)(1)(B)(iii) of the Act requires CMS to risk adjust payments for Medical Savings Account (MSA) plan enrollees. CMS' guidance on risk adjustment under the CMS-HCC model applies to MSA plans, including requirements for data submission. This guidance can be found on the CMS website at http://www.cms.hhs.gov/MedicareAdvtgSpecRateStats/06_Risk_adjustment.asp#TopOfPage, on the link to "Risk Adjustment Customer Support."

Section I4. Clarification on Institutional Status under Part C CMS-HCC Models

As discussed in Section F above, the transition to 100 percent risk adjusted payments is completed for all plan types in 2008. Because CMS will no longer apply the demographic-only payment method to any plan payments, organizations are no longer required to submit to CMS monthly files on enrollee institutional status (as it was defined for purposes of the Part C demographic payment).

We want to clarify how long-term institutional (LTI) status is determined for Part C risk adjusted payments. For MA plans, CMS uses the information included in the Minimum Data Set (MDS) that is reported by Medicare-certified nursing homes to determine institutional status. Beneficiaries identified as residing in a long-term institution for 90 days prior to the payment month are classified as LTI-status beneficiaries. Enrollees remain in LTI status until discharged to the community for more than 14 days.

CMS uses the Monthly Membership Report (MMR) to report LTI status to MA organizations; therefore, MA organizations may use the MMR to track the institutional status of their enrollees. Specifically, the LTI flag for Part C is provided in position 67 of the MMR. We also recommend that MA organizations review the factor code, position 189-190, which tells whether the beneficiary is community or institutional status. The MMR file layout is available in the *Medicare Advantage and Prescription Drug Plans, Plan Communications User's Guide, Version 2.0* and *Medicare Advantage and Prescription Drug Plans, Plan Communications User's Guide Appendices, Version 2.0* (dated November 16, 2006); these two documents are available on the CMS web site at http://www.cms.hhs.gov/MedicareMangCareSys/Downloads/PCUG%20v2_Main%20Guide%2011162006.pdf and

http://www.cms.hhs.gov/MedicareMangCareSys/Downloads/PCUG_Appendices%20v2_11162006.pdf, respectively.

LTI status is a concurrent indicator in the payment year. Beneficiary LTI status is determined at final reconciliation which occurs approximately six months after the payment year. However, in order to prospectively classify beneficiaries for payment status, CMS determines LTI status at a point prior to the payment year. For a given payment year, the beneficiary LTI status will be updated during the initial, mid-year, and final reconciliation risk adjustment factor updates. Plans should notify CMS of any discrepancies between LTI status as reported on the MMR and place of residence for the beneficiary.

Final Reconciliation of Institutional Status for Part C Risk Adjusted Payments. Plans have 45 calendar days after final reconciliation for a payment year to notify CMS of discrepancies in LTI status on the MMR.

Exhibit 1. Relative Factors for CMS-HSS ESRD Model

Table 1-1. Relative Factors for CMS-HCC ESRD Dialysis Model[1]

Risk factors are relative to average total Medicare expenditures per capita for dialysis patients.[2]

Variable	Disease Group	Relative Factors
Age/Sex Groups		
Female		
0-34 Years		0.699
35-44 Years		0.699
45-54 Years		0.715
55-59 Years		0.746
60-64 Years		0.749
65-69 Years		0.813
70-74 Years		0.813
75-79 Years		0.831
80-84 Years		0.850
85 Years or Over		0.872
Male		
0-34 Years		0.614
35-44 Years		0.650
45-54 Years		0.675
55-59 Years		0.699
60-64 Years		0.722
65-69 Years		0.776
70-74 Years		0.776
75-79 Years		0.790
80-84 Years		0.790
85 Years or Over		0.826
Disease Group Factors		
HCC1	HIV/AIDS	0.235
HCC2	Septicemia/Shock	0.073
HCC5	Opportunistic Infections	0.051
HCC7	Metastatic Cancer and Acute Leukemia	0.189
HCC8	Lung, Upper Digestive Tract, and Other Severe Cancers	0.189
HCC9	Lymphatic, Head and Neck, Brain, and Other Major Cancers	0.160
HCC10	Breast, Prostate, Colorectal and Other Cancers and Tumors	0.058
HCC15	Diabetes with Renal or Peripheral Circulatory Manifestation	0.080
HCC16	Diabetes with Neurologic or Other Specified Manifestation	0.080
HCC17	Diabetes with Acute Complications	0.080
HCC18	Diabetes with Ophthalmologic or Unspecified Manifestation	0.080
HCC19	Diabetes without Complication	0.079
HCC21	Protein-Calorie Malnutrition	0.050
HCC25	End-Stage Liver Disease	0.259
HCC26	Cirrhosis of Liver	0.095
HCC27	Chronic Hepatitis	0.051
HCC31	Intestinal Obstruction/Perforation	0.057
HCC32	Pancreatic Disease	0.084

HCC33	Inflammatory Bowel Disease	0.088
HCC37	Bone/Joint/Muscle Infections/Necrosis	0.115
HCC38	Disease	0.077
HCC44	Severe Hematological Disorders[3]	0.000
HCC45	Disorders of Immunity	0.113
HCC51	Drug/Alcohol Psychosis[4]	0.000
HCC52	Drug/Alcohol Dependence[4]	0.000
HCC54	Schizophrenia	0.179
HCC55	Major Depressive, Bipolar, and Paranoid Disorders	0.123
HCC67	Quadriplegia, Other Extensive Paralysis	0.229
HCC68	Paraplegia	0.229
HCC69	Spinal Cord Disorders/Injuries	0.148
HCC70	Muscular Dystrophy[3]	0.000
HCC71	Polyneuropathy	0.056
HCC72	Multiple Sclerosis	0.087
HCC73	Parkinson's and Huntington's Diseases	0.038
HCC74	Seizure Disorders and Convulsions	0.094
HCC75	Coma, Brain Compression/Anoxic Damage	0.201
HCC77	Respirator Dependence/Tracheostomy Status	0.349
HCC78	Respiratory Arrest	0.156
HCC79	Cardio-Respiratory Failure and Shock	0.088
HCC80	Congestive Heart Failure	0.086
HCC81	Acute Myocardial Infarction	0.107
HCC82	Unstable Angina and Other Acute Ischemic Heart Disease	0.107
HCC83	Angina Pectoris/Old Myocardial Infarction	0.027
HCC92	Specified Heart Arrhythmias	0.061
HCC95	Cerebral Hemorrhage	0.058
HCC96	Ischemic or Unspecified Stroke	0.058
HCC100	Hemiplegia/Hemiparesis	0.088
HCC101	Cerebral Palsy and Other Paralytic Syndromes	0.040
HCC104	Vascular Disease with Complications	0.169
HCC105	Vascular Disease	0.059
HCC107	Cystic Fibrosis	0.078
HCC108	Chronic Obstructive Pulmonary Disease	0.078
HCC111	Aspiration and Specified Bacterial Pneumonias	0.123
HCC112	Pneumococcal Pneumonia, Emphysema, Lung Abscess	0.051
HCC119	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage[3]	0.000
HCC130	Dialysis Status[7]	0.000
HCC131	Renal Failure[7]	0.000
HCC132	Nephritis[7]	0.000
HCC148	Decubitus Ulcer of Skin	0.182
HCC149	Chronic Ulcer of Skin, Except Decubitus	0.110
HCC150	Extensive Third-Degree Burns[5]	0.088
HCC154	Severe Head Injury	0.201
HCC155	Major Head Injury	0.022
HCC157	Vertebral Fractures without Spinal Cord Injury	0.035
HCC158	Hip Fracture/Dislocation	0.054
HCC161	Traumatic Amputation	0.073

HCC164	Major Complications of Medical Care and Trauma[3]	0.000
HCC174	Major Organ Transplant Status	0.199
HCC176	Artificial Openings for Feeding or Elimination	0.062
HCC177	Amputation Status, Lower Limb/Amputation Complications	0.073
Medicaid Interactions With Age and Sex		
Medicaid_Female_Disabled		0.051
Medicaid_Female_Aged		0.031
Medicaid_Male_Disabled		0.043
Medicaid_Male_Aged		0.069
Originally Disabled Interactions With Sex		
Female, 65+, Originally Entitled due to ESRD/ w or wo Disability		-0.054
Male, 65+, Originally Entitled due to ESRD/ w or wo Disability		-0.047
Female, 65+, Originally Entitled due to Disability (non-ESRD)		0.056
Male, 65+, Originally Entitled due to Disability (non-ESRD)		0.032
Disabled/Disease Interactions		
D_HCC5	Disabled_Opportunistic Infections	0.081
D_HCC44	Disabled_Severe Hematological Disorders	0.050
D_HCC45	Disabled_Disorders of Immunity[4]	0.000
D_HCC51	Disabled_Drug/Alcohol Psychosis	0.190
D_HCC52	Disabled_Drug/Alcohol Dependence	0.190
D_HCC107	Disabled_Cystic Fibrosis[5]	0.149
Disease Interactions[6]		
INT1	DM_CHF	0.020
INT2	DM_CVD	0.051
INT3	CHF_COPD[4]	0.000
INT4	COPD_CVD_CAD[3]	0.000

[1]This model is used for those enrollees who have a full year of base year claims data

[2]Mean Year 2003 Total Expenditures=$60,471. Mean is over all dialysis patients including those with Medicare as secondary payer.

[3]Coefficients of variables with unconstrained coefficients less than 0 were constrained to equal 0.

[4]Coefficients of variables with coefficients with t-statistics < 1.0 were constrained to equal 0.

[5]Coefficient was constrained to equal coefficient from the CMS-HCC Aged-Disabled Community Model (2002-2003 Calibration).

[6]The interaction DM_CHF_RF (where RF = renal failure) is the same in this population as DM_CHF because all sample members have renal failure. Hence, this three-way interaction is not included.

[7]These coefficients are set to zero because beneficiaries on whom the model is calibrated have renal failure and are in dialysis status.

Table 1-2. CMS-HCC Dialysis Model for New Enrollees[1]

Variable	Relative Factors
Age/Sex Groups	
Female	
0-34 Years	0.912
35-44 Years	0.943
45-54 Years	0.974
55-59 Years	1.020
60-64 Years	1.020
65-69 Years	1.134
70-74 Years	1.162
75-79 Years	1.218
80-84 Years	1.232
85 Years or Over	1.236
Male	
0-34 Years	0.754
35-44 Years	0.894
45-54 Years	0.911
55-59 Years	0.959
60-64 Years	0.977
65-69 Years	1.090
70-74 Years	1.118
75-79 Years	1.151
80-84 Years	1.151
85 Years or Over	1.191
Medicaid Interactions With Age and Sex	
Medicaid_Female_Disabled	0.100
Medicaid_Female_Aged	0.069
Medicaid_Male_Disabled	0.087
Medicaid_Male_Aged	0.114
Originally Disabled Interactions With Sex	
Originally Disabled_Female, Age Less than 65	0.237
Originally Disabled_Female	0.237
Originally Disabled_Male, Age Less than 65	0.211
Originally Disabled_Male	0.211

Notes:

[1]New enrollees are those enrollees who do not have a full year of base year claims data.

Mean Year 2003 Total Expenditures=$60,471. Mean is over all dialysis patients including those with Medicare as secondary payer.

Table 1-3. Transplant Calculations

Under the CMS-HCC risk adjustment system of payments for ESRD patients, payment for transplants is carved out of the payments for all ESRD patients. The payment factor for a transplant is based on the average Medicare costs for transplant admissions and the two months subsequent to discharge. When CMS is notified of a transplant, three monthly payments are made. Instead of a dialysis risk factor being the basis for payment in those months, a transplant factor is used and applied to the dialysis rate book. After the three months, payment is made at the functioning graft rate or at the dialysis rate, as appropriate.

Transplant Calculations

	Kidney Only Dollars	**Kidney Plus Pancreas Dollars**	**Kidney Only Relative Factor**	**Kidney Plus Pancreas Relative Factor**
Month 1	$32,558	$55,310	6.46	10.98
Month 2	$5,106	$7,434	1.01	1.48
Month 3	$5,106	$7,434	1.01	1.48
Total	$42,770	$70,178		

Note: To compute the relative factors, the national mean of annual dialysis patient costs was converted to a monthly amount and the transplant monthly costs were divided by this number.

Mean annual dialysis costs: $60,471
Costs per month: $5,039

Table 1-4.

CMS-HCC Community and Institutional Models for Functioning Graft[1]

Additional payment factors for functioning graft status are at bottom of table.

Variable	Disease Group	Community Relative Factor	Constraints[2]	Institutional Relative Factor	Constraints[2]
Age/Sex Groups					
Female					
0-34 Years		0.223		1.240	
35-44 Years		0.224		0.879	
45-54 Years		0.304		0.879	
55-59 Years		0.370		0.879	
60-64 Years		0.422		0.879	
65-69 Years		0.298		0.945	
70-74 Years		0.371		0.885	
75-79 Years		0.468		0.822	
80-84 Years		0.546		0.757	
85-89 Years		0.637		0.694	
90-94 Years		0.788		0.617	
95 Years or Over		0.783		0.482	
Male					
0-34 Years		0.107		1.059	
35-44 Years		0.167		0.822	
45-54 Years		0.197		0.842	
55-59 Years		0.297		0.916	
60-64 Years		0.401		0.970	
65-69 Years		0.330		1.140	
70-74 Years		0.416		1.093	
75-79 Years		0.520		1.093	
80-84 Years		0.617		1.056	
85-89 Years		0.744		1.033	
90-94 Years		0.830		0.895	
95 Years or Over		0.960		0.775	
Medicaid and Originally Disabled Interactions With Age and Sex[5]					
Medicaid_Female_Disabled		0.137		0.000	
Medicaid_Female_Aged		0.177		0.000	
Medicaid_Male_Disabled		0.090		0.000	
Medicaid_Male_Aged		0.202		0.000	
Female, 65+, originally entitled due to disability		0.232		0.000	
Male, 65+, originally entitled due to disability		0.181		0.000	
Disease Group Factors					
HCC1	HIV/AIDS	0.933		0.735	
HCC2	Septicemia/Shock	0.887		0.762	
HCC5	Opportunistic Infections	0.410		0.476	
HCC7	Metastatic Cancer and Acute Leukemia	1.648		0.568	
HCC8	Lung, Upper Digestive Tract, and Other Severe Cancers	1.648		0.568	
HCC9	Lymphatic, Head and Neck, Brain, and Other Major Cancers	0.771		0.402	

HCC10	Breast, Prostate, Colorectal and Other Cancers and Tumors	0.258		0.241	
HCC15	Diabetes with Renal or Peripheral Circulatory Manifestation	0.608		0.466	
HCC16	Diabetes with Neurologic or Other Specified Manifestation	0.452		0.466	
HCC17	Diabetes with Acute Complications	0.364		0.466	
HCC18	Diabetes with Ophthalmologic or Unspecified Manifestation	0.265		0.466	
HCC19	Diabetes without Complication	0.181		0.257	
HCC21	Protein-Calorie Malnutrition	0.820		0.395	
HCC25	End-Stage Liver Disease	0.996		0.768	
HCC26	Cirrhosis of Liver	0.519		0.363	
HCC27	Chronic Hepatitis	0.303		0.363	
HCC31	Intestinal Obstruction/Perforation	0.347		0.349	
HCC32	Pancreatic Disease	0.383		0.277	
HCC33	Inflammatory Bowel Disease	0.270		0.263	
HCC37	Bone/Joint/Muscle Infections/Necrosis	0.550		0.482	
HCC38	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.363		0.233	
HCC44	Severe Hematological Disorders	1.136		0.477	
HCC45	Disorders of Immunity	0.841		0.443	
HCC51	Drug/Alcohol Psychosis	0.250		0.000	
HCC52	Drug/Alcohol Dependence	0.250		0.000	
HCC54	Schizophrenia	0.515		0.347	
HCC55	Major Depressive, Bipolar, and Paranoid Disorders	0.370		0.308	
HCC67	Quadriplegia, Other Extensive Paralysis	0.961		0.337	
HCC68	Paraplegia	0.961		0.291	
HCC69	Spinal Cord Disorders/Injuries	0.511		0.152	
HCC70	Muscular Dystrophy	0.466		0.000	
HCC71	Polyneuropathy	0.324		0.253	
HCC72	Multiple Sclerosis	0.472		0.174	
HCC73	Parkinson's and Huntington's Diseases	0.547		0.089	
HCC74	Seizure Disorders and Convulsions	0.280		0.165	
HCC75	Coma, Brain Compression/Anoxic Damage	0.446	C1	0.000	
HCC77	Respirator Dependence/Tracheostomy Status	1.860		1.360	

HCC78	Respiratory Arrest	1.448		0.984	
HCC79	Cardio-Respiratory Failure and Shock	0.629		0.464	
HCC80	Congestive Heart Failure	0.395		0.231	
HCC81	Acute Myocardial Infarction	0.349		0.474	
HCC82	Unstable Angina and Other Acute Ischemic Heart Disease	0.332		0.474	
HCC83	Angina Pectoris/Old Myocardial Infarction	0.231		0.296	
HCC92	Specified Heart Arrhythmias	0.295		0.198	
HCC95	Cerebral Hemorrhage	0.366		0.175	
HCC96	Ischemic or Unspecified Stroke	0.303		0.175	
HCC100	Hemiplegia/Hemiparesis	0.410		0.065	
HCC101	Cerebral Palsy and Other Paralytic Syndromes	0.212		0.000	
HCC104	Vascular Disease with Complications	0.645		0.495	
HCC105	Vascular Disease	0.324		0.164	
HCC107	Cystic Fibrosis	0.398		0.327	
HCC108	Chronic Obstructive Pulmonary Disease	0.398		0.327	
HCC111	Aspiration and Specified Bacterial Pneumonias	0.761		0.644	
HCC112	Pneumococcal Pneumonia, Emphysema, Lung Abscess	0.233		0.188	
HCC119	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	0.278		0.527	
HCC130	Dialysis Status[3]	0.000		0.000	
HCC131	Renal Failure[3]	0.000		0.000	
HCC132	Nephritis	0.182		0.290	
HCC148	Decubitus Ulcer of Skin	1.167		0.474	
HCC149	Chronic Ulcer of Skin, Except Decubitus	0.463		0.239	
HCC150	Extensive Third-Degree Burns	0.818		0.000	
HCC154	Severe Head Injury	0.446	C1	0.000	
HCC155	Major Head Injury	0.182		0.000	
HCC157	Vertebral Fractures without Spinal Cord Injury	0.501		0.109	
HCC158	Hip Fracture/Dislocation	0.450		0.000	
HCC161	Traumatic Amputation	0.736		0.224	C1
HCC164	Major Complications of Medical Care and Trauma	0.299		0.219	
HCC174	Major Organ Transplant Status	0.362		0.362	
HCC176	Artificial Openings for Feeding or Elimination	0.758		0.843	
HCC177	Amputation Status, Lower Limb/Amputation Complications	0.653		0.224	C1

Disabled/Disease Interactions					
D_HCC5	Disabled_Opportunistic Infections	0.941		0.280	
D_HCC44	Disabled_Severe Hematological Disorders	0.551		0.419	
D_HCC51	Disabled_Drug/Alcohol Psychosis	0.801		0.425	
D_HCC52	Disabled_Drug/Alcohol Dependence	0.356		0.425	
D_HCC107	Disabled_Cystic Fibrosis	1.391		0.000	
Disease Interactions					
INT1	DM_CHF[4]	0.204		0.088	
INT2	DM_CVD	0.149		0.026	
INT3	CHF_COPD	0.216		0.194	
INT4	COPD_CVD_CAD	0.174		0.042	
INT5	RF_CHF[4]	0.248		0.000	
INT6	RF_CHF_DM[4]	0.664		0.203	
Graft Factors[6]					
Aged <65, with duration since transplant of 4-9 months		3.391		3.391	
Aged 65+, with duration since transplant of 4-9 months		3.391		3.391	
Aged <65, with duration since transplant of 10 months or more		1.152		1.152	
Aged 65+, with duration since transplant of 10 months or more		1.323		1.323	

[1]To determine payments for persons with functioning grafts, the computed risk score should be applied to the appropriate cell in the CMS-HCC county risk ratebook for the aged and disabled. For payment in any month, duration is measured from the month of transplant to the first day of that month. All coefficients except for the graft factors and HCC174 were constrained to the values estimates for the 2003 Calibration CMS-HCC Aged-Disabled Community Model.
[2] _____ means coefficients of HCCs are constrained to be equal, and C1 denotes a non-continguous constraint. For the community model C1=.446; for the institutional model C1=.224.

[3]Kidney failure and Dialysis status HCCs are not captured in the model for functioning graft beneficiaries. The cost of treating their transplanted kidney is captured instead in the post-graft factors. Should a post-graft patient have failure again they would return to dialysis status and be paid under the dialysis model.
[4]Diseases in interactions are:

DM is diabetes mellitus (HCCs 15-19)
CHF is congestive heart failure (HCC 80)
COPD is chronic obstructive pulmonary disease (HCC 108)
CVD is cerebrovascular disease (HCCs 95,96,100, and 101)
RF is renal failure (HCC 131)

Beneficiaries with the three-way interaction RF*CHF*DM are excluded from the two-way interactions DM*CHF and RF*CHF. Thus, the three-way interaction term RF*CHF*DM is not additive to the two-way interaction terms DM*CHF and RF*CHF. Rather, it is hierarchical to, and excludes these interaction terms. A beneficiary with all three conditions is not "credited" with the two-way interactions. All other interaction terms are additive.

[5]These HCCs are not present in the institutional model.
[6]The graft factors are additive, similar to any other factors in the CMS-HCC model. The factor is higher during the months immediately after transplant to account for a high level of monitoring and services.

Table 1-5. List Hierarchies for the CMS-HCC Model

DRAFT DISEASE HIERARCHIES		
Hierarchical Condition Category (HCC)	**If the Disease Group is Listed in This Column…**	**…Then Drop the Associated Disease Group(s) Listed in This Column**
	Disease Group Label	
5	Opportunistic Infections	112
7	Metastatic Cancer and Acute Leukemia	8,9,10
8	Lung, Upper Digestive Tract, and Other Severe Cancers	9, 10
9	Lymphatic, Head and Neck, Brain and Other Major Cancers	10
15	Diabetes with Renal Manifestations or Peripheral Circulatory Manifestation	16,17,18,19
16	Diabetes with Neurologic or Other Specified Manifestation	17,18,19
17	Diabetes with Acute Complications	18,19
18	Diabetes with Ophthalmologic or Unspecified Manifestations	19
25	End-Stage Liver Disease	26,27
26	Cirrhosis of Liver	27
51	Drug/Alcohol Psychosis	52
54	Schizophrenia	55
67	Quadriplegia/Other Extensive Paralysis	68,69,100,101,157
68	Paraplegia	69,100,101,157
69	Spinal Cord Disorders/Injuries	157
77	Respirator Dependence/ Tracheostomy Status	78,79
78	Respiratory Arrest	79
81	Acute Myocardial Infarction	82,83
82	Unstable Angina and Other Acute Ischemic Heart Disease	83
95	Cerebral Hemorrhage	96
100	Hemiplegia/Hemiparesis	101
104	Vascular Disease with Complications	105,149
107	Cystic Fibrosis	108
111	Aspiration and Specified Bacterial Pneumonias	112
130	Dialysis Status	131,132
131	Renal Failure	132
148	Decubitus Ulcer of Skin	149
154	Severe Head Injury	75,155
161	Traumatic Amputation	177

How Payments are Made with a Disease Hierarchy -- EXAMPLE: If a beneficiary triggers HCCs 148 (Decubitus Ulcer of the Skin) and 149 (Chronic Ulcer of Skin, Except Decubitus), then HCC 149 will be dropped. In other words, payment will always be associated with the HCC in column 1 if a HCC in column 3 also occurs during the same collection period. Therefore, the MA organization's payment will be based on HCC 148 rather than HCC 149.