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42 CFR Part 484

Medicare Program; Home Health Prospective Payment System Refinement and Rate Update for Calendar Year 2008; Final Rule

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

42 CFR Part 484

[CMS–1541–FC]

RIN 0938–AO32

Medicare Program; Home Health Prospective Payment System Refinement and Rate Update for Calendar Year 2008

AGENCY: Centers for Medicare & Medicaid Services (CMS), HHS.

ACTION: Final rule with comment period.

SUMMARY: This final rule with comment period sets forth an update to the 60-day national episode rates and the national per-visit amounts under the Medicare prospective payment system for home health services, effective on January 1, 2008. As part of this final rule with comment period, we are also rebasing and revising the home health market basket to ensure it continues to adequately reflect the price changes of efficiently providing home health services. This final rule with comment period also sets forth the refinements to the payment system. In addition, this final rule with comment period establishes new quality of care data collection requirements.

Finally, this final rule with comment period allows for further public comment on the 2.71 percent reduction to the home health prospective payment system payment rates that are scheduled to occur in 2011, to account for changes in coding that were not related to an underlying change in patient health status (section III.B.6).

DATES: *Effective date:* These regulations are effective on January 1, 2008.

Comment date: We will consider public comments on the provisions in section III.B.6 that deal with the 2.71 percent reduction to payment rates in 2011. To be assured consideration, comments must be received at one of the addresses provided below, no later than 5 p.m. on October 29, 2007.

ADDRESSES: In commenting, please refer to file code CMS–1541–FC. Because of staff and resource limitations, we cannot accept comments by facsimile (FAX) transmission.

You may submit comments in one of four ways (no duplicates, please):

1. *Electronically.* You may submit electronic comments on specific issues in this regulation to *http://www.cms.hhs.gov/eRulemaking.* Click on the link ''Submit electronic comments on CMS regulations with an open comment period.'' (Attachments should be in Microsoft Word, WordPerfect, or Excel; however, we prefer Microsoft Word.)

2. *By regular mail.* You may mail written comments (one original and two copies) to the following address ONLY: Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS–1541–FC, P.O. Box 8012, Baltimore, MD 21244–8012.

Please allow sufficient time for mailed comments to be received before the close of the comment period.

3. *By express or overnight mail.* You may send written comments (one original and two copies) to the following address ONLY: Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS–1541–FC, Mail Stop C4–26–05, 7500 Security Boulevard, Baltimore, MD 21244–1850.

4. *By hand or courier.* If you prefer, you may deliver (by hand or courier) your written comments (one original and two copies) before the close of the comment period to one of the following addresses. If you intend to deliver your comments to the Baltimore address, please call telephone number (410) 786–7195 in advance to schedule your arrival with one of our staff members.

Room 445–G, Hubert H. Humphrey Building, 200 Independence Avenue, SW., Washington, DC 20201; or 7500 Security Boulevard, Baltimore, MD 21244–1850.

(Because access to the interior of the HHH Building is not readily available to persons without Federal Government identification, commenters are encouraged to leave their comments in the CMS drop slots located in the main lobby of the building. A stamp-in clock is available for persons wishing to retain a proof of filing by stamping in and retaining an extra copy of the comments being filed.)

Comments mailed to the addresses indicated as appropriate for hand or courier delivery may be delayed and received after the comment period.

Submission of comments on paperwork requirements. You may submit comments on this document's paperwork requirements by mailing your comments to the addresses provided at the end of the ''Collection of Information Requirements'' section in this document.

For information on viewing public comments, see the beginning of the **SUPPLEMENTARY INFORMATION** section.

FOR FURTHER INFORMATION CONTACT: Randy Throndset, (410) 786–0131. Sharon Ventura, (410) 786–1985 and Katie Lucas, (410) 786–7723 (for general issues). Kathy Walch, (410) 786–7970 (for clinical OASIS issues). Doug Brown, (410) 786–0028 (for quality issues). Mollie Knight, (410) 786–7948; and Heidi Oumarou, (410) 786–7942 (for market basket issues).

SUPPLEMENTARY INFORMATION:

Submitting Comments: We welcome comments from the public on the 2.71 percent reduction to the Home Health Prospective Payment System (HH PPS) rates for 2011, as set forth in this final rule with comment period, to assist us in fully considering this issue and developing policies.

Inspection of Public Comments: All comments received before the close of the comment period will be available for viewing by the public, including any personally identifiable or confidential business information that is included in the comment. We post all comments received before the close of the comment period on the following Web site as soon as possible after they have been received: *http://www.cms.hhs.gov/eRulemaking.* Click on the link ''Electronic Comments on CMS Regulations'' on that Web site to view public comments.

Comments received timely will also be available for public inspection as they are received, generally beginning approximately 3 weeks after publication of a document, at the headquarters of the Centers for Medicare and Medicaid Services, 7500 Security Boulevard, Baltimore, Maryland 21244, Monday through Friday of each week from 8:30 a.m. to 4 p.m. To schedule an appointment to view public comments, phone 1–800–743–3951.

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I. Background

A. Requirements of the Balanced Budget Act of 1997 for Establishing the Prospective Payment System for Home Health Services

The Balanced Budget Act of 1997 (BBA) (Pub. L. 105–33) enacted on August 5, 1997, significantly changed the way Medicare pays for Medicare home health services. Section 4603 of the BBA governed the development of the home health prospective payment system (HH PPS). Until the implementation of a HH PPS on October 1, 2000, home health agencies (HHAs) received payment under a cost-based reimbursement system.

Section 4603(a) of the BBA provides the authority for the development of a HH PPS for all Medicare-covered home health services provided under a plan of care that were paid on a reasonable cost basis by adding section 1895 of the Social Security Act (the Act), entitled ''Prospective Payment For Home Health Services,'' to the Act.

Section 1895(b)(1) of the Act requires the Secretary to establish a HH PPS for all costs of home health services paid under Medicare.

Section 1895(b)(3)(A) of the Act requires that (1) the computation of a standard prospective payment amount include all costs for home health services covered and paid for on a reasonable cost basis and be initially based on the most recent audited cost report data available to the Secretary, and (2) the prospective payment amounts be standardized to eliminate the effects of case-mix and wage levels among HHAs.

Section 1895(b)(3)(B) of the Act addresses the annual update to the standard prospective payment amounts by the home health applicable increase percentage as specified in the statute.

Section 1895(b)(4) of the Act governs the payment computation. Sections 1895(b)(4)(A)(i) and (b)(4)(A)(ii) of the Act require the standard prospective payment amount be adjusted for case-mix and geographic differences in wage levels. Section 1895(b)(4)(B) of the Act requires the establishment of an appropriate case-mix adjustment factor that adjusts for significant variation in costs among different units of services. Similarly, section 1895(b)(4)(C) of the Act requires the establishment of wage adjustment factors that reflect the relative level of wages, and wage-related costs applicable to home health services furnished in a geographic area compared to the applicable national average level. These wage-adjustment factors may be used by the Secretary for the different geographic wage levels for purposes of section 1886(d)(3)(E) of the Act.

Section 1895(b)(5) of the Act gives the Secretary the option to make additions or adjustments to the payment amount otherwise made in the case of outliers because of unusual variations in the type or amount of medically necessary care. Total outlier payments in a given fiscal year (FY) may not exceed 5 percent of total payments projected or estimated.

In accordance with the statute, we published a final rule (65 FR 41128) in the **Federal Register** on July 3, 2000 to implement the HH PPS legislation. The July 2000 final rule established requirements for the new HH PPS for home health services as required by section 4603 of the BBA, as subsequently amended by section 5101 of the Omnibus Consolidated and Emergency Supplemental Appropriations Act (OCESAA) for Fiscal Year 1999, (Pub. L. 105–277), enacted on October 21, 1998; and by sections 302, 305, and 306 of the Medicare, Medicaid, and SCHIP Balanced Budget Refinement Act (BBRA) of 1999, (Pub. L. 106–113), enacted on November 29, 1999. The requirements include the implementation of a HH PPS for home health services, consolidated billing requirements, and a number of other related changes. The HH PPS described in that rule replaced the retrospective reasonable cost-based system that was used by Medicare for the payment of home health services under Part A and Part B.

For a complete and full description of the HH PPS as required by the BBA, see the July 2000 HH PPS final rule.

B. Deficit Reduction Act of 2005

On February 8, 2006, the Deficit Reduction Act (DRA) of 2005 (Pub. L. 109–171) was enacted. This legislation affected updates to HH payment rates for calendar year (CY) 2006. The DRA also required HHAs to submit home health care quality data and created a linkage between that data and payment beginning in CY 2007.

Specifically, section 5201 of the DRA changed the CY 2006 update from the applicable home health market basket percentage increase minus 0.8 percentage points to a 0 percent update. In addition, section 5201 of the DRA amends section 421(a) of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) (Pub. L. 108–173, enacted on December 8, 2003). The amended section 421(a) of the MMA requires that for home health services furnished in a rural area (as defined in section 1886(d)(2)(D) of the Act) on or after January 1, 2006 and before January 1, 2007, that the Secretary increase the payment amount otherwise made under section 1895 of the Act for home health services by 5 percent. The statute waives budget neutrality for purposes of this increase since it specifically states that the Secretary must not reduce the standard prospective payment amount (or amounts) under section 1895 of the Act applicable to home health services furnished during a period to offset the increase in payments resulting in the application of this section of the statute.

The 0 percent update to the payment rates and the rural add-on provisions of the DRA were implemented through Pub. 100–20, One Time Notification, Transmittal 211 issued on February 10, 2006.

In addition, section 5201 of the DRA requires HHAs to submit data for purposes of measuring health care quality, and links the quality data submission to payment. This requirement is applicable for CY 2007 and each subsequent year. If an HHA does not submit quality data, the home health market basket percentage increase will be reduced 2 percentage points.

C. Updates to the HH PPS

As required by section 1895(b)(3)(B) of the Act, we have historically updated the HH PPS rates annually in a separate

Federal Register document. In those documents, we also incorporated the legislative changes to the system required by the statute after the BBA, specifically the MMA. On November 9, 2006, we published a final rule titled ''Medicare Program; Home Health Prospective Payment System Rate Update for Calendar Year 2007 and Deficit Reduction Act of 2005 Changes to Medicare Payment for Oxygen Equipment and Capped Rental Durable Medical Equipment; Final Rule'' (CMS–1304–F) (71 FR 65884) in the **Federal Register** that updated the 60-day national episode rates and the national per-visit amounts under the Medicare HH PPS for home health services for CY 2007. In addition, the November 2006 final rule ended the 1-year transition period that consisted of a blend of 50 percent of the new area labor market designations' wage index and 50 percent of the previous area labor market designations' wage index. We also revised the fixed dollar loss ratio, which is used in the calculation of outlier payments. According to section 5201(c)(2) of the DRA, this final rule also reduced, by 2 percentage points, the home health market basket percentage increase to HHAs that did not submit required quality data, as determined by the Secretary.

D. System for Payment of Home Health Services

Generally, Medicare makes payment under the HH PPS on the basis of a national standardized 60-day episode payment rate that is adjusted for case-mix and wage index. The national standardized 60-day episode payment rate includes the six home health disciplines (skilled nursing, home health aide, physical therapy, speech-language pathology, occupational therapy, and medical social services) and medical supplies. Durable medical equipment covered under home health is paid for outside the HH PPS payment. To adjust for case-mix, the HH PPS uses an 80-category case-mix classification to assign patients to a home health resource group (HHRG). Clinical needs, functional status, and service utilization are computed from responses to selected data elements in the OASIS assessment instrument.

For episodes with four or fewer visits, Medicare pays on the basis of a national per-visit amount by discipline, referred to as a low utilization payment adjustment (LUPA). Medicare also adjusts the national standardized 60-day episode payment rate for certain intervening events that are subject to a partial episode payment adjustment (PEP adjustment) or a significant change in condition adjustment (SCIC adjustment). For certain cases that exceed a specific cost threshold, an outlier adjustment may also be available.

II. Summary of the Provisions of the CY 2008 Proposed Rule

We published a proposed rule in the **Federal Register** on May 4, 2007 (72 FR 25356) that set forth a proposed update to the 60-day national episode rates and the national per-visit amounts under the Medicare prospective payment system for home health services. In accordance with section 1895(b)(3)(B) of the Act, the standard prospective payment amounts are to be increased by a factor equal to the applicable home health market basket update for those HHAs that submit quality data as required by the Secretary. The proposed home health market basket update for CY 2008 was 2.9 percent. For HHAs that fail to submit the required quality data, the home health market basket update would be reduced by 2 percentage points.

Sections 1895(b)(4)(A)(ii) and (b)(4)(C) of the Act require the Secretary to establish area wage adjustment factors that reflect the relative level of wages and wage-related costs applicable to the furnishing of home health services and to provide appropriate adjustments to the episode payment amounts under the HH PPS to account for area wage differences. As set forth in the July 3, 2000 final rule (65 FR 41128), the statute provides that the wage adjustment factors may be the factors used by the Secretary for the purposes of section 1886(d)(3)(E) of the Act for hospital wage adjustment factors. In the CY 2008 proposed rule (72 FR 25449), we proposed to use the 2008 pre-floor and pre-reclassified hospital wage index (not including any reclassification under section 1886(d)(8)(B) of the Act) to adjust rates for CY 2008 and would publish those final wage index values in the final rule.

As part of the CY 2008 proposed rule (72 FR 25435), we also proposed to rebase and revise the home health market basket to reflect FY 2003 Medicare cost report data, the latest available and most complete data on the structure of HHA costs. In the proposed rebased and revised home health market basket, the labor-related share was 77.082 (an increase from the current labor-related share of 76.775). The proposed non-labor-related share was 22.918 (a decrease from the current non-labor-related share of 23.225). The increase in the proposed labor-related share using the FY 2003 home health market basket was primarily due to the increase in the benefit cost weight.

The CY 2008 proposed rule (72 FR 25358) also proposed refinements to the payment system. Extensive research was conducted to investigate ways to improve the performance of the case-mix model. This research was the basis for our proposals to refine the case-mix model. We proposed to refine the case-mix model to reflect different resource costs for early home health episodes versus later home health episodes and to expand the case-mix variables included in the payment model. For 2008, we proposed a 4-equation case-mix model that recognizes and differentiates payment for episodes of care based on whether a patient is in what is considered to be an early (1st or 2nd episode in a sequence of adjacent episodes) or later (the 3rd episode and beyond in a sequence of adjacent episodes) episode of care as well as recognizing whether a patient was a high therapy (14 or more therapy visits) or low therapy (13 or fewer therapy visits) case. We defined episodes as adjacent if they were separated by no more than a 60-day period between claims. Analysis of the performance of the case-mix model for later episodes revealed two important differences for episodes occurring later in the home health treatment compared to earlier episodes: higher resource use per episode and a different relationship between clinical conditions and resource use. We also proposed that additional variables include scores for certain wound and skin conditions; more diagnosis groups such as pulmonary, cardiac, and cancer diagnoses; and certain secondary diagnoses. The proposed 4-equation model resulted in 153 case-mix groups.

In addition, we proposed to replace the current single therapy threshold of 10 visits with three therapy thresholds at 6, 14, and 20 visits. We proposed that payment for additional therapy visits between the three thresholds would increase gradually, incorporating a declining, rather than a constant, amount per added therapy visit. The proposed approach would not reduce total payments to home health providers because the payment model would still predict total resource cost. We noted that the combined effect of the new therapy thresholds and payment gradations was expected to reduce the undesirable emphasis in treatment planning on a single therapy visit threshold, and to restore the primacy of clinical considerations in treatment planning for rehabilitation patients.

In the May 4, 2007 proposed rule (72 FR 25395), we further proposed to make

an adjustment for case-mix that was not due to a change in the underlying health status of the home health users. Section 1895(b)(3)(B) of the Act requires that in compensating for case-mix change, a payment reduction must be applied to the standardized payment amount. At the time of publication of the proposed rule, the most recent available data, from which to compute an average case-mix weight, or case-mix index, under the HH PPS rule, was from 2003. Using the 2003 data, the average case-mix weight per episode for initial episodes was 1.233. Analysis of a 1-percent sample of initial episodes from the 1999–2000 data under the HH IPS revealed an average case-mix weight of 1.125. Standardized to the distribution of agency type (freestanding proprietary, freestanding not-for-profit, hospital-based, government, and skilled nursing facility (SNF)-based) that existed in 2003 under the HH PPS, the average weight was 1.134. We noted this time period is likely not free from anticipatory response to the HH PPS, because we published our initial HH PPS proposal on October 28, 1999. The increase in the average case-mix using this time period as the baseline resulted in an 8.7 percent increase (from 1.134 to 1.233; 1.233–1.134=0.099; 0.099/1.134=0.087; 0.087×100=8.7 percent). We proposed that the 8.7 percent of case-mix change that occurred between the 12 months ending September 30, 2000 and the most recent available data at the time from 2003 be considered case-mix change unrelated to change in health status, also referred to as ''nominal case-mix change.'' We proposed to apply this reduction over 3 years at 2.75 percent per year. Our analysis on the average case-mix under the HH PPS using an Abt Associates' case-mix study sample from October 1997 to April of 1998 as the baseline revealed an increase in the average case-mix of 23.3 percent (from 1.0 during October 1997 to April 1998 to 1.233 in 2003). Because we believed the HHAs response to BBA provisions, such as the home health interim payment system (HH IPS) during this period, could have produced data from this sample that reflected a case-mix in flux, we were not confident that the trend in the case-mix index (CMI) between the time of the Abt Associates case-mix study sample and 2003 data, used in the analysis for the proposed rule, reflected only changes in nominal coding practices. Conversely, the average case-mix for a sample data set for 12 months ending September 30, 2000 (HH IPS baseline) was found to be 1.125, standardized to 1.134. Using this time period as the base-line from which to measure nominal change in case-mix under the HH PPS, we identified an 8.7 percent change (increase) in the average CMI that would not be due to a change in the patient health status (1.233, 2003 rate −1.134, September 2000 baseline = 0.099; 0.099/1.134 = 0.087). Consequently, we proposed to account for that 8.7 percent in case-mix change, that we considered to be nominal by reducing the national 60-day episode rate by 2.75 percent, per year, for 3 years (subject to change upon analysis of newer, 2005 data for the final rule), beginning in CY 2008.

Additionally, we proposed to modify a number of existing HH PPS payment adjustments. Specifically, we proposed modifying the LUPA by increasing the payment, by $92.63, for LUPA episodes that occur as the only episode or the initial episode during a sequence of adjacent episodes. It has been suggested, by the industry, that LUPA payment rates do not adequately account for the front-loading of costs in an episode. Our analysis showed that these types of LUPAs require longer visits, on average, than non-LUPA episodes, and that the longer average visit length is due to the start of care visit, when the case is opened and the initial assessment takes place. Consequently, these analyses indicate that payments for such episodes may not offset the full cost of initial visits. We also proposed eliminating the significant change in condition (SCIC) payment adjustment. The current SCIC policy allows an HHA to adjust payment when a beneficiary experiences a SCIC during the 60-day episode that was not envisioned in the original plan of care. Because of the apparent difficulty HHAs have in interpreting the SCIC policy, their negative margins, the decline in the occurrence of SCICs, and the estimated little impact on outlays in eliminating the SCIC policy, we proposed to eliminate the SCIC policy.

In the development of the HH PPS, non-routine medical supplies (NRS) were accounted for by attributing $49.62 to the standardized episode payment. In the CY 2008 proposed rule (72 FR 25427), we proposed to apply a severity adjustment to the NRS portion of the HH PPS standardized episode payment. Specifically, we proposed a five-severity group level approach that we believe would account for NRS costs based on measurable conditions, would be feasible to administer, and offered HHAs some protection against episodes with extremely high NRS costs. Finally, we did not propose to modify the existing Partial Episode Payment (PEP) Adjustment. At the time of the proposed rule, our analysis did not suggest a more appropriate alternative payment policy. However, we solicited the public for suggestions and comments on this aspect of the HH PPS for ways to improve the PEP adjustment policy.

Section 1895(b)(5) of the Act also allows for the provision of an addition or adjustment to account for outlier episodes, which are those episodes that incur unusually large costs due to patient care needs. Under the HH PPS, outlier payments are made for episodes for which the estimated cost exceeds a threshold amount. The wage adjusted fixed dollar loss (FDL) amount represents the amount of loss that an agency must bear before an episode becomes eligible for outlier payments. Section 1895(b)(5) of the Act requires that the estimated total outlier payments may not exceed 5 percent of total estimated HH PPS payments. With outlier payments having increased in recent years, and given the unknown effects that the proposed refinements may have on outliers, we proposed to maintain the FDL ratio of 0.67. We stated, in the proposed rule (72 FR 25434), that we believed this would continue to meet the statutory requirement of having an outlier payment outlay that does not exceed 5 percent of total HH PPS payments, while still providing for an adequate number of episodes to qualify for outlier payments. We further stated in the proposed rule (72 FR 25434) that we would rely on the latest data and best analysis available at the time to estimate outlier payments and update the FDL ratio in the final rule if appropriate.

Finally for CY 2007, we specified 10 OASIS quality measures as appropriate for measurements of health care quality. These measures were to be submitted by HHAs to meet their statutory requirements to submit data for a full increase in their home health market basket percentage increase amount. For CY 2008, we proposed to expand the set of 10 measures by adding up to 2 National Quality Forum (NQF)-endorsed measures. The proposed additional measures for 2008 were as follows:

- Emergent Care for Wound Infection, Deteriorating Wound Status
- Improvement in the Status of Surgical Wounds

Accordingly, for CY 2008, we proposed to consider the 12 OASIS quality measures submitted by HHAs to CMS for episodes beginning on or after July 1, 2006 and before July 1, 2007 as meeting the reporting requirement for CY 2008.

III. Analysis of and Responses to Public Comments on the CY 2008 Proposed Rule

In response to the publication of the CY 2008 HH PPS proposed rule, we received approximately 150 items of correspondence from the public. We received numerous comments from various trade associations and major organizations. Comments also originated from HHAs, hospitals, other providers, suppliers, practitioners, advocacy groups, consulting firms, and private citizens. The following discussion, arranged by subject area, includes our responses to the comments and, where appropriate, a brief summary as to whether or not we are implementing the proposed provision or some variation thereof.

A. General Comments on the CY 2008 HH PPS Proposed Rule

1. Operational Issues

Overall, commenters were pleased with the proposed changes to the HH PPS. However, commenters did express concerns over the burden they perceived that would be placed on HHAs to accomplish a number of the proposed changes.

Comment: Commenters generally appreciated CMS's plan to automatically adjust claims to reflect the actual amount of therapy provided versus that initially reported in OASIS item M0826, Therapy Need, but two commenters noted that for payment adjustments to be made accurately, Medicare's Common Working File (CWF) system must contain timely, accurate information. Numerous commenters were concerned that the creation of M0110 (Episode Timing) would be burdensome, as agencies do not have the information to complete them. The commenters did not want to be penalized if M0110 was answered incorrectly, and wanted to avoid administrative burden from having to cancel and resubmit final claims and Request for Anticipated Payments (RAPs).

Response: CMS has made efforts over the last several years to reduce internal processing delays and ensure that the CWF is updated with claim receipts more quickly overall. While new errors may arise that delay processing, we will seek to correct them as swiftly as possible in light of all the competing demands on our systems.

The factor that most affects the timeliness and accuracy of the CWF is how promptly within the 15 to 27 month timely filing period each provider submits its claims. Medicare systems can only process to the greatest degree of accuracy based on the information received to date. In all instances where we foresee submission or processing lags affecting the accuracy of claim payments under the refined system, we are designing processes to retrospectively adjust paid claims at the point when the delayed information is received. For example, the CWF will automatically adjust claims up or down to correct for episode timing (early or later, from M0110) and for therapy need (M0826) when submitted information is found to be incorrect.

No cancelling and resubmission on the part of HHAs will be required in these instances. Additionally, as the proposed rule noted, providers have the option of using a default answer reflecting an early episode in M0110 in cases where information about episode sequence is not readily available.

Comment: Most commenters supported the elimination of OASIS item M0175 from the case-mix model, as they sometimes found it difficult to code accurately. Some commenters thought that we were eliminating M0175 from the OASIS entirely, and supported that. Several recommended that we also stop retrospective M0175 audits. One asked that we keep M0175 as a case-mix variable, and apply the points to patients who have been admitted directly from a hospital.

Response: We appreciate the support of our decision to eliminate M0175 as a case-mix variable. We are not eliminating M0175 from the OASIS, as is explained in section III.E.4, but only removing it from the case-mix model. The M0175 item's results across the four equations were difficult to interpret, and the item's explanatory power (with respect to contribution to the R-squared statistic) was small. Therefore, M0175 was not included as a case-mix variable in our final case-mix model.

The M0175 item is part of the original HH PPS case-mix model and was reflected in the determination of payments under that system. The retrospective M0175 audits are still necessary to correct payments that were made inappropriately under the original HH PPS. These payment corrections have been repeatedly recommended to CMS by HHS's Office of Inspector General.

Comment: One commenter proposed that the timeliness of information on Medicare systems would be increased by the removal of the option to submit no-RAP LUPA claims. The commenter believes that requiring RAPs for all episodes will speed submission of episodes to Medicare.

Response: The no-RAP LUPA billing mechanism was created as part of the original implementation of the HH PPS in response to concerns from the home health industry that requiring RAPs for brief LUPA episodes presented an administrative burden. Absent consistent feedback throughout the home health industry that the benefits of removing this billing mechanism would outweigh the costs, we plan to retain the no-RAP LUPA process. However, we note this billing mechanism is an operational issue and we have not received many comments on this issue. It should be further noted that requiring the submission of RAPs for all episodes will not necessarily speed the submission of those RAPs in all cases. RAPs, like no-RAP LUPAs, can also be submitted at any point in the timely filing period.

Comment: One commenter asked whether home health services received when a beneficiary is enrolled in a Medicare Advantage (MA) Plan will be considered in determining the sequence of adjacent episodes in cases where the beneficiary has disenrolled from the MA Plan and resumes his or her coverage under the Medicare fee-for-service program.

Response: Medicare does not typically receive claim-by-claim or individual service data on beneficiaries enrolled in MA Plans. As a result, the information is not available to determine whether a beneficiary has been receiving home health services under the plan or for how long. Medicare systems will determine sequences of adjacent episodes based on the fee-for-service episode information currently housed in the CWF and accessible to Medicare providers through eligibility inquiry transactions.

Comment: A commenter believed that the addition of multiple payment tiers based on therapy usage would create a problem concerning beneficiary notification of their financial obligation to pay for home health services. Many beneficiaries are now enrolled in Medicare replacement plans that require a co-pay on the episodic rate. The Medicare Conditions of Participation (CoPs) at 42 CFR 484.10 require that the HHA notify the patient in advance of his or her liability for payment. The commenter believed some consideration needs to be made about the obligations of HHAs to meet this requirement as it is virtually impossible to calculate the rate and provide notices of the changing rate prior to providing service.

Response: The provisions of this rule apply to Medicare's fee-for-service HH PPS and do not apply to Medicare Advantage/Medicare Choice plans where co-pays for home health services provided under the plan may exist. As

long as the patient meets the Medicare fee-for-service eligibility requirements, and the HHA provides covered services that are reasonable and necessary based on the patient's plan of care, there would be no financial obligation on the part of the patient. However, if the patient asks the HHA for services outside the scope of the Medicare home health benefit, or the HHA provides non-covered services, the HHA would be required to provide the patient with financial liability information via the Advanced Beneficiary Notification (ABN). The multiple payment tiers (that is, multiple therapy thresholds) would not affect the determination of the patient's financial liability. That liability would be outside the scope of the Medicare home health benefit, and would be determined between the HHA and the patient. This comment is beyond the scope of this final rule with comment period, which deals with payment under HH PPS to fee-for-service HHAs.

Comment: Several commenters wrote that smaller, rural agencies are particularly disadvantaged by the changes in the proposed rule. They were concerned that the proposed changes will limit the ability of agencies to survive or compete, which could limit access for patients. This may impact rural patients more than urban patients.

Another commenter noted that CMS derives resource costs by weighting each minute reported on the claim by the national average labor market hourly rate for the discipline, and summing the total. The commenter believed that it is not realistic to attribute the same resource cost to rural beneficiaries as to urban beneficiaries, who have more social programs available to them. Additionally, this method does not account for the significant travel costs associated with rural beneficiaries. The commenter added that this is why there has periodically been a rural add-on.

Response: Our impact tables show that rural agencies, on average, will experience a modest reduction in total payments between 2007 and 2008—less than 2 percent. Factors in the reduction are discussed in section VI.B. These include the small reduction in the average case-mix weight in 2008 among rural agencies, the impact of the wage index, and several other factors discussed in that section. The offsetting positive effect of the annual payment update offsets most of the total negative effect of the changes.

Medicare prices are adjusted for the cost differences among different locations. Although we use standardized national average resource cost estimates for developing the relative case-mix weights, the pricing procedure applied after accounting for standardized resource costs adjusts for geographic differences in cost levels. We have no data to effectively evaluate the comments on the disadvantages attributed to rurally residing beneficiaries.

Comment: A commenter suggested raising the RAP to 75 percent of the base rate. Another commenter noted that the proposed rule is silent on the need to increase the RAP, even though program abuse of the RAP has not materialized. This commenter proposed that the RAP be increased to 80/20 for all providers who have participated in the HH PPS since its inception, and noted that CMS would retain the right to reduce this level for abuse of the RAP. The commenter further proposed that less established providers could operate under current RAP rules until they had a 5 year record of responsible Medicare performance.

Response: Before HH PPS implementation, HHAs were accustomed to billing Medicare on a 30-day cycle or receiving periodic interim payments. The change to a 60-day episode of care under HH PPS, combined with concerns over delays due to claims processing times, documentation requirements, and medical review, led us to address agency cash flow concerns in our 1999 HH PPS proposed rule. At that time, we proposed a split percentage payment to ensure that agencies have adequate cash flow to maintain quality services to beneficiaries. In 2000, we implemented the RAP which paid 60 percent up front for an initial episode, as we recognized that some administrative costs were front-loaded; the remaining 40 percent would be paid after submission of the final claim. We allowed a RAP of 50 percent for a subsequent episode, with the remaining 50 percent paid upon receipt of the final claim.

We expect agencies to follow normal business practices with regard to financing their operations. The current RAP percentage splits are reasonable given the RAP's purpose, therefore, we do not see a need to increase them. Moreover, we believe our current process protects against abuse, as an agency's RAP may be reduced or withheld when protecting Medicare program integrity warrants this action.

Comment: Two commenters wrote that they are unable to make meaningful public comment because CMS has not released the impact file that would enable modeling of the proposed changes. Agencies are unable to plan operationally and financially for these changes.

Response: We do not agree that agencies are unable to plan operationally and financially for these changes. We worked with a large, 20-percent sample of 2005 claims, which would not permit us to produce accurate summaries at the agency level for many agencies, which would be required for a file of the type mentioned by the commenter. Our proposed rule impact table provided average case-mix weights for agencies to use as estimates, according to the detailed subgroup to which they belong. Consistent with resources available, we opted to provide a simple preliminary grouper to assist agencies in understanding the impacts. We also provided preliminary grouper logic (''pseudocode'') for software developers assisting some agencies to evaluate the impacts.

Comment: A number of commenters noted that home health agencies provide quality care that saves Medicare money in hospital or other inpatient facility benefits. Several commenters expressed concern that the proposed changes do not consider today's health picture, with an aging population, a wave of baby boomers entering retirement, a shortage of nurses, high fuel costs, and the cost of technological advances such as telehealth and physician's portal.

Response: The goal of the refinements in this regulation is to pay as accurately as possible given the case-mix of patients in home health agencies today. We appreciate the broad context referenced in this comment, and will continue to work with the home health industry and the public to understand and anticipate changes that affect proper pricing of home health services.

Comment: A commenter suggested that we revise the regulation requiring that orders and plans of care for home health patients be signed by a physician. Another commenter asked that the CoPs be changed to allow therapists, in addition to nurses, to open a case, as it could improve the ability to accurately project therapy requirements for patients.

Response: We appreciate these comments, but note that this regulation updates the HH PPS payment rates and does not change any of the CoPs. Sections 1814(a)(2)(c) and 1835(a)(2)(A)(ii) of the Act require that orders and plans of care be established and periodically reviewed by a physician. The CoP dictating the physician signature requirements on the plan of care is detailed in 42 CFR 484.18(b) and (c).

Moreover, in 42 CFR 484.55(a)(1), agencies are required to have a registered nurse conduct an initial assessment. We note, however in 42

CFR 484.55(a)(2), the home health CoP regulations state that ''when rehabilitation therapy service * * * is the only service ordered by the physician, and if the need for that service establishes program eligibility, the initial assessment visit may be made by the appropriate rehabilitation skilled professional.''

Comment: A commenter noted that CMS currently uses salary information to estimate the costs of a visit, and does not include overhead costs. This method assumes indirect costs are proportional to direct costs. The commenter believes this assumption may be incorrect, and suggested examining cost report data to see if further review provides better data on overhead costs. This information could be combined with claims information about home health charges to better assess labor costs. These two sources of information could be used to compute the per-visit discipline costs for different types of episodes.

Response: CMS' methodology does assume that overhead costs are proportional to direct labor costs. We will continue to consider the appropriate role of cost reports in understanding potential improvements to our methodology. At this time, we believe the role is limited, as demonstrated by the limitations on cost report reliability pertaining to the derivation of cost-to-charge ratios for the analysis of NRS payments. We urge agencies to put more resources into accurately completing the cost reports for future use in payment refinements.

Comment: A commenter suggested that the recommendations from the two Technical Expert Panel (TEP) meetings be shared with the industry, and that the industry be allowed to provide feedback, as these affected the development of the proposed rule.

Response: The TEP was administered by Abt Associates. The panel was not asked for, nor did it produce, consensus recommendations. Abt Associates used TEP participants as a sounding board about differing aspects of the research approach and the refinements emerging from it at the time of the TEP meeting.

Comment: A commenter asked that we provide detailed technical specifications and grouper software with issuance of the final rule.

Response: We intend to issue detailed specifications and a grouper software package as soon as possible after the issuance of this rule.

Comment: A commenter noted that there was an error in Table 5 posted to CMS' Web Site.

Response: Table 5 was originally posted with an error, but was replaced with a corrected version. The correct version was promptly posted on the CMS Web site.

Comment: Regarding dual eligibles, a commenter suggested that CMS improve the alignment of HHRGs and Medicare coverage guidelines for homebound status and medical necessity, particularly for cases that receive coverage under ''Assessment and Observation'' or ''Management and Evaluation of the Care Plan'' guidelines. Improved alignment of the payment system and coverage rules is critical to addressing ongoing disputes between state Medicaid agencies and the Medicare program regarding Third Party Liability.

Response: These comments are outside the scope of this regulation; however, we will take them under consideration when evaluating the need for additional guidance on Medicare coverage guidelines.

Comment: A commenter is concerned that the proposed HH PPS refinements place emphasis on therapy and would support a system that provides for the utilization of restorative nursing as a substitution for therapist visits. The expansion of this type of service utilization will ultimately provide better patient outcomes and address the growing demand for restorative services.

Response: The proposed refinements were developed within the disciplines covered by the home health benefit. A specialty of restorative nursing is not recognized within those disciplines. Moreover, we do not have evidence about effects on patient outcomes from implementing the commenter's proposal.

Comment: A commenter believed it is important for CMS to align regulatory and reimbursement decisions so that they reflect the needs of patients as outlined by the Institute of Medicine. The commenter stated that the proposed regulation signals a change in which the home health industry would be asked to move from its current focus on acute and rehabilitative services to the provisions of more long-term care services of the type offered prior to HH PPS implementation. The commenter asked CMS to clarify whether it prefers Medicare home health services to emphasize more sophisticated treatments or whether it expects home health services to be used solely for long-term care and/or custodial services, which have traditionally been the purview of Medicaid.

Response: We disagree that the proposals signal a shift away from acute and rehabilitative services. The proposals recognize that a minority of patients have an extended period of incapacitation and need for medically necessary nursing or rehabilitative or assistive services, while they continue to meet the homebound requirement. Agencies are expected to apply the statutory eligibility and coverage criteria.

Comment: A commenter questioned whether the increase seen in costs of late episodes is due to end-of-life care given to patients who did not want hospice care.

Response: We appreciate the comment. We note, however, our analysis did not focus on whether or not the patient had a terminal illness.

2. The Schedule for Implementation of the CY 2008 Refinements

In the May 4, 2007 proposed rule, we proposed to implement the finalized updates and refinements on January 1, 2008. However, we did recognize that there may be operational considerations, affecting CMS or the industry, which could necessitate an implementation schedule that results in certain refinements becoming effective on different dates (a split-implementation). We solicited the public for suggestions and comments on this matter.

Comment: Several commenters expressed concern about the amount of time available for providers to make any necessary changes to their billing systems and administrative processes between the publication of this rule and the implementation date of episodes beginning on January 1, 2008. They were concerned about the administrative burden, and that CMS does not have a contingency plan to facilitate interim payments to HHAs that are unable to bill Medicare under the revised HH PPS. A contingency payment arrangement would ensure that no provider is presented with a significant cash flow problem because of the tight timeframe involved. Several commenters suggested we convene an ongoing series of implementation meetings including Medicare contractors, the home health community, and the vendors who support the home health industry to reduce the likelihood of delays and errors. One commenter asks for additional resources to help providers cope with this major change. Another asked that we not follow a split-implementation plan.

Response: While the changes described by this rule are significant, their overall impact on provider billing practices are far less extensive than those required for the initial implementation of HH PPS. We also anticipate the time period between the issuance of this final rule with comment

period and the implementation date will be longer than the period that was available between publication of the final rule on July 3, 2000, and initial implementation of the HH PPS on October 1, 2000. CMS expects to issue final implementing instructions and educational materials about the case-mix refinement changes as soon as it is feasible after finalization of the proposals contained in this final rule with comment period. We also plan to conduct outreach through industry associations and representatives of software companies that serve home health agencies to facilitate this transition.

CMS plans to conduct calls with vendors, hold OASIS training, and continue the use of the home health Open Door Forums (ODFs) as mechanisms to provide information to HHAs regarding implementation. Regarding cash flow issues and contingency plans, CMS is taking steps, internally, to test systems changes before implementation. We do not feel that the vulnerabilities that existed when we moved from a cost-based system to a prospective payment system exist today in moving to a refined HH PPS system. Consequently, we do not feel it is necessary to create an elaborate contingency plan as was needed for the implementation of the HH PPS.

Comment: Several commenters expressed that an implementation date of January 1, 2008 be delayed because the HH PPS reform changes are significant, and providers will have to educate all of their employees on the changes in addition to working closely with the vendors to initiate complex IT changes. Because as providers, they must also implement the changes throughout the organization, to both clinical and financial staff, the commenters suggested that CMS delay the implementation date to October 1, 2008 to allow ample time for providers to make all the necessary adjustments. The commenters also requested that CMS release of the home health CoPs coincide with the implementation of HH PPS refinement requirements to ease the burden of staff training. It was also suggested that the implementation be linked to future ICD–9–CM coding manuals.

Response: We recognize that the changes described in this rule are significant. However, the overall impact on provider billing practices is far less significant than the impact resulting from the initial implementation of the HH PPS when we were moving from a reasonable cost-based system to that of a prospective payment system. And as mentioned previously, there is more time between the issuance of this rule and the effective date (January 1, 2008) than there was for the initial implementation of the HH PPS. Consequently, we believe that there will be sufficient time for agencies and their vendors to make the changes necessary to implement the system on January 1, 2008. Regarding the home health CoPs, these are on a separate track from our home health payment regulations, and will be implemented through a separate rule-making process.

While we recognize that implementing the updates and refinements of this rule is an ambitious task, we believe that it is in the best interest of the industry, CMS, and home health recipients to implement a finalized set of refinements without further delay and without a split-implementation. The refinements will work together to improve the accuracy and appropriateness of the HH PPS, which has not undergone major refinements since its inception in October of 2000. Updates to the HH PPS are not linked, specifically, to coding manuals, and thus there would be no advantage to delaying implementation to any future coding manual update. CMS will make every effort to communicate the instructions necessary for HHAs to implement all of the changes to the HH PPS, in a timely manner so that implementation of these changes occurs as smoothly as possible.

Comment: Several commenters expressed that the comment period was too brief to afford providers enough time to understand the proposed changes and assess the impact that the changes will have on their businesses.

Response: We provided the 60-day comment period from the date of display, with the 60-day period for comments ending on June 26, 2007. We acknowledge that in the publication of the May 4, 2007 proposed rule, the comment period was incorrectly listed as closing on July 3, 2007. The correct date for the close of the comment period was June 26, 2007. Recognizing the implication of this incorrect date, CMS alerted the public to the correct date through listserves, open door forums, and the publication of a correction notice on May 11, 2007 (72 FR 26867). We believe the comment period, as corrected, provided adequate time for commenters to review the proposals and assess their options.

Comment: Several commenters questioned the listing of an earlier deadline on the internet for submission of public comments, June 26, 2007, rather than the deadline published in the **Federal Register**, July 3, 2007.

Response: We recognize that there was an inadvertent technical error in the May 4, 2007 proposed rule in that July 3, 2007 was incorrectly noted as the close of the comment period. Subsequent to that publication, a correction notice was published on May 11, 2007 (72 FR 26867), noting that error and correctly stating that the end of the comment period for the HH PPS proposed rule was June 26, 2007 and not July 3, 2007.

We believe we made reasonable efforts to quickly alert the public to the error such that adequate time to comment on the proposed rule was provided.

3. Complexity of the System

In general, our goal for the proposed refinements was to ensure that the home health payment system continues to produce appropriate compensation for providers while creating opportunities for home health agencies to manage home health care efficiently. We also believe it is important in any refinement to maintain an appropriate degree of operational efficiency.

Comment: Several commenters stated that the goal of ''operational simplicity'' is not achieved by the proposed refinements. One commenter stated that the proposed system is twice as complex as the current system, thus making it more difficult for providers to understand how it works. Moreover, the commenter stated it will make it more difficult for providers to manage the level of services provided for each HHRG with the payment for that HHRG.

Response: We acknowledge the proposed refined system is more complex than the current system. The proposed refinements to the current system represent an attempt to pay more accurately for the range and intensity of home health services that are provided to our beneficiaries.

The proposed refinements are derived from the concepts that form the basis of the current payment approach. We agree that any refinements to the system will take time and training to learn. CMS has conducted extensive outreach regarding the proposed refinements. We have posted a Fact Sheet which summarizes the proposed changes on our home health Web site to assist agencies in understanding the differences between the current system and the proposed refinements. We have developed and posted an Excel toy grouper, which allows agencies to see the effect of the new proposal on their payments (see ''Toy Grouper'' on the CMS Home Health Web site at: *http://www.cms.hhs.gov/center/hha.asp)*. We have posted the draft pseudocode for

the HHRG grouper software at the same Web site address. We also continue to plan for additional training and outreach.

We have also developed claims processing procedures to reduce the amount of administrative burden associated with using a more complex case-mix model. For example, providers do not have to determine whether an episode is early (the initial episode in a sequence of adjacent episodes or the next adjacent episode, if any) or later (all adjacent episodes beyond the second episode) if they choose not to. Information from Medicare systems will be used during claims processing to automatically address this issue. We will also relieve providers of the responsibility for resubmitting a claim if the number of therapy visits delivered during an episode is more than or less than the number originally forecasted on the OASIS.

Comment: A commenter stated that the Excel toy grouper did not allow for enough digits in the ICD–9 codes to effectively capture the degree of change needed. The commenter also noted that each case had to be added individually, which resulted in increased entering time; the results were confusing to the commenter.

Response: We believe that the requirement that the ICD–9 codes be entered exactly as they appear in the proposed rule and the current grouper documentation does not negate the usefulness of the Excel toy grouper. The instructions imbedded in the Excel toy grouper specify the requirements for entering the ICD–9 codes. We provided the Excel toy grouper as a courtesy to allow users to more easily calculate the proposed new CY 2008 HHRGs and resulting payments rather than having only the grouper pseudocode for analysis. Moreover, the majority of feedback from commenters regarding the Excel toy grouper indicated that the tool is helpful and easy to use.

B. Case-Mix Model Refinements

In the proposed rule, we proposed to refine the case-mix model to reflect different resource costs for early home health episodes versus later home health episodes and to expand the case-mix variables included in the payment model. We proposed additional variables including scores for certain wound and skin conditions; more diagnosis groups such as pulmonary, cardiac, and cancer diagnoses; and certain secondary diagnoses. We also proposed to replace the current single therapy threshold of 10 visits with three therapy thresholds (6, 14, and 20 visits). In addition, we proposed that payment for therapy episodes would increase gradually between the first and third therapy thresholds. For a complete description of the proposed case-mix refinements model and the underlying research, we refer readers to the CY 2008 HH PPS proposed rule (72 FR 25358–25420) published on May 4, 2007.

1. General Comments

Comment: A commenter wrote that an industry analysis of 2006 HH PPS data using the proposed case-mix model showed a decline in reimbursement for specific populations with congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), ulcers, diabetes, orthopedic diagnoses, and neurological diagnoses. Given these findings, the commenter asked how the proposed case-mix refinement could improve reimbursement. The commenter suggested that CMS use more current diagnosis data so as not to skew the results, and score secondary diagnoses. Other commenters echoed the concern that the refinement was based on ''old'' data. A couple of commenters noted that there has been a philosophical change to front-load visits in home health which has not been captured by the data.

Response: We are unable to specifically address the industry analysis mentioned above without more detailed information on their analysis. We note the proposed case-mix model pays for more diagnoses than under the current HH PPS model, including recognition of point-bearing diagnoses for heart disease and COPD. Agencies will continue to receive points to the extent that patients have certain conditions or diagnoses (for example, ulcers, diabetes, orthopedic diagnoses, and neurological diagnoses). Agencies can also receive points for secondary diagnoses, thereby accounting for multiple co-morbidities. Also, the proposed case-mix model allows points for some resource intensive interactions. Furthermore, agencies will be receiving improved reimbursement for supplies, particularly those related to ulcers or wounds. We believed the model as proposed would better align agency costs with payments.

We further note that the proposed refinement research was based upon data files created from a 20-percent sample of claims data collected between 2001 and 2004. OASIS data was further linked to claims and cost reports. However for this final rule with comment period, we used more recent data, claims processed from 2005, with the associated OASIS data. Therefore, this final rule with comment period is based upon the most recent data available, and reflects any philosophical or diagnosis changes that the industry has experienced.

Comment: A commenter suggested that the case-mix refinement model was too complex, and suggested that we simplify it so that the assessment can drive clinical and functional dimension scores that are the same regardless of the number of therapy visits or timing of the episode. Subsequent factors could be added into the case-mix for the sequential number of the episode and for the number of visits.

Response: Based on our data analysis, implementing the commenter's suggestion would ignore patterns in the data that we think reflect differences between patients and would thereby reduce accuracy. We have tried to strike a balance between simplicity and complexity. The new system is more complex than the old system but this is a natural outgrowth of our attempt to pay more accurately for the range and intensity of home health services that can be provided to our beneficiaries.

As noted in the discussion of complexity in section III.A.3, a system may seem initially overly complex when it is new. We believe the proposed refinements are clearly focused, and are a logical outgrowth of the original payment system. We detail our attempts to make the proposed refinements easier to understand and implement in a previous comment in section III.A.3.

Comment: One commenter noted that the proposed diagnosis changes may negatively impact providers who are currently providing care to those in early episodes with less than 14 therapy visits. Those providers have worked hard to help patients become independent and rehabilitated as soon as possible.

Response: Our proposal was intended to refine and to better fit costs incurred by agencies for patients with differing characteristics and needs under the prospective payment system. The resource cost estimates are derived from minutes spent on visits in the home during a 60-day period. The source of the minutes data is a very large, representative sample of Medicare claims. Therefore, we expect that the proposal does reflect agencies' average costs for patients with characteristics measured on the OASIS and used in defining payment groups.

Comment: While supporting the concept behind the new case-mix system, a commenter is concerned about any payment system that ties payments explicitly to the level of services provided. Under the proposed system, HHAs could seek higher payments by

providing more therapy or providing later episodes of home care. The commenter notes that HHA margins will increase with the number of therapy visits.

Response: We are attuned to concerns about payment incentives that could drive up therapy visits unnecessarily. We implemented a gradual increase in payments between the proposed first and third therapy thresholds to achieve two goals: (1) To better match costs to payments; and (2) to avoid incentives for providers to distort patterns of good care created by the increase in payment that would occur at each proposed therapy threshold. As a disincentive for agencies to deliver more than the appropriate, clinically determined number of therapy visits, we also proposed that any per-visit increase incorporate a declining, rather than a constant, amount per added therapy visit. We will monitor the impact of the changes implemented, including on home health agency margins, and will propose further refinements to the therapy threshold, as well as other aspects of the HH PPS, if warranted.

Comment: Several commenters were concerned that paying more for later episodes would lead to gaming, with patients on service longer than is appropriate. One commenter noted the growth in HHAs in her area had led to more competition for patients; providers may not be discharging patients when they should. Additionally, this commenter felt the fiscal intermediaries (FIs) concentrate review activities on larger agencies where there is the greatest potential for risk of harm to beneficiaries or where the dollars recovered are greater. The commenter encouraged discussion and investigation of these issues. Another commenter was concerned that the proposed case-mix refinements created incentives for less efficient and less effective care if agencies provided unneeded care just to extend the length of stay. A third commenter felt that the proposal would lead to unwarranted recertification of episodes.

Response: We appreciate the concerns and will monitor the use of home health visits. Additionally, we will share these concerns with the Regional Home Health Intermediaries (RHHIs).

Comment: A commenter's analysis of the proposed changes to the case-mix system found that it would result in a more even distribution of payments relative to costs. The commenter's analysis resulted in a more uniform payment to cost ratio. The commenter noted the proposed refinement would reduce the differences in financial returns among different types of patients, and reduce the provider's preference for some patients.

Response: We appreciate the commenter's assessment of the proposed changes to the case-mix system, and agree that the proposed refinements improve the performance and payment accuracy of the HH PPS. We agree that these changes will reduce incentives to select patients based upon perceived financial advantages.

Comment: A commenter noted that an analysis of the coefficient of variation (CV) of the proposed HHRGs found it to be more internally homogeneous. The average CV has dropped from 0.81 in the current system to 0.75 for the proposed HHRGs. The reduction in variation means that the new resource groups are better at identifying episodes with similar resource use than under the current system. Further, the reduction in within-group variation reduces the potential for providers to select the least costly patients in a resource group and makes a modest improvement in the accuracy of the system.

Response: We agree with the commenter, and believe that the proposed payment system better matches payments to costs. We also believe that the payments will be more accurate, and will benefit patients as well as agencies.

Comment: Since this is the first time the case-mix index has been updated since the inception of HH PPS, and considering the rapid pace of change that can occur in health care delivery, a commenter suggested CMS update the case-mix index with greater frequency to ensure that payments reflect agency costs.

Response: We will continue to monitor the performance of any finalized case-mix model, and will make changes to it as necessary. Future refinements may occur at more frequent intervals, depending on the research outcomes. We recognize that changes in health care delivery may also affect the model, and will monitor those as well.

Comment: A commenter asked CMS to accept all pertinent diagnoses. The commenter believed that without a complete clinical picture, the ability to accurately assess patient severity, evaluate outcomes, and make policy decisions is seriously jeopardized.

Response: We agree that a complete clinical picture of the patient is necessary to accurately assess patient severity and evaluate outcomes. To qualify for Medicare coverage of home health services, a beneficiary must be under the care of a physician who establishes the plan of care (POC). The POC must contain all pertinent diagnoses as stipulated in 42 CFR 484.18(a). All diagnoses listed in OASIS M0230/240 and M0246 should be pertinent and are expected to be listed in the patient's POC.

2. Later Episodes

In the proposed rule, for 2008 we proposed a 4-equation case-mix model that recognizes and differentiates payment for episodes of care based on whether a patient is in what is considered to be an early (1st or 2nd episode in a sequence of adjacent episodes) or later (the 3rd episode and beyond in a sequence of adjacent episodes) episode of care as well as recognizing whether a patient was a high therapy (14 or more therapy visits) or low therapy (13 or fewer therapy visits) case. Early episodes are defined as to include not only the initial episode in a sequence of adjacent episodes, but also the next adjacent episode, if any, that followed the initial episode. Later episodes are defined as all adjacent episodes beyond the second episode. Episodes are considered to be adjacent if they are separated by no more than a 60-day period between claims. The analysis of the performance of the case-mix model for later episodes revealed two important differences for episodes occurring later in the home health treatment compared to earlier episodes: (1) Higher resource use per episode and (2) a different relationship between clinical conditions and resource use.

Comment: We received a question about the case-mix weights for early versus later episodes when the service utilization is for 16 to 17 therapy visits (S2; see table 3, III.B.5). In all other gradients except this one, the case-mix weight is greater for later episodes than for early episodes. The commenter asked why in this case the later episodes were not associated with a higher case-mix weight.

Response: The model results in Table 4 of the proposed rule (72 FR 25388) indicated that the higher cost for later episodes was associated with clinical and functional severity levels above the base levels C1 and F1, and not at or below the base levels C1 and F1. The amount isolated in the payment regression associated with 16 to 17 therapy visits was simply not higher for later episodes.

Comment: Several commenters asked for clarification of the definition of early and later episodes and adjacent episodes.

Response: Early episodes are defined as the initial episode or the next episode in a sequence of adjacent episodes. Therefore an early episode can be the first or second episode in a series of adjacent episodes, or even the first and

only episode that a patient has. Later episodes are defined as all subsequent adjacent episodes beyond the second episode. Episodes are considered to be adjacent if they are contiguous, meaning that they are separated by no more than a 60-day period between episodes. This means any gaps are less than or equal to 60 days in length. In determining a gap, we only consider whether the beneficiary was receiving home health care from traditional fee-for-service Medicare. If the beneficiary transfers from a managed care plan, that time under managed care is considered part of the gap.

For example, if the beneficiary has not received home health care through traditional Medicare for at least 60 days, and then receives home health care from agency A, that is an early episode. If that episode receives a PEP adjustment and agency B recertifies the beneficiary for a second episode, that second episode is also an early episode. However, the beneficiary could have received home health care from other traditional Medicare providers within 60 days before coming to agency A. The designation of early or later would depend upon how many adjacent episodes of care were received prior to coming to agency A. The CWF will examine claims upon receipt in comparison to all previously processed episodes to make sure the episode is correctly designated as early or later.

The 60-day period to determine a gap that will begin a new sequence of episodes will be counted in most instances from the calculated 60-day end date of the episode. That is, in most cases CWF will count from ''day 60'' of an episode without regard to an earlier discharge date in the episode. The exception to this is for episodes that were subject to PEP adjustment. In PEP cases, CWF will count 60 days from the date of the last billable home health visit provided in the PEP episode. Regarding PEP adjustments, consider the following example: An episode is opened on January 1, 2008 which would normally span until February 29, 2008. If this episode were not subject to a PEP adjustment, any episode within 60 days following February 29, 2008 would be considered an adjacent episode. In the case of a PEP adjustment, the determination of an adjacent episode would no longer be based on day 60, but would instead be based on the latest billable visit in the episode. Assume in the example, the patient is transferred to another HHA (triggering the PEP adjustment) on February 15, 2008 but the last billable visit is provided on February 13, 2008. In this case, any episode within 60 days following the February 13, 2008 visit would be considered an adjacent episode.

Intervening stays in inpatient facilities will not create any special considerations in counting the 60-day gap. If an inpatient stay occurred within an episode, it would not be a part of the gap, as counting would begin at ''day 60'' which in this case would be later than the inpatient discharge date. If an inpatient stay occurred within the period after the end of HH episode and before the beginning of the next one, those days would be counted as part of the gap just as any other days would.

If episodes are received after a particular claim is paid that change the sequence initially assigned to the paid episode (for example, by service dates falling earlier than those of the paid episode, or by falling within a gap between paid episodes), Medicare systems will initiate automatic adjustments to correct the payment of any necessary episodes.

Upon receipt of a HH episode coded to represent the early episode in a sequence, Medicare systems will search the episode history records that are maintained for each beneficiary. If two or more adjacent episodes are found on that history, the claim for the new episode will be recoded to represent its sequence correctly and paid according to the changed code. In addition, when any new episode is added to those history records for each beneficiary, the coding representing episode sequence on previously paid episodes will be checked to see if the presence of the newly added episode causes the need for changes to those episodes. If the need for changes is found, Medicare systems will initiate automatic adjustments to those previously paid episodes.

For example, a given episode is initially determined to be, and paid as the second episode (early) in a sequence of episodes. After some period of time, a claim is submitted by another HHA that occurs before the previously designated first episode in the sequence of adjacent episodes and is less than 60 days before the beginning of that previously designated first episode. In such a case, the episode corresponding to the newly submitted claim becomes the first episode of this sequence of adjacent episodes and thus is considered to be an early episode. The episode previously designated as the first episode in the sequence of episodes now becomes the second episode in the sequence of adjacent episodes and is thus still considered to be an early episode. The real change occurs with the episode previously described as the second episode in the sequence of adjacent episodes. Under this scenario, that original second episode is now considered to be the third episode in the sequence of adjacent episodes, thus changing its status from that of an early episode to that of a later episode.

Comment: A commenter noted that CMS determined its four equation model based on information collected from the OASIS data set. The data collection is required for both Medicare and Medicaid patients. The commenter stated that the analysis by CMS included a period of time when instructions dictated collection of all information from payer sources. The data is inclusive of the Medicaid patients, who under Medicare regulations, would not be eligible for the third or additional episodes of care. The commenter questioned the type of patients served in third or later episodes, noting that the CMS data suggest that few patients fall into the new equations. The commenter believed that one group of patients includes those with severely infected wounds, Parkinson's disease, Amyotrophic Lateral Sclerosis (ALS), stroke, or similar conditions, while another group includes those receiving B–12 injections and catheter care, or Medicaid patients.

Response: We used data from Medicare episodes only, linked to the OASIS assessment that generated the HHRG. Medicare episodes include episodes of some patients who are dually eligible for Medicare and Medicaid. Later episodes include both Medicare-only and dually eligible patients with a variety of conditions and needs.

To summarize, we are implementing the proposed aspect of the case-mix model that recognizes and differentiates payment for episodes of care based on whether a patient is in what is considered to be an early or later episode of care as we believe that it better accounts for the higher resource use per episode and the different relationship between clinical conditions and resource use that exists in later episodes.

3. Addition of Variables

In the proposed rule, for 2008 we proposed to expand the case-mix variables to include scores for conditions such as infected surgical wounds, abscesses, chronic ulcers, and gangrene; more diagnosis groups such as pulmonary, cardiac, and cancer diagnoses; and certain secondary diagnoses.

Comment: Several commenters were concerned that we had not included a variable for informal caregivers. One commented that higher costs for these

patients are not captured because of the unmeasured effects of multiple co-morbidities, patient non-compliance, and the tendency to live alone. Several commenters felt that CMS' policy position on caregivers placed the fear of negative incentives above the needs of the beneficiary. Commenters were concerned that payment incentives might limit access for patients without caregivers or result in institutional care. Others suggested that we refine OASIS items related to caregiver access to produce more reliable information about the actual roles caregivers play in meeting the day-to-day needs of home health patients, and the time they are available. Some commenters expressed concern that these patients would have difficulty accessing care due to their high costs. We were asked to conduct further research into the role of caregivers and their affect on costs.

Response: OASIS item M0350 asks whether there are assisting persons in the home, other than the home care agency staff. We recognize that the data collected by this item is limited in the information it collects regarding caregivers. However, in the absence of other data, we used this item in our analysis. We found that on average, episodes without caregivers would be underpaid. However the score to be gained by adding this variable was not large, and the overall ability of the four-equation model to explain resource costs is minimally improved by adding this variable. As we noted in the proposed rule, we believe this variable raises significant policy concerns. We maintain that a case-mix adjustment should not discourage assistance from family members of home care patients, nor should it make patients feel that there is some financial stake in how they report their familial supports during convalescence. We believe that adjusting payment in response to the absence of a caregiver would introduce negative incentives with adverse affects on home health Medicare beneficiaries. We will continue to study the effects of caregivers on the case-mix model.

Using our final analytic data set, we rechecked the contribution of this variable to explain home health resource use. We found no change from what was described for this variable in the proposed rule. Consistent with our original policy on this item, we did not include this variable in the final four-equation model of this rule. We will continue to explore additional refinements to the OASIS instrument to gather more information regarding the roles caregivers play in home health care and to better quantify any unmeasured effects of multiple co-morbidities, patient non-compliance, or living alone.

Comment: Several commenters were concerned that a variable for Medicare/Medicaid dual eligibles was not included in the payment model. One commenter noted that the increased costs associated with dual eligibles have been confirmed by MedPAC in hospital DSH studies, and it is unlikely that these costs disappear once the patient is in home health. Another noted that these patients have longer lengths of stay and multiple co-morbidities. Several commenters noted that Medicaid numbers are not consistently reported in OASIS because Medicaid is not the primary payer. Others suggested that CMS compare the impact of Medicaid eligibility by studying resource use of a sample of home health patients enrolled in a Medicaid program from Medicaid files against home health patients without Medicaid.

Response: HHAs are required to complete OASIS item M0065, which asks for the patient's Medicaid number, whether or not Medicaid is the reimbursement source for the home care episode. CMS has sought to improve the accuracy of the OASIS data through extensive training and guidance on proper use of OASIS. Additionally, the OASIS guidelines provide clear instructions to complete M0065. Therefore we believe it is appropriate to use M0065 in an analysis of resource use in patients with Medicaid. After accounting for a broad range of clinical and functional factors which predict resource use, M0065 was found to have a low score, suggesting that having Medicaid is not a strong predictor of resource use. Accordingly, we did not propose to include a Medicaid variable in the case-mix model. Using our final analytic data set, we rechecked the contribution of this variable to explain home health resource use. We found no change from what was described for this variable in the proposed rule. Consistent with our original policy on this item, we did not include this variable in the final four-equation model of this rule. We will continue to study the effect of dual eligibles on the case-mix model, and we encourage HHAs to complete M0065 as required.

Comment: A commenter asked that we evaluate the impact of adding a case-mix variable for patients aged 85 or older, who have greater care needs, and for diabetics. The commenter also expressed concern that providers in Southern states would be more affected by proposed policies noted in the proposed rule, as these parts of the country serve larger populations of two groups at high risk for diabetes.

Response: In considering variables for inclusion in the model, we analyzed the relationship between resource use and patient characteristics. We were able to measure resource use directly from the claims sample and patient characteristics from the OASIS assessments. Variables were assessed for statistical performance and for policy appropriateness. Diabetes is taken into account as a point-bearing case-mix diagnosis under the current HH PPS, and under this final rule with comment period continues to receive points as either a primary or a secondary diagnosis (see Table 2A for the points given).

Our research did not find the proportion of home health beneficiaries 85 or older to be increasing. The literature reports that those 85 or older were actually less likely to be admitted to home health agencies (McCall et al., 2003). Additionally, we tested an age variable and found it was not associated with greater resource use after controlling for other factors. As such, we did not include it in our case-mix model. Accordingly, we did not propose to include a variable for those 85 and older in the refinements.

Comment: A commenter stated that the proposed rule refers to unnamed variables which while correlated with higher home health cost, were not considered in the case-mix because of negative treatment incentives they could create. The commenter believed CMS should specify these alternatives which were not adopted along with the reason for dismissing them.

Response: As in our original HH PPS proposal, we avoided including a score for catheter-using patients in the case-mix system, out of concern that this would work against catheter removal at the appropriate time. However, for the proposed refinement approach, we did include a score in the non-routine supplies model out of concern that agencies would fail to admit patients with supplies costs.

Comment: A commenter objected to the proposal to eliminate M0610 (behavioral problems) as a case-mix variable. The commenter noted that patients with behavioral problems, including those without formal psychiatric diagnoses, consume large amounts of resources. The commenter asked for further data to support removal of M0610.

Response: We have added case-mix scores to the system for psychiatric conditions, as they are better markers for increased resource use related to behavioral problems than M0610. When the psychiatric conditions were included in the model, M0610 does not

add further predictive power (that is, it was not statistically significant).

Comment: Several commenters asked that V-codes be included in the case-mix diagnosis list as they are appropriately prevalent in home care due to ICD–9 coding guidelines. One commenter suggested V-codes be added as interactions. A number of commenters also asked for more guidance regarding coding, especially in the use of V-codes. Several commenters noted that they have had to hire certified coders.

Response: We have included selected codes from the V44 and V55 code categories in Tables 2B and 10B. The major use of V-codes in the home health setting occurs when a person with a current or resolving disease or injury encounters the health care system for specific aftercare of that disease or injury. V-codes are less specific to the clinical condition of the patient than are numeric diagnosis codes. A single V-code could substitute for various numeric codes each of which describes a specific different clinical condition.

For more guidance regarding coding especially in the use of V-codes please see the CDC Web site noted below to obtain a copy of the ICD–9–CM Official Coding Guidelines effective November 15, 2005. (*http://www.cdc.gov/nchs/datawh/ftpserv/ftpicd9/ftpicd9.htm.*)

Comment: CMS currently allows points for bowel ostomies, but reimbursement points should be allocated to all ostomies. A commenter suggested we add V55.0–V55.9 to the non-routine supply list to capture patients needing supplies for non-bowel ostomies.

Response: It is important to note that all ostomies were not included in the original HH PPS payment because the OASIS instrument does not capture all ostomies, for example, the tracheostomy is not included in the OASIS instrument. Therefore, we do not have data for all ostomies. However, we have tested the non-routine supplies for stoma conditions for which we have added appropriate ''status (V44) V-codes'' and ''attention (V55) V-codes'' to the model.

Comment: A commenter asked that we include fracture aftercare codes and orthopedic correction codes (V54.01–V54.9) as point bearing codes.

Response: The HH PPS does not rely on V-codes, except as mentioned above. Therefore we are continuing to require agencies to list the underlying problem that led to the V-codes in M0246 of the OASIS assessment. The numeric fracture codes are listed in Table 2B and are expected to be assigned when indicated to our optional payment item M0246. When a fracture code is assigned to M0246 it will be expected that the appropriate aftercare V-code from V54.1 through V54.8 will be assigned to M0230. We note, however, that assigning of V54.01, V54.02 and V54.09 is considered generally inappropriate in the post-acute care setting.

Comment: The proposed rule designates the dementia codes 290.0 series as manifestation codes in the Psych 2 diagnosis group. A commenter stated those codes can only be placed as secondary diagnoses, but the proposed rule only offers points when Psych 2 conditions are primary diagnoses. Patients with these diagnoses require considerable resources even when the primary focus of the plan of care is another diagnosis. Commenters suggested allowing case-mix points when Psych 2 diagnoses are in the secondary position.

Response: The ICD–9–CM code category 290, Dementia, codes are listed in the ''Psych 2—Degenerative and other organic psychiatric disorders''. The ICD–9–CM code category 290 codes are point bearing regardless of whether the codes are primary or secondary diagnoses. We have removed the manifestation designation for these codes.

Comment: Commenters noted that key surgical complication codes (996 and 997 series) have been omitted from the case-mix. These series include joint prosthesis complications, amputation complications, skin graft complications, transplanted organ complications, etc. They believed these codes should be added to the case-mix diagnoses.

Response: We disagree. It is not appropriate to add these codes to the case-mix because these codes represent complications that are typically treated initially in the inpatient setting.

Comment: One commenter asked that we add 728.87 and 781.3 back to the table of point-bearing diagnosis codes. This commenter also asked that we add the 414 series of diagnosis codes.

Response: We disagree with the suggestion that 728.87, Muscle weakness (generalized) and 781.3, Lack of Coordination, should be added to Table 2B. The conditions assigned to the 781.3 and 728.87 diagnosis codes are identified as nonspecific conditions that represent general symptomatic complaints in the elderly population as such. We believe inclusion of these codes would threaten to move the case-mix model away from a foundation of reliable and meaningful diagnosis codes that are appropriate for home care.

We agree with the addition of the diagnostic category 414, ''Other forms of chronic ischemic heart disease'' codes to the case-mix model, with one exception. We are not including code 414.9, ''Chronic ischemic heart disease, unspecified'', because this is a nonspecific code and there are numerous specific codes that we would expect to be used for this condition. As noted previously, we believe the implementation of the refined HH PPS will better reflect more accurate payments, and we are taking steps to ensure the least amount of burden for HHAs.

Comment: Several commenters noted that the neuro 3 code list included ICD–9 diagnosis 436, which is an outdated code. They asked that it be replaced with 434.91.

Response: We are aware of the ICD–9–CM changes effective October 1, 2004 to the classification of unspecified cerebrovascular accident (CVA). Before this change these conditions were indexed to 436, Acute but ill-defined cerebrovascular disease. In order to comply with the ''ICD–9–CM Official Guidelines for Coding and Reporting'', effective November 15, 2006, we have deleted codes in categories 430–437 listed in the ''Neuro 3-Stroke'' diagnostic category of Table 2B of the proposed rule. The conditions in categories 430–437 identify the cause of the initial onset of an acute stroke and must not be assigned in the home health setting.

Agencies should use ICD–9–CM code category 438, Late Effects of Cerebrovascular disease, for conditions occurring at any time after the onset of an acute stroke. The coding guidelines indicate that these ''late effects'' include neurologic deficits that persist after the initial onset of conditions classifiable to 430 through 437. The neurologic deficits caused by cerebrovascular disease may be present from the onset or may arise at any time after the onset of the condition classifiable to 430 through 437.

To summarize, we deleted diagnosis codes from Table 2B in the following situations:

- The code was assigned to a minor condition or mild symptom that may be found in the elderly population;
- The code was a non-specific code or
- The code could not be assigned within the home health setting.

We believe the deletion of these codes directly correlates with the goals stipulated in the proposed rule. Specifically, the proposed rule stipulated that the case-mix system avoid, to the fullest extent possible, nonspecific or ambiguous ICD–9–CM codes, codes that represent general symptomatic complaints in the elderly

population, and codes that lack consensus for clear diagnostic criteria within the medical community. The diagnosis codes listed in Table 2C at the end of section III.B.5 are identified as minor conditions or mild symptoms that may be found in the elderly population or identified as non-specific conditions and as noted above, have been deleted as point-bearing diagnosis codes. The following discussion provides further explanation of the specific changes to the diagnoses occurring in Table 2B (also found at the end of section III.B.5):

- Deletion of constipation and mild, unspecified burns;
- Deletion of acute stroke codes (categories 430–437);
- Revision of code category 410, Acute Myocardial Infarction and
- Addition of code category 414, Other forms of chronic ischemic heart disease.

Constipation

The clinical condition of constipation (ICD–9–CM codes 564.00, 564.01, 564.02, and 564.09) was originally included in the GI group. Occurrences of constipation as a primary diagnosis were extremely rare. Therefore, the analysis was conducted with constipation as a secondary diagnosis separate from the rest of the diagnoses in the GI group. The results of this analysis show 2, 5, 1, and 5 points from leg 1 to leg 4, respectively, of the four-equation model (please see Table 2A at the end of section III.B.5). However, this likely reflects selective coding by providers of only those patients with more severe forms of this condition without inclusion of the many patients with mild constipation symptoms. Constipation is both a clinical symptom and a medical diagnosis (ICD–9–CM 564). It is relatively common in the elderly population with a prevalence ranging from 15 to 20 percent in the community setting. The clinical acuity of patients with constipation can range from asymptomatic to extreme distress (including abdominal pain and impending bowel obstruction). The ICD–9–CM codes, however, do not distinguish the severity levels of these patients. Since there are no specific diagnostic clinical criteria for constipation that are widely accepted throughout the medical community, clinicians are free to assign this diagnosis to all patients with even minimal symptoms of constipation regardless of severity. If additional points were allowed for constipation under the HH PPS, we would expect to find a large increase in the number of patients with this diagnosis simply because HHAs would be allowed to begin including all patients with constipation symptoms, not just those who are more severely affected. Furthermore, the ICD–9–CM category 564 (Functional Digestive Disorders Not Elsewhere Classified) specifically excludes those clinical conditions that are more accurately identified by other more specific ICD–9–CM diagnostic codes. Therefore, codes 564.00, 564.01, 564.02 and 564.09 have been deleted from the Gastrointestinal Disorders diagnostic category in Table 2A (found at the end of section III.B.5). Most patients with significant constipation symptoms can be captured with other ICD–9–CM diagnostic codes that are more specific than the codes for constipation.

First Degree Burns

A first degree burn is a minor self-limited condition that usually requires no professional medical attention. The skin typically displays mild redness without blisters. The most common example of a first degree burn is mild sunburn. Neither bandages nor medical supplies are required for first degree burns. This condition is often not coded as a diagnosis for medical billing because it rarely requires any professional medical treatment. Therefore the actual frequency of first degree burns is underreported in medical claims databases. Because the severity of this condition is so minimal, we do not think it is appropriate to include it in the four-equation case-mix model. In addition, no medical supplies are required for treatment of this condition so it would be inappropriate to include it in Table 10B for Non-Routine Supplies.

Late Effects of Cerebrovascular Disease

To comply with the ''ICD–9–CM Official Guidelines for Coding and Reporting'', Effective November 15, 2006 we have deleted codes in categories 430–437 listed in the ''Neuro 3-Stroke'' diagnostic category from Table 2B of the proposed rule. The conditions in categories 430–437 identify the cause of the initial onset of an acute stroke and must not be assigned in the home health setting.

The ICD–9–CM coding guidelines stipulate the assignment of code category 438, Late Effects of Cerebrovascular disease, for conditions occurring at any time after the onset of an acute stroke. The coding guidelines indicate that these ''late effects'' include neurologic deficits that persist after the initial onset of conditions classifiable to 430–437. The neurologic deficits caused by cerebrovascular disease may be present from the onset or may arise at any time after the onset of the condition classifiable to 430–437. Table 2C includes these codes as deletions from Table 2B of the proposed rule.

Acute Myocardial Infarction

We have also revised code category 410, Acute Myocardial Infarction, in the ''Heart Disease'' category of Table 2B of the proposed rule, to comply with ICD–9–CM coding instruction (see Table 2C at the end of section III.B.5 for the list of the 410 codes to be included). The code category 410 has been replaced in Table 2B with specific codes from category 410, (410.x2). The specific codes designate an episode of care following the initial episode of care. The fifth-digit sub-classification of 2 is for use with code category 410 to designate an episode of care following the initial episode when the patient is admitted for further observation, evaluation, or treatment for a myocardial infarction that has received initial treatment but is still less than 8 weeks old.

We have also revised code category 045, Acute Poliomyelitis, in the Neuro 2-Peripheral Neurological disorders section of Table 2B to correlate with ICD–9–CM coding instructions by replacing this code with code 138, Late effects of acute poliomyelitis(see Table 2C at the end of section III.B.5).

Chronic Ischemic Heart Disease

We also evaluated the appropriateness of code suggestions from commenters, and we have inserted codes from ICD–9–CM code category 414, other forms of chronic ischemic heart disease to Table 2B. The only code from category 414 that was not included is 414.9, ''Chronic ischemic heart disease, unspecified'' due to the non-specificity of the code and the fact that we would expect that other codes from this category would be used if appropriate.

Table 2C lists those codes noted above that have been deleted or added to Table 2B in the proposed rule. Tables 2A, 2B, and 2C are found at the end of section II.B.5. We recognize that some HHAs have used ICD–9–CM coding in the past which will no longer meet future coding standards, as discussed above. For example, some acute stroke codes were recognized in the original case-mix system, and we included them in the modeling of the refined system finalized in this rule to capture the effects on the diagnosis group score. However, we assume that these acute stroke codes will not be used in the future, and these changes are reflected in the codes listed in Table 2B.

4. Addition of Therapy Thresholds

In the proposed rule, for 2008, we proposed to discontinue the use of a single 10-therapy threshold, for the purpose of payment, and proposed to implement three therapy thresholds at 6, 14, and 20 visits. We proposed using graduated steps (groupings of 1 to 4 visits) between these three thresholds to provide an equitable increase in payment that would not otherwise occur between the three threshold levels. As a disincentive for agencies to attempt to reach a therapy level higher than the appropriate, clinically determined number of therapy visits, we proposed to decelerate the increase in payment with each grouping of additional therapy visits between the therapy thresholds.

For example, if the current proposed model produces an average value for each additional grouping of therapy visits above 6 and below 14 visits, we would incrementally decrease the marginal payment for each grouping of therapy visits as the number of therapy visits grow. At this time, no study has been performed to study the clinically appropriate number of visits primarily because of the resources required to perform such a study. Under fee-for-service Medicare, beneficiaries can select clinicians to treat and act on their behalf so long as the clinicians meet the CoPs, such as licensing (qualified nurses and therapists), and other forms of credentialing (CoPs). In the research vacuum that exists, the Medicare program relies upon the providers to determine the clinically appropriate number of visits. However, we found that a payment system with an incentive such as the 10-visit-therapy threshold indicated that such reliance was perhaps misplaced. Our revised system of multiple thresholds and smoothing (that is, graduated per-visit payments between the thresholds) is an attempt to reduce the financial incentive that we saw as distorting clinically appropriate decision making. MedPAC has stated repeatedly that the home health benefit would be enhanced by a better understanding and definition of appropriate clinical standards (e.g., *Report to the Congress: Medicare Payment Policy,* MedPac, March 2006, p. 195). We believe it would take years of research to determine with sufficient precision for payment purposes and claims processing what is clinically appropriate. We will continue to rely on the RHHIs during normal medical review operations to consider therapy treatment plan appropriateness on a case-by-case basis. Of course, we also continue to rely in good faith on the professional judgment of certified agencies and their clinicians to select appropriate courses of treatment for their patients.

Comment: Many commenters supported our proposal to have multiple therapy thresholds. However, several questioned the point allocation for functional variables in relation to therapy. One commenter was concerned that this could lead to gaming, where agencies prescribe 14 visits instead of 10 visits, noting that almost all patients who need 10 physical therapy or rehab visits could benefit from 14 visits. The commenter was concerned that the cost to agencies would be prohibitive, and would force them to replace physical therapists with physical therapy assistants, to drop therapy services altogether, or gaming to receive reasonable reimbursement. Another commenter noted that the dollar increments between 6 and 14 visits were so modest that they may create payment deficits.

Response: We appreciate the comments supporting our multiple therapy thresholds. We disagree with the commenter's concern that our increased therapy thresholds will be cost prohibitive and will force providers to replace physical therapists with physical therapy assistants or to drop therapy services altogether. The goal of the case-mix refinements is to better align payment with actual agency costs. Changing to multiple therapy thresholds with a gradual increase in payment better aligns costs and payments and avoids incentives for providers to distort patterns of good care.

Specifically, because we used multiple regression to derive the point values, with indicator variables for therapy visits (for example, 7 to 9 therapy visits) included in the regression model, the point allocations for functional variables take into account the range of visits into which the treatment plan falls. The point allocations therefore serve to define more precisely the average resources used by a patient given that a certain range of therapy visits is to be delivered. We are aware that the new threshold of 14 therapy visits may be misperceived as a new target for treatment. We do, however, intend to monitor administrative data for indications of gaming, which could include shorter lengths for prior therapy visits and increased frequencies of episodes with 14 or more visits without evidence that an increase in the number of therapy visits was appropriate for the patients. We believe that the need to spend on therapy visits, in order to get paid for high therapy treatment plans, will provide a natural disincentive to game the system, and that imposing on the regression model a mildly decelerating trend in the resources per added therapy visit between 6 and 20 therapy visits will further mitigate against gaming. We detail the resource cost values that impose a decelerating trend in the four-equation model in Table 1. We have updated this table using 2005 data. If a potential problem is detected through data analysis processes with our RHHIs, then the RHHIs may conduct Medical Review of claims identified as potential problems to determine if the services rendered were reasonable and necessary.

Comment: While supporting the concept of a graduated therapy threshold, several commenters were concerned that the reimbursement decrease was so substantial. One commenter noted that his calculations showed that it would require 17 therapy visits under the proposed system to receive the same therapy adjustment as under the current system, when the 10-therapy threshold is met. The commenter noted the resource intensity of therapy services, and asked that we consider a greater payment allocation for visits from 10 to 14. Another commenter noted that the new therapy thresholds will minimize payment for orthopedic cases. This commenter recommended that the therapy threshold be changed to 6, 12, and 20 to allow adequate compensation for therapy visits.

Response: The original 10-visit therapy threshold supported treatment plans involving 10 therapy visits and higher, so one should not expect that weights under the original system for 10 visits would be comparable to weights under the new system for 10 therapy visits. Compared to the original system, weights under the new system are more precise with respect to the cost of a given range of therapy (for example, a range of 16 to 17 therapy visits). It is important to understand that the regression method modeled the addition to total resource cost for treatment plans with each range of therapy visits in Table 4 of the proposed rule—not just the addition to cost from therapy visits. Therefore, the services utilization severity levels cannot be noted strictly as direct costs for added ranges of therapy visits, though the cost of added therapy visits is certainly very important in producing the values noted in Table 4 of the proposed rule and thus the proposed relative case-mix weights. The proposal was not intended to propose minimized payment for orthopedic cases, but to reflect to the best of our ability the treatment

practices extant in the data for different types of patients and costs experienced by a wide range of patients in the data analyzed.

Comment: A commenter stated that the variations in payment introduced by multiple therapy thresholds were not consistent with a regression model. This commenter's initial analysis indicated that agencies can obtain significant additional payments when they provide 14 therapy visits as opposed to 13 therapy visits when all other OASIS answers remain constant, even though the scoring in the 3rd and 4th equations is different from the scoring in the 1st and 3rd equations. The commenter stated that the inconsistencies found in this review make it difficult to understand how CMS arrived at the proposed increments between HHRGs. The commenter asks for additional information on how CMS arrived at the increments in payment between the various levels of therapy services proposed.

Response: For an early episode, Table 4 in the proposed rule indicated that agencies would receive an additional $2,191.76 − $1,771.84=$419.42 before wage adjustment for treatment plans involving 14 or 15 therapy visits. For later episodes, agencies would receive an additional $2,198.69-$1,907.93=$290.76. In the final version of Table 4, which is based on CY2005 data, agencies would receive an additional $366.03 for early episodes and $504.44 for later episodes. These values result from using indicator variables in the regression for differing ranges of therapy visits (ranges indicated in Tables 3 and 4 of the proposed rule) and from reintroducing the decelerated payments per added therapy visit at the stage of the payment regression. Our technique for reintroducing the decelerated payments was to estimate a variant of the four-equation model that did not incorporate deceleration. From this, we were able to compare the added payments for the proposed ranges of therapy visits with and without deceleration in order to adjust the services utilization (S-level) marginal resource cost estimates of the payment regression appropriately.

Comment: Several commenters questioned the $36 estimated marginal cost of adding a seventh therapy visit to an episode with 6 therapy visits and the deceleration of payments, as the source for this information was not cited, and the dollars appear to be significantly below agency costs. One commenter asks for additional information regarding how CMS identified an incremental cost of $36 between the 6th and 7th therapy visits. Another commenter noted that the Excel toy grouper produced an increased payment of $402 for the seventh visit.

Response: We cited the source for the starting value of $36 in the proposed rule (72 FR 25364). It was the addition to total resource cost from comparing episodes with 7 therapy visits to episodes with 6 therapy visits, based on a variant of the four-equation model that allowed for a separate marginal addition to cost associated with each separate, individual number of therapy visits. Thus, this value was entirely data driven, given the entire set of clinical, functional, and therapy indicator variables used in the four-equation model. In the final version, the updated analysis yielded a starting value of $42 instead of $36. The declining trend was modeled by decrements of 1.5 units instead of 1 unit. Please see Table 1 at the end of this section for details. It should be understood that the resource cost measure is not equivalent to the average cost of a therapy visit, as it is derived from national Bureau of Labor Statistics survey data on the direct hourly wage and benefit cost of therapy-related clinical disciplines in home care. We convert minutes per episode reported on claims into resource cost dollars using the national wage and benefit data. Table 4 of the proposed rule indicated that the therapy increment for services utilization severity S3 encompasses treatment plans that include 7, 8, or 9 therapy visits. We intend to monitor payments under the system in the future for evidence that agencies are failing to provide the full range of visits included in each S-level.

Comment: Several commenters questioned our assumption that most patients would require 6 to 13 visits and that 14 or more therapy visits would not be normal. They note that therapy services are resource intensive. A commenter disagreed with our statement that several common treatment plans only require about 6 visits, using the example of falls.

Response: Abt Associates conducted TEP meetings on December 15, 2005 and March 14, 2006. These TEP meetings provided an opportunity for experts, industry representatives, and practitioners in the field of home health care to provide feedback on Abt's research examining the HH PPS and exploration of payment policy alternatives. Abt received input from TEP members as to what the appropriate levels for the therapy threshold would be based on clinical conditions of home health patients. Different sets of therapy thresholds were discussed at TEP meetings. Abt considered this feedback when developing recommendations for refinements to the HH PPS.

Comment: A commenter strongly disagreed that patients with a high risk of falls should be used as an example of patients with a treatment plan commonly requiring 6 therapy visits (72 FR 25363). The comment did not include an alternate illustration or example of a common treatment plan requiring 6 therapy visits, however, the commenter did agree with us that there are therapy treatment plans within the 6 visit range.

The commenter stated that ''clinical experience with homebound Medicare patients at high risk for falls indicates that these patients typically have significant problems with balance and gait. They may also be receiving treatments that elevate their risk, including the use of diuretics.'' The commenter is concerned that payment contractors will apply this example to the medical review process and deny needed visits to patients at risk for falls who have extensive therapy needs.

Response: We used the example of patients with a risk of falls as typically receiving six therapy visits based on input from Abt Associates, using information from their TEP. According to the TEP, physicians may deliberately order short term plans of care for patients because they want the patient to proceed to outpatient therapy as soon as possible. A short-term plan of care of six visits will typically involve evaluation, safety/falls assessment and prevention intervention, with the possibility of more than one therapy discipline being involved.

We disagree with the commenter that the RHHIs will apply the example of patients with a high risk of falls as a basis for their decision on the determination of coverage. Section 20.1.2 in Chapter Seven of the Medicare Benefit Policy Manual explains the following: ''The intermediary's decision on whether care is reasonable and necessary is based on information reflected in the home health plan of care, the OASIS as required by 42 CFR 484.55 or a medical record of the individual patient. Medicare does not deny coverage solely on the basis of the reviewer's general inferences about patients with similar diagnoses or on data related to utilization generally, but bases it upon objective clinical evidence regarding the patient's individual need for care.'' It is at the discretion of the contractor to determine the use of its resources. If a potential problem is detected through their data analysis processes, then they may conduct Medical Review of claims to determine

if the services rendered were reasonable and necessary.

Comment: A commenter was concerned that CMS planned to conduct automatic medical reviews of every episode requiring 20 or more therapy visits. While this commenter agreed that such cases are unusual, there was concern that the threat of automatic medical review could provide an incentive for providers to restrict the number of visits to individuals who need a higher level of intervention.

Another commenter asked if HHAs should anticipate an increase in therapy Additional Documentation Requests (ADRs) from the RHHIs, at least initially, as we validate the appropriateness of the new therapy thresholds and the accuracy of provider coding. The commenter noted that increases in ADRs lead to unfunded increases in administrative costs, even if they result in no adjustments.

Response: The intermediary's decision on whether care is reasonable and necessary is based on information reflected in the home health plan of care, the OASIS as required by 42 CFR 484.55 or a medical record of the individual patient. Medicare does not deny coverage solely on the basis of the reviewer's general inferences about patients with similar diagnoses or on data related to utilization generally, but bases it upon objective clinical evidence regarding the patient's individual need for care. As mentioned above, it is at the discretion of the contractor to determine the use of its resources. If a potential problem is detected through their data analysis processes, then they may conduct Medical Review of claims to determine if the services rendered were reasonable and necessary.

Medical review targets problem areas which demonstrate significant risk to the Medicare program as a result of inappropriate payments, over-utilization, abusive billing and unnecessary services. Here, the Medicare Contractors (RHHIs) use different parameters to target their review of home health claims. The decision regarding which claim to review depends on the information obtained from data analysis which includes all providers submitting claims for payment. A provider's claims may be subject to review if they do not meet the coverage, coding, and billing guidelines contained in the statute, regulations, coverage guidance, CMS manuals, and contractor policies.

Comment: A commenter noted that providers are sensitive to financial incentives associated with therapy visits, but that it is difficult to anticipate how utilization may change under the proposed system. The commenter asked that analysis of changes in therapy under the new system be a key priority for future research. The commenter also noted that higher payments for third and later episodes appear reasonable, but suggested further research into the nature of third and subsequent episodes.

Response: We agree that financial incentives can affect care provided, and we will monitor the effects of the refined payment system. We will be analyzing changes in therapy under the refined system and will conduct further refinement research as appropriate.

Comment: A commenter noted that adding therapy thresholds in the revised case-mix regression model improved the ability of the model to predict resource use, with substantially increased R-squared for both early and later episodes, as compared to the R-squared values for a single therapy threshold model (72 FR 25365, May 4, 2007). The commenter asked what the improved R-squared values were, and if they were statistically significant. Further, the commenter asked if there were concerns that the randomness being measured was truly not random, which would raise questions about the appropriateness of a linear regression model and its associated R-squared.

Response: Abt Associates estimated models without therapy thresholds using the basic four-equation structure. The basic four-equation structure incorporates a threshold at 14 therapy visits. After adding thresholds to this model at 6 and 20 visits, and adding per-visit therapy variables, the R-squared statistic increased by approximately 0.10. We subsequently modified the approach to the per-visit therapy variables, as described in the proposed rule. We believe the linear model is appropriate based on results of experimentation with nonlinear specifications during the research. This technical topic is treated in the Abt Associates Final Technical Report.

Comment: A commenter noted that the four-equation model actually contains a fifth equation for 20 or more therapy visits and asked for clarification regarding how to code as early or later episodes in this case.

Response: The OASIS item for early or later episodes (M0110) needs to be completed for all episodes, regardless of the number of therapy visits. The estimated number of therapy visits must also be entered into OASIS (M0826). The episode will then be assigned an appropriate HHRG by the grouper, and priced out correctly by the Pricer. The system will automatically verify the accuracy of the early/later designation, and correct the payment if necessary.

As explained in the proposed rule (72 FR 25388), we collapsed all episodes with visits over 19 when we saw the results of the four-equation model. These episodes are grouped in the payment regression, and severity distinctions are made using the breakpoints described in that last column (20+ therapy visits) of Table 3, Severity Group Definitions: Four-equation model (72 FR 25387).

We note the labeling of Table 3 in the proposed rule left the impression among some readers that there was a fifth equation. The commenter may have been confused because Table 3 in the proposed rule shows a separate column for all episodes with 20 or more visits, which can give the appearance of a five-equation model rather than a four-equation model. However, there are only four equations from which to draw case-mix points. Table 2A of the proposed rule gives a description of each diagnosis group, followed by four columns with the four ''legs'' of the four-equation model. If an episode has 20 or more visits, the case-mix points would come from the second leg if it is an early episode, and from the fourth leg if it is a later episode. The table column headers indicate that these two legs are for 14 or more therapy visits. As explained in the proposed rule, we found strong similarities in the case-mix-adjusted costs for early and later episodes with 20 or more therapy visits. In other words, the results of the four-equation model indicated that predicted costs for the same clinical and functional severity levels across the two equations (equations 2 and 4) were highly similar. Therefore, to reduce the number of groups and thereby simplify the system at the payment regression stage, we treated episodes with 20 or more therapy visits the same (that is, we used the same indicator variables for clinical and functional severity, regardless of whether the episode was from the early or later equation for 14 plus therapy visits).

In summary, upon examining the CY 2005 data on the resource cost trends by number of therapy visits, we changed the starting value for the marginal cost of going from six therapy visits to seven therapy visits from $36 to $42, consistent with the observed value in the data. The declining trend was modeled by decrements of 1.5 units, as shown in Table 1, because the marginal value observed in the data was no higher than $30 when going from 14 to 15 therapy visits. Had we used decrements of 1.0 units, as in the proposed rule, the imposed values would have descended to a value of $34, which is less consistent with the

observation when going from 14 to 15 therapy visits. Using 1.5-unit increments, the imposed values descended to a value of $29, which is more consistent with the actual data.

We are implementing the three therapy thresholds of 6, 14, and 20. The groups of visits in final Table 1, used to achieve graduated steps of increased payment between the therapy thresholds, have not changed as a result of modeling with the newer, most current 2005 data. The deceleration of the increase in payment with each individual visit between the therapy thresholds is being implemented as in the final Table 1 (see below).

TABLE 1.—RESOURCE COST VALUES IMPOSING DECELERATION TREND IN FOUR-EQUATION MODEL

Equation and services utilization severity level	Number of therapy visits in severity level	Resource cost values imposed in regression procedure
1st and 2nd Episodes, 6–13—Therapy Visits:		
S3	7, 8, 9	42, 40.50, 39
S4	10	37.50
S5	11, 12,13	36, 34.50, 33
1st and 2nd Episodes, 14–19—Therapy Visits:		
S1*	14*, 15	*, 29
S2	16, 17	27.50, 26
S3	18, 19	24.50, 23
3rd+ Episodes, 6–13—Therapy Visits:		
S3	7, 8, 9	42, 40.50, 39
S4	10	37.50
S5	11, 12, 13	36, 34.50, 33
3rd+ Episodes, 14–19—Therapy Visits:		
S1*	14*, 15	*, 29
S2	16, 17	27.50, 26
S3	18, 19	24.50, 23

*No value was imposed in the regression procedure for a 14th therapy visit (because the regression intercept estimate for the grouping step automatically includes the resource cost impact of this visit).

5. Determination of Case-Mix Weights

In the proposed rule, we revised the case-mix weights, as noted in the previous sections of this final rule with comment period, describing the refinements. In this section, we describe the final revisions to the case-mix model and the determination of the final case-mix weights. For specifics, see the tables at the end of this section.

Comment: A number of commenters supported the higher case-mix weights for third and subsequent episodes of care. However, two commenters were concerned that the analysis weighted third and subsequent episodes more highly because Medicaid data is included in the OASIS (M0150), and Medicaid patients account for 85 percent of all third and subsequent episodes. They noted that most agencies have fewer than two episodes per patient, and would be adversely affected by the proposed weights. Another noted that patients new to home health often have a high degree of anxiety, and therefore need more frequent contact. Additionally, ''best practice'' guidelines recommend a higher level of care during the first few weeks of a home health episode. This commenter asked CMS to reconsider a payment adjustment based on early rather than later episodes. Several commenters suggested eliminating the early or later episode distinction and redistributing the weights amongst all episodes. They claimed that this would simplify the model and eliminate the difficulties of determining early or later status of patients using the CWF. One commenter proposed that we use a two-equation model that excludes reference to enhanced reimbursement for the third and fourth episodes. The commenter suggested that not having increased reimbursement for later episodes would more accurately reflect the way the majority of patients are receiving care and reduce the incentive to drive up costs and possibly reduce patient independence.

Response: The later episodes reflect patients who tend on average to have higher resource needs and extended stays in home health care. The later episode distinction resulted from our attempts to differentiate the resources needed by long-stay patients. Many observers in the past indicated it would be appropriate for the case-mix system to recognize that the Medicare home health benefit serves a minority who are experiencing an extended period of illness and incapacitation. It is not possible to always identify all these cases upon admission, and an administratively feasible way to address this situation is to create a provision specifically for these cases when they reach a milestone indicative of an extended stay in home care. The provision for separate groups for long-stay patients is not made at the expense of shorter-stay patients, as our data analysis showed a modest difference in resource cost over the 60-day certification period. That some patients at the start of care need frequent visits is accounted for in our data by the resource cost measure for the entire 60-day period. We agree that agencies should follow best practice guidelines that are intended to bring about early independence and avoid hospital readmissions by front-loading visits when appropriate. Further, we do not believe the payment incentives associated with the long-stay equations are so strong as to that they distort the fundamental goals of returning patients to health and independence as soon as possible.

Comment: A commenter asked if the M0230/240/246 case-mix scores can now be combined or should only the highest case-mix score be considered in evaluating the clinical dimension. The commenter asked that we clarify Table 2A of the proposed rule, and asked how to handle episodes with 20 or more visits. Another commenter asked if only those co-morbidities that are actually being addressed in the care plan are to be included.

Response: Case-mix scores from different diagnosis groups in Table 2A are additive; a diagnosis group is a line item in the table. Points cannot be given more than once for diagnoses in the

same group. For example, a patient with both heart disease and hypertension would not get points twice for item 11 in Table 2A. However, a patient with a Neuro 3 diagnosis who meets criteria for points for Items 16 and 17 in Table 2A would be eligible for points from both items. A summary of the guidelines used in scoring is posted at the CMS home health Web site and entitled ''Toy Grouper Logic Guidelines'' (Web site address: *http://www.cms.hhs.gov/center/hha.asp).* In the footnote to the final Table 2A, we have clarified that scores are additive.

In addition, the commenter may have been confused because Table 3 shows a separate column for all episodes with 20 or more visits, which can give the appearance of a five-equation model rather than a four-equation model. However, there are only four equations from which to draw case-mix points. Table 2A gives a description of each diagnosis group, followed by four columns with the four ''legs'' of the four-equation model. If an episode has 20 or more visits, the case-mix points would come from the second leg if it is an early episode, and from the fourth leg if it is a later episode. The table column headers indicate that these two legs are for 14 or more therapy visits.

Comment: A number of commenters expressed concern about the impact of changes made to the point allocation for OASIS functional variables in relationship to therapy. The current case-mix system allocates 6 to 9 points for M0700 (ambulation) deficits. However, the proposed case-mix refinement system allocates zero points for ambulation deficits in two of the three equations, including both equations for 14 or more therapy visits. Two commenters also noted that the point allocation for M0690 (transfers) were affected unless the patient required 13 or more therapy visits. They were concerned that the proposed new case-mix methodology was not capturing the appropriate points to allow for necessary resources for functionally impaired patients. The commenters proposed that CMS study this further before imposing a negative adjustment.

Response: The proposed four-equation model cannot be compared on a point-by-point basis with the current case-mix model. The models are based upon different data sets, and the model structures are different (for example, a single equation model versus a four-equation model; a single therapy threshold versus multiple therapy thresholds). Under the current model, an episode receives a functional score severity level of F0, F1, F2, F3, F4, or F5 based on having 0 to 30 or more points. Under the proposed four-equation model, an episode receives a functional score of severity level F1, F2, or F3 based on having 0 to 10 or more points, and depending on the episode timing and number of therapy visits. Because the models are not directly comparable, it cannot be assumed that fewer points under the proposed model results in a negative payment adjustment.

The points given in Table 2A of the proposed rule were derived from modeling actual claims data, and represent prior experience in home health care. The score is the value of the regression coefficient for the variable, and measures the impact of the data element on total resource cost of the episode. For this final rule with comment period, we updated the dataset using 2005 data in the regression analysis, and this resulted in some changes in the scores presented in Table 2A of this rule. We will also continue to study the case-mix model, and will make additional refinements as needed.

Comment: A commenter noted that it appears that some individual items in Table 2A of the proposed rule have the potential to move the clinical dimension from the lowest (C1) to the highest (C3).

Response: This is correct. We determined the points based on our research. One example would be an early episode with a primary diagnosis in the skin 1 group (item 25 in Table 2A); diagnoses in this category are resource intensive.

Comment: Several commenters asked that we clarify the reason for linking the case-mix adjustment for 781.2 (gait abnormality) with pressure ulcers. Persons receiving therapy for gait training are not typically bed or chair bound and therefore it is unlikely that they would have pressure ulcers. Additionally, points are not allocated for the gait disorder diagnosis in the 14 plus therapy visit equations.

Response: The regression model indicated that patients with pressure ulcers are overall more clinically compromised if they also have the diagnosis of 781.2 than pressure ulcer patients without the diagnosis of 781.2. As to the points allocated for this type of patient, because we are adopting a graduated payment for therapy in the 14 plus visit category, the gait disorder diagnosis does not add any additional explanatory power to the model and is not statistically significant.

In summary, in the proposed rule, we stated our intention to update the data used for the four-equation model and validate the model. We based our proposal on FY 2003 claims and linked OASIS assessments, a period before V-codes were allowed on OASIS. For validation, we used a random 20% sample of 2005 claims linked to OASIS assessments to create an analytic file for modeling case-mix. We examined the diagnoses fields on the OASIS assessments (M0230/M0240/M0245) for indications that some diagnoses groups in the proposed model might be reported at differing rates in 2005 than in 2003, and we did find some changes. For example, we observed lower rates of reporting primary diagnoses for the neurological diagnosis groups, orthopedic groups other than gait abnormality, cardiac group, and some of the cancer diagnosis codes. We observed somewhat higher primary diagnosis rates for the diabetes, hypertension, and degenerative and other organic psychiatric groups. Secondary diagnosis reporting typically decreased only by about 1 percentage point for each of the proposed diagnosis groups. Moreover, a preliminary validation of the model on FY 2005 data indicated that the results were substantially the same as the results of modeling resources in the four-equation structure using FY 2003 data. We concluded that the proposed four equation model in the proposed rule was reliable notwithstanding reporting changes expected from the introduction of V-codes on OASIS. We made a number of refinements based on the validation model we estimated using the FY 2005 analytic file. We subsequently updated the data to CY 2005 and made some further refinements. The final results are shown in Tables 1, 2a, and 3. The R-square statistic for the final case-mix model is 0.45.

Major differences in the 2005 data compared to the 2003 data concerned a small number of the primary and secondary diagnosis groups we identified for the case-mix model in the proposed rule: Cancer and psychiatric conditions [affective and other psychoses, depression (Psych 1 Group) and degenerative and other organic psychiatric disorders (Psych 2 Group)]. When we examined the model's estimates of cancer-related marginal resources and marginal resources of the Psych 1 group, we found that a distinction between primary and secondary diagnoses was not needed, as scores were generally similar across the equations. For Psych 2, only primary diagnoses contributed to this group in the proposed rule model. However, the updated estimates indicated secondary diagnoses should be recognized in the model, so we combined secondary with primary diagnoses into a new group for

these psychiatric conditions. Because these changes eliminated distinctions between primary and secondary diagnosis positioning on OASIS M0230/M0240, we welcomed them as a simplification of the case-mix model. We also believe there are advantages from moving away from separate scores for primary and secondary diagnosis reporting. Specifically, it reduces potential incentives to alter the placement of codes based on financial considerations. The final model includes two diagnosis groups with differing scores for primary and secondary diagnoses: Diabetes and certain skin conditions [specifically, traumatic wounds, burns, and post-operative complications (Skin 1)].

In addition, we added stroke (''Neuro 3'' diagnosis group) as a primary diagnosis, irrespective of any interactions. The final result in the updated data of using this re-defined stroke variable was an added score in equation 2 of the model (early episodes, 14 or more therapy visits). Along with this change, the data revealed some differences in the cost-increasing interactions with stroke, which are reflected in the final model. The final model indicates added points when stroke is accompanied by dressing and/or ambulation functional limitations, as well as dysphagia.

Interactions involving the other three neurological groups also reflected some changes. For example, we found that separating the interactions of functional limitations with multiple sclerosis (Neuro 4) into two line items in the proposed table 2A did not work well in the new data, despite results obtained with the data used for the proposed rule. However, combining all four functional limitation interactions recognized in the proposed model produced useful results. Based on estimates from the new data, we also modified the interaction of toileting with the remaining neurological groups, brain disorders and paralysis (Neuro 1) and peripheral neurological disorders (Neuro 2). The data revealed that peripheral neurological disorders (Neuro 2) in this interaction were no longer statistically significant, so this group was removed from the interaction.

In the 2005 data, a cost-increasing effect from incontinence was not observed, so it was deleted from the four-equation model. An interaction in the proposed model involving incontinence and certain neurological conditions [brain disorders and paralysis (Neuro 1) was no longer statistically significant, so this variable was removed as well.

Other differences in the four-equation model generally were small point changes for specific scores. For example, a primary diagnosis of diabetes incurred an increase of one point in three of the four equations, while the interaction of stroke and dysphagia incurred a loss of one point in the third equation and a gain of one point in the first equation.

We tested a suggestion from a commenter to include V-codes from ICD–9–CM for stoma. We defined variables using selected V-codes to serve as markers for patients with stoma other than colostomies and gastrostomies, which were already measured or proxied in our variable set. This change resulted in the addition of two major types of stoma. Specifically, we added appropriate variables in both the case-mix model and the NRS model to capture patients with resource needs or supplies cost needs due to tracheostomy and urostomy/cystostomy. We are implementing as final the case-mix weights and scoring resulting from the four-equation model with therapy thresholds at 6, 14, and 20 therapy visits and with an early or later episode distinction. We have updated our modeling to use 2005 data, which resulted in some changes in case-mix weights and item scoring. We are implementing as final the versions of Tables 2A, 2B, 2C, 3, 4, and 5 that are shown below.

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Table 2A: Case-Mix Adjustment Variables and Scores

	Episode number within sequence of adjacent episodes	1 or 2	1 or 2	3+	3+
	Therapy visits	0-13	14+	0-13	14+
	EQUATION:	*1*	*2*	*3*	*4*
	CLINICAL DIMENSION				
1	Primary or Other Diagnosis = Blindness/Low Vision	3	3	3	3
2	Primary or Other Diagnosis = Blood disorders	2	5		
3	Primary or Other Diagnosis = Cancer, selected benign neoplasms	4	7	3	10
4	Primary Diagnosis = Diabetes	5	12	1	8
5	Other Diagnosis = Diabetes	2	4	1	4
6	Primary or Other Diagnosis = Dysphagia ***AND*** Primary or Other Diagnosis = Neuro 3 - Stroke	2	6		6
7	Primary or Other Diagnosis = Dysphagia ***AND*** M0250 (Therapy at home) = 3 (Enteral)		6		

Table 2A: Case-Mix Adjustment Variables and Scores

	Episode number within sequence of adjacent episodes	1 or 2	1 or 2	3+	3+
	Therapy visits	0-13	14+	0-13	14+
	EQUATION:	*1*	*2*	*3*	*4*
8	Primary or Other Diagnosis = Gastrointestinal disorders	2	6	1	4
9	Primary or Other Diagnosis = Gastrointestinal disorders ***AND*** M0550 (ostomy) = 1 or 2	3			
10	Primary or Other Diagnosis = Gastrointestinal disorders ***AND*** Primary or Other Diagnosis = Neuro 1 - Brain disorders and paralysis, OR Neuro 2 - Peripheral neurological disorders, OR Neuro 3 - Stroke, OR Neuro 4 - Multiple Sclerosis			2	
11	Primary or Other Diagnosis = Heart Disease OR Hypertension	3	7	1	8
12	Primary Diagnosis = Neuro 1 - Brain disorders and paralysis	3	8	5	8
13	Primary or Other Diagnosis = Neuro 1 - Brain disorders and paralysis ***AND*** M0680 (Toileting) = 2 or more	3	10	3	10
14	Primary or Other Diagnosis = Neuro 1 - Brain disorders and paralysis OR Neuro 2 - Peripheral neurological disorders ***AND*** M0650 or M0660 (Dressing upper or lower body) = 1, 2, or 3	2	4	2	2
15	Primary or Other Diagnosis = Neuro 3 - Stroke		1		

Table 2A: Case-Mix Adjustment Variables and Scores					
	Episode number within sequence of adjacent episodes	1 or 2	1 or 2	3+	3+
	Therapy visits	0-13	14+	0-13	14+
	EQUATION:	*1*	*2*	*3*	*4*
16	Primary or Other Diagnosis = Neuro 3 - Stroke ***AND*** M0650 or M0660 (Dressing upper or lower body)= 1, 2, or 3	1	3	2	8
17	Primary or Other Diagnosis = Neuro 3 - Stroke ***AND*** M0700 (Ambulation) = 3 or more	1	5		
18	Primary or Other Diagnosis = Neuro 4 - Multiple Sclerosis ***AND AT LEAST ONE OF THE FOLLOWING:*** M0670 (bathing) = 2 or more OR M0680 (Toileting) = 2 or more ***OR*** M0690 (Transferring) = 2 or more ***OR*** M0700 (Ambulation) = 3 or more	3	3	12	18
19	Primary or Other Diagnosis = Ortho 1 - Leg Disorders or Gait Disorders ***AND*** M0460 (most problematic pressure ulcer stage)= 1, 2, 3 or 4	2			
20	Primary or Other Diagnosis = Ortho 1 - Leg OR Ortho 2 - Other orthopedic disorders ***AND*** M0250 (Therapy at home) = 1 (IV/Infusion) or 2 (Parenteral)	5	5		

Table 2A: Case-Mix Adjustment Variables and Scores

	Episode number within sequence of adjacent episodes	1 or 2	1 or 2	3+	3+
	Therapy visits	0-13	14+	0-13	14+
	EQUATION:	*1*	*2*	*3*	*4*
21	Primary or Other Diagnosis = Psych 1 - Affective and other psychoses, depression	3	5	2	5
22	Primary or Other Diagnosis = Psych 2 - Degenerative and other organic psychiatric disorders	1	2		2
23	Primary or Other Diagnosis = Pulmonary disorders	1	5	1	5
24	Primary or Other Diagnosis = Pulmonary disorders ***AND*** M0700 (Ambulation) = 1 or more	1			
25	Primary Diagnosis = Skin 1 - Traumatic wounds, burns, and post-operative complications	10	20	8	20
26	Other Diagnosis = Skin 1 - Traumatic wounds, burns, post-operative complications	6	6	4	4
27	Primary or Other Diagnosis = Skin 1 -Traumatic wounds, burns, and post-operative complications OR Skin 2 - Ulcers and other skin conditions ***AND*** M0250 (Therapy at home) = 1 (IV/Infusion) or 2 (Parenteral)	2		2	
28	Primary or Other Diagnosis = Skin 2 - Ulcers and other skin conditions	6	12	5	12
29	Primary or Other Diagnosis = Tracheostomy	4	4	4	
30	Primary or Other Diagnosis = Urostomy/Cystostomy	6	23	4	23

Table 2A: Case-Mix Adjustment Variables and Scores

	Episode number within sequence of adjacent episodes	1 or 2	1 or 2	3+	3+
	Therapy visits	0-13	14+	0-13	14+
	EQUATION:	*1*	*2*	*3*	*4*
31	M0250 (Therapy at home) = 1 (IV/Infusion) or 2 (Parenteral)	8	15	5	12
32	M0250 (Therapy at home) = 3 (Enteral)	4	12		12
33	M0390 (Vision) = 1 or more	1			1
34	M0420 (Pain)= 2 or 3	1			
35	M0450 = Two or more pressure ulcers at stage 3 or 4	3	3	5	5
36	M0460 (Most problematic pressure ulcer stage)= 1 or 2	5	11	5	11
37	M0460 (Most problematic pressure ulcer stage)= 3 or 4	16	26	12	23
38	M0476 (Stasis ulcer status)= 2	8	8	8	8
39	M0476 (Stasis ulcer status)= 3	11	11	11	11
40	M0488 (Surgical wound status)= 2		2	3	
41	M0488 (Surgical wound status)= 3	4	4	4	4
42	M0490 (Dyspnea) = 2, 3, or 4	2	2		
43	M0540 (Bowel Incontinence) = 2 to 5	1	2	1	
44	M0550 (Ostomy)= 1 or 2	5	9	3	9
45	M0800 (Injectable Drug Use) = 0, 1, or 2	1	1	2	4
FUNCTIONAL DIMENSION					
46	M0650 or M0660 (Dressing upper or lower body)= 1, 2, or 3	2	4	2	2
47	M0670 (Bathing) = 2 or more	3	3	6	6
48	M0680 (Toileting) = 2 or more	2	3	2	
49	M0690 (Transferring) = 2 or more		2		
50	M0700 (Ambulation) = 1 or 2	1		1	
51	M0700 (Ambulation) = 3 or more	3	4	4	5

Notes: The data for the regression equations come from a 20 percent random sample of episodes from CY 2005. The sample excludes LUPA episodes, outlier episodes, and episodes with SCIC or PEP adjustments.

Points are additive, however points may not be given for the same line item in the table more than once.

Please see Medicare Home Health Diagnosis Coding guidance at http://www.cms.hhs.gov/HomeHealthPPS/03_coding&billing.asp for definitions of primary and secondary diagnoses.

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
Blindness and low vision	369.01		BETTER EYE: TOTAL IMPAIRMENT; LESSER EYE: TOTAL IMPAIRMENT
	369.02		BETTER EYE: NEAR TOTAL IMPAIRMENT; LESSER EYE: NOT FURTHER SPECIFIED
	369.03		BETTER EYE: NEAR TOTAL IMPAIRMENT; LESSER EYE: TOTAL IMPAIRMENT
	369.04		BETTER EYE: NEAR TOTAL IMPAIRMENT; LESSER EYE: NEAR
	369.05		BETTER EYE: PROFOUND IMPAIRMENT; LESSER EYE: NOT FURTHER SPECIFIED
	369.06		BETTER EYE: PROFOUND IMPAIRMENT; LESSER EYE: TOTAL IMPAIRMENT
	369.07		BETTER EYE: PROFOUND IMPAIRMENT; LESSER EYE: NEAR TOTAL IMPAIRMENT
	369.08		BETTER EYE: PROFOUND IMPAIRMENT; LESSER EYE: PROFOUND IMPAIRMENT
	369.10		IMPAIRMENT LEVEL NOT FURTHER SPECIFIED, BLINDNESS, ONE EYE, LOW VISION OTHER EYE
	369.11		BETTER EYE: SEVERE IMPAIRMENT; LESSER EYE: BLIND, NOT FURTHER SPECIFIED
	369.12		BETTER EYE: SEVERE IMPAIRMENT; LESSER EYE: TOTAL IMPAIRMENT
	369.13		BETTER EYE: SEVERE IMPAIRMENT; LESSER EYE: NEAR TOTAL IMPAIRMENT
	369.14		BETTER EYE: SEVERE IMPAIRMENT; LESSER EYE: PROFOUND IMPAIRMENT
	369.15		BETTER EYE: MODERATE IMPAIRMENT; LESSER EYE: BLIND, NOT FURTHER SPECIFIED
	369.16		BETTER EYE: MODERATE IMPAIRMENT; LESSER EYE: TOTAL IMPAIRMENT
	369.17		BETTER EYE: MODERATE IMPAIRMENT; LESSER EYE: NEAR TOTAL IMPAIRMENT
	369.18		BETTER EYE: MODERATE IMPAIRMENT; LESSER EYE: PROFOUND IMPAIRMENT

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	369.20		IMPAIRMENT LEVEL NOT FURTHER SPECIFIED, LOW VISION, BOTH EYES NOS
	369.21		BETTER EYE: SEVERE IMPAIRMENT; LESSER EYE: NOT FURTHER SPECIFIED
	369.22		BETTER EYE: SEVERE IMPAIRMENT; LESSER EYE: SEVERE IMPAIRMENT
	369.23		BETTER EYE: MODERATE IMPAIRMENT; LESSER EYE: NOT FURTHER SPECIFIED
	369.24		BETTER EYE: MODERATE IMPAIRMENT; LESSER EYE: SEVERE IMPAIRMENT
	369.25		BETTER EYE: MODERATE IMPAIRMENT; LESSER EYE: MODERATE IMPAIR
	369.3		BLINDNESS NOS, BOTH EYES
	369.4		LEGAL BLINDNESS-USA DEF
	950		INJURY TO OPTIC NERVE AND PATHWAYS
Blood disorders	281		OTHER DEFICIENCY ANEMIAS
	282		HEREDITARY HEMOLYTIC ANEMIAS
	283		ACQUIRED HEMOLYTIC ANEMIAS
	284		APLASTIC ANEMIA
	285		OTHER AND UNSPECIFIED ANEMIAS
	287		PURPURA&OTHER HEMORRHAGIC CONDS
	288		DISEASES OF WHITE BLOOD CELLS
	289		OTH DISEASES BLD&BLD-FORMING ORGANS
Cancer and selected benign neoplasms	140		MALIGNANT NEOPLASM OF LIP
	141		MALIGNANT NEOPLASM OF TONGUE
	142		MALIG NEOPLASM MAJOR SALIV GLANDS
	143		MALIGNANT NEOPLASM OF GUM
	144		MALIGNANT NEOPLASM FLOOR MOUTH
	145		MALIG NEOPLSM OTH&UNSPEC PART MOUTH
	146		MALIGNANT NEOPLASM OF OROPHARYNX
	147		MALIGNANT NEOPLASM OF NASOPHARYNX
	148		MALIGNANT NEOPLASM OF HYPOPHARYNX
	149		OTH MALIG NEO LIP-MOUTH-PHARYNX
	150		MALIGNANT NEOPLASM OF ESOPHAGUS
	151		MALIGNANT NEOPLASM OF STOMACH
	152		MALIG NEOPLSM SM INTEST INCL DUODUM
	153		MALIGNANT NEOPLASM OF COLON
	154		MAL NEO RECT RECTOSIGMOID JUNC&ANUS
	155		MALIG NEOPLASM LIVER&INTRAHEP BDS
	156		MALIG NEOPLSM GALLBLADD&XTRAHEP BDS
	157		MALIGNANT NEOPLASM OF PANCREAS
	158		MALIG NEOPLASM RETROPERITON&PERITON

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	159		MAL NEO DIGES ORGANS&PANCREAS OTH
	160		MAL NEO NASL CAV/MID EAR&ACSS SINUS
	161		MALIGNANT NEO LARYNX*
	162		MALIGNANT NEO TRACHEA/LUNG*
	163		MALIGNANT NEOPL PLEURA*
	164		MAL NEO THYMUS/MEDIASTIN*
	165		OTH/ILL-DEF MAL NEO RESP*
	170		MALIG NEOPLASM BONE&ARTICLR CART
	171		MALIG NEOPLSM CNCTV&OTH SOFT TISSUE
	172		MALIGNANT MELANOMA OF SKIN
	173		OTHER MALIGNANT NEOPLASM OF SKIN
	174		MALIGNANT NEOPLASM OF FEMALE BREAST
	175		MALIGNANT NEOPLASM OF MALE BREAST
	176		KAPOSIS SARCOMA
	179		MALIG NEOPLASM UTERUS PART UNSPEC
	180		MALIGNANT NEOPLASM OF CERVIX UTERI
	181		MALIGNANT NEOPLASM OF PLACENTA
	182		MALIGNANT NEOPLASM BODY UTERUS
	183		MALIG NEOPLSM OVRY&OTH UTERN ADNEXA
	184		MALIG NEOPLSM OTH&UNS FE GENIT ORGN
	185		MALIGNANT NEOPLASM OF PROSTATE
	186		MALIGNANT NEOPLASM OF TESTIS
	187		MAL NEOPLSM PENIS&OTH MALE GNT ORGN
	188		MALIGNANT NEOPLASM OF BLADDER
	189		MAL NEO KIDNEY&OTH&UNS URIN ORGN
	190		MALIGNANT NEOPLASM OF EYE
	192.0		MALIGNANT NEOPLASM, CRANIAL NERVES
	192.8		MALIGNANT NEOPLASM OTHER NERV SYS
	192.9		MALIGNANT NEOPLASM, UNS PART NERV SYS
	193		MALIGNANT NEOPLASM OF THYROID GLAND
	194		MAL NEO OTH ENDOCRN GLND&REL STRCT
	195		MALIG NEOPLASM OTH&ILL-DEFIND SITES
	196		SEC&UNSPEC MALIG NEOPLASM NODES
	197		SEC MALIG NEOPLASM RESP&DIGESTV SYS
	198		SEC MALIG NEOPLASM OTHER SPEC SITES
	199		MALIG NEOPLASM WITHOUT SPEC SITE
	200		LYMPHOSARCOMA AND RETICULOSARCOMA
	201		HODGKINS DISEASE
	202		OTH MAL NEO LYMPHOID&HISTCYT TISS
	203		MX MYELOMA&IMMUNOPROLIFERAT NEOPLSM
	204		LYMPHOID LEUKEMIA
	205		MYELOID LEUKEMIA
	206		MONOCYTIC LEUKEMIA
	207		OTHER SPECIFIED LEUKEMIA

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	208		LEUKEMIA OF UNSPECIFIED CELL TYPE
	213 except 213.9		BENIGN NEOPLASM OF BONE AND ARTICULAR CARTILAGE
	225.1		BEN NEOPLSM CRANIAL NERVES
	225.8		BEN NEOPLSM OTH SPEC SITES
	230 except 230.9		CARCINOMA IN SITU OF DIGESTIVE ORGANS
	231 except 231.9		CARCINOMA IN SITU OF RESPIRATORY SYSTEM
	232 except 232.9		CARCINOMA IN SITU OF SKIN
	233 except 233.9		CARCINOMA IN SITU OF BREAST AND GENITOURINARY SYSTEM
	234 except 234.9		CARCINOMA IN SITU OF OTHER AND UNSPECIFIED SITES
Diabetes	250		DIABETES MELLITUS
	357.2	M	POLYNEUROPATHY IN DIABETES
	362.01	M	BACKGROUND DIABETIC RETINOPATHY
	362.02	M	PROLIFERATIVE DIABETIC RETINOPATHY
	366.41	M	DIABETIC CATARACT
Dysphagia	787.20		DYSPHAGIA, UNSPECIFIED
	787.21		DYSPHAGIA, ORAL PHASE
	787.22		DYSPHAGIA, OROPHARYNGEAL PHASE
	787.23		DYSPHAGIA, PHARYNGEAL PHASE
	787.24		DYSPHAGIA, PHARYNGOESOPHAGEAL PHASE
	787.29		OTHER DYSPHAGIA
Gait Abnormality	781.2		ABNORM GAIT
Gastrointestinal disorders	002		TYPHOID AND PARATYPHOID FEVERS
	003		OTHER SALMONELLA INFECTIONS
	004		SHIGELLOSIS
	005		OTHER FOOD POISONING
	006		AMEBIASIS
	007		OTHER PROTOZOAL INTESTINAL DISEASES
	008		INTESTINAL INFS DUE OTH ORGANISMS
	009		ILL-DEFINED INTESTINAL INFECTIONS
	530		DISEASES OF ESOPHAGUS
	531		GASTRIC ULCER
	532		DUODENAL ULCER
	533		PEPTIC ULCER, SITE UNSPECIFIED
	534		GASTROJEJUNAL ULCER
	535		GASTRITIS AND DUODENITIS

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	536		DISORDERS OF FUNCTION OF STOMACH
	537		OTHER DISORDERS OF STOMACH&DUODENUM
	540		ACUTE APPENDICITIS
	541		APPENDICITIS, UNQUALIFIED
	542		OTHER APPENDICITIS
	543		OTHER DISEASES OF APPENDIX
	555		REGIONAL ENTERITIS
	556		ULCERATIVE COLITIS
	557		VASCULAR INSUFFICIENCY OF INTESTINE
	558		OTH NONINF GASTROENTERITIS&COLITIS
	560		INTEST OBST W/O MENTION HERN
	562		DIVERTICULA OF INTESTINE
	564 except 564.0x and 564.9		FUNCTIONAL DIGESTIVE DISORDERS, NOT ELSEWHERE CLASSIFIED
	567.0	M	PERITONITIS IN INFEC DIS CLASS ELSEWH
	567.1		PNEUMOCOCCAL PERITONITIS
	567.21		PERITONITIS (ACUTE) GENERALIZED
	567.22		PERITONEAL ABSCESS
	567.23		SPONTANEOUS BACTERIAL PERITONITIS
	567.29		OTHER SUPPURATIVE PERITONITIS
	567.31		PSOAS MUSCLE ABSCESS
	567.38		OTHER RETROPERITONEAL ABSCESS
	567.39		OTHER RETROPERITONEAL INFECTIONS
	567.81		CHOLEPERITONITIS
	567.82		SCLEROSING MESENTERITIS
	567.89		OTHER SPECIFIED PERITONITIS
	567.9		UNSPECIFIED PERITONITIS
	568		OTHER DISORDERS OF PERITONEUM
	569 except 569.9		OTHER DISORDERS OF INTESTINE
	570		ACUTE&SUBACUTE NECROSIS OF LIVER

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	571		CHRONIC LIVER DISEASE AND CIRRHOSIS
	572		LIVER ABSC&SEQUELAE CHRON LIVR DZ
	573.0		CHRONIC PASSIVE CONGESTION OF LIVER
	573.1	M	HEPATITIS IN VIRAL DISEASES CLASS ELSW
	573.2	M	HEPATITIS IN INFEC DISEASES CLASS ELSW
	573.3		HEPATITIS, UNSPECIFIED
	573.4		HEPATIC INFARCTION
	573.8		OTHER SPECIFIED DISORDERS OF LIVER
	573.9		UNSPECIFIED DISORDER OF LIVER
	574		CHOLELITHIASIS
	575		OTHER DISORDERS OF GALLBLADDER
	576		OTHER DISORDERS OF BILIARY TRACT
	577		DISEASES OF PANCREAS
	578		GASTROINTESTINAL HEMORRHAGE
	579		INTESTINAL MALABSORPTION
	783.21		ABNORMAL LOSS OF WEIGHT
	783.22		ABNORMAL UNDERWEIGHT
Heart Disease	411		OTH AC&SUBAC FORMS ISCHEMIC HRT DZ
	410.02		AMI ANTEROLATERAL,SUBSEQ
	410.12		AMI ANTERIOR WALL,SUBSEQ
	410.22		AMI INFEROLATERAL,SUBSEQ
	410.32		AMI INFEROPOST, SUBSEQ
	410.42		AMI INFERIOR WALL,SUBSEQ
	410.52		AMI LATERAL NEC, SUBSEQ
	410.62		TRUE POST INFARCT,SUBSEQ
	410.72		SUBENDO INFARCT, SUBSEQ
	410.82		AMI NEC, SUBSEQUENT
	410.92		AMI NOS, SUBSEQUENT
	414 except 414.9		OTHER FORMS OF CHRONIC ISCHEMIC HEART DISEASE
	428		HEART FAILURE
Hypertension	401.0		ESSENTIAL HYPERTENSION - MALIGNANT
	401.1		BENIGN HYPERTENSION
	401.9		HYPERTENSION, UNSPECIFIED
	402.00		MAL HYP HT DIS W/O HF
	402.01		MAL HYPERT HRT DIS W HF

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	402.10		BENIGN HYPERT HRT DIS W/O HF
	402.11		BENIGN HYP HT DIS W HF
	402.90		UNSPECIFIED HYPERT HRT DIS W/O HF
	402.91		HYP HT DIS NOS W HT FAIL
	403		HYPERTENSIVE RENAL DISEASE
	404		HYPERTENSIVE HEART&RENAL DISEASE
	405		SECONDARY HYPERTENSION
Neuro 1 - Brain disorders and paralysis	013		TB MENINGES&CNTRL NERV SYS
	046		SLOW VIRUS INFECTION CNTRL NERV SYS
	047		MENINGITIS DUE TO ENTEROVIRUS
	048		OTH ENTEROVIRUS DZ CNTRL NERV SYS
	049		OTH NON-ARTHROPOD BORNE VIRL DX-CNS
	191		MALIGNANT NEOPLASM OF BRAIN
	192.2		MALIG NEOPLSM SPINAL CORD
	192.3		MALIG NEOPLSM SPINAL MENINGES
	225.0		BEN NEOPLSM BRAIN
	225.2		BEN NEOPLSM BRAIN MENINGES
	225.3		BEN NEOPLSM SPINAL CORD
	225.4		BEN NEOPLSM SPINAL CORD MENINGES
	320.0		HEMOPHILUS MENINGITIS
	320.1		PNEUMOCOCCAL MENINGITIS
	320.2		STREPTOCOCCAL MENINGITIS
	320.3		STAPHYLOCOCCAL MENINGITIS
	320.7	M	MENINGITIS OTH BACT DZ CLASS ELSW
	320.81		ANAEROBIC MENINGITIS
	320.82		MENINGITIS DUE GM-NEG BACTER NEC
	320.89		MENINGITIS DUE OTHER SPEC BACTERIA
	320.9		MENINGITIS DUE UNSPEC BACTERIUM
	321.0	M	CRYPTOCOCCAL MENINGITIS
	321.1	M	MENINGITIS IN OTHER FUNGAL DISEASES
	321.2	M	MENINGITIS DUE TO VIRUSES NEC
	321.3	M	MENINGITIS DUE TO TRYPANOSOMIASIS
	321.4	M	MENINGITIS IN SARCOIDOSIS
	321.8		MENINGITIS-OTH NONBCTRL ORGNISMS CE
	322		MENINGITIS OF UNSPECIFIED CAUSE
	323.01	M	ENCEPHALITIS & ENCEPHALOMYELITIS IN VIRAL DIS CLASS ELSW
	323.02	*M*	MYELITIS IN VIRAL DISEASES CLASSIFIED ELSEWHERE
	323.1	M	ENCEPHALIT RICKETTS DZ CLASS ELSW
	323.2	M	ENCEPHALIT PROTOZOAL DZ CLASS ELSW

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	323.41	M	OTH ENCEPHALITIS AND ENCEPHALOMYELITIS DUE TO INF CLASS ELSW
	323.42	M	OTHER MYELITIS DUE TO INFECTION CLASSIFIED ELSEWHERE
	323.51		ENCEPH/MYEL FOLWG IMMUNE
	323.52		MYELITIS FOLLWG IMMUNE
	323.61	*M*	INFEC ACUTE DISSEM ENCEPHALOMYELITIS (ADEM)
	323.62	M	OTH POSTINFECTIOUS ENCEPHALITIS & ENCEPHALOMYELITIS
	323.63	M	POSTINFECTIOUS MYELITIS
	323.71	M	TOXIC ENCEPHALITIS AND ENCEPHALOMYELITIS
	323.72	*M*	TOXIC MYELITIS
	323.81		OTHER CAUSES OF ENCEPHALITIS AND ENCEPHALOMYELITIS
	323.82		OTHER CAUSES OF MYELITIS
	323.9		ENCEPHALITIS NOS
	324		INTRACRANIAL&INTRASPINAL ABSCESS
	325		PHLEBIT&THRMBOPHLB INTRACRAN VENUS
	326		LATE EFF INTRACRAN ABSC/PYOGEN INF
	330.0		LEUKODYSTROPHY
	330.1		CEREBRAL LIPIDOSES
	330.2	M	CEREB DEGEN IN LIPIDOSIS
	330.3	M	CERB DEG CHLD IN OTH DIS
	330.8		CEREB DEGEN IN CHILD NEC
	330.9		CEREB DEGEN IN CHILD NOS
	334.1		HERED SPASTIC PARAPLEGIA
	335		ANTERIOR HORN CELL DISEASE
	336.0		SYRINGOMYELIA AND SYRINGOBULBIA
	336.1		VASCULAR MYELOPATHIES
	336.2	M	SUBACUTE COMB DEGEN SPINL CRD DZ CE
	336.3	M	MYELOPATHY OTH DISEASES CLASS ELSW
	336.8		OTHER MYELOPATHY
	337.3		AUTONOMIC DYSREFLEXIA
	344.00		QUADRIPLEGIA, UNSPECIFIED
	344.01		QUADRIPLEGIA, C1-C4, COMPLETE
	344.02		QUADRIPLEGIA, C1-C4, INCOMPLETE
	344.03		QUADRIPLEGIA, C5-C7, COMPLETE
	344.04		QUADRIPLEGIA, C5-C7, INCOMPLETE
	344.09		QUADRIPLEGIA, OTHER
	344.1		PARAPLEGIA

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	344.81		OTHER SPECIFIED PARALYTIC SYNDROMES - LOCKED-IN STATE
	344.89		OTHER SPECIFIED PARALYTIC SYNDROMES - OTHER SPECIFIED PARALYTIC SYNDROME
	348		OTHER CONDITIONS OF BRAIN
	349.82		TOXIC ENCEPHALOPATHY
	741		SPINA BIFIDA
	780.01		COMA
	780.03		PERSISTENT VEGETATIVE STATE
	806		FX VERT COLUMN W/SPINAL CORD INJURY
	851		CEREBRAL LACERATION AND CONTUSION
	852		SUBARACH SUB&XTRADURL HEMOR FLW INJ
	853		OTH&UNS INTRACRAN HEMOR FLW INJURY
	854		INTRACRAN INJURY OTH&UNSPEC NATURE
	907		LATE EFFECTS INJURIES NERVOUS SYS
	952		SP CRD INJR W/O EVIDENCE SP BN INJR
Neuro 2 - Peripheral neurological disorders	138		LATE EFFECT ACUTE POLIO
	332		PARKINSONS DISEASE
	333		OTH XTRAPYRAMIDAL DZ&ABN MOVMNT D/O
	334.0		FRIEDREICH'S ATAXIA
	334.2		PRIMARY CEREBELLAR DEGEN
	334.3		CEREBELLAR ATAXIA NEC
	334.4	M	CEREBEL ATAX IN OTH DIS
	334.8		SPINOCEREBELLAR DIS NEC
	337.0		IDIOPATH PERIPH AUTONOM NEUROPATHY
	337.1	M	PRIPHERL AUTONOMIC NEUROPTHY D/O CE
	337.20		UNSPEC REFLEX SYMPATHETIC DYSTROPHY
	337.21		REFLX SYMPATHET DYSTROPHY UP LIMB
	337.22		REFLX SYMPATHET DYSTROPHY LOW LIMB

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	337.29		REFLX SYMPATHET DYSTROPHY OTH SITE
	337.9		UNSPEC DISORDER AUTONOM NERV SYSTEM
	343		INFANTILE CEREBRAL PALSY
	344.2		DIPLEGIA OF BOTH UPPER LIMBS
	352		DISORDERS OF OTHER CRANIAL NERVES
	353.0		BRACHIAL PLEXUS LESION
	353.1		LUMBOSACRAL PLEXUS LESION
	353.5		NEURALGIC AMYLOTROPHY
	354.5		MONONEURITIS MULTIPLEX
	355.2		OTHER LESION OF FEMORAL NERVE
	355.9		LESION OF SCIATIC NERVE
	356		HEREDIT&IDIOPATH PERIPH NEUROPATHY
	357.0		ACUTE INFECTIVE POLYNEURITIS
	357.1	M	POLYNEUROPATHY COLL VASC DISEASE
	357.3	M	POLYNEUROPATHY IN MALIGNANT DISEASE
	357.4	M	POLYNEUROPATHY OTH DZ CLASS ELSW
	357.5		ALCOHOLIC POLYNEUROPATHY
	357.6		POLYNEUROPATHY DUE TO DRUGS
	357.7		POLYNEUROPATHY DUE OTH TOXIC AGENTS
	357.81		CHRONIC INFLAMMATORY DEMYELINATING POLYNEURITIS
	357.82		CRIT ILLNESS NEUROPATHY
	357.89		INFLAM/TOX NEUROPATHY

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	358.00		MYASTHENIA GRAVIS W/O ACUTE
	358.01		MYASTHENIA GRAVIS W/ACUTE
	358.1	M	MYASTHENIC SYNDROMES DZ CLASS ELSW
	358.2		TOXIC MYONEURAL DISORDERS
	359.0		CONGEN HEREDIT MUSCULAR DYSTROPHY
	359.1		HEREDITARY PROGRESSIVE MUSC DYSTROPH
	359.3		PERIODIC PARALYSIS
	359.4		TOXIC MYOPATHY
	359.5	M	MYOPATHY ENDOCRINE DZ CLASS ELSW
	359.6	M	SX INFLAM MYOPATHY DZ CLASS ELSW
	359.81		CRITICAL ILLNESS MYOPATHY
	359.89		OTHER MYOPATHIES
	386.00		MÉNIÉRE'S DISEASE, UNSPECIFIED, MÉNIÉRE'S DISEASE (ACTIVE)
	386.01		ACTIVE MÉNIÉRE'S DISEASE, COCHLEOVESTIBULAR
	386.02		ACTIVE MÉNIÉRE'S DISEASE, COCHLEAR
	386.03		ACTIVE MÉNIÉRE'S DISEASE, VESTIBULAR
	386.2		VERTIGO OF CENTRAL ORIGIN
	386.30		LABYRINTHITIS, UNSPECIFIED
	386.31		SEROUS LABYRINTHITIS, DIFFUSE LABYRINTHITIS
	386.32		CIRCUMSCRIBED LABYRINTHITIS, FOCAL LABYRINTHITIS
	386.33		SUPPURATIVE LABYRINTHITIS, PURULENT LABYRINTHITIS
	386.34		TOXIC LABYRINTHITIS
	386.35		VIRAL LABYRINTHITIS

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names			
Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	392		RHEUMATIC CHOREA
	953		INJURY TO NERVE ROOTS&SPINAL PLEXUS
	954		INJR OTH NRV TRNK NO SHLDR&PLV GIRD
	955.8		INJR PERIPH NRV SHLDR GIRDL&UP LIMB
	956.0		INJR TO SCIATIC NERVE
	956.1		INJ TO FEMORAL NERVE
	956.8		INJR TO MULTIPLE PELVIC AND LE NERVES
Neuro 3 - Stroke	342		HEMIPLEGIA AND HEMIPARESIS
	344.30		MONOPLEGIA OF LOWER LIMB, AFFECTING UNSPECIFIED SIDE
	344.31		MONOPLEGIA OF LOWER LIMB, AFFECTING DOMINANT SIDE
	344.32		MONOPLEGIA OF LOWER LIMB, AFFECTING NONDOMINANT SIDE
	344.40		MONOPLEGIA OF UPPER LIMB, AFFECTING UNSPECIFIED SIDE
	344.41		MONOPLEGIA OF UPPER LIMB, AFFECTING DOMINANT SIDE
	344.42		MONOPLEGIA OF UPPER LIMB, AFFECTING NONDOMINANT SIDE
	344.60		CAUDA EQUINA SYNDROME, WITHOUT MENTION OF NEUROGENIC BLADDER
	344.61		CAUDA EQUINA SYNDROME, WITH NEUROGENIC BLADDER
	438		LATE EFF CEREBROVASCULAR DZ
	781.8		NEURO NEGLECT SYNDROME
Neuro 4 - Multiple Sclerosis	340		MULTIPLE SCLEROSIS
	341.0		NEUROMYELITIS OPTICA
	341.1		SCHILDER'S DISEASE
	341.20		ACUTE (TRANSVERSE) MYELITIS NOS
	341.21	M	ACUTE (TRANSVERSE) MYELITIS IN CONDITIONS CLASSIFIED ELSEWHERE
	341.22		IDIOPATHIC TRANSVERSE MYELITIS
	341.8		OTHER DEMYELINATING DISEASES OF CENTRAL NERVOUS SYSTEM

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	341.9		DEMYELINATING DISEASE OF CENTRAL NERVOUS SYSTEM, UNSPECIFIED
Ortho 1 - Leg Disorders	711.05		PYOGEN ARTHRITIS-PELVIS
	711.06		PYOGEN ARTHRITIS-L/LEG
	711.07		PYOGEN ARTHRITIS-ANKLE
	711.15	M	REITER ARTHRITIS-PELVIS
	711.16	M	REITER ARTHRITIS-L/LEG
	711.17	M	REITER ARTHRITIS-ANKLE
	711.25	M	BEHCET ARTHRITIS-PELVIS
	711.26	M	BEHCET ARTHRITIS-L/LEG
	711.27	M	BEHCET ARTHRITIS-ANKLE
	711.35	M	DYSENTER ARTHRIT-PELVIS
	711.36	M	DYSENTER ARTHRIT-L/LEG
	711.37	M	DYSENTER ARTHRIT-ANKLE
	711.45	M	BACT ARTHRITIS-PELVIS
	711.46	M	BACT ARTHRITIS-L/LEG
	711.47	M	BACT ARTHRITIS-ANKLE
	711.55	M	VIRAL ARTHRITIS-PELVIS
	711.56	M	VIRAL ARTHRITIS-L/LEG
	711.57	M	VIRAL ARTHRITIS-ANKLE
	711.65	M	MYCOTIC ARTHRITIS-PELVI
	711.66	M	MYCOTIC ARTHRITIS-L/LEG
	711.67	M	MYCOTIC ARTHRITIS-ANKLE
	711.75	M	HELMINTH ARTHRIT-PELVIS
	711.76	M	HELMINTH ARTHRIT-L/LEG
	711.77	M	HELMINTH ARTHRIT-ANKLE
	711.85	M	INF ARTHRITIS NEC-PELVI
	711.86	M	INF ARTHRITIS NEC-L/LEG
	711.87	M	INF ARTHRITIS NEC-ANKLE
	711.95		INF ARTHRIT NOS-PELVIS
	711.96		INF ARTHRIT NOS-L/LEG
	711.97		INF ARTHRIT NOS-ANKLE
	712.15	M	DICALC PHOS CRYST-PELVI
	712.16	M	DICALC PHOS CRYST-L/LEG
	712.17	M	DICALC PHOS CRYST-ANKLE
	712.25	M	PYROPHOSPH CRYST-PELVIS
	712.26	M	PYROPHOSPH CRYST-L/LEG
	712.27	M	PYROPHOSPH CRYST-ANKLE
	712.35	M	CHONDROCALCIN NOS-PELVI
	712.36	M	CHONDROCALCIN NOS-L/LEG
	712.37	M	CHONDROCALCIN NOS-ANKLE
	712.85		CRYST ARTHROP NEC-PELVI
	712.86		CRYST ARTHROP NEC-L/LEG
	712.87		CRYST ARTHROP NEC-ANKLE
	716.05		KASCHIN-BECK DIS-PELVIS

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	716.06		KASCHIN-BECK DIS-L/LEG
	716.07		KASCHIN-BECK DIS-ANKLE
	716.15		TRAUM ARTHROPATHY-PELVIS
	716.16		TRAUM ARTHROPATHY-L/LEG
	716.17		TRAUM ARTHROPATHY-ANKLE
	716.25		ALLERG ARTHRITIS-PELVIS
	716.26		ALLERG ARTHRITIS-L/LEG
	716.27		ALLERG ARTHRITIS-ANKLE
	716.35		CLIMACT ARTHRITIS-PELVIS
	716.36		CLIMACT ARTHRITIS-L/LEG
	716.37		CLIMACT ARTHRITIS-ANKLE
	716.45		TRANS ARTHROPATHY-PELVIS
	716.46		TRANS ARTHROPATHY-L/LEG
	716.47		TRANS ARTHROPATHY-ANKLE
	716.85		ARTHROPATHY NEC-PELVIS
	716.86		ARTHROPATHY NEC-L/LEG
	716.87		ARTHROPATHY NEC-ANKLE
	717		INTERNAL DERANGEMENT OF KNEE
	718.05		ART CARTIL DISORDER PELVIS AND THIGH
	718.07		ART CARTIL DIS ANKLE FOOT
	718.15		LOOSE BODY-PELVIS
	718.17		LOOSE BODY-ANKLE
	718.25		PATHOLOGIC DISLOCATION PELVIS AND THIGH
	718.26		PATHOLOGIC DISLOCATION LOWER LEG
	718.27		PATHOLOGIC DISLOCATION ANKLE FOOT
	718.35		RECURRENT DISLOCATION PELVIS AND THIGH
	718.36		RECURRENT DISLOCATION LOW LEG
	718.37		RECURRENT DISLOCATION ANKLE FOOT
	718.45		CONTRACTURE PELVIS AND THIGH
	718.46		CONTRACTURE LOWER LEG
	718.47		CONTRACTURE OF JOINT ANKLE FOOT
	718.55		ANKYLOSIS OF PELVIS AND THIGH
	718.56		ANKYLOSIS OF LOWER LEG
	718.57		ANKYLOSIS OF JOINT ANKLE FOOT
	718.75		DEVELOPMENTAL DISLOCATION OF JOINT -PELVIC REGION AND THIGH

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	718.76		DEVELOPMENTAL DISLOCATION OF JOINT -LOWER LEG
	718.77		DEVELOPMENTAL DISLOCATION OF JOINT -ANKLE AND FOOT
	719.15		HEMARTHROSIS PELVIS AND THIGH
	719.16		HEMARTHROSIS LOWER LEG
	719.17		HEMARTHROSIS ANKLE AND FOOT
	719.25		VILLONODULAR SYNOVITIS PELVIS AND THIGH
	719.26		VILLONODULAR SYNOVITIS LOWER LEG
	719.27		VILLONODULAR SYNOVITIS ANKLE AND FOOT
	719.35		PALANDROMIC RHEUMATISM PELVIS AND THIGH
	719.36		PALANDROMIC RHEUMATISM LOWER LEG
	719.37		PALANDROMIC RHEUMATISM ANKLE AND FOOT
	727.65		RUPTURE OF TENDON QUADRACEPS
	727.66		RUPTURE OF TENDON PATELLAR
	727.67		RUPTURE OF TENDON ACHILLES
	727.68		RUPTURE OTHER TENDONS FOOT AND ANKLE
	730.05		AC OSTEOMYELITIS-PELVIS
	730.06		AC OSTEOMYELITIS-L/LEG
	730.07		AC OSTEOMYELITIS-ANKLE
	730.15		CHR OSTEOMYELIT-PELVIS
	730.16		CHR OSTEOMYELIT-L/LEG
	730.17		CHR OSTEOMYELIT-ANKLE
	730.25		OSTEOMYELITIS NOS-PELVI
	730.26		OSTEOMYELITIS NOS-L/LEG
	730.27		OSTEOMYELITIS NOS-ANKLE
	730.35		PERIOSTITIS-PELVIS
	730.36		PERIOSTITIS-L/LEG
	730.37		PERIOSTITIS-ANKLE
	730.75	M	POLIO OSTEOPATHY-PELVIS
	730.76	M	POLIO OSTEOPATHY-L/LEG
	730.77	M	POLIO OSTEOPATHY-ANKLE
	730.85	M	BONE INFECT NEC-PELVIS
	730.86	M	BONE INFECT NEC-L/LEG
	730.87	M	BONE INFECT NEC-ANKLE
	730.95		BONE INFECT NOS-PELVIS

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names			
Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	730.96		BONE INFECT NOS-L/LEG
	730.97		BONE INFECT NOS-ANKLE
	733.14		PATHOLOGIC FRACTURE OF NECK OF FEMUR
	733.15		PATHOLOGIC FRACTURE OF FEMUR
	733.16		PATHOLOGIC FRACTURE OF TIBIA OR FIBULA
	733.42		ASEPTIC NECROSIS OF HEAD AND NECK OF FEMUR
	733.43		ASEPTIC NECROSIS OF MEDIAL FEMORAL CONDYLE
	808		FRACTURE OF PELVIS
	820		FRACTURE OF NECK OF FEMUR
	821		FRACTURE OTHER&UNSPEC PARTS FEMUR
	822		FRACTURE OF PATELLA
	823		FRACTURE OF TIBIA AND FIBULA
	824		FRACTURE OF ANKLE
	825		FRACTURE 1/MORE TARSAL&MT BNS
	827		OTH MX&ILL-DEFINED FX LOWER LIMB
	828		MX FX LEGS-LEG W/ARM-LEGS W/RIBS
	835		DISLOCATION OF HIP
	836		DISLOCATION OF KNEE
	897		TRAUMATIC AMPUTATION OF LEG
	928		CRUSHING INJURY OF LOWER LIMB
Ortho 2 - Other Orthopedic disorders	711.01		PYOGEN ARTHRITIS-SHLDER
	711.02		PYOGEN ARTHRITIS-UP/ARM
	711.03		PYOGEN ARTHRITIS-FOREAR
	711.04		PYOGEN ARTHRITIS-HAND
	711.08		PYOGEN ARTHRITIS NEC
	711.09		PYOGEN ARTHRITIS-MULT
	711.10	M	REITER ARTHRITIS-UNSPEC
	711.11	M	REITER ARTHRITIS-SHLDER
	711.12	M	REITER ARTHRITIS-UP/ARM
	711.13	M	REITER ARTHRITIS-FOREAR
	711.14	M	REITER ARTHRITIS-HAND
	711.18	M	REITER ARTHRITIS NEC
	711.19	M	REITER ARTHRITIS-MULT
	711.20	M	BEHCET ARTHRITIS-UNSPEC
	711.21	M	BEHCET ARTHRITIS-SHLDER
	711.22	M	BEHCET ARTHRITIS-UP/ARM
	711.23	M	BEHCET ARTHRITIS-FOREAR
	711.24	M	BEHCET ARTHRITIS-HAND
	711.28	M	BEHCET ARTHRITIS NEC

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	711.29	M	BEHCET ARTHRITIS-MULT
	711.30	M	DYSENTER ARTHRIT-UNSPEC
	711.31	M	DYSENTER ARTHRIT-SHLDER
	711.32	M	DYSENTER ARTHRIT-UP/ARM
	711.33	M	DYSENTER ARTHRIT-FOREAR
	711.34	M	DYSENTER ARTHRIT-HAND
	711.38	M	DYSENTER ARTHRIT NEC
	711.39	M	DYSENTER ARTHRIT-MULT
	711.40	M	BACT ARTHRITIS-UNSPEC
	711.41	M	BACT ARTHRITIS-SHLDER
	711.42	M	BACT ARTHRITIS-UP/ARM
	711.43	M	BACT ARTHRITIS-FOREARM
	711.44	M	BACT ARTHRITIS-HAND
	711.48	M	BACT ARTHRITIS NEC
	711.49	M	BACT ARTHRITIS-MULT
	711.50	M	VIRAL ARTHRITIS-UNSPEC
	711.51	M	VIRAL ARTHRITIS-SHLDER
	711.52	M	VIRAL ARTHRITIS-UP/ARM
	711.53	M	VIRAL ARTHRITIS-FOREARM
	711.54	M	VIRAL ARTHRITIS-HAND
	711.58	M	VIRAL ARTHRITIS NEC
	711.59	M	VIRAL ARTHRITIS-MULT
	711.60	M	MYCOTIC ARTHRITIS-UNSPE
	711.61	M	MYCOTIC ARTHRITIS-SHLDE
	711.62	M	MYCOTIC ARTHRITIS-UP/AR
	711.63	M	MYCOTIC ARTHRIT-FOREARM
	711.64	M	MYCOTIC ARTHRITIS-HAND
	711.68	M	MYCOTIC ARTHRITIS NEC
	711.69	M	MYCOTIC ARTHRITIS-MULT
	711.70	M	HELMINTH ARTHRIT-UNSPEC
	711.71	M	HELMINTH ARTHRIT-SHLDER
	711.72	M	HELMINTH ARTHRIT-UP/ARM
	711.73	M	HELMINTH ARTHRIT-FOREAR
	711.74	M	HELMINTH ARTHRIT-HAND
	711.78	M	HELMINTH ARTHRIT NEC
	711.79	M	HELMINTH ARTHRIT-MULT
	711.80	M	INF ARTHRITIS NEC-UNSPE
	711.81	M	INF ARTHRITIS NEC-SHLDE
	711.82	M	INF ARTHRITIS NEC-UP/AR
	711.83	M	INF ARTHRIT NEC-FOREARM
	711.84	M	INF ARTHRITIS NEC-HAND
	711.88	M	INF ARTHRIT NEC-OTH SIT
	711.89	M	INF ARTHRITIS NEC-MULT
	711.90		INF ARTHRITIS NOS-UNSPE
	711.91		INF ARTHRITIS NOS-SHLDE

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	711.92		INF ARTHRITIS NOS-UP/AR
	711.93		INF ARTHRIT NOS-FOREARM
	711.94		INF ARTHRIT NOS-HAND
	711.98		INF ARTHRIT NOS-OTH SIT
	711.99		INF ARTHRITIS NOS-MULT
	712.10	M	DICALC PHOS CRYST-UNSPE
	712.11	M	DICALC PHOS CRYST-SHLDE
	712.12	M	DICALC PHOS CRYST-UP/AR
	712.13	M	DICALC PHOS CRYS-FOREAR
	712.14	M	DICALC PHOS CRYST-HAND
	712.18	M	DICALC PHOS CRY-SITE NE
	712.19	M	DICALC PHOS CRYST-MULT
	712.20	M	PYROPHOSPH CRYST-UNSPEC
	712.21	M	PYROPHOSPH CRYST-SHLDER
	712.22	M	PYROPHOSPH CRYST-UP/ARM
	712.23	M	PYROPHOSPH CRYST-FOREAR
	712.24	M	PYROPHOSPH CRYST-HAND
	712.28	M	PYROPHOS CRYST-SITE NEC
	712.29	M	PYROPHOS CRYST-MULT
	712.30	M	CHONDROCALCIN NOS-UNSPE
	712.31	M	CHONDROCALCIN NOS-SHLDE
	712.32	M	CHONDROCALCIN NOS-UP/AR
	712.33	M	CHONDROCALC NOS-FOREARM
	712.34	M	CHONDROCALCIN NOS-HAND
	712.38	M	CHONDROCALC NOS-OTH SIT
	712.39	M	CHONDROCALCIN NOS-MULT
	712.80		CRYST ARTHROP NEC-UNSPE
	712.81		CRYST ARTHROP NEC-SHLDE
	712.82		CRYST ARTHROP NEC-UP/AR
	712.83		CRYS ARTHROP NEC-FOREAR
	712.84		CRYST ARTHROP NEC-HAND
	712.88		CRY ARTHROP NEC-OTH SIT
	712.89		CRYST ARTHROP NEC-MULT
	713.0	M	ARTHROP W ENDOCR/MET DI
	713.1	M	ARTHROP W NONINF GI DIS
	713.2	M	ARTHROPATH W HEMATOL DI
	713.3	M	ARTHROPATHY W SKIN DIS
	713.4	M	ARTHROPATHY W RESP DIS
	713.5	M	ARTHROPATHY W NERVE DIS
	713.6	M	ARTHROP W HYPERSEN REAC
	713.7	M	ARTHROP W SYSTEM DIS NE
	713.8	M	ARTHROP W OTH DIS NEC
	714		RA&OTH INFLAM POLYARTHROPATHIES
	715.15		OSTEOARTHROSIS, LOCALIZED, PRIMARY, PELVIS AND THIGH

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	715.16		OSTEOARTHROSIS, LOCALIZED, PRIMARY, LOWER LEG
	715.25		OSTEOARTHROSIS, LOCALIZED, SECONDARY, PELVIS AND THIGH
	715.26		OSTEOARTHROSIS, LOCALIZED, SECONDARY, LOWER LEG
	715.35		OSTEOARTHROSIS, LOCALIZED, NOT SPEC PRIMARY OR SECONDARY, PELVIS AND THIGH
	715.36		OSTEOARTHROSIS, LOCALIZED, NOT SPEC PRIMARY OR SECONDARY, LOWER LEG
	715.95		OSTEOARTHROSIS, UNSPECIFIED, PELVIS AND THIGH
	715.96		OSTEOARTHROSIS, UNSPECIFIED, LOWER LEG
	716.00		KASCHIN-BECK DIS-UNSPEC
	716.01		KASCHIN-BECK DIS-SHLDER
	716.02		KASCHIN-BECK DIS-UP/ARM
	716.03		KASCHIN-BECK DIS-FOREARM
	716.04		KASCHIN-BECK DIS-HAND
	716.08		KASCHIN-BECK DIS NEC
	716.09		KASCHIN-BECK DIS-MULT
	716.10		TRAUM ARTHROPATHY-UNSPEC
	716.11		TRAUM ARTHROPATHY-SHLDER
	716.12		TRAUM ARTHROPATHY-UP/ARM
	716.13		TRAUM ARTHROPATH-FOREARM
	716.14		TRAUM ARTHROPATHY-HAND
	716.18		TRAUM ARTHROPATHY NEC
	716.19		TRAUM ARTHROPATHY-MULT
	716.20		ALLERG ARTHRITIS-UNSPEC
	716.21		ALLERG ARTHRITIS-SHLDER
	716.22		ALLERG ARTHRITIS-UP/ARM
	716.23		ALLERG ARTHRITIS-FOREARM
	716.24		ALLERG ARTHRITIS-HAND
	716.28		ALLERG ARTHRITIS NEC
	716.29		ALLERG ARTHRITIS-MULT
	716.30		CLIMACT ARTHRITIS-UNSPEC
	716.31		CLIMACT ARTHRITIS-SHLDER
	716.32		CLIMACT ARTHRITIS-UP/ARM
	716.33		CLIMACT ARTHRIT-FOREARM
	716.34		CLIMACT ARTHRITIS-HAND
	716.38		CLIMACT ARTHRITIS NEC
	716.39		CLIMACT ARTHRITIS-MULT
	716.40		TRANS ARTHROPATHY-UNSPEC
	716.41		TRANS ARTHROPATHY-SHLDER
	716.42		TRANS ARTHROPATHY-UP/ARM

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	716.43		TRANS ARTHROPATH-FOREARM
	716.44		TRANS ARTHROPATHY-HAND
	716.48		TRANS ARTHROPATHY NEC
	716.49		TRANS ARTHROPATHY-MULT
	716.80		ARTHROPATHY NEC-UNSPEC
	716.81		ARTHROPATHY NEC-SHLDER
	716.82		ARTHROPATHY NEC-UP/ARM
	716.83		ARTHROPATHY NEC-FOREARM
	716.84		ARTHROPATHY NEC-HAND
	716.88		ARTHROPATHY NEC-OTH SITE
	716.89		ARTHROPATHY NEC-MULT
	718.01		ART CARTIL DISORDER SHOULDER
	718.02		ART CARTIL DIS UPPER ARM
	718.03		ART CARTIL DIS FOREARM
	718.04		ART CARTIL DIS HAND
	718.08		ART CART DIS OTH SITES
	718.09		ART CART DIS MULT
	718.10		LOOSE BODY-UNSPEC
	718.11		LOOSE BODY-SHLDER
	718.12		LOOSE BODY-UP/ARM
	718.13		LOOSE BODY-FOREARM
	718.14		LOOSE BODY-HAND
	718.18		LOOSE BODY-JOINT NEC
	718.19		LOOSE BODY-MULT JOINTS
	718.20		PATHOLOGIC DISLOCATION UNSPEC SITE
	718.21		PATHOLOGIC DISLOCATION SHOULDER
	718.22		PATHOLOGIC DISLOCATION UPPER ARM
	718.23		PATHOLOGIC DISLOCATION FOREARM
	718.24		PATHOLOGIC DISLOCATION HAND
	718.28		PATHOLOGIC DISLOCATION OTH LOC
	718.29		PATHOLOGIC DISLOCATION MULT LOC
	718.30		RECURRENT DISLOCATION UNSPEC SITE

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	718.31		RECURRENT DISLOCATION SHOULDER
	718.32		RECURRENT DISLOCATION UPPER ARM
	718.33		RECURRENT DISLOCATION FOREARM
	718.34		RECURRENT DISLOCATION HAND
	718.38		RECURRENT DISLOCATION OTH LOC
	718.39		RECURRENT DISLOCATION MULT LOC
	718.40		CONTRACTURE OF JOINT UNSPEC SITE
	718.41		CONTRACTURE SHOULDER
	718.42		CONTRACTURE OF JOINT UPPER ARM
	718.43		CONTRACTURE OF JOINT FOREARM
	718.44		CONTRACTURE OF JOINT HAND
	718.48		CONTRACTURE OF JOINT OTH LOC
	718.49		CONTRACTURE OF JOINT MULT LOC
	718.50		ANKYLOSIS OF JOINT UNSPEC SITE
	718.51		ANKYLOSIS OF SHOULDER
	718.52		ANKYLOSIS OF JOINT UPPER ARM
	718.53		ANKYLOSIS OF JOINT FOREARM
	718.54		ANKYLOSIS OF JOINT HAND
	718.58		ANKYLOSIS OF JOINT OTH LOC
	718.59		ANKYLOSIS OF JOINT MULT LOC
	718.60		UNSPED 'INTRAPELVIC PROTRUSION ACETAB
	718.70		DEVELOPMENTAL DISLOCATION OF JOINT -SITE UNSPECIFIED
	718.71		DEVELOPMENTAL DISLOCATION OF JOINT -SHOULDER REGION
	718.72		DEVELOPMENTAL DISLOCATION OF JOINT -UPPER ARM
	718.73		DEVELOPMENTAL DISLOCATION OF JOINT -FOREARM
	718.74		DEVELOPMENTAL DISLOCATION OF JOINT -HAND
	718.78		DEVELOPMENTAL DISLOCATION OF JOINT -OTHER SPECIFIED SITES
	718.79		DEVELOPMENTAL DISLOCATION OF JOINT -MULTIPLE SITES
	719.10		HEMARTHROSIS UNSPECIFIED SITE
	719.11		HEMARTHROSIS SHOULDER
	719.12		HEMARTHROSIS UPPER ARM

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	719.13		HEMARTHROSIS FOREARM
	719.14		HEMARTHROSIS HAND
	719.18		HEMARTHROSIS OTHER SPECIFIED
	719.19		HEMARTHROSIS MULTIPLE SITES
	719.20		VILLONODULAR SYNOVITIS UNSPECIFIED SITE
	719.21		VILLONODULAR SYNOVITIS SHOULDER
	719.22		VILLONODULAR SYNOVITIS UPPER ARM
	719.23		VILLONODULAR SYNOVITIS FOREARM
	719.24		VILLONODULAR SYNOVITIS HAND
	719.28		VILLONODULAR SYNOVITIS OTHER SITES
	719.29		VILLONODULAR SYNOVITIS MULTIPLE SITES
	719.30		PALANDROMIC RHEUMATISM UNSPECIFIED SITE
	719.31		PALANDROMIC RHEUMATISM SHOULDER
	719.32		PALANDROMIC RHEUMATISM UPPER ARM
	719.33		PALANDROMIC RHEUMATISM FOREARM
	719.34		PALANDROMIC RHEUMATISM HAND
	719.38		PALANDROMIC RHEUMATISM OTHER SITES
	719.39		PALANDROMIC RHEUMATISM MULTIPLE SITES
	720.0		ANKYLOSING SPONDYLITIS
	720.1		SPINAL ENTHESOPATHY
	720.2		SACROILIITIS NEC
	720.81	M	SPONDYLOPATHY IN OTH DI
	720.89		OTHER INFLAMMATORY SPONDYLOPATHIES
	720.9		UNSPEC INFLAMMATORY SPONDYLOPATHY
	721		SPONDYLOSIS AND ALLIED DISORDERS
	722 except 722.3x		INTERVERTEBRAL DISC DISORDERS
	723.0		SPINAL STENOSIS OF CERVICAL REGION
	723.2		CERVICOCRANIAL SYNDROME
	723.3		CERVICOBRACHIAL SYNDROME
	723.4		BRACHIA NEURITIS OR RADICULITIS
	723.5		TORTICOLLIS, UNSPECIFIED
	723.7		OSSIFICATION OF POSTERIOR LONGITUDINAL LIGAMENT IN CERVICAL REGION
	724.00		SPINAL STENOSIS NOS
	724.01		SPINAL STENOSIS-THORACIC
	724.02		SPINAL STENOSIS-LUMBAR
	724.09		SPINAL STENOSIS-OTH SITE
	724.3		SCIATICA
	724.4		LUMBOSACRAL NEURITIS NOS

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	724.6		DISORDERS OF SACRUM
	725		POLYMYALGIA RHEUMATICA
	726.0		ADHESIVE CAPSULITIS
	726.10		DISORDERS OF BURSAE AND TENDONS
	726.11		CALCIFYING TENDINITIS
	726.12		BICIPITAL TENOSYNOVITIS
	726.19		ROTATOR CUFF SYNDROME OTHER
	727.61		COMPLETE RUPTURE OF ROTATOR CUFF
	728.0		INFECTIVE MYOSITIS
	728.10		CALCIFICATION AND OSSIFICATION, UNSPECIFIED
	728.11		PROGRESSIVE MYOSITIS OSSIFICANS
	728.12		TRAUMATIC MYOSITIS OSSIFICATIONS
	728.13		POST OP HETEROTOPIC CALCIFICATION
	728.19		OTHER MUSCULAR CALCIFICATION AND OSSIFICATION
	728.6		CONTRACTURE OF PALMAR FASCIA
	730.00		AC OSTEOMYELITIS-UNSPEC
	730.01		AC OSTEOMYELITIS-SHLDER
	730.02		AC OSTEOMYELITIS-UP/ARM
	730.03		AC OSTEOMYELITIS-FOREAR
	730.04		AC OSTEOMYELITIS-HAND
	730.08		AC OSTEOMYELITIS NEC
	730.09		AC OSTEOMYELITIS-MULT
	730.10		CHR OSTEOMYELITIS-UNSP
	730.11		CHR OSTEOMYELIT-SHLDER
	730.12		CHR OSTEOMYELIT-UP/ARM
	730.13		CHR OSTEOMYELIT-FOREARM
	730.14		CHR OSTEOMYELIT-HAND
	730.18		CHR OSTEOMYELIT NEC
	730.19		CHR OSTEOMYELIT-MULT
	730.20		OSTEOMYELITIS NOS-UNSPE
	730.21		OSTEOMYELITIS NOS-SHLDE
	730.22		OSTEOMYELITIS NOS-UP/AR
	730.23		OSTEOMYELIT NOS-FOREARM
	730.24		OSTEOMYELITIS NOS-HAND
	730.28		OSTEOMYELIT NOS-OTH SIT
	730.29		OSTEOMYELITIS NOS-MULT
	730.30		PERIOSTITIS-UNSPEC
	730.31		PERIOSTITIS-SHLDER
	730.32		PERIOSTITIS-UP/ARM
	730.33		PERIOSTITIS-FOREARM
	730.34		PERIOSTITIS-HAND
	730.38		PERIOSTITIS NEC
	730.39		PERIOSTITIS-MULT

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	730.70	M	POLIO OSTEOPATHY-UNSPEC
	730.71	M	POLIO OSTEOPATHY-SHLDER
	730.72	M	POLIO OSTEOPATHY-UP/ARM
	730.73	M	POLIO OSTEOPATHY-FOREAR
	730.74	M	POLIO OSTEOPATHY-HAND
	730.78	M	POLIO OSTEOPATHY NEC
	730.79	M	POLIO OSTEOPATHY-MULT
	730.80	M	BONE INFECT NEC-UNSPEC
	730.81	M	BONE INFECT NEC-SHLDER
	730.82	M	BONE INFECT NEC-UP/ARM
	730.83	M	BONE INFECT NEC-FOREARM
	730.84	M	BONE INFECT NEC-HAND
	730.88	M	BONE INFECT NEC-OTH SIT
	730.89	M	BONE INFECT NEC-MULT
	730.90		BONE INFEC NOS-UNSP SIT
	730.91		BONE INFECT NOS-SHLDER
	730.92		BONE INFECT NOS-UP/ARM
	730.93		BONE INFECT NOS-FOREARM
	730.94		BONE INFECT NOS-HAND
	730.98		BONE INFECT NOS-OTH SIT
	730.99		BONE INFECT NOS-MULT
	731.0		OSTEITIS DEFORMANS W/O BN TUMR
	731.1	M	OSTEITIS DEFORMANS DZ CLASS ELSW
	731.2		HYPERTROPH PULM OSTEOARTHROPATHY
	731.8	M	OTH BONE INVOLVEMENT DZ CLASS ELSW
	732		OSTEOCHONDROPATHIES
	733.10		PATHOLOGIC FRACTURE UNSPEC
	733.11		PATHOLOGIC FRACTURE HUMERUS
	733.12		PATHOLOGIC FRACTURE DISTAL RADIUS ULNA
	733.13		PATHOLOGIC FRACTURE OF VERTEBRAE
	733.19		PATHOLOGIC FRACTURE OTH SPEC SITE
	800		FRACTURE OF VAULT OF SKULL
	801		FRACTURE OF BASE OF SKULL
	802		FRACTURE OF FACE BONES
	803		OTHER&UNQUALIFIED SKULL FRACTURES
	804		MX FX INVLV SKULL/FACE W/OTH BNS
	805		FX VERT COLUMN W/O SP CRD INJR
	807		FRACTURE RIB STERNUM LARYNX&TRACHEA
	809		ILL-DEFINED FRACTURES BONES TRUNK
	810		FRACTURE OF CLAVICLE
	811		FRACTURE OF SCAPULA
	812		FRACTURE OF HUMERUS
	813		FRACTURE OF RADIUS AND ULNA

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	814		FRACTURE OF CARPAL BONE
	815		FRACTURE OF METACARPAL BONE
	816		FRACTURE ONE OR MORE PHALANGES HAND
	817		MULTIPLE FRACTURES OF HAND BONES
	818		ILL-DEFINED FRACTURES OF UPPER LIMB
	819		MX FX UP LIMBS&LIMBS W/RIB&STERNUM
	831		DISLOCATION OF SHOULDER
	832		DISLOCATION OF ELBOW
	833		DISLOCATION OF WRIST
	837		DISLOCATION OF ANKLE
	838		DISLOCATION OF FOOT
	846		SPRAINS&STRAINS SACROILIAC REGION
	847		SPRAINS&STRAINS OTH&UNS PART BACK
Psych 1 - Affective and other psychoses, depression	295		SCHIZOPHRENIA
	296.0x Except for 296.06		BIPOLAR I DISORDER, SINGLE MANIC EPISODE
	296.1x Except for 296.16		MANIC DISORDER, RECURRENT EPISODE
	296.2x except for 296.26		MAJOR DEPRESSIVE DISORDER, SINGLE EPISODE
	296.3x except for 296.36		MAJOR DEPRESSIVE DISORDER RECURRENT EPISODE
	296.4x except for 296.46		BIPOLAR I DISORDER, MOST RECENT EPISODE (OR CURRENT) MANIC
	296.5x except for 296.56		BIPOLAR I DISORDER, MOST RECENT EPISODE (OR CURRENT) DEPRESSED
	296.6x except for 296.66		BIPOLAR I DISORDER, MOST RECENT EPISODE (OR CURRENT) MIXED
	296.7		BIPOLAR I DISORDER, MOST RECENT EPISODE (OR CURRENT) UNSPECIFIED
	296.80		BIPOLAR DISORDER, UNSPECIFIED
	296.81		ATYPICAL MANIC DISORDER
	296.82		ATYPICAL DEPRESSIVE DISORDER

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	296.89		OTHER AND UNSPECIFIED BIPOLAR DISORDERS
	296.90		UNSPECIFIED EPISODIC MOOD DISORDER
	296.99		OTHER SPECIFIED EPISODIC MOOD DISORDER
	297		DELUSIONAL DIS
	298		OTH PSYCHOSES
	311		DEPRESSIVE DISORDER NEC
Psych 2 - Degenerative and other organic psychiatric disorders	290 except 290.8, 290.9		DEMENTIAS
	291.1		ALCOHOL PSYCHOSIS
	291.2		ALCOHOL DEMENTIA
	292.81		DRUG INDUCED DELIRIUM
	292.82		DRUG INDUCED PERSISTING DEMENTIA
	292.83		DRUG INDUCED PERSISTING AMNESTIC DISORDER
	292.84		DRUG INDUCED MOOD DISORDER
	292.85		DRUG INDUCED SLEEP DISORDERS
	292.89		OTHER DEPRESSIVE STATE INDUCED BY DRUGS
	294.0		AMNESTIC DISORD OTH DIS
	294.10	M	DEMENTIA IN COND CLASS ELSW NOS
	294.11	M	DEMENTIA IN COND CLASS ELSW W BEHAV DISTURB
	294.8		MENTAL DISOR NEC OTH DIS
	331.0		ALZHEIMER'S DISEASE
	331.11		PICK'S DISEASE
	331.19		OTH FRONTO-TEMPORAL DEMENTIA

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	331.2		SENILE DEGENERAT BRAIN
	331.3		COMMUNICAT HYDROCEPHALUS
	331.4		OBSTRUCTIV HYDROCEPHALUS
	331.5		IDIOPATHIC NORMAL PRESSURE HYDROCEPHALUS (INPH)
	331.7	M	CEREB DEGEN IN OTH DIS
	331.81		REYE'S SYNDROME
	331.82		DEMENTIA WITH LEWY BODIES
	331.89		CEREB DEGENERATION NEC
Pulmonary disorders	491 except 491.9		CHRONIC BRONCHITIS
	492		EMPHYSEMA
	493.20		CHRONIC OBSTRUCTIVE ASTHMA UNSPECIFIED
	493.21		CHRONIC OBSTRUCTIVE ASTHMA WITH STATUS ASTHMATICUS
	493.22		CHRONIC OBSTRUCTIVE ASTHMA WITH (ACUTE) EXACERBATION
Skin 1 - Traumatic wounds, burns and post-operative complications	870		OPEN WOUND OF OCULAR ADNEXA
	872		OPEN WOUND OF EAR
	873		OTHER OPEN WOUND OF HEAD
	874		OPEN WOUND OF NECK
	875		OPEN WOUND OF CHEST
	876		OPEN WOUND OF BACK
	877		OPEN WOUND OF BUTTOCK
	878		OPEN WND GNT ORGN INCL TRAUMAT AMP
	879		OPEN WOUND OTH&UNSPEC SITE NO LIMBS

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	880		OPEN WOUND OF SHOULDER&UPPER ARM
	881		OPEN WOUND OF ELBOW FOREARM&WRIST
	882		OPEN WOUND HAND EXCEPT FINGER ALONE
	883		OPEN WOUND OF FINGER
	884		MX&UNSPEC OPEN WOUND UPPER LIMB
	885		TRAUMATIC AMPUTATION OF THUMB
	886		TRAUMATIC AMPUTATION OTHER FINGER
	887		TRAUMATIC AMPUTATION OF ARM&HAND
	890		OPEN WOUND OF HIP AND THIGH
	891		OPEN WOUND OF KNEE, LEG , AND ANKLE
	892		OPEN WOUND OF FOOT EXCEPT TOE ALONE
	893		OPEN WOUND OF TOE
	894		MX&UNSPEC OPEN WOUND LOWER LIMB
	895		TRAUMATIC AMPUTATION OF TOE
	896		TRAUMATIC AMPUTATION OF FOOT
	927		CRUSHING INJURY OF UPPER LIMB
	941 except 941.0x, 941.1x		BURN OF FACE, HEAD, AND NECK
	942 except 942.0x, 942.1x		BURN OF TRUNK
	943 except 943.0x, 943.1x		BURN OF UPPER LIMB, EXCEPT WRIST AND HAND
	944 except 944.0x, 944.1x		BURN OF WRIST(S) AND HAND(S)

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names			
Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	945 except 945.0x, 945.1x		BURN OF LOWER LIMB(S)
	946.2		BURNS OF MULTIPLE SPECIFIED SITES, BLISTERS, EPIDERMAL LOSS [SECOND DEGREE]
	946.3		BURNS OF MULTIPLE SPECIFIED SITES, FULL-THICKNESS SKIN LOSS [THIRD DEGREE NOS]
	946.4		BURNS OF MULTIPLE SPECIFIED SITES, DEEP NECROSIS OF UNDERLYING TISSUES [DEEP THIRD DEGREE] WITHOUT MENTION OF LOSS OF A BODY PART
	946.5		BURNS OF MULTIPLE SPECIFIED SITES, DEEP NECROSIS OF UNDERLYING TISSUES [DEEP THIRD DEGREE] WITH LOSS OF A BODY PART
	948		Burns classified according to the extent of body surface involved
	951		INJURY TO OTHER CRANIAL NERVE
	955.0		INJURY TO AXILLARY NERVE
	955.1		INJURY TO MEDIAN NERVE
	955.2		INJURY TO ULNAR NERVE
	955.3		INJURY TO RADIAL NERVE
	955.4		INJURY TO MUSCULOCUTANEOUS NERVE
	955.6		INJURY TO DIGITAL NERVE
	955.7		INJURY TO OTHER SPECIFIED NERVE(S) SHOULDER GIRDLE AND UPPER LIMB
	956.2		INJURY TO POSTERIOR TIBIAL NERVE
	956.3		INJURY TO PERONEAL NERVE
	956.5		INJURY TO OTHER SPECIFIED NERVE(S) OF PELVIC GIRDLE AND LOWER LIMB
	998.11		HEMORRHAGE COMPLICATING A PROCEDURE
	998.12		HEMATOMA COMPLICATING A PROCEDURE
	998.13		SEROMA COMPLICATING A PROCEDURE

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	998.2		ACC PUNCT/LACRATION DURING PROC NEC
	998.31		DISRUPTION OF INTERNAL OPERATION WOUND
	998.32		DISRUPTION OF EXTERNAL OPERATION WOUND
	998.4		FB ACC LEFT DURING PROC NEC
	998.51		INFECTED POSTOPERATIVE SEROMA
	998.59		OTHER POSTOPERATIVE INFECTION
	998.6		PERSISTENT POSTOPERATIVE FIST NEC
	998.83		NON-HEALING SURGICAL WOUND NEC
Skin 2 - Ulcers and other skin conditions	440.23		ATHEROSCLER-ART EXTREM W/ULCERATION
	440.24		ATHERSCLER-ART EXTREM W/GANGRENE
	447.2		RUPTURE OF ARTERY
	447.8		ARTERIAL DISEASE NEC
	565		ANAL FISSURE AND FISTULA
	566		ABSCESS OF ANAL AND RECTAL REGIONS
	680		CARBUNCLE AND FURUNCLE
	681.00		FINGER - CELLULITIS AND ABSCESS, UNSPECIFIED
	681.01		FELON
	681.10		TOE - CELLULITIS AND ABSCESS, UNSPECIFIED
	681.9		CELLULITIS AND ABSCESS OF UNSPECIFIED DIGIT
	682		OTHER CELLULITIS AND ABSCESS

Table 2B: Diagnosis Codes, "Secondary-only" Diagnosis Codes, Diagnosis Groups, and Diagnosis Group Variable Names

Diagnostic Category	ICD-9-CM Code	Manifestation codes	Short Description of ICD-9-CM Code
	683		ACUTE LYMPHADENITIS
	685		PILONIDAL CYST
	686		OTH LOCAL INF SKIN&SUBCUT TISSUE
	707.10		ULCER OF LOWER LIMB, UNSPECIFIED
	707.11		ULCER OF THIGH
	707.12		ULCER OF CALF
	707.13		ULCER OF ANKLE
	707.14		ULCER OF HEEL AND MIDFOOT
	707.15		ULCER OF OTHER PART OF FOOT
	707.19		ULCER OF OTHER PART OF LOWER LIMB
	707.8		CHRONIC ULCER OTHER SPECIFIED SITE
	707.9		CHRONIC ULCER OF UNSPECIFIED SITE
	785.4	*M*	GANGRENE
Tracheostomy care	V55.0		TRACHEOSTOMY
Urostomy/Cystostomy Care	V55.5		CYSTOSTOMY
	V55.6		OTHER ARTIFICIAL OPENING OF URINARY TRACT-NEPHROSTOMY, URETEROSTOMY, URETHROSTOMY

Note: The category codes listed in Table 2B include all the related 4- and 5-digit codes. "ICD-9-CM Official Guidelines for Coding and Reporting" dictate the following:

- A three-digit code is to be used only if it is not further subdivided.
- Where fourth-digit subcategories and /or fifth-digit subclassifications are provided, they must be assigned.
- A code is invalid if it has not been coded to the full number of digits required for that code.
- Codes with three digits are included in ICD-9-CM as the heading of a category of codes that may be further subdivided by the use of fourth and/or fifth digits, which provide greater detail.
- Manifestation codes are indicated by "M". ICD-9-CM guidelines pertaining to multiple coding and sequencing of diagnosis codes apply to OASIS diagnosis items.

For official ICD-9-CM coding guidance, please go to:

http://www.cdc.gov/nchs/datawh/ftpserv/ftpicd9/ftpicd9.htm

Table 2C. Deletions and Additions to Table 2B of the Proposed Rule

ICD-9-CM Codes Deleted	Code Description	Diagnostic Category
286	Coagulation Defects	***Blood Disorders***
213.9	Benign Neoplasm Bone and articular cartilage, site unspecified	***Cancer & Selected Benign Neoplasm***
225.9	Benign Nervous system, part unspecified	
230.9	CA IN SITU, other and unspecified digestive organs	
231.9	CA IN SITU, Respiratory system, part unspecified	
232.9	CA IN SITU, Skin site unspecified	
233.9	CA. IN SITU, Other and Unspecified Urinary organs	
234.9	CA IN SITU Site Unspecified	
564.00	Constipation Unspecified	***Gastrointestinal disorders***
564.01	Slow Transit Constipation	
564.02	Dysfunctional Constipation	
564.09	Other Constipation	
564.9	Unspecified functional disorder of intestine	
569.9	Unspecified Disorder of intestine	
410.0x ***EXCEPT FOR 410.02***	Acute myocardial infarction of anterolateral wall, subsequent episode of care	***Heart Disease***
410.1x ***EXCEPT FOR 410.12***	Acute myocardial infarction of other anterior wall, subsequent episode of care.	
410.2x	Acute myocardial infarction	

EXCEPT FOR 410.22	of inferolateral wall, subsequent episode of care	
410.3x ***EXCEPT FOR 410.32***	Acute myocardial infarction of inferoposterior wall, subsequent episode of care	
410.4x ***EXCEPT FOR 410.42***	Acute myocardial infarction of other inferior wall, subsequent episode of care	
410.5x ***EXCEPT FOR 410.52***	Acute myocardial infarction of other lateral wall, subsequent episode of care	
410.6x ***EXCEPT FOR 410.62***	Acute myocardial infarction, true posterior wall infarction, subsequent episode of care	
410.7x ***EXCEPT FOR 410.72***	Acute myocardial infarction, subendocardial infarction, subsequent episode of care	
410.8x ***EXCEPT FOR 410.82***	Acute myocardial infarction, of other specified sites, subsequent episode of care	
410.9x ***EXCEPT FOR 410.92***	Acute myocardial infarction, of unspecified site, subsequent episode of care	
336.9	Unspecified disorder of autonomic nervous system	***Neuro 1-Brain disorders and paralysis***
344.9	Paralysis Unspecified	
045	Acute Poliomyelitis	***Neuro 2 -Peripheral Neurological disorders***
334.9	Spinocerebellar disease, unspecified	
357.9	Unspecified, Inflammatory and toxic neuropathy	
358.9	Myoneural disorders, unspecified	
359.9	Myopathy, Unspecified	

386.04	Inactive Meniere's disease; Meniere's disease in remission	
430	Subarachnoid hemorrhage	***Neuro-3 Stroke***
431	Intracerebral hemorrhage	
432	Other and Unspecified intracranial hemorrhage	
433.01	Occlusion & Stenosis, Basilar artery, W Infarction	
433.11	Occlusion & Stenosis, Carotid artery, W. Infarction	
433.21	Occlusion & Stenosis, Vertebral artery, W. Infarction	
433.31	Occlusion & Stenosis Multiple and Bilateral W. Infarction	
433.81	Occlusion & Stenosis, Other Specified precerebral artery, W. Infarction	
434.01	Cerebral thrombosis W. Infarction	
434.11	Cerebral Embolism W. Infarction	
435	Transient Cerebral Ischemia	
436	Acute but ill-defined cerebrovascular disease.	
716.5x	Unspecified Polyarthropathy or polyarthritis	***Ortho 1-Leg Disorders***
716.6x	Unspecified monoarthritis	
716.9x	Arthropathy, unspecified	
718.8x	Other Joint derangement, not elsewhere classified	
718.9x	Unspecified derangement of joint	
712.9x	Unspecified crystal arthropathy	***Ortho 2-Other Orthopedic Disorders***

723.1	Cervicalgia (pain in the neck)	
723.6	Panniculitis specified as affecting neck	
723.8	Other syndromes affecting cervical region	
723.9	Unspecified musculoskeletal disorders and symptoms referable to neck	
724.1	Pain in Thoracic Spine	
724.2	Lumbago	
724.5	Backache unspecified	
724.7x	Disorders of Coccyx	
724.8	Other symptoms referable to back	
724.9	Other unspecified back disorders	
728.2	Muscular wasting and disuse atrophy, not elsewhere classified	
728.3	Other specific Muscle Disorders	
728.4	Laxity of ligament	
728.5	Hypermobility syndrome	
296.06	Bipolar 1 disorder, single manic episode, in full remission	***Psych. 1 Affective and other psychoses, depression***
296.16	Manic disorder, recurrent episode, in full remission	
296.26	Major depressive disorder, single episode, in full remission	
296.36	Major depressive disorder, recurrent episode, in full remission	
296.46	Bipolar 1 disorder, most recent episode (or current)	

	manic, in full remission	
296.56	Bipolar 1 disorder, most recent episode (or current) depressed, in full remission	
296.66	Bipolar 1 disorder, most recent episode (or current) unspecified	
294.9	Unspecified persistent mental disorders due to conditions classified elsewhere	***Psych 2-Degenerative and other organic psychiatric disorders***
331.9	Cerebral degeneration, unspecified	
491.9	Unspecified Chronic Bronchitis	***Pulmonary Disorders***
496	Chronic airway obstruction, not elsewhere classified	
941.0x	Burn of Face, head and neck Unspecified degree	***Skin 1—Traumatic Wounds, burns and post-operative complications***
941.1x	Erythema (first degree)	
942.0x	Burn of Trunk, Unspecified degree	
942.1x	Burn of Trunk, Erythema (first degree)	
943.0x	Burn of upper limb, except wrist and hand, unspecified degree	
943.1x	Burn of upper limb, except wrist and hand, Erythema (first degree)	
944.0x	Burn of wrist(s) and hand(s) Unspecified degree	
944.1x	Burn of wrist(s) and hand(s) Erythema (first degree)	
945.0x	Burn of lower limb(s), unspecified degree	
945.1x	Burn of lower limb(s), Erythema (first degree)	

946.0	Burns of multiple sites, unspecified degree	
946.1	Burns of multiple specified sites, Erythema (first degree)	
949	Burn, Unspecified	
955.5	Injury to Cutaneous sensory nerve, upper limb	
955.9	Injury to Unspecified nerve of shoulder girdle and upper limb	
956.4	Injury to Cutaneous sensory nerve, lower limb	
956.9	Injury to Unspecified nerve of pelvic girdle and lower limb	
681.11	Onychia and paronychia of toe	***Skin 2-Ulcers and other skin conditions***
681.02	Onychia and paronychia of finger	
684	Impetigo	
ICD-9-CM Codes Added	**Code Description**	**Diagnostic Category**
414.00	Coronary atherosclerosis of unspecified type of vessel, native or graft	***Heart Disease***
414.01	Coronary atherosclerosis, of native coronary artery	
414.02	Coronary atherosclerosis, of autologous vein bypass graft	
414.03	Coronary atherosclerosis, of nonautologous biological bypass graft	
414.04	Coronary atherosclerosis of artery bypass graft	

414.05	Coronary atherosclerosis of unspecified type of bypass graft	
414.06	Coronary atherosclerosis of native coronary artery of transplanted heart	
414.07	Coronary atherosclerosis of bypass graft (artery) (vein) of transplanted heart	
414.10	Aneurysm of heart (wall)	
414.11	Aneurysm of coronary vessels	
414.12	Dissection of coronary artery	
414.19	Other aneurysm of heart	
414.2	Chronic total occlusion of coronary artery	
414.8	Other specified forms of chronic ischemic heart disease	
138	Late effects of acute poliomyelitis	***Neuro 2 – Peripheral Neurological Disorders***
357.81	Chronic Inflammatory Demyelinating Polyneuritis	
447.2	Rupture of an artery	***Skin 2 - Ulcers and Other Skin Conditions***
447.8	Other specified disorders of arteries and arterioles	
V55.0	Tracheostomy	***Tracheostomy Care***
V55.5	Cystostomy	***Urostomy/Cystostomy Care***
V55.6	Other artificial opening of Urinary Tract—Nephrostomy, Ureterostomy, Urethrostomy	

Table 3: Severity Group Definitions: Four-Equation Model

		1st & 2nd Episodes		3rd+ Episodes		All Episodes
		0 to 13 therapy visits	14 to 19 therapy visits	0 to 13 therapy visits	14 to 19 therapy visits	20+ therapy visits
Grouping Step:		1	2	3	4	5
Equation(s) used to calculate points: (see Table 2a)		*1*	*2*	*3*	*4*	*(2&4)*
Dimension	Severity Levels:					
Clinical	C1	0 to 4	0 to 6	0 to 2	0 to 8	0 to 7
	C2	5 to 8	7 to 14	3 to 5	9 to 16	8 to 14
	C3	9+	15+	6+	17+	15+
Functional	F1	0 to 5	0 to 6	0 to 8	0 to 7	0 to 6
	F2	6	7	9	8	7
	F3	7+	8+	10+	9+	8+
Services Utilization (number of therapy visits)	S1	0 to 5	14 to 15	0 to 5	14 to 15	20+ (One Group)
	S2	6	16 to 17	6	16 to 17	
	S3	7 to 9	18 to 19	7 to 9	18 to 19	
	S4	10		10		
	S5	11 to 13		11 to 13		

Note: For episodes with 20 or more therapy visits, scoring for clinical and functional severity is assigned based on the four-equation model, that is, scoring is assigned from score values of either Equation 2 or Equation 4, according to whether the episode occurred as "early" or "later." However, severity level classification is based on the same score intervals for all episodes with 20 or more therapy visits (see Grouping Step 5 in Table 3).

Table 4: Regression Coefficients for Calculating Case-Mix Relative Weights	
Intercept (constant for all case mix groups)	$1,322.84
1st and 2nd Episodes, 0 to 13 Therapy Visits	
C2	$342.35
C3	$722.76
F2	$201.14
F3	$391.17
S2 (6 therapy visits)	$608.54
S3 (7-9 therapy visits)	$1,083.48
S4 (10 therapy visits)	$1,570.40
S5 (11-13 therapy visits)	$1,970.53
1st and 2nd Episodes, 14 to 19 Therapy Visits	
Constant	$2,336.56
C2	$569.39
C3	$1,227.24
F2	$263.84
F3	$429.40
S2 (16-17 therapy visits)	$353.41
S3 (18-19 therapy visits)	$664.54
3rd+ Episodes, 0 to 13 Therapy Visits	
Constant	$162.52
C2	$131.92
C3	$648.48
F2	$304.11
F3	$592.17
S2 (6 therapy visits)	$794.26
S3 (7-9 therapy visits)	$1,253.83
S4 (10 therapy visits)	$1,756.05
S5 (11-13 therapy visits)	$2,152.60
3rd+ Episodes, 14 to 19 Therapy Visits	
Constant	$2,657.05
C2	$623.44
C3	$1,350.51
F2	$297.14
F3	$681.27
S2 (16-17 therapy visits)	$263.08
S3 (18-19 therapy visits)	$617.86
All Episodes, 20+ Therapy Visits	
Constant	$4,465.45

C2	$485.15
C3	$1,212.24
F2	$430.13
F3	$916.44
Note: Regression coefficients were scaled by a multiplier to account for the difference in cost levels between the resource cost estimates in the Abt Associates analytic file and the level of the payments CMS will make in CY2008.	

Table 5: Case-Mix Groups, Average Cost, and Case-Mix Weight				
Severity Level for Each Dimension				
Clinical	Functional	Service Utilization	Average Cost	Case-mix weight
1st and 2nd Episodes, 0 to 13 Therapy* Visits				
C1	F1	S1	$1,322.84	0.5827
C1	F1	S2	$1,931.39	0.8507
C1	F1	S3	$2,406.33	1.0599
C1	F1	S4	$2,893.24	1.2744
C1	F1	S5	$3,293.37	1.4506
C1	F2	S1	$1,523.98	0.6713
C1	F2	S2	$2,132.53	0.9393
C1	F2	S3	$2,607.47	1.1485
C1	F2	S4	$3,094.38	1.3630
C1	F2	S5	$3,494.51	1.5392
C1	F3	S1	$1,714.01	0.7550
C1	F3	S2	$2,322.56	1.0230
C1	F3	S3	$2,797.50	1.2322
C1	F3	S4	$3,284.41	1.4467
C1	F3	S5	$3,684.54	1.6229
C2	F1	S1	$1,665.19	0.7335
C2	F1	S2	$2,273.73	1.0015
C2	F1	S3	$2,748.67	1.2107
C2	F1	S4	$3,235.59	1.4252
C2	F1	S5	$3,635.71	1.6014
C2	F2	S1	$1,866.33	0.8221
C2	F2	S2	$2,474.87	1.0901
C2	F2	S3	$2,949.81	1.2993
C2	F2	S4	$3,436.73	1.5138
C2	F2	S5	$3,836.85	1.6900
C2	F3	S1	$2,056.36	0.9058
C2	F3	S2	$2,664.90	1.1738
C2	F3	S3	$3,139.84	1.3830
C2	F3	S4	$3,626.76	1.5975
C2	F3	S5	$4,026.88	1.7737

Table 5: Case-Mix Groups, Average Cost, and Case-Mix Weight				
Severity Level for Each Dimension				
Clinical	Functional	Service Utilization	Average Cost	Case-mix weight
C3	F1	S1	$2,045.60	0.9010
C3	F1	S2	$2,654.15	1.1691
C3	F1	S3	$3,129.09	1.3783
C3	F1	S4	$3,616.00	1.5927
C3	F1	S5	$4,016.13	1.7690
C3	F2	S1	$2,246.74	0.9896
C3	F2	S2	$2,855.29	1.2577
C3	F2	S3	$3,330.23	1.4669
C3	F2	S4	$3,817.14	1.6813
C3	F2	S5	$4,217.27	1.8576
C3	F3	S1	$2,436.77	1.0733
C3	F3	S2	$3,045.32	1.3414
C3	F3	S3	$3,520.26	1.5506
C3	F3	S4	$4,007.17	1.7650
C3	F3	S5	$4,407.30	1.9413
1st and 2nd Episodes, 14 to 19 Therapy* Visits				
C1	F1	S1	$3,659.40	1.6118
C1	F1	S2	$4,012.81	1.7675
C1	F1	S3	$4,323.95	1.9046
C1	F2	S1	$3,923.24	1.7281
C1	F2	S2	$4,276.65	1.8837
C1	F2	S3	$4,587.78	2.0208
C1	F3	S1	$4,088.80	1.8010
C1	F3	S2	$4,442.21	1.9566
C1	F3	S3	$4,753.35	2.0937
C2	F1	S1	$4,228.79	1.8626
C2	F1	S2	$4,582.20	2.0183
C2	F1	S3	$4,893.34	2.1554
C2	F2	S1	$4,492.63	1.9789
C2	F2	S2	$4,846.04	2.1345
C2	F2	S3	$5,157.17	2.2716
C2	F3	S1	$4,658.19	2.0518
C2	F3	S2	$5,011.61	2.2074
C2	F3	S3	$5,322.74	2.3445
C3	F1	S1	$4,886.64	2.1524
C3	F1	S2	$5,240.05	2.3081
C3	F1	S3	$5,551.18	2.4451
C3	F2	S1	$5,150.47	2.2686
C3	F2	S2	$5,503.89	2.4243

Table 5: Case-Mix Groups, Average Cost, and Case-Mix Weight				
Severity Level for Each Dimension				
Clinical	Functional	Service Utilization	Average Cost	Case-mix weight
C3	F2	S3	$5,815.02	2.5613
C3	F3	S1	$5,316.04	2.3415
C3	F3	S2	$5,669.45	2.4972
C3	F3	S3	$5,980.58	2.6342
3rd+ Episodes, 0 to 13 Therapy* Visits				
C1	F1	S1	$1,485.36	0.6543
C1	F1	S2	$2,279.62	1.0041
C1	F1	S3	$2,739.19	1.2065
C1	F1	S4	$3,241.41	1.4277
C1	F1	S5	$3,637.97	1.6024
C1	F2	S1	$1,789.47	0.7882
C1	F2	S2	$2,583.73	1.1380
C1	F2	S3	$3,043.30	1.3405
C1	F2	S4	$3,545.52	1.5617
C1	F2	S5	$3,942.08	1.7364
C1	F3	S1	$2,077.53	0.9151
C1	F3	S2	$2,871.79	1.2649
C1	F3	S3	$3,331.36	1.4674
C1	F3	S4	$3,833.58	1.6886
C1	F3	S5	$4,230.13	1.8632
C2	F1	S1	$1,617.28	0.7124
C2	F1	S2	$2,411.54	1.0622
C2	F1	S3	$2,871.11	1.2646
C2	F1	S4	$3,373.33	1.4858
C2	F1	S5	$3,769.88	1.6605
C2	F2	S1	$1,921.39	0.8463
C2	F2	S2	$2,715.65	1.1962
C2	F2	S3	$3,175.22	1.3986
C2	F2	S4	$3,677.44	1.6198
C2	F2	S5	$4,073.99	1.7945
C2	F3	S1	$2,209.44	0.9732
C2	F3	S2	$3,003.70	1.3230
C2	F3	S3	$3,463.28	1.5255
C2	F3	S4	$3,965.49	1.7467
C2	F3	S5	$4,362.05	1.9213
C3	F1	S1	$2,133.84	0.9399
C3	F1	S2	$2,928.10	1.2897
C3	F1	S3	$3,387.67	1.4922
C3	F1	S4	$3,889.89	1.7134
C3	F1	S5	$4,286.45	1.8880
C3	F2	S1	$2,437.95	1.0738

Table 5: Case-Mix Groups, Average Cost, and Case-Mix Weight				
Severity Level for Each Dimension				
Clinical	Functional	Service Utilization	Average Cost	Case-mix weight
C3	F2	S2	$3,232.21	1.4237
C3	F2	S3	$3,691.78	1.6261
C3	F2	S4	$4,194.00	1.8473
C3	F2	S5	$4,590.55	2.0220
C3	F3	S1	$2,726.01	1.2007
C3	F3	S2	$3,520.27	1.5506
C3	F3	S3	$3,979.84	1.7530
C3	F3	S4	$4,482.06	1.9742
C3	F3	S5	$4,878.61	2.1489
3rd+ Episodes, 14 to 19 Therapy* Visits				
C1	F1	S1	$3,979.89	1.7530
C1	F1	S2	$4,242.97	1.8689
C1	F1	S3	$4,597.75	2.0252
C1	F2	S1	$4,277.03	1.8839
C1	F2	S2	$4,540.12	1.9998
C1	F2	S3	$4,894.89	2.1560
C1	F3	S1	$4,661.16	2.0531
C1	F3	S2	$4,924.25	2.1690
C1	F3	S3	$5,279.02	2.3252
C2	F1	S1	$4,603.33	2.0276
C2	F1	S2	$4,866.42	2.1435
C2	F1	S3	$5,221.19	2.2998
C2	F2	S1	$4,900.48	2.1585
C2	F2	S2	$5,163.56	2.2744
C2	F2	S3	$5,518.34	2.4306
C2	F3	S1	$5,284.61	2.3277
C2	F3	S2	$5,547.69	2.4436
C2	F3	S3	$5,902.47	2.5998
C3	F1	S1	$5,330.40	2.3479
C3	F1	S2	$5,593.48	2.4637
C3	F1	S3	$5,948.26	2.6200
C3	F2	S1	$5,627.54	2.4787
C3	F2	S2	$5,890.63	2.5946
C3	F2	S3	$6,245.40	2.7509
C3	F3	S1	$6,011.67	2.6479
C3	F3	S2	$6,274.76	2.7638
C3	F3	S3	$6,629.53	2.9201
All Episodes, 20+ Therapy* Visits				
C1	F1	S1	$5,788.29	2.5495
C1	F2	S1	$6,218.42	2.7390
C1	F3	S1	$6,704.73	2.9532

Table 5: Case-Mix Groups, Average Cost, and Case-Mix Weight				
Severity Level for Each Dimension				
Clinical	Functional	Service Utilization	Average Cost	Case-mix weight
C2	F1	S1	$6,273.44	2.7632
C2	F2	S1	$6,703.56	2.9527
C2	F3	S1	$7,189.88	3.1669
C3	F1	S1	$7,000.53	3.0835
C3	F2	S1	$7,430.66	3.2730
C3	F3	S1	$7,916.98	3.4872

*Therapy is defined as physical therapy, speech-language pathology, or occupational therapy.

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6. Case-Mix Change Under the HH PPS

Section 1895(b)(3)(B)(iv) of the Act specifically provides the Secretary with the authority to adjust the standard payment amount (or amounts) if the Secretary determines that the case-mix adjustments resulted (or would likely result) in a change in aggregate payments that is the result of changes in the coding or classification of different units of services that do not reflect real changes in case-mix. The Secretary may then adjust the payment amount to eliminate the effect of the coding or classification changes that do not reflect real changes in case-mix.

In the proposed rule, in order to identify whether the adjustment factor was needed, we first determined the current average case-mix weight per paid episode. The most recent available data from which to compute an average case-mix weight, or case-mix index (CMI), under the HH PPS was from 2003. Using the most current available data from 2003, the average case-mix weight per episode for initial episodes is 1.233. To proceed with the CMI adjustment, next we determined the baseline year needed to evaluate the trend in the average case-mix per episode.

There were two different baseline years that were considered from which to measure the increase in case-mix: 1) A cohort that used home care from October 1997 to April 1998 (the Abt case-mix study sample which was used to develop the current case-mix model) and 2) the cohort that used home care during the 12 month period ending September 30, 2000 (HH IPS Baseline). The increase in the average case-mix using the Abt Associates case-mix study sample as the baseline was 23.3 percent (from 1.0 to 1.233). There were several advantages to using data from Abt Associates case-mix study as the baseline from which we measured the increase in case-mix. The time period was free from any anticipatory response to the HH PPS, and data from this time period were used to develop the original HH PPS model. Also, this is the only nationally representative dataset from the 1997 to 1998 time period that measured patient characteristics using an OASIS assessment form comparable to the one currently adopted for the HH PPS. However, agencies included in this sample were volunteers for the study and could not be considered a perfectly representative, unbiased sample. Furthermore, the response to Balanced Budget Act of 1997 provisions such as the home health interim payment system (HH IPS) during this period might produce data from this sample that reflect a case-mix in flux; for example, venipuncture patients were suddenly no longer eligible, and long-term care patients were less likely to be admitted. Therefore, we were not confident the trend in the CMI between the time of the Abt Associates study and 2003 reflected only changes in coding practices due to real change in case-mix.

We then looked to the HH IPS baseline period, the 12 month period ending 9/30/2000. Analysis of a 1-percent sample of initial episodes from the 1999 through 2000 data under the HH IPS revealed an average case-mix weight of 1.125. Standardized to the distribution of agency type (freestanding proprietary, freestanding not-for-profit, hospital-based, government, and SNF-based) that existed in 2003 under the HH PPS, the average weight was 1.134. We noted this time period was likely not free from anticipatory response to the HH PPS, because we published our initial HH PPS proposal on October 28, 1999. The increase in the average case-mix using this time period as the baseline was 8.7 percent (from 1.134 to 1.233; 1.233–1.134=0.099; 0.099/1.134=0.087; 0.087*100=8.7 percent).

As a result of various studies, analysis of OASIS data, and changes to the home health benefit as due to the BBA, we stated our belief that change in case-mix of 13.4 percent between the time of the Abt Associates case-mix study and the end of the HH IPS period reflected substantial change in the real case-mix. In contrast to that 13.4 percent, we considered that the 8.7 percent increase in the national case-mix index between the HH IPS baseline and the CY 2003 could not be considered a real increase in case-mix. Trend data on visits from the proposed rule (72 FR 25393), resource data presented in the proposed rule (72 FR 25394), and our analysis of changes in rates of health characteristics on OASIS assessments and changes in reporting practices all led to our conclusion that the underlying case-mix of the population of home health users was essentially stable between the HH IPS baseline and CY 2003. Our research showed that HHAs have reduced services while the CMI continued to rise. In addition to the trend analysis, we conducted several additional kinds of analyses of data and documentary materials related to home health case-mix coding change. The results supported our view that the change in the CMI since the HH IPS baseline mostly reflected provider responses to the changes that accompanied the HH PPS, including particulars of the payment system itself and changes to OASIS reporting requirements. Our analyses indicated generally modest changes in overall OASIS health characteristics between the two periods noted above, a specific pattern of changes in scaled OASIS responses that was not indicative of material worsening of presenting health status, various changes in the OASIS reporting instructions that helped account for numerous coding changes we observed, and a large increase in post-surgical

patients with their traditionally lower case-mix index.

Therefore, based upon our trend analysis we believed the change in the case-mix index between the Abt case-mix sample (a cohort admitted between October 1997 and April 1998) and the HH IPS period (the 12 month period ending September 30, 2000) is due to real case-mix change. We took this view, even though we understood that there could be some issue as to whether this period was affected by case-mix change due to providers anticipating, in the last year of HH IPS, the forthcoming case-mix system, with its incentives to intensify rehabilitation services. The change from these two periods is from 1.00 to 1.134, an increase of 13.4 percent. However, we did not propose to adjust for case-mix change based on this change in values, as some of that change reflected real change in case-mix. However, we did propose that the 8.7 percent of case-mix change that occurred between the 12 months ending September 30, 2000 (HH IPS baseline, CMI=1.134), and the most recent available data from 2003 (CMI=1.233), be considered a change in the CMI that does not reflect a ''real'' change in case-mix, but rather is a ''nominal'' change in case-mix. We proposed a reduction in HH PPS national standardized 60-Day episode payment rate to offset the change in coding practice that has resulted in significant growth in the national case-mix index since the inception of the HH PPS that is not related to ''real'' change in case-mix.

Our past experience establishing other prospective payment systems also led us to believe a proposal to make this adjustment for nominal change in case-mix was warranted. In other systems, Medicare payments were almost invariably found to be affected by nominal case-mix change. We considered several options for implementing this case-mix change adjustment. Those options included accounting for the entire −8.7 percent increase in case-mix with an 8.0% adjustment in CY 2008, incorporating an adjustment of −5.0 percent in CY 2008 and an adjustment of −2.7 percent in CY 2009, or incorporating an adjustment of −4.35 percent in CY 2008 and an adjustment of −4.35 percent in CY 2009. However, because of the potential impact our proposed adjustment might have on providers, we proposed and requested comment on whether to adjust for the nominal increase in national average CMI by gradually reducing the national standardized 60-day episode payment rate over 3 years. During that period we stated that we would continue to update our estimate of nominal case-mix change and adjust the national standardized 60-day episode payment rate accordingly for any nominal change in case-mix that might occur. We proposed to implement a 3-year phase-in of the total downward adjustment for nominal changes in case-mix by reducing the national standardized 60-day episode payment rate by 2.75 percent each year up to and including CY 2010. That annual reduction percent was based on the new current estimate of the nominal change in case-mix that occurred between the HH IPS baseline (+0.099) and 2003. However, we also stated that, if, at the time of publication of the final CY 2008 HH PPS rule, updates of the national claims data to 2005 indicated that the nominal change in case-mix between the HH IPS baseline and 2005 was not +0.099, we would revise the percentage reduction in the next year's update. The revision would be determined by the ratio of the updated 3-year annual reduction factor to the previous year's annual reduction factor. For example, the scheduled annual reduction factor was estimated to be 0.9725 (equivalent to a 2.75 percent reduction); for CY 2008 we would multiply this reduction factor by the ratio of the updated reduction factor to 0.9725. Therefore, for the CY 2010 rule, which would govern the third and final year of the proposed case-mix change adjustment transition period, we would obtain the CY 2007 national average CMI to compute the updated value for nominal case-mix change adjustment. Again, we would form the ratio of the updated adjustment factor to the previous year's effective adjustment factor. The annual updating procedure avoids a large reduction for the final year of the phase-in, in the event that the CY 2007 national average case-mix index reflects continued growth since CY 2005.

We stated our plan to continue to monitor changes in the national average CMI to determine if any adjustment for nominal change in case-mix is warranted in the future.

Comment: A number of commenters asked that we eliminate the 2.75 percent case-mix change adjustment. They argued that the acuity of home care patients is rising, citing earlier discharges from hospitals or skilled nursing facilities. A number of commenters argued that patient characteristics have changed, with more patients 85 and older receiving home health care, along with more patients with resource intensive diagnoses. Several commenters noted the increase in patients with knee or hip replacements. Another noted that if providers were inflating the case-mix, they would expect OASIS data shown in Table 10 of the proposed rule to change accordingly.

Response: Our identification of case-mix change was based on a number of factors that revealed coding changes to higher clinical, functional, or utilization severity without an actual change in the status of home health patients. These are described in detail in the HH PPS proposed rule (72 FR 25392–25422).

Since publication of the proposed rule, we updated our analysis to use 100 percent of the HH IPS file for our baseline and a 20-percent sample of 2005 claims data. We used all episodes rather than just initial episodes. This change in our sample selection approach does not materially change the estimate of case-mix change, whether comparing the baseline to HH PPS 2003 or HH PPS 2005. The 2005 data yielded an average CMI of 1.2361, as compared to the average CMI of 1.0960 from the 100 percent HH IPS sample. Therefore, the updated change measurement is $(1.2361 - 1.0960)/ 1.0960 = 12.78$ percent. As explained in the summary at the end of this section, where we describe the results of the Abt Associates model we used to identify real case-mix change, we adjusted this result downward by 8.03 percent to get a final case-mix change measure of 11.75 percent ($0.1278 * (1 - 0.0803) = 0.1175$). To account for the 11.75 percent increase in case-mix which is not due to a change in the underlying health status of Medicare home health patients, we are finalizing the proposed 2.75 percent reduction of the national standardized 60-day episode payment rate for 3 years beginning in 2008 and extending that adjustment period to a fourth year via a 2.71 percent reduction for 2011. We are seeking comment on the 2.71 percent case-mix change adjustment for 2011.

We have conducted several analyses to determine if any portion of the above case-mix change measurement could be considered real versus nominal, i.e. not related to real change in the essential underlying health status of the home health user population. First, Abt Associates developed a model to predict the case-mix weights on large samples which is described at the end of this section. The model accounted for changes in the age structure of the home health user population, and changes in the types of patients being admitted to home health. To account for changes in the types of patients, we used four main classes of variables: Variables describing (1) the utilization of Medicare Part A services in the 120 days leading up to home health, (2) the type of preadmission acute care stay when the

patient last had such a stay, (3) variables describing living situation, and (4) variables summarizing Part A expenditures in the 120 days leading to home health. The variables for changes in the type of acute care stay classified stays into APR DRG case-mix groups, a classification system that incorporates a severity classification for each case-mix group, basic type of stay (procedure versus medical) indicator, and risk of mortality indicators during the stay. We also incorporated a set of variables describing agency ownership and organizational form, to adjust for the large effect on measured case-mix from the change in the types of agencies that occurred since the HH IPS baseline. The model is described in detail at the end of this section.

The results of the analysis indicated that a small amount of measured case-mix change is real, but that most of it is unrelated to the underlying health status of home health users.

Second, some commenters suggested that HHA patients have more resource intensive diagnoses. We conducted analyses using FY 2000 through CY 2006 data for several conditions emblematic of home health patients. The analyses indicated that admissions to home health agencies were down slightly for persons with hip fractures, congestive heart failure, and cerebrovascular accidents. These results are shown in Table 8, ''Percent Share of Home Health Admissions and Mean Time Prior to Entering a Home Health Episode, for Five Conditions, FY 2000–CY 2005''. Estimates are based on a 10 percent random sample (n=388,684 to 522,973, depending on the calendar year; statistically these are considered large samples). The data for CY2006 come from the first quarter of the year only. We used total episodes, both initial and recertification episodes, for this analysis. As our previous analysis on the 1 percent HH IPS sample and the 20 percent CY 2003 sample indicated no significant shift in the balance between initial and non-initial episodes, we believe that the annual rates and means in the table are appropriately measured, and account for the complete mix of patients seen by agencies. For defining the type of acute discharge, we used the same definitions that were used in a CMS study cited by one commenter who noted that increases in knee replacement patients have occurred (CMS, ''Medicare Beneficiary Access to Rehabilitation Care,'' June 8, 2007). According to Table 8, the share of total patients admitted to HHAs with hip fracture acute discharges in the 14 days leading up to home health declined over the period, from .82 percent to .59 percent. The share of total patients admitted with CHF acute discharges declined from 3.31 percent to 2.62 percent, a decline of 21 percent. The share of total patients admitted with CVA acute discharges declined steadily, from 1.52 percent to .97 percent, a one-third decrease. Admissions for hip replacements exhibited no clear trend; the range of rates during the period is between 1.36 percent and 1.64 percent. For these conditions, the results are not clearly indicative of more severe case-mix.

We note that admissions for knee replacements are rising, from 1.89 percent to 2.75 percent in the years from HH IPS to 2005. However, the overall percent of knee replacement patients in the national home health caseload is not large, at less than 3 percent at any given time. We accounted for the change in the share of caseload due to knee replacement patients in the Abt Associates case-mix model using the APR DRG classifications, described above and at the end of this section. The results from the model indicated that this change, in combination with other changes that were offsetting, was not enough to move the real case-mix index more than a small amount beyond the baseline.

Third, we examined the length of time between discharge and the home health episode start, to develop evidence that, on average, patients enter home care in a more sickly condition than was the case in FY 2000. Table 8 shows the average number of days between acute care discharge and the first day of the home health episode for patients with acute discharges due to the same five conditions: Hip fracture, congestive heart failure, cerebrovascular accident, hip replacement, and knee replacement surgery. The results show no change in the mean time prior to entering a home health episode for the first three conditions. We believe this result partly reflects increased use of institutional post-acute care among the home health population. Specifically, there was an increased use of SNFs and LTCHs between the HH IPS baseline and CY 2000. SNF stays grew by 2.8 percent, and SNF days of stay grew by 8.5 percent. LTCH hospital days grew by 38 percent. IRF stays and days did not grow, but IRF use is only one-third that of SNF use among home health patients.

As shown in Table 8, days prior to entering home health declined for hip replacement and knee replacement patients. As commenters have suggested, these statistics may reflect less use of post-acute institutional care on average for these two groups. However, the increasing share of the home health caseload due to these groups is not large enough to drive the national case-mix nominal average to the CMI levels reached in our follow-up year, 2005. Further, we have taken the contribution of this effect into account in the Abt Associates case-mix model described above and at the end of this section.

While we have seen an increase in the proportion of patients with diabetes according to OASIS diagnosis coding information, our research showed that HHAs have reduced services while the case-mix index continued to rise. We identified a dramatic decline in the number of home health visits per 60 day episode (Table 6). The average number of visits per episode in 2005 was 20.53, compared to 26.88 during HH IPS.

After adjusting for wage and benefits growth (by holding wage and benefit estimates constant at FY 2000 levels), we find that average resource costs have declined slightly from 1999 to 2005, from $451.39 to $447.41 (see Table 7). For most of the calendar quarters displayed in Table 7, average resource costs after adjusting for wage growth were substantially below the HH IPS baseline. At the same time, the case-mix indexes at admission and for total episodes have increased (see Table 7). Resource costs are based on visit time reported on claims, and thus are labor-related. If the CMI is increasing, suggesting that patients are more clinically severe, have more functional impairments, and require more visits, we would have expected resource costs to increase as well. However, by 2005 average resources per episode were still below HH IPS levels, after adjusting for wage growth. Notably, it is not until 2005 (when, according to Bureau of Labor Statistics wage survey data, wages rose significantly), that unadjusted resources are significantly higher than the HH IPS baseline level.

Comment: Several commenters noted that the growth in Medicare Advantage (formerly known as Medicare + Choice) programs has shifted low acuity patients out of traditional Medicare, leaving those patients with higher needs in traditional Medicare. They felt this contributed to an increase in the average case-mix index.

Response: Medicare Advantage programs provide managed care benefits which are different from the traditional Medicare benefit. For further information on these managed care benefits, please refer to the Internet only manual 100–01, ''Medicare General Information, Eligibility, and Entitlement'', chapter 5, subsection 80. This manual is available on CMS' home health Web Site at *http://*

www.cms.hhs.gov/center/hha.asp. These managed care programs were not considered in our analysis of the case-mix change adjustment as they are separate benefits from traditional Medicare. We cannot make comparisons or draw conclusions based upon any benefit other than traditional Medicare.

Comment: Many commenters felt that the 2.75 percent case-mix change adjustment failed to account for OASIS training on accurate assessment and on OASIS use. The commenters felt this led to OASIS scores which reflect a more accurate picture of the home health patient rather than case-mix up-coding. Two commenters noted that there was systematic undercoding prior to training and guidance on OASIS and diagnosis coding. Some commenters argued that CMS has benefited from agency undercoding, resulting in agencies underpaying themselves.

Response: We agree that some of the changes seen in OASIS characteristics are partly due to emphasis on proper application of OASIS guidelines. We also believe that there were incentives driven by payment and quality program changes that interacted with the subjective aspects of the assessment process to cause nominal coding changes. Diagnosis coding entails some discretion by the Agency: In some cases more than one diagnosis could reasonably be called primary. Thus, we believe the significant growth, for example, in orthopedic diagnoses partly reflects the financial incentives that colored the diagnosis selection process. Our examination of National Claims History data revealed an increase in Medicare knee replacement patients. However, these patients account for only about 2.75 percent of the national home health caseload at any given time. With such a small share of the caseload, they do not drive the case-mix index by themselves. Hip replacement patients did not increase as a share of episodes by 2006, although their share appeared to increase slightly between HH IPS and CY 2003 (see Table 8). However, Medicare hip replacement patients also are not a large factor in the overall home health caseload, accounting for only between 1.36 percent and 1.64 percent of episodes in the years 2000 to 2006.

Further, ADL functioning can be difficult to assess due to variability within patients and the multiple dimensions of functional limitations. Quality measures and financial incentives may combine to bias agencies towards assessing a patient with a more-severe rating at the start of care. Incentives apparently led to high-therapy treatment plans, aided by the 10-therapy threshold.

Our analyses in the proposed rule reviewed information pertaining to changes in OASIS guidance and potential coding improvements that may have resulted. In August 2000 official guidance on OASIS coding affected a number of case-mix items. Functional items began to emphasize the patient's ability to perform the item safely. This may have caused several ADL statistics to shift away from the completely independent level. Another August 2000 change in OASIS instructions affected the pain item, M0420. Additional strategies for assessing pain were offered, and guidance on whether the pain was well controlled took into account patient adherence to pain medication. Many patients trade off pain control for diminution of medication-related side-effects. These changes likely increased the number of patients assessed with pain. The OASIS instructions regarding assessment of urinary incontinence were also expanded to consider mobility and cognition, which may have led to increased rates of reporting of this item.

Furthermore, in August 2000 there were two changes to the OASIS manual that could have increased the number of patients with surgical wounds. First, the definition of a surgical wound was expanded to include medi-port sites and other implanted infusion devices or venous access devices. Therefore more skin openings could be assessed as wounds under M0488, a case-mix item, provided the site is the most problematic. The second change allowed a muscle flap performed to surgically replace a pressure ulcer to be considered a surgical wound, and not a pressure ulcer. This again would have added to the number of surgical wounds.

All the above we believe indicates that the increased reporting rates seen in some OASIS items do not represent a change in underlying health status of HH PPS patients. Numerous commenters noted that they had changed OASIS coding as a result of training. This is consistent with nominal versus real change in patient characteristics.

Comment: A commenter wrote that in future, it would be beneficial to have a more systematic approach to measuring changes in OASIS coding practices. For example, CMS should consider efforts such as the collection of OASIS from independent entities for comparison to agency assessments or on-site visits to check agency coding practices. The commenter noted that the need for better data is particularly acute because this rule will present another opportunity for case-mix increases due to coding improvement, so there should be a prospective adjustment as well. The commenter suggested CMS consider a combined (retrospective and prospective) case-mix change adjustment for this rule that would be taken over a longer period of time. Furthermore, the commenter suggested CMS should also continue to evaluate coding changes in future years to determine if additional coding improvement is occurring.

Response: While we agree it would be beneficial to have a more systematic approach to measuring changes in OASIS coding practices, to do so in a manner suggested by the commenter would require significant new resources, especially since the methods involve primary data collection. We will explore methods to examine agency coding practices. To make the best use of administrative data, rather than expensive-to-collect primary data, we intend to analyze changes in relationships among types of resources used in the episode, by case-mix group and type of patient, controlling for the most reliable measures of patient condition available. This may provide evidence to supplement our monitoring of resources presented in the proposed rule and this regulation. We will continue to monitor average minutes per visit reported on claims. We will also monitor changes in the comorbidities reported alongside primary diagnoses, to assess changes in relationships among the diagnoses reported on OASIS. We will examine diagnosis coding and OASIS item coding for coding improvements as well as abuses.

We agree that the refinements will present another opportunity for case-mix change due to coding improvements. We did not pursue a prospective adjustment for nominal case-mix change because we believe it is subject to error. We believe our proposal to phase in adjustments based on retrospective analysis is an appropriate response. Phasing in adjustments limits the demands for operational adjustments by agencies. Our retrospective approach is consistent with this regulation's request for further comment from the public on the fourth year of case-mix change adjustment, which is based on results of our empirical analysis since the proposed rule was issued.

Comment: A commenter noted that the proportional increase in therapy services is due to both a decrease in other services and the underutilization of therapy services in past episodes of care prior to HH PPS. Additionally, the use of therapists in collaboration with nurses has helped ensure more accurate

coding of the OASIS, particularly in the functional component area.

Response: We agree that there has been a shift toward rehabilitative services, which increased the proportion of therapy services relative to skilled nursing or home health aide services. This suggests there may have been some substitution of therapy services for nursing services and perhaps for home health aide services. We have not identified any studies substantiating the idea that therapy was underutilized, nor have we identified studies indicating that the dramatic drop in aide services undoubtedly means that aides were overutilized. One unpublished study of the service reductions during HH IPS suggests that beneficiaries who were financially better off did increase their use of privately paid care services as a result of the reduction in services which came about during the HH IPS period. Whether this indicates that services were previously overprovided is unclear (McKnight, Robin, ''Home Care Reimbursement, Long-term Care Utilization, and Health Outcomes,'' NBER Working Paper Series, Working Paper #10414, National Bureau of Economic Research, Cambridge, MA April 2004). Accordingly, review of the studies does not enable us to draw a firm conclusion about which types of services could be characterized as under- or overutilized before HH PPS. However, the implications of the results of the Abt Associates model of case-mix change (described at the end of this section) are that during HH PPS agencies provided more therapy to patients than they did under HH IPS, and that most of this increase cannot be explained by changes in patient health status.

In response to this comment, we measured the growth in utilization of any therapy services and therapy services above the 10 visit threshold, among total episodes between HH IPS and HH PPS. We found during HH IPS that 39.90 percent of episodes involved therapy services, compared to 50.45 percent of episodes during CY 2005. However, the proportion of episodes using therapy services at a level of 10 visits or more changed from 17.0 percent to 26.4 percent. Thus, therapy utilization at or above the 10 visit threshold grew twice as fast as therapy utilization below the 10 visit threshold. These statistics show that the great bulk of the growth in therapy utilization was at or above the ten visit therapy threshold.

We believe the data indicate that agencies' therapy treatment plans were strongly influenced by financial incentives. Implications of the analysis of case-mix change performed by Abt Associates suggest the shift to more intensive therapy plans cannot be explained by changes in patient health status.

We recognize and appreciate the contribution of therapists in collaboration with nurses in ensuring OASIS coding accuracy. As noted previously, increases in coding accuracy contribute to nominal case-mix change. Improvement in coding accuracy has also occurred with the introduction of other prospective payment systems.

Comment: Several commenters felt the 2.75 percent case-mix change adjustment was based upon a flawed analysis, with an insufficient sample size. They cited the reduction in the model's R-squared along with MedPAC's report that the coefficient of variation was greater than 1 for 60 of the 80 case-mix groups.

Response: Based on the updated analysis, the final case-mix change measurement was based upon 100 percent of HH IPS claims and a 20-percent sample of 2005 HH PPS claims, a greater number of HH IPS claims than used in the proposed rule. Both absolute sample sizes are considered quite large in statistical terms. Therefore sample size can no longer be considered an issue in the case-mix change adjustment calculation. We did not use the regression model cited by the commenter to determine the amount of the case-mix change adjustment; however we used regression analysis to model the case-mix index, relying on a set of variables that were independent of agency coding incentives (see the analysis description at the end of this section).

We also note that the commenter's reliance on the MedPAC comments is misplaced as the MedPAC comments dealt with a review of the case-mix refinements and not of the case-mix change adjustment. MedPAC's comments, which are publicly available, state that MedPAC did not independently assess the case-mix and patient data in our analysis of case-mix change. However, MedPAC analyzed the refinements in the proposed rule, including an analysis of the coefficient of variation (CV). Their CV analysis found that the proposed system yields more internally homogeneous HHRGs with less within-in group variation in the number of visits provided. They reported that the average CV fell from 0.81 for the current system to 0.75 for the proposed system, and that the drop in CV meant that the new resource groups can better identify episodes with similar resource use than under the current system.

Comment: Several commenters wrote that the average annual per patient expenditures for home health services dropped from 2001 to 2003, and therefore do not suggest that case-mix weights are increasing.

Response: Data from the annual *Medicare & Medicaid Statistical Supplement* indicate that annual payments per user of home health services have actually increased from $2,936 in the year 2000 to $4,314 in 2005. Our analysis clearly shows that the average case-mix weights have increased. Generally, payments per user are affected by increases in the billed case-mix weights and by annual rate updates.

Comment: From 2000 to 2003, HHAs altered care practices to achieve improved patient outcomes, shifting from dependency-oriented care to care designed to achieve self-sufficiency and independence. The increased use of therapy services and decreased use of home health aides are indicative of this change. Changing to multiple therapy thresholds to align payment incentives with care and the use of a case-mix change adjustment that primarily reflects growth in therapy utilization is an unnecessary adjustment that ''double-dips'' on rate adjustments.

Response: One goal of the case-mix refinements is to better match payments with agency costs. Changing to multiple therapy thresholds with a gradual increase in payment better aligns costs and payments and avoids incentives for providers to distort patterns of good care that would occur at each proposed therapy threshold. As a disincentive for agencies to provide more care than is appropriate, we proposed that any per-visit increase incorporate a declining, rather than constant, amount per added therapy visit. The final case-mix change adjustment addresses nominal case-mix change that occurred between the HH IPS baseline and 2005, and our adjusted calculation of that nominal case-mix change allows for a real increase in case-mix that reduces the nominal measurement by 8.03 percent. The multiple therapy thresholds and the case-mix change adjustment are unrelated and do not doubly adjust the rate as each adjustment is clearly warranted by the data.

Comment: Some commenters stated their belief that incentives in HH PPS led many agencies to seek out higher case-mix cases and avoid lower case-mix cases to maximize reimbursement following HH PPS implementation. They agreed this would create real case-mix change versus nominal change.

Response: In the Abt Associates analysis of changes in the case-mix index, the model controlled for changes in health status of home health patients, measured independently of the OASIS. From that analysis, we identified a small amount of real case-mix change between the HH IPS baseline and 2005. An analysis by MedPAC in 2005 (''Home Health Agency Case-mix and Financial Performance,'' MedPAC, Washington, DC, December 2005) addressed the possibility that reductions in total visits per episode along with shifts in resources among the case-mix groups after HH PPS began gave agencies the ability to realize higher margins on some case-mix groups (particularly high-therapy case-mix groups, with their high weights) more than for others. However, while margins may have become advantageous among some of the case-mix groups after HH PPS began, we believe, based on the data, that the real case-mix of those groups changed very little.

Comment: A commenter argued that the underlying premise of the HH PPS system was to control Medicare home health utilization through an episodic payment because CMS was unable to define appropriate and efficient visit levels. Therefore, he believed it is inconsistent to recognize the expected reduction of visits under HH PPS but argued that real case-mix change did not occur during that period. He noted that such a position demonstrates that the HH PPS did not increase the efficiency of care delivery.

Response: Our initial analysis in the proposed rule indicated that agency coding practices changed for a variety of reasons, including improved coding, changes in OASIS instructions, specific issues (such as confusion about healing status of surgical wounds and effects of education in the proper use of trauma codes in the ICD–9–CM classification system), as well as financial incentives. The subsequent Abt Associates analysis of real case-mix change reinforced the conclusion that very little of the coding change reflected real case-mix change. The trend in resources diverged dramatically from the trend in the average case-mix weight, particularly through 2004 (see Table 7), without any commensurate link to evidence concerning home health cost of care.

Comment: A commenter felt that CMS assumes that all legitimate change in case-mix ended with the implementation of HH PPS because the HH IPS created sufficient incentives to maximize all real case-mix change. This rationale fails to consider that 20 percent of HHAs had such high cost limits under HH IPS that these agencies were not incentivized to create real case-mix change until after HH PPS implementation. The commenter believed that a review by CMS of its data during the HH IPS period would allow it to document the subset of HHAs whose case-mix was not responsive to HH IPS.

Response: CMS has done analysis that accounts for real case-mix change after HH PPS implementation, and only a small amount of real case-mix change occurred. The analysis takes the commenter's idea into account (see the end of this section for details). That is, the case-mix model we used to predict real change in case-mix measures the national level of real case-mix by CY 2005, using CY 2005 data on home health patients' characteristics. We compared these results to the national average from the HH IPS baseline year, and found that a small increase in real case-mix had occurred.

The commenter suggested that some agencies were not incentivized to make case-mix change until the implementation of the HH PPS. We believe that it is more appropriate to implement a nationwide approach to the issue of case-mix change adjustment. As noted previously, an individual agency approach would be administratively burdensome and difficult to implement. Policies to address the identity of agencies in light of changes to organizational structures and configurations would need to be developed. Furthermore, smaller agencies might have difficulty in providing accurate measures of real case-mix change because of their small caseloads.

Comment: A commenter noted that CMS asserts that OASIS items not used for payment were more stable than those used to increase HH PPS payment. The commenter stated that if these items reflect patient severity, then these items should be included in the HH PPS payment formula.

Response: Our process of selecting the case-mix items was explained in the HH PPS Final Rule, implementing the HH PPS (65 FR 41193). Essentially, not all items on the OASIS were equally important in explaining case-mix, and not all items on the OASIS were equally appropriate to use in a payment system. That does not mean such items are irrelevant in understanding the health status of the home health user population.

Comment: Several commenters wrote that by using the average case-mix weight, CMS is equally cutting payment to both high and low average case-mix agencies. This across-the-board cut would punish those who did not inflate the case-mix equally with those whose case-mix was inflated. A more equitable approach would be to reduce proportionally the proposed cut for those agencies whose individual case-mix weight was below the mean in the study period. Several commenters noted that their average case-mix remained stable or declined since HH IPS. Another commenter asked for a ''hold harmless'' provision for the non-profit or other efficient HHAs where the case-mix index is less than 1.

Response: We believe that it is more appropriate to implement a nationwide approach to the issue of case-mix change adjustment. An individual agency approach would be administratively burdensome and difficult to implement. Policies to address the identity of agencies in light of changes to organizational structures and configurations would need to be developed. Furthermore, smaller agencies might have difficulty in providing accurate measures of real case-mix change because of their small caseloads.

Comment: A commenter wrote that CMS's findings of coding ''creep'' among other provider types (long term care hospitals, inpatient rehabilitation facilities, and acute care hospitals) discredit the agency's conclusion that HHA case-mix change is due to nominal change rather than real change. Another commenter wrote that CMS' case-mix change findings were consistent with the prior experience of other prospective payment systems.

Response: We agree with the comment that our case-mix change findings are similar to those seen in other prospective payment systems. Our conclusion that case-mix change is almost completely due to nominal change is based upon multiple analyses of health characteristics, of resource costs, and consideration of other factors such as the effects of the Balanced Budget Act of 1997. Regardless of similar findings of nominal change among other provider types, the HH specific analyses utilized here show that a case-mix change adjustment in HH PPS is appropriate.

Comment: Several commenters noted that the proposed case-mix change adjustment will cripple home health agencies' ability to survive and compete at a time when home health is the only hope for an affordable national health approach. They noted that the nursing shortage and rising fuel costs have driven up agency costs and made it difficult for agencies to attract and retain staff. One commenter believed these costs more than compensate for

any coding ''creep'' that may have occurred.

Response: We share the commenters' concerns about the nursing shortage and rising fuel costs. However, case-mix change is based upon actual patient characteristics and is not to be used to compensate for cost differentials.

Comment: Several commenters noted that the shift to high therapy episodes (with 10 or more visits) accounts for over 70 percent of the change in case-mix from 1999 to 2003. This occurred because those patients requiring more therapy visits are in more clinically and functionally severe conditions than those who do not. The commenters recommended that this effect be excluded from the case-mix change adjustment calculation and that the remaining case-mix change adjustment be eliminated entirely to recognize the additional costs to HHAs for training staff and making operational modifications as a result of the refinements that are not reimbursed.

Response: Our analysis of OASIS items in Table 10 of the proposed rule indicated basic stability in the health characteristics of HHA patients. Our subsequent analysis of case-mix change found a small amount of real change, and therefore, we modified the case-mix change adjustment accordingly.

Given that more therapy sources were provided, the implication of our analysis of real change in case-mix is that more therapy was provided to substantially the same patient mix that agencies served in the HH IPS period. We consider the refinements to be evolutionary, not a paradigm shift in our payment methodology. For example, we have added only one new item from the OASIS, the item on injectable medication use. In addition, we dropped M0175 from the case-mix algorithm, in part due to the challenges faced by agencies in accurately ascertaining the information needed for M0175. Furthermore, we dropped other items because they are no longer useful in explaining resource use (see discussion of changes to the case-mix model scoring table, Table 2A, in section III.B.5). Thus, we believe the commenter overstated the impact on agencies of having to adjust to the refinements. While these case-mix refinements will entail staff training and operational modifications, we believe the refinements as implemented will result in a better alignment of costs to payments, which should benefit the agencies.

Comment: One commenter suggested that the case-mix change was due to clinicians determining the ICD–9 coding under the HH PPS, and suggested that more education and training would help bring about better coding. He noted there are differences in FI implementation, interpretation, or follow-up related to ICD–9 coding.

Response: We recognize that there have been improvements in coding practices, and we encourage home health agencies to follow ICD–9–CM guidelines in coding patient diagnoses. Home health coding guidance is available on CMS' Home Health Web Site at *http://www.cms.hhs.gov/center/hha.asp*, under ''Billing/Payment'' and then under ''Home Health Coding and Billing''. ICD–9–CM official coding guidance is available from the Centers for Disease Control Web Site at: *http://www.cdc.gov/nchs/datawh/ftpserv/ftpicd9/ftpicd9.htm*. CMS staff continues to meet regularly with FI representatives to resolve coding issues as they arise.

Comment: A commenter noted that CMS assumed relative stability of resource utilization that should have been already matched by a corresponding stability in the case-mix index. Thus, the commenter believed there is an assumption by CMS that agencies had perfect understanding and application of OASIS at the time HH PPS was implemented.

Response: CMS did not assume agencies possessed perfect understanding of OASIS or lesser understanding of OASIS. We based our case-mix change adjustment on the evidence that patient health status did not change substantially even though improved understanding of and application of OASIS occurred.

Comment: A commenter wrote that the 2.75 percent case-mix change adjustment rate is really higher because our calculation is based upon the 2007 base rate after adjusting it for the market basket increase and for outliers.

Response: The case-mix change adjustment was correctly applied in the process of determining the budget neutral expenditure target in our payment simulation for the refined HH PPS system. The statute provides that any case-mix change adjustment be applied to the national standardized 60-day episode payment amount, which includes the market basket update and adjustment for outliers.

Comment: Several commenters suggested that we evaluate the impact of the coding changes before implementing any case-mix change adjustment or that we use claims data to test the impact of the coding changes, and make this available.

Response: The case-mix change adjustment is designed to address the case-mix change which has already occurred. Implementation of a case-mix change adjustment does not depend on the effect of the HH PPS refinements proposed. We believe that the refinements will better match payments to costs and have already tested this using claims data.

Comment: Several commenters suggested that the case-mix change adjustment resulted from the FIs failing to do their jobs. One suggested that the appropriate way to resolve upcoding issues is through medical review. If medical review occurred and upcoded episodes were then adjusted, the case-mix change adjustment is essentially ''double-dipping'', taking back dollars a second time. Another commenter writes that there is no medical review data supporting an industry wide pattern of case-mix upcoding. One commenter suggested we focus on audits and recovery of inappropriate payments rather than implement a case-mix change adjustment. Another argued that therapy services increases in the case-mix weight change has the character of a retroactive claim denial without a claim review.

Response: Medical review affects such a small proportion of paid claims that we do not believe taking it into account would materially affect the estimate of nominal coding change, nor did we rely upon it in performing our case-mix change adjustment analysis. When we initially reviewed the National Claims History files to check for adjustments to HHRGs from medical review, we found error in the field containing the information. We decided not to use this field in correcting the HHRGs on paid claims in our research files. However, we did correct errors in OASIS item M0175 (concerning the patient's preadmission stay history) in our analyses. The statute provides authority to take into account and adjust for changes in case-mix coding not due to changes in the underlying health status of home health patients.

Comment: One commenter noted that the venipuncture patients who were no longer eligible for Medicare home health care due to BBA changes had a very low case-mix. Their loss from the Medicare home health patient population would cause the overall average case-mix to increase. This could account for some portion of the increase in case-mix seen. Another commenter asked if venipuncture patients were included in the baseline HH IPS sample.

Response: We accounted for the loss of venipuncture patients by using the last year of HH IPS as our baseline. At such time agencies would have complied with the changes in patient

eligibility requirements, and this would have been reflected in our claims data.

Comment: Several commenters noted that the cost reports do not reflect all agency costs, which included those for telehealth, that have improved care and outcomes. If all agency costs were included, CMS would see an increase in resource costs which corresponds to the increase in the case-mix index. Another commenter wrote that resource costs actually decreased early in HH PPS and then increased.

Response: The statute does not provide payment for Medicare home health services provided via a telecommunications system. Section 1895(e)(1) of the Act provides that telehealth services do not substitute for in-person home health services and are not considered a home health visit for the purposes of eligibility or payment under the Medicare home health benefit. As stated in 42 CFR 409.48(c), a visit is an episode of personal contact with the beneficiary by staff of the HHA, or others under arrangements with the HHA for the purposes of providing a covered HH service. The provision clarifies that there is nothing to preclude an HHA from adopting telemedicine or other technologies that they believe promote efficiency, but those technologies will not be specifically recognized or reimbursed by Medicare under the home health benefit.

Our measure of resource costs for home health is based upon total minutes of time reported on the claim for each discipline's visits. Resource costs result from weighting each minute by the national average labor market hourly rate for the individual discipline that provided the minutes of care. Bureau of Labor Statistics data are used to derive this hourly rate. The sum of the weighted minutes is the total resource cost estimate for the claim. This method standardizes the resource cost for all episodes in the analysis file. This method assumes that the non-labor costs per episode are proportional to the labor costs. Our payment rates with an annual market basket updates since the initial HH PPS final rule (July 3, 2000) are designed to reflect the agency's costs. Telehealth costs are not part of the home health market basket and thus do not contribute to the annual updates. Market basket updates are also intended to account for the changes in wages.

Table 7 indicates the trajectory of resource costs, with and without adjustment for wage growth. The data do indicate that resource costs did decrease at the beginning of HH PPS. Adjusted resources remained flat until approximately the last six quarters of the time period. Moreover, resources rose steadily throughout most of the time period, and these increases are compensated through market basket updates.

Comment: Several commenters were concerned about the absence of Abt's Technical Report, which made analysis of the proposed case-mix change adjustment and case-mix refinements difficult.

Response: We understand the commenter's desire for Abt's Technical Report, but note that due to unanticipated difficulties in completing a useful draft, we were unable to issue that report. We intend to issue the final report when it is completed and that the final draft to be useful to the lay reader. We expect that the results will be based on highly technical analyses that necessitate careful attention from the lay public. We will provide a link to Abt's report on our Web Site once the report is available.

Comment: Another commenter asserted that therapy utilization is the most important patient characteristic in the case-mix model, but that therapy utilization is discounted in the case-mix change adjustment analysis. The commenter contended that if therapy utilization were considered a patient characteristic, it would explain most of the increase in the average case-mix index, and thus the case-mix change adjustment could be reduced or eliminated. The commenter suggested that CMS withdraw its proposed case-mix change adjustment for 2008, 2009, and 2010. Furthermore, CMS should design and implement an evaluation method to analyze changes in case-mix weight that utilizes proper standards related to the home health relevant factors in the analysis such as changes in per patient annual expenditures, patient clinical, functional, and service utilization data, and dynamic factors in the Medicare system that impact the nature of patients served with home health care.

Response: We believe that the Abt Associates case-mix model was developed to measure real changes in case-mix addresses this critique. In response to the suggestion in the comments from the National Association for Home Care and Hospice, we used patient expenditures on Part A services in the 4 months leading to the home health episode, rather than the total of annual expenditures suggested in the comment. Studies in the field are not consistent in defining a time period for measuring this variable, which is used to serve as a proxy for health status. For example, a study by Mathematica Policy Research of the effects of the home health prospective payment demonstration used 6 months of data on expenditures to control for general health status [''The Impact of Home Health Prospective Payment on Medicare Service Use and Reimbursement'', Mathematica Policy Research, Princeton, N.J., December 2000]. We chose to use 4 months' of data on Part A expenditures in part because there is no consensus, and our available analysis files captured this measure. We decided to avoid using OASIS measures in the model (except for reported living situation) in favor of measurements external to the home health providers, namely irrefutable demographic measures, National Claims History Part A utilization measures, and hospitalization-related patient characteristics. As previously noted, we also adjusted for the change in types of Medicare agencies that followed the start of HH PPS. We believe that there is little useful analysis that can be garnered from separately measuring dynamic factors in the Medicare system that impact the nature of patients served in home health care. The model we use measures the actual characteristics of patients that are in the agency caseload, and is the best reflection of the case-mix in the HHA.

Comment: A commenter was concerned that because LUPA episodes retain their original case-mix, they may be contributing to the increase in the average case-mix index.

Response: LUPA episodes were not used in the measurement of case-mix change in either our analysis or in the Abt Associates model of real case-mix change.

Comment: A commenter wrote that if 1.233 actually represented average Medicare case-mix in 2003, then the average payment, per 60-day episode, would have been $2,856. The commenter asked that CMS disclose their average 2003 payment amounts for all paid episodes, inclusive of full term and those experiencing downcode adjustments.

Response: It is not clear how the commenter got the figure of $2,856. The standardized national rate per 60-day episode for CY 2003 was $2,159.39. If the commenter multiplies this figure by the average case-mix weight for 2003 of 1.233, the result is $2,663 before any wage adjustment. The $2,663 also does not include any adjustments for LUPAs, PEPs, or SCICs. The average case-mix weight, of 1.233 from the proposed rule, for 2003 is calculated after taking downcoding adjustments but is only calculated from initial episodes. Downcoding adjustments are taken when the Request for Anticipated

Payment (RAP) reports a high-therapy case-mix group, but the final claim does not. Using a 10 percent sample of 2003 paid claims data, the average payment per initial episode is estimated to be $2,614. This figure includes the effects of the wage adjustment, as well as the downward effect of adjustments for SCICs, PEPs, and outliers.

Comment: A commenter suggested that CMS re-evaluate the coding of M0488, surgical wounds, as the increased incidence of the early/partial granulation response is not an example of up-coding only. Rather, it is due to an increased understanding of how to appropriately code items per OASIS guidelines.

Response: This is an example of nominal coding change due to improved coding practices. As noted in the proposed rule, we recognized the contribution of such sources of change in determining and assessing the case-mix change adjustment.

Comment: A commenter disputed that the average case-mix weight of Abt model was 1.0, and argued that the timeframe includes a period in which real case-mix change occurred. Therefore, the commenter asserted that the statute does not allow an adjustment.

Response: By construction, the average case-mix weight of the original Abt model was equal to 1.0. This means that we used the case-mix group assignments in the original Abt case-mix study's sample of episodes, and divided each group's average resources by the overall sample average. Using this approach, the average case-mix weight from this procedure must then be 1.0. The sample was selected to be representative of home health agencies nationally, but we were reliant on volunteers for the study. According to statistical theory, it is highly likely that another sample of volunteer agencies selected to be nationally representative using the same selection procedure would have produced similar estimates of resource cost. It is impossible to know how different the 1998 to 2003 trajectory of the average case-mix weight might be had other agencies' data been available. That is, one reason why we selected a baseline other than the Abt Associates study sample. Choosing the HH IPS baseline allowed us to use a consistent sample of agencies and one that is nationally representative, irrespective of whether any agencies would be prepared to volunteer for a study.

Comment: A number of commenters felt that HH patient characteristics were not stable. One commenter noted that the baseline 1999 to 2000 HH IPS population excluded costly long-term patients who were embraced by HH PPS from 2000 to 2003. The commenter noted that the problem with the proposed refinements is the case-mix adjuster's inability to cope with therapy utilization by long term users, not the absence of these patients from the system. The commenter cited an April 2000 GAO report which contends that it has been difficult to develop a case-mix adjustment method that adequately described resource use, particularly for long term users.

The commenter noted that by statutory directive, HH PPS was crafted to ensure quality access to all eligible beneficiaries; by regulatory design, case-mix adjustment was engineered to remove incentives for providers to ostracize expensive patients. The commenter asserted that CMS' conclusion that patient characteristics remained essentially stable is in direct conflict with the goal of HH PPS to create a payment system which would allow equitable treatment of HH IPS-excluded patients and thus create a population that was fundamentally different than that which existed in the HH IPS baseline year.

Response: First, we noted that after the BBA, venipuncture-only patients, who were often the long-term users, were no longer eligible for the home health benefit. The exclusion of these patients helped stabilize the characteristics of the home health patient population. Second, we are unclear as to the commenter's statement that the intent of the HH PPS was to create a different population group. High-therapy patients were not absent from the national caseload during the final year of the HH IPS period. We note here again, as we did in the proposed rule, that the utilization of therapy was climbing rapidly during the last year of the HH IPS. Therapy utilization continued to climb after HH PPS began. Even if we were to agree that the goal of the HH PPS was to redress the possible exclusion of certain high-cost patients during the HH IPS, we also note that our model predicting change in the real case-mix accounts for a possible return of HH IPS-excluded patients to the system.

Comment: A commenter believed that errors built into the original case-mix adjuster are so large that it is impossible to reasonably carve out an 8.7 percent case-mix change adjustment. The commenter noted that service utilization accounted for 62.5 percent of the estimated predictive power of the original model, the actual R-squared factor for all episodes was 21.9, and several significant weighting factors were known to be unreliable (M0230, M0460). Additionally, the commenter noted that the OASIS instrument was a source of error because it was designed to measure outcomes by asking nurses to assess the ability of a patient to do a task, as compared to a performance-based measure.

Response: As we have noted, we refined the case-mix model to better address some of the concerns expressed by the commenter. In the proposed rule, we summarized the case-mix model's ability to predict resource use with the measure of model fit known as the R-squared statistic. We explained that the original HH PPS regulation's model was based on initial episodes only. We used initial episodes because of sample size limitations of the original Abt study sample of 90 agencies. When we began refinement research using claims from the National Claims History, we added later episodes to the analysis samples. We found that the overall R-squared statistic of the original HH PPS case-mix model after adding the later episodes to the HH PPS-period analysis samples was 0.21. Our data analyses indicate that the R-squared before adding later episodes to the sample is higher than 0.21; we reported in the proposed rule that the R-squared statistic on initial episodes was reduced to 0.29 by 2003. The R-squared statistic was originally 0.34 in the Abt study sample, as noted in the July 3, 2000 Final Rule (65 FR 41193). It should be understood that the later episodes are a minority of episodes (29 percent). Therefore, the model still adequately fits approximately 71 percent of all episodes.

Furthermore, we disagree with the suggestion that the OASIS instrument was a source of large error. The case-mix measure is based on OASIS items, and the scientific reliability of OASIS items has been studied. OASIS items used in the case-mix model generally have good reliability. Item M0460, Stage of most problematic pressure ulcer, and item M0230/M0240, Diagnoses and severity index, have ''substantial'' reliability, according to a report prepared for CMS by the Center for Health Services Research in Denver, Colorado (Volume 4, OASIS Chronicle and Recommendations, OASIS and Outcome-based Quality Improvement in Home Health Care, Feb. 2002). In this report, a rating system commonly used in reliability research was used. A ''substantial'' reliability rating was assigned if the weighted Kappa reliability statistic or percent agreement was at least 0.61. For these two items, the reliability values were at least 0.70.

In summary, the performance of the original case-mix model is strong

enough to define a case-mix change adjustment. The measure of model fit comparable to the original one from the Abt case-mix study has declined somewhat, as might be expected over time. Yet the model fit has remained adequate for a strong majority of episodes. The OASIS assessment items have acceptable reliability. So we disagree with the comment that errors built into the case-mix adjuster are too large to be the basis for a case-mix change adjustment.

Comment: The proposed rule stated that HHAs had no incentive to bring about nominal changes in case-mix pre-HH HH PPS. A commenter disputed this, noting that HHAs could have affected the case-mix weight in a manner not anticipated or not responded to by CMS.

Response: We based our proposal for adjusting payments for nominal case-mix change on the observed average weight from a statistically valid sample representing the last four quarters before HH PPS began. We believe it is the appropriate baseline from which to start measuring coding changes that Medicare did not intend to pay for under HH PPS. We explained the other reasons for using this as the baseline in the proposed rule (72 FR 25392–25393).

Comment: A commenter questioned the decision not to use the October 1997 through April 1998 study sample data as the baseline. CMS had noted that the agencies in the sample were volunteers, and the commenter noted that volunteer agencies represented less than 1 percent of the agencies in existence. The commenter also noted that the decrease in visits does not necessarily result in a decrease in resource costs. He stated that if the reduction in visits was weighted toward lower cost visits (such as home health aides), then that would imply that a greater portion of the visits done in subsequent years were higher cost visits (nursing, therapy, social worker). The average cost per visit would then be higher in those subsequent years, and therefore the total resource cost would be higher. The commenter gave the elimination of venipuncture as a qualifying skill as an example.

Response: The commenter may have confused an agency which volunteers to participate in a study with a voluntary, or non-profit, agency. The agencies used in the study sample included a mix of organizational types.

We accounted for the use of visits as a measure of resource costs by weighting the visit minutes according to the labor costs of the discipline involved. Thus, the resource cost measure summarizes the effects of both a shift to higher-cost visits and a general reduction in visits.

Comment: The proposed rule stated that CMS expected the growth in the case-mix index to be accompanied by more consumption of services, but that instead CMS measured slightly lower resource consumption. A commenter noted that this conclusion does not consider that payments to home health agencies during this period were not being fully adjusted for inflation, and therefore the natural reaction of agencies would be to improve efficiency and lower resource consumption when possible in order to survive.

Response: Margin analysis by MedPAC, CMS, and the Government Accountability Office has indicated that Medicare margins under HH PPS have generally exceeded 10 percent. Therefore, we find the commenter's conclusion that agencies responded to ensure survival counterintuitive, because it would appear that in general, the payments made under HH PPS covered their Medicare costs. We have not studied efficiency outcomes among Medicare home health agencies, but economic theory would suggest that entities become more efficient under bundled payment. We also note that experts who study health services have suggested there may be an incentive to stint on services under prospective payment.

To summarize our case-mix analysis, Abt Associates developed a case-mix prediction model designed to measure real change in case-mix. We used two data sets in applying this model. First, we estimated the model on an HH IPS sample. The HH IPS sample consisted of 394,479 non-LUPA episodes representative of total episodes during the last 12 months of HH IPS. The episodes were simulated from claims using the same methodology that we used to define episodes and link them to OASIS assessments for our case-mix change analysis noted in the proposed rule. We used the model coefficient estimates to predict case-mix on a HH PPS sample. The HH PPS sample consisted of 876,199 non-LUPA episodes representative of total episodes during CY 2005. Both samples were restricted to non-LUPA episodes with a matched OASIS assessment from the national OASIS repository.

The purpose of this case-mix model is to predict the average case-mix weight in the 2005 HH PPS year, based on a regression model estimated from the HH IPS baseline year. Then, only the home health population changes (as represented by the independent variables for the HH PPS year) affect the average case-mix weight predicted from the model. In effect, the model assumes that the population's real case-mix would have evolved to the predicted levels if HH IPS had continued beyond October 2000, or had HH PPS not been implemented. The independent variables (noted below) used to make the predictions purposely do not come from OASIS (with one exception, family situation variables) so that the model is not based on potentially up-coded variables from home health agency coding on OASIS. We use demographic and non-home health Part A claims history variables as the predictors. We also include agency type and organizational form variables which help explain the level of case-mix. The predictive ability of the full model, as indicated by the R-squared statistic, is 0.17.

With each successive stage of model development, new sets of variables were added to measure the effect on the average prediction in the sample representing the 2005 time period. The first phase of the model is based on demographic variables, consisting of a large set of age-by-race and age-by-sex groups. The predicted average case-mix weight did not change appreciably when using these variables alone to make predictions, although we noted that those beneficiaries in the 85-and-older age group grew in prevalence and contributed positively to the case-mix index. This effect was offset by changes in the prevalence of other demographic groups, to produce only minor change in the average case-mix weight during this model stage.

The second phase of the model added 12 variables representing inpatient utilization for acute hospitals, long-term care hospitals, IRF, and SNF, as identified in the National Claims History. Three variables captured the presence of any hospital, SNF, or IRF stays in the 14 days leading up to the beginning of the episode. A fourth variable represented episodes where there was no acute, IRF, or SNF stay in the 14 days before the home health episode. An additional 8 variables captured the number of inpatient days of stay by type of stay during the 14 days leading up to the beginning of the episode, and, before that, the number of inpatient days in the period 15 to 120 days leading up to the beginning of the episode. The days of stay categories were: Acute hospital, long-term care hospital, IRF, and SNF.

The results from adding these variables to the demographic variables were an increase in the average prediction of 0.6 percent beyond the average during the HH IPS baseline. The proportion of episodes preceded by

hospital stays in the 14 days leading up to the episode declined between HH IPS and HH PPS, 2005, from 38.5 percent to 33.4 percent. Since this variable was associated in the model with a 0.09 unit decline in case-mix weight, the lower prevalence of acute hospital use was an important factor in the increase in the average prediction. Another important contributor to these results was the growth in SNF days, including growth during the 14 day pre-episode period and the 15- to 120-day pre-episode period. These variables were associated with an increase in case-mix weight. The average number of IRF days declined during the 15- to 120-day pre-episode period, from 0.68 during HH IPS to 0.52 during HH PPS 2005. (We again included recertification episodes in the total episodes in this sample.) While the number of IRF days is associated in the model with higher case-mix, the decline in total IRF days between HH IPS and CY 2000 meant that this factor helped offset the case-mix increasing effect of the hospital and SNF days variables on the predictions.

The third phase of the model added family situation variables, including whether the patient during the episode lived alone, with a spouse, with other family members, with paid help or with others. The results from adding these variables moved the predicted average higher than the baseline by only 0.1 percent.

The fourth phase of the model added scores of variables representing the hospital case-mix group assignment for the last acute hospital stay for the patient in the National Claims History. We used the All-Patient-DRGs (APR DRG) classification algorithm to assign the case-mix group. We specified variables for all the APR DRG groups that met our sample size standards (minimum of 25 cases). Typically, the stays generating the APR DRG assignments occurred within six weeks, and overall three-quarters of the stays occurred within the previous 8.6 months. The purpose of using these variables was to incorporate more information about the patient's condition, especially some measure of case severity into the model. The APR DRG algorithm uses comorbidity data on the hospital claim to generate severity levels for each case-mix group. As an example, the model included four differing severity levels for knee replacement stays, which are included in APR DRG group 302. A general indicator that the stay was procedure-related was also included. This indicator had a large effect in the model, suggesting an increase in the HH case-mix weight of about 0.34 if the last acute stay was for a procedure. At the same time, the proportion of episodes associated with an acute procedure increased from HH IPS to HH PPS 2005 by only one percent, from 19 percent to 20 percent. This meant that the procedure effect would not be strong in moving the average prediction between the HH IPS sample and the HH PPS sample.

The net effect on the predictions from the model at this stage was to increase the level of the case-mix average relative to the HH IPS baseline, but the effect was very small. It is notable that the predictive power of the model increased by more than three percentage points. In addition, the model indicated various effects as expected, including substantially higher HH PPS case-mix weight associated with conditions such as intracranial hemorrhage; cerebrovascular accidents; other disorders of the nervous system; respiratory system diagnosis with ventilator support; respiratory infections and inflammations; pneumothorax and pleural effusion; respiratory system signs, symptoms, and other diagnoses; major esophageal disorders; hip fractures; electrolyte disorders except hypovolemia related; septicemia; pneumonia; and complications of treatment. The model did not indicate higher case-mix weights associated with many other hospital case-mix groups, such as hip and knee replacements, major and nonmajor respiratory procedures, cardiac defibrillator implant, cardiac valve procedures with cardiac catheterization, and coronary artery bypass graft. It should be noted again that these effects are estimated after controlling for whether the stay was procedure-related. Thus, the negative coefficient for knee replacements indicates that the effect of having had a knee replacement before home health reduces the size of the general positive effect from having had a procedure. One of the strongest impacts on the predictions came from the APR DRG for nonspecific cerebrovascular accident and precerebral occlusion without infarction; in the HH IPS sample, about 1.2 percent of the episodes were preceded by a stay of this type, but in the HH PPS 2005 sample the episode percentage was down to about 0.4 percent. The loss of this type of case was one of the important contributors that offset the case-mix increasing effects of some of the other changes.

The fifth phase of the model adjusted for the change in the types of home health agencies between HH IPS and CY 2005. This adjustment is analogous to the adjustment we made in the proposed rule estimate of the HH IPS baseline average case-mix weight. The adjustment in the proposed rule standardized the HH IPS baseline for the decline in episodes delivered by hospital-based agencies. At this stage, given the contribution of all variables added to this point, the increase in the predicted average case-mix weight compared to the HH IPS baseline was 0.7 percent.

Finally, we added expenditure variables for Part A utilization in the 120 days leading up to the home health episode. These variables, which were adjusted for price increases, subdivided the expenditures by type of stay. The expenditures related to long-term care hospital stays, SNF stays, and inpatient rehabilitation stays were associated with higher case-mix weights. Because the model controlled for stay events and days of stay, we believe these variables may proxy the intensity of care during the inpatient periods. The model estimates using all variables included by this final stage increased the average case-mix weight compared to the HH IPS baseline by 0.95 percent.

The unadjusted total measure of case-mix change was calculated by taking the difference between the 2005 actual average case-mix and the HH IPS actual average case-mix (our baseline). This unadjusted measure (12.78 percent) included both real and nominal change.

We used our full 6-phase model to derive the proportion of case-mix change which was real; the full model result yielded a predicted average case-mix for 2005. When we took the difference between this model result and the HH IPS actual average case-mix (our baseline), the result was the real case-mix change.

The resulting real case-mix change was then divided by the total measure of case-mix change (real plus nominal) to determine the proportion by which the total measure of case-mix change would need to be reduced in order to account for real case-mix change. That proportion was 8.03 percent. Therefore, we reduced the 12.78 percent measure of total case-mix change by 8.03 percent (real case-mix change) to derive the nominal case-mix change adjustment of 11.75 percent ($0.1278 * (1 - 0.0803) = 0.1175$). This 11.75 percent change in case-mix is 1.03 percentage points lower than the unadjusted total change in case-mix, which is 12.78 percent.

While the total measure of case-mix increase is 11.75 percent, it could be misinterpreted that the total of the adjustments to be made in each of the next four years equals 10.96 percent ($2.75 + 2.75 + 2.75 + 2.71 = 10.96$), if the adjustment were taken in one year.

This would be an incorrect method of solving for the total adjustment if taken in one year. If we accounted for the full 11.75 percent increase in case-mix in a single year, that percentage reduction to the rates would be 10.51 percent (1/(1 + .1175) = 0.894855; 1 − 0.894855 = .1051). Over the 4-year period, we are taking the same 10.51 percent adjustment ((1 − 0.0275) * (1 − 0.0275) * (1 − 0.0275)*(1 − 0.0271) = 0.894823; 1 − 0.894823 = 0.105177 = 10.52 percent; a difference of 0.01 percent from the single-year total adjustment of 10.51 percent is due to rounding). Note that the percentage reduction is less than the percentage increase; because the new baseline is higher, in percentage terms the reduction necessary to get back to the original baseline will be less than the percentage increase. In determining the yearly percentage reductions, we first opted to keep the 2.75 percent per year reduction which we had proposed. Accounting for the compounding effect of a 2.75 percent reduction in each of the first 3 years, the 4th year reduction necessary to bring about a total reduction of 10.51 percent is 2.71 percent. Note that the sum of the 4-year nominal reduction of 10.95 percent is only an approximation of the 10.51 percent since it does not account for the compounding effect of the annual reductions. For this final rule with comment period, we are finalizing the proposed 2.75 percent reduction of the national standardized 60-day episode payment rate for 3 years beginning in 2008 and extending that adjustment period to a fourth year via a 2.71 percent reduction for 2011, in order to fully address the 11.75 percent change in case-mix unrelated to real case-mix change. We are seeking comment on the 2.71 percent case-mix change adjustment for 2011. We will continue to monitor and measure the nominal change in case-mix. As we discussed in the proposed rule, if updates of the national claims data indicate that the nominal change in case-mix between the HH IPS baseline and the latest available national claims data show a change, we will revise the percentage reduction in future year's update of the annual reduction factor. Similar to how it was described in the proposed rule, the revision would be determined by the ratio of the updated 4-year annual reduction factor to the previous year's annual reduction factor. For the CY 2011 rule, which governs the fourth and final year of the case-mix change adjustment transition period, we would obtain the CY 2008 national average CMI to compute the updated value for the nominal case-mix change adjustment. Again, we would form the ratio of the updated adjustment factor to the previous year's effective adjustment factor. Depending on the growth of the nominal change in case-mix, measured in any given subsequent year, in future rulemaking, CMS may adjust the percentage reduction in the second and/or third year, elect to adjust the percentage reduction in only the fourth year, or adjust the percentage reduction in any combination of years. The annual updating procedure avoids a large reduction for the final year of the phase-in, in the event that the CY 2008 national average CMI reflects continued growth in the nominal change in case-mix since CY 2005. The calculation of the adjusted national prospective 60-day episode payment rate for case-mix and area wage levels is set forth in 42 CFR 484.220. We are revising 42 CFR 484.220 to address the annual percentage reductions due to changes in case-mix that are not a real change in case-mix. For this final rule with comment period, we are specifically soliciting comment on the 2.71 percent adjustment to the HH PPS 60-day episode payment rate in the fourth year to account for the change in case-mix that is not considered real, i.e., that is not related to an underlying change in patient health status.

The final versions of tables 6, 7, and 8, which are discussed in this section on case-mix change adjustment, are shown below.

TABLE 6.—AVERAGE NUMBER OF HOME HEALTH VISITS PER EPISODE

Year	Total home health visits (excluding LUPAs)
1997	36.04
1998	31.56
HH IPS	26.88
2001	21.67
2002	21.49
2003	21.01
2004	20.66
2005	20.53

Note: Excludes LUPAs, RAPs, episodes with data problems and no matched OASIS. The HH IPS data is from the 100 percent file for FY 2000.

TABLE 7.—AVERAGE RESOURCE COST AND CMI

Period	Resources		CMI	
	Average resource cost	Standardized to CY 2000 labor rates	Admissions	All
HH IPS				
1999Q4	$451.11	$451.39	1.1165	1.0796
2000Q1	468.27	468.27	1.1040	1.0822
2000Q2	475.34	475.34	1.1277	1.1026
2000Q3	471.64	471.64	1.1448	1.1186
HH PPS				
2000Q4	N/A	N/A	N/A	N/A
2001Q1	$432.14	$419.60	1.1855	1.1651
2001Q2	440.98	428.18	1.1930	1.1801
2001Q3	445.96	433.02	1.1980	1.1756
2001Q4	446.80	433.84	1.2025	1.1853
2002Q1	453.76	426.42	1.2086	1.1843
2002Q2	454.65	427.25	1.2027	1.1874
2002Q3	457.49	429.92	1.2127	1.1871
2002Q4	460.96	433.17	1.2243	1.1996
2003Q1	454.77	422.58	1.2182	1.1931
2003Q2	461.18	428.53	1.2326	1.2060

TABLE 7.—AVERAGE RESOURCE COST AND CMI—Continued

Period	Resources		CMI	
	Average resource cost	Standardized to CY 2000 labor rates	Admissions	All
2003Q3	460.15	427.58	1.2333	1.2044
2003Q4	464.71	431.81	1.2497	1.2178
2004Q1	462.26	427.31	1.2434	1.2117
2004Q2	473.42	437.63	1.2572	1.2239
2004Q3	476.77	440.72	1.2634	1.2252
2004Q4	479.90	443.61	1.2709	1.2314
2005Q1	487.19	417.40	1.2680	1.2298
2005Q2	509.91	436.87	1.2697	1.2341
2005Q3	518.92	444.58	1.2810	1.2358
2005Q4	522.22	447.41	1.2882	1.2443

Note: HH IPS data based on 100% National Claims History File. The averages reported in the proposed rule may differ slightly from averages reported here because of slight changes in methodology and further data cleaning.

TABLE 8.—PERCENT SHARE OF HOME HEALTH EPISODES AND MEAN TIME PRIOR TO ENTERING A HOME HEALTH EPISODE, FOR FIVE CONDITIONS, FY 2000–CY 2006

Condition	FY 2000	CY 2001	CY 2002	CY 2003	CY 2004	CY 2005	CY 2006*
Hip fracture:							
percent share	0.82	0.83	0.75	0.72	0.70	0.62	0.59
days prior to entering	7.19	7.12	7.18	7.21	7.30	7.09	7.12
Congestive heart failure:							
percent share	3.31	3.05	2.95	2.87	2.71	2.43	2.62
days prior to entering	3.38	3.28	3.35	3.33	3.36	3.40	3.37
Cerebrovascular accident:							
percent share	1.52	1.45	1.40	1.29	1.14	1.03	0.97
days prior to entering	4.32	4.23	4.21	4.29	4.20	4.33	4.31
Hip replacement:							
percent share	1.47	1.64	1.63	1.59	1.64	1.45	1.36
days prior to entering	6.45	6.32	6.26	6.28	5.91	5.58	5.40
Knee replacement:							
percent share	1.89	2.20	2.30	2.43	2.58	2.70	2.75
days prior to entering	5.40	5.30	5.41	5.18	4.92	4.60	4.15

Note: Time prior to entering is number of days between hospital discharge and beginning of home health episode, for discharges occurring within 14 days of the start of the home health episode.

For beneficiaries with more than 1 hospital discharge in the 14 day period leading up to the home health episode, time prior to entering is from the last hospital discharge immediately preceding the home health episode.

*CY 2006 data for first quarter of the year only.

7. Case-Mix Groups

Comment: Two commenters were concerned that the proposed case-mix model results in loss of all identifiable meaning from a case-mix group or HHRG. The commenters asked for a mechanism to produce a unique HHRG, Health Insurance Prospective Payment System (HIHH PPS) code, or other designation for each of the 153 case-mix groups and five NRS severity levels. They believed providers need a unique identifier for each case-mix group to facilitate communication, analysis, and financial comparison.

Response: While it is true that the HHRG code represents the severity levels in the clinical, functional and service domains, it no longer represents a one-to-one match with a case-mix weight under the proposed refined payment case-mix system. However, a code with this one-to-one relationship to a payment weight will exist in the form of the HIHH PPS code produced by the Grouper software. We plan that the first position of the five position HIHH PPS code will represent the payment grouping step that applies to the episode. The second, third and fourth positions will represent the clinical, functional and service domains arrived at under the payment equation that applies for that grouping step. The fifth position will represent the NRS severity level. The final code structure for these HIHH PPS codes and the complete list of codes will be published in Medicare instructions and on our Web site, shortly after the issuance of this final rule.

Comment: Several commenters remarked that the increase from 80 to 153 HHRGs was complex and would create an administrative burden. Additionally, it will require extensive training of staff. They asked that the implementation be postponed or be phased-in.

Response: As we noted previously, we have tried to strike a balance between simplicity and complexity. The refined system is more complex than the old system but this is a natural outgrowth of our attempt to pay more accurately for the range and intensity of home health services that can be provided to our beneficiaries.

A refined system may seem overly complex just because it is new. However, we believe the proposed refinements are clearly focused, and logically stem from the original case-mix payment system. We agree that any refined system will take time and training to learn. As explained in the response to a comment in section III.A.3, we have taken several measures to make the proposed refinements easier

to understand, and we trust that these measures will assist HHAs in implementing this refined system.

8. OASIS Reporting and Coding Practices

Comment: Several commenters expressed concern that some pressure ulcers are not stageable due to eschar. They noted that proper care includes debridement, which is costly due to supplies and clinician time. Once debridement occurs, the ulcer would be stageable, but the HHA would have no way to note the change in condition since the SCIC adjustment has been eliminated. The commenters recommended allowing staging of these ulcers in accordance with National Pressure Ulcer Advisory Panel guidelines.

Response: We are aware of recent revisions issued by the National Pressure Ulcer Advisory Panel (NPUAP). The NPUAP guidance is essentially permitting the assessment of a wound for staging when the wound bed is not completely covered with eschar or slough. If the bed of the ulcer is completely covered with eschar/slough, NPUAP guidance stipulates that the wound cannot be staged until some of the necrotic tissue is removed. After reviewing the NPUAP guidance we have revised the instructions accompanying the OASIS item to allow a wound to be staged if the bed of the wound is partially covered by necrotic tissue and if the presence of eschar does not obscure the depth of the tissue loss.

Comment: We received a number of comments supporting our decision to allow additional case-mix diagnoses for certain conditions and for allowing points for some comorbidities. One supported the scoring of secondary diagnoses to account for the cost-increasing effects of comorbidities. A few commenters suggested more rows for entering diagnoses in M0240 (''other'' diagnoses). They note that to follow ICD–9–CM coding guidance based on severity ranking, there will be many instances where the case-mix diagnoses that impact the plan of care and resource utilization will not be captured for patients with multiple co-morbidities, leading to underpayment for the sickest patients if coding rules are followed. It would also address OASIS diagnosis spaces fields in preparation for ICD–10, which will significantly increase the number of required diagnosis codes.

Response: We appreciate the comments supporting our decision to allow additional case-mix diagnoses and for allowing points for comorbidities/secondary diagnoses.

As we noted in the proposed rule (72 FR 25361, and 25362), scores were assigned to certain secondary diagnoses and used to account for the cost-increasing effects of comorbidities. However, with most diagnosis groups, we did not make a distinction in the final case-mix model between primary placement and secondary placement of a condition in the reported list of diagnoses. We made case-by-case decisions on this question based on differences in the impact on resource cost between the primary diagnosis and secondary diagnosis. If differences were small, we combined cases reporting the conditions, regardless of whether the listed position of the diagnosis was primary or secondary. We believe this is an important protection against unintended and undesirable incentive effects that could arise if agencies perceive opportunities to change the placement of the diagnosis due to non-clinical reasons.

Concerning the comment suggesting we add more lines for entering diagnoses in M0240, we disagree that more lines are needed for M0240. However, as noted in the proposed rule, we did make changes to the OASIS to enable agencies to report secondary case-mix diagnosis codes (see 72 FR 25362). Specifically, the addition of secondary diagnoses to the proposed case-mix system (see Table 2A of the proposed rule, case-mix adjustment variables and scores) requires that the OASIS allow for reporting of instances in which a V-code is coded in place of a case-mix diagnosis other than the primary diagnosis. A case-mix diagnosis is a diagnosis that determines the HH PPS case-mix group. Currently, the OASIS allows for reporting of instances of displacement involving primary diagnosis only for M0245. Consequently, because of the nature and significance of the changes needed, as noted in the proposed rule, we deleted the OASIS item M0245 and replaced it with a new OASIS item M0246.

We disagree with the comments suggesting that if ICD–9–CM coding guidance is based on severity ranking in the OASIS, there will be many instances where the case-mix diagnoses that impact the plan of care and resource utilization will not be captured for patients with multiple co-morbidities, leading to underpayment for the sickest patients. It is significant to note that the logic for determining both the primary and secondary diagnoses remains unchanged (see the OASIS Implementation Manual, Definition Section of M0230/240 as well as Attachment D to Chapter 8). The primary diagnosis is determined based on the condition most related to the current plan of care. This diagnosis may or may not be related to a patient's recent hospital stay but must relate to the services rendered by the HHA.

Comment: A commenter asked that we adopt ICD–10 guidelines, and study the impact of coding changes on HH PPS.

Response: We agree that it is important to have an accurate and precise coding system. The Department will continue to study whether or not to propose ICD–10–CM and ICD–10–PCS as the new HIPAA standard to replace ICD–9–CM.

Comment: A commenter suggests that M0826 be asked only if the patient is expected to be a higher need case.

Response: We disagree. Home health providers are expected to assess and document each patient's need for therapy. M0826 is required to be coded by providers regardless of the patient's expected case-mix assignment. The coding of M0826 should be in compliance with Medicare home health CoPs 42 CFR 484.55, 42 CFR 484.18, and 42 CFR 484.32.

Provider instructions for coding M0826 are provided in Chapter 8 of the OASIS Implementation Manual. Those instructions allow providers to answer ''000'' if no therapy services are needed, or answer with the total number of therapy visits indicated or planned for the Medicare payment episode for which this assessment will determine the case-mix group. Providers may also answer ''not applicable'' when this assessment will not be used to determine a Medicare case-mix group.

Comment: A commenter asked that we expand the wound section of the OASIS to include all wounds, especially diabetic ulcers and arterial ulcers.

Response: The diagnosis codes for diabetic and arterial ulcers were in the proposed rule for both the case-mix diagnosis and non-routine supply diagnosis tables. As a result of further research, we are also adding two additional arterial ulcer codes to final tables 2B and 10B (see ICD–9–CM codes 447.2 and 447.8).

However, such review and expansion of OASIS is beyond the scope of this rule. OASIS will continue to capture diabetic and arterial ulcers in both the diagnosis section and the basic wound-related section (M0440). OASIS item M0440 measures the presence of a skin lesion or open wound.

OASIS items are only part of a comprehensive assessment and include only those items that have proven useful for outcome measurement and risk factor adjustment. Therefore only the types of wounds that are relevant to

these OASIS purposes or outcome measurement or risk factor adjustment have been included in OASIS, though other types of wounds such as diabetic and arterial ulcers are extremely important to assess and document in the patient's clinical record.

Comment: A commenter wrote that changes to the OASIS items M0230/240/246 are complex, and the instructions need to be clearer for column 4. The commenter suggested that the instructions read, ''Complete ONLY IF the V-code in Column 2 is reported in place of a case-mix diagnosis that is a multiple coding situation.''

Response: The commenter has literally repeated the precise instructions we have issued in Column 4 of the OASIS, M0230/240/246 as a suggestion for clearer instructions. It is significant to note that Column 4 does stipulate the following: ''Complete ONLY if the V-code in Column 2 is reported in place of a case-mix diagnosis that is a multiple coding situation.''

In reference to assigning V-codes on the OASIS, a case-mix diagnosis is a diagnosis that gives a patient a score for Medicare Home health HH PPS case-mix group assignment. A case-mix diagnosis may be the primary diagnosis, ''other'' diagnosis, or a manifestation associated with a primary or other diagnosis. Diagnoses listed under columns 3 and 4 of OASIS, M0230/240/246 should be documented on the patient's Plan of Care in compliance with 42 CFR 484.18(a). V-code reporting on the OASIS became effective in October 2003 in compliance with HIPAA. Providers assigning V-codes on the OASIS are expected to comply with all of the following long-standing home health diagnosis coding requirements, which can be found in the document entitled ''Medicare Home Health Diagnosis Coding'' on the CMS Home Health Web site at: *http://www.cms.hhs.gov/HomeHealthPPS/03_coding&billing.asp.*

Comment: Another commenter suggested that we revise the instructions for M0080 and M0090 to recognize the new complexities of completing M0230/240/246 correctly.

Response: Chapter 8 of the OASIS Implementation Manual will be updated to accommodate changes to the OASIS items.

C. Payment Adjustments

1. The Partial Episode Payment (PEP) Adjustment

Currently, HH PPS provides for an adjusted proportional payment for 60-day episodes interrupted by a beneficiary elected transfer or a discharge and return to the same HHA within the 60-day period. The PEP adjusted episode is paid based on the span of days including start of care date or first billable service date and including the last billable service date under the original plan of care before the intervening event. As noted in the proposed rule, descriptive analysis was conducted to better understand the patient characteristics associated with PEP-adjusted episodes and the circumstances under which PEP-adjusted episodes occurred. Analysis of patient characteristics revealed no appreciable differences between patients in normal episodes (that is, no HH PPS payment adjustments, such as LUPA, PEPs, or SCICs) and patients in PEP episodes with regard to conditions or clinical characteristics. The mix of visits in PEP episodes was found to be similar to that of normal episodes.

The descriptive analyses conducted by Abt Associates also looked at the different components that make up PEP episodes. The analysis showed that PEP episodes have significantly shorter service periods on average than all episodes other than LUPA and SCIC episodes. The number of visits in a PEP episode, on average, represented 75 percent of the average number of visits for normal episodes. We have used the span of billable visits in the PEP payment adjustment because of the HHA's involvement in decisions influencing the intervening events for a beneficiary who elected to transfer or discharge and returned to the same HHA during the same 60-day episode period. Agencies have some flexibility in discharge decisions that affect the likelihood of incurring a partial episode, whether or not a hospital stay intervenes. They also have indirect influence on a beneficiary's decision to transfer to another home care provider through the quality of care they provide. Data suggested that PEP episodes are rare and, therefore, the current PEP policy may be serving as a deterrent to premature discharge. Consequently, we did not propose to change the PEP policy.

Comment: Several commenters raised concerns about a specific situation that can arise under the existing PEP policy. In the specific situation mentioned, the second provider in the PEP can admit a beneficiary whose plan of care goals were already met by the first provider. The commenter suggests that the FIs) review those admissions to determine if the care provided by second agency was medically necessary. A PEP can occur because of transfer to another agency.

Response: We will share this concern with our fiscal intermediaries and suggest that they direct medical review activities for PEP episodes as appropriate.

Comment: A commenter noted that when a PEP occurs due to a transfer to another agency, the first agency is often surprised. The commenter asks CMS to automatically check for proper protocol by the second agency to ensure that the first agency is not caught off guard.

Response: We appreciate this comment. Our analysis of a 20-percent sample of 2003 episodes showed that approximately 3 percent of all episodes were PEP adjusted. Of those PEP episodes, approximately 55 percent of PEP-adjusted episodes involved a discharge and return to the same HHA, about 42 percent involved a transfer to another agency, and approximately 3 percent involved a move to managed care.

Chapter 10 (Section 10.1.13) of the Medicare claims processing manual does provide a process for the initial HHA and the receiving (new) HHA to follow in when a transfer to another HHA results in a PEP situation. In order for a receiving (new) HHA to accept a beneficiary elected transfer, the receiving HHA must document that the beneficiary has been informed that the initial HHA will no longer receive Medicare payment on behalf of the patient and will no longer provide Medicare covered services to the patient after the date of the patient's elected transfer in accordance with current patient rights requirements at 42 CFR 484.10(e). The receiving HHA must also document in its records that it accessed the RHHI inquiry system to determine whether or not the patient was under an established home health plan of care and contacted the initial HHA on the effective date of transfer. In such cases, the previously open episode will be automatically closed in the Medicare claims processing systems as of the date services began at the HHA the beneficiary transferred to, as reported in the RAP; and the new episode for the ''transfer to'' agency will begin on that same date.

Comment: Several commenters noted that PEP episodes are underpaid. Two commenters said that agencies are especially concerned with PEP situations where patients are discharged when the plan of care goals are met but return to the same agency within the 60-day period, often for a condition that was not related to the first plan of care. In those cases, agencies can receive a significant reduction in payment for the first episode despite provision of all visits authorized under a plan of care.

Similarly, two commenters recommended that CMS not apply PEP to cases where the patient is discharged with the plan of care goals met yet returns to the same HHA with a new medical issue. The commenters believed maintenance of the PEP policy in its current form also raises questions regarding how ''early'' and ''later'' episodes will be defined in the proposed payment system.

Response: As discussed in the proposed rule, the PEP adjustment provides a simplified approach to the episode definition and accounts for key intervening events in a patient's care defined as a beneficiary elected transfer, or a discharge and return to the same HHA that warrants a new start of care for payment purposes, OASIS, and physician certification of the new plan of care (72 FR 25422, 25423). The discharge and return to the same HHA during the 60-day episode period is only recognized when a beneficiary reached the treatment goals in the original plan of care. The original plan of care must be terminated with no anticipated need for additional home health services for the balance of the 60-day period. This policy ensures that we do not provide full payment for two episodes at any time during a given certified 60-day episode. Results from our refinement research provided evidence that there is some front-loading of visits compared to normal episodes, causing PEP episodes to have a faster average rate of visits during the span of days used to prorate the episode payment.

Early episodes are defined to include not only the initial episode in a sequence of adjacent episodes, but also the next adjacent episode, if any, that followed the initial episode as the first two episodes in a sequence of adjacent episodes. Later episodes are defined as all adjacent episodes beyond the second episode. Episodes are considered to be ''adjacent'' if they are separated by no more than a 60-day period between episodes. This holds true regardless of the type of episode. The end of a PEP episode is denoted as the last billable visit date. The gap in days between an episode with a PEP adjustment and the next episode would be calculated using the last billable visit of the PEP and the from-date of the subsequent episode.

Comment: A commenter asked that PEPs be considered from the beginning of the episode rather than the first visit due to care coordination activities. The commenter asserted that agencies should receive at least the LUPA rate if the episodic payment under PEP would be lower than the LUPA. Moreover, the commenter noted that since the inception of HH PPS, the PEP has been implemented in such a way that an initial home health agency does not receive appropriate recognition from the beginning of the episode, recognizing that currently the PEP begins at the first visit rather than the beginning of the episode.

Response: We do not believe that it is appropriate to generate another episode type based upon a per-visit basis. At the inception of the HH PPS, we decided that paying for LUPA episodes on a per-visit basis was appropriate due to the extremely low number of visits provided in such an episode. One of the goals of a PPS for home heath was to move away from a system that pays on a per-visit basis.

Comment: A commenter suggested that CMS eliminate the PEP due to its adverse clinical, administrative, and financial impact. The commenter stated PEP adjustments require significant resource utilization for agencies with minimal reimbursement as HHAs front-load costs. Additionally, the commenter further noted while HHAs have developed strategies to minimize hospitalizations and SNF admissions, the HHAs often cannot affect the patient's level of acuity or social situation, which can result in a PEP episode.

Response: We disagree with the commenter. We believe the PEP adjustment is provided in a manner that maintains the opportunity for Medicare patients to choose the provider with which they feel most comfortable while ensuring that the Medicare Trust Funds are protected by a policy that ensures adequate payment levels that reflect the care provided by each HHA to a beneficiary in a transfer situation.

Comment: A commenter was disappointed that CMS did not make changes in the PEP adjustment to more accurately allocate costs, believing that the current methodology often underpays in the case of PEP transfers. Specifically, the commenter felt it is particularly troubling when the PEP occurs without the first agency's knowledge as often the patient has had an intervening hospital stay and is advised by the hospital that it is preferable or required that the patient use a hospital-based HHA upon discharge, thus generating the PEP. There are cases where the patient or family is confused and seeks care from a second agency, believing that using two HHAs is allowable and is better than having just one. The commenter again noted that these visits tend to be front-loaded, and prorating from first to last billable visit systematically underpays the initiating agency and penalizes agencies who follow QIO advice on front-loading visits to avoid re-hospitalization. The commenter suggested that CMS prorate the initial PEP episode based on the ratio of days between the first billable visit and discharge to the subsequent agency.

Response: As stated in the proposed rule, we believe that HHAs have some flexibility in discharge decisions that affect the likelihood of incurring a partial episode (72 FR 25423), whether or not a hospital stay intervenes (72 FR 25423). HHAs also have indirect influence on a beneficiary's decision to transfer to another HHA through the quality of care they provide. Additionally, current data suggest that PEP episodes are rare, and therefore, the current PEP policy may be serving as a deterrent to premature discharge. We believe that the PEP adjustment is provided in a manner that maintains the opportunity for Medicare patients to choose the provider with which they feel most comfortable. We also note that, as we did in the proposed rule, in many cases an HHA received payment for an additional full episode which it might not have received had the first episode not been subject to a PEP adjustment (72 FR 25423). We do recognize that PEP episodes provide, on average, 75 percent of the average number of visits for normal episodes, which parallels the QIO's advice to HHAs to provide more visits early in an episode of care to prevent re-hospitalizations.

Comment: A commenter asked that we reopen the episode if a patient returns to the HHA within 60 days, and only pay for the time services were given.

Response: HHAs have some flexibility in discharge decisions that affect the likelihood of incurring a partial episode, whether or not a hospital stay intervenes. They also have indirect influence on a beneficiary's decision to transfer to another home care provider through the quality of care they provide. Whether or not a given episode remains open is subject to whether or not the goals of the plan of care have been met and a particular HHAs's discharge policy. We believe that it would be inappropriate for CMS to dictate whether or not or when an HHA should discharge a patient, as we believe those sorts of decisions are best left up to the HHA. Consequently we do not believe that a policy to reopen an episode if the patient returns to the HHA within the 60 days would be an appropriate policy. In addition, we believe that prorating an episode, as the commenter suggests, would unnecessarily further complicate the PEP payment policy.

In summary, there are several methods that could be used to refine the

PEP adjustment methodology, as recommended by commenters. Another possible approach could involve weighting the payment to reflect the front-loading of visits, but it is not clear at this time what an appropriate approach to refinement of the PEP policy would be. We intend to study the comments provided, continue public discussion on this issue, and look towards the possible refinement of this adjustment in future rulemaking.

2. The Low-Utilization Payment Adjustment (LUPA)

The low utilization payment adjustment (LUPA) reduces the 60-day episode payment when minimal services are provided during a 60-day episode. LUPAs are episodes with four or fewer visits and receive a wage-adjusted average per visit amount per home health discipline, instead of a full 60-day episode payment. The home health industry suggests that the LUPA payment rates do not adequately account for the front-loading of costs in an episode. In performing our refinement research, we found that the average visit lengths in these initial LUPAs are 16 to 18 percent higher than the average visit lengths in initial non-LUPA episodes. For a complete description of the LUPA review, analysis, and research performed, we refer to the CY 2008 HH PPS proposed rule (72 FR 25423–27). In the proposed rule, we proposed to increase payment by $92.63 for LUPA episodes that occur as the first or only episode in a sequence of adjacent episodes.

Comment: Several commenters asked that NRS supplies, particularly catheters and ostomy supplies, be reimbursed as part of the LUPA payment. One suggested that we develop a NRS add-on using diagnostic categories. Others noted that some LUPAs require wound care supplies or chest drains. Several commenters believed that we proposed to remove the NRS payment from LUPAs and asked that we reconsider this proposal. One suggested we reimburse HHAs 200 percent of the supply cost to cover overhead or establish a fee schedule that lists out reimbursement rates for medical supplies.

Response: LUPA episodes are paid on a per-visit basis. Currently LUPA payments include NRS paid under a home health plan of care, NRS possibly unbundled to Part B, and a per-visit ongoing OASIS reporting adjustment. Moreover, contrary to the commenters' statements, the original 2000 NRS amount of $1.94 included in the LUPA per visit rates has been updated annually and has not been removed. Furthermore, our analysis of NRS showed that NRS charges for non-LUPA episodes are almost 3 times higher than for LUPA episodes. In the proposed rule, we expressed concerns that adding an additional amount to LUPA payments for NRS could promote increases in medically unnecessary home health episodes, and therefore did not propose any additional payments for NRS costs for LUPA episodes (72 FR 25430.)

An analysis of a 20-percent sample of home health episodes covering more than 3 years of experience with HH PPS revealed that there were approximately 179,845 LUPA episodes. While some LUPA patients were in high severity groups, overall LUPA patients had somewhat lower clinical and functional severity. These data indicated that LUPAs are serving as a low-end outlier payment for certain episodes that incur unexpectedly low costs. Other LUPA episodes result from expected care patterns for patients with particular conditions (for example, neurogenic bladder).

Section 1861(m)(5) of the Act, specifically, includes catheters, catheter supplies, and ostomy bags and supplies as a covered home health supply. They are considered to be non-routine in nature, and are bundled into the HH PPS payment rates. Catheters and catheter supplies are on our list of NRS codes subject to consolidated billing which is posted on CMS's home health Web Site at *http://www.cms.hhs.gov/center/hha.asp* (go to ''Billing/Payment'', and then ''Home Health Coding and Billing'').

Comment: While there was widespread support for the revised LUPA payment, many commenters asked that the additional $92.63 apply to all LUPAs and not just to the first and only LUPA or the initial LUPA in a series of adjacent episodes. A number of commenters noted that the reimbursement still does not cover the costs of LUPA episodes and suggested increasing the payments further.

Response: The proposed additional payment of $92.63 was intended to cover the front-loading of costs which occurs in an initial assessment in a LUPA episode. We analyzed LUPA episodes and found that the average visit length for nursing for an initial assessment averaged twice as long as the length of other visits. Similarly, the initial assessment visit made by a physical therapist was 25 percent longer than other physical therapy visits. We did not find that all visits in LUPA episodes were longer than average, and as such, we proposed to provide the additional $92.63 only for those LUPAs that are the first in a series of adjacent episodes or the only episode. After updating the payment model using 2005 data and re-analyzing the characteristics of all LUPAs, the results continue to support providing a revised payment for LUPA episodes, but only for those that occur as the first episode in a sequence of adjacent episodes or the only episode. Using the updated 2005 data, the additional revised payment for first episode LUPAs or the only episode is $87.93.

Comment: We received universal support for the revised LUPA payment, but several commenters noted that due to treatment timing, HHA clinicians often must make an additional, non-chargeable visit for the sole purpose of completing an OASIS follow-up assessment in the required 5-day window or for a recertification visit. These can occur with catheter and vitamin B–12 patients. The commenters claimed the costs for these visits are not captured in claims data as HHAs are prohibited from billing for assessment-only visits. Again, this claim often occurs with catheter patients. Another commenter noted that CMS only included an estimate of additional minutes of direct service cost for assessment in its LUPA cost calculation, rather than the entire administrative cost the agency bears. Another noted that our analysis may have been influenced by data issues in industry cost reports. One commenter asked for higher reimbursement for acute patients who cannot remain at home and become a LUPA patient through no fault of the HHA.

Response: We derived a revised final value for the increase to LUPA episodes that occur as the only episode or the initial episode during a sequence of adjacent episodes from a new data base consisting of visit line items from a large, representative sample of claims in 2005. This method enabled us to measure the entire excess of minutes due to both OASIS and administrative activities of the type cited in the comment. This database showed that the average excess of minutes for the first visit in episodes that were single LUPAs or initial LUPAs in a sequence of episodes was 38.5 for the first visit if skilled nursing, 25.1 for the first visit if physical therapy, and 22.6 for the first visit if speech therapy. We then expressed these excess values as a proportion of the average number of minutes for all nonfirst visits in non-LUPA episodes (42.5, 45.6, and 48.6 for skilled nursing, physical therapy, and speech therapy, respectively). We then proportionately inflated the per-visit payment, using LUPA per-visit payment

rates, in accordance with these excess values. Finally, using an appropriate set of weights representing the share of LUPA first visits for skilled nursing (77.8 percent), physical therapy (21.7 percent), and speech therapy (0.5 percent), respectively, we calculated the revised increase of $87.93 for LUPA episodes that occur as the only episode or the initial episode during a sequence of adjacent episodes. We did not use cost reports in computing the LUPA revised payment amount. We also do not take into account the underlying reasons leading to a LUPA.

Comment: Several commenters were unclear about how we propose to identify the timing of a LUPA episode as an only episode or initial episode in a series of adjacent episodes. Another noted commenter believed that the LUPA continuing episode will be determined from claims data where the start-of-care date is the same as the ''from'' date.

Response: A LUPA episode is 60 days long. An initial episode is an episode in which a gap of greater than 60 days exists before the from-date of that LUPA episode. A LUPA episode that exists as an only episode is an episode with a gap of greater than 60 days both before the beginning and after the end of the LUPA episode. LUPAs, other than only episodes, would be considered as adjacent episodes to other episodes if no more than 60 days occur between the end of one episode and the beginning of the next, except for those episodes that have been PEP-adjusted.

Comment: A commenter noted that the LUPA payments cover about half the costs of rural agencies, and asked that we increase LUPA payment rates, particularly for rural agencies.

Response: The per-visit rates used for payment of LUPA episodes and used in the outlier calculation are based on visit cost data from audited cost reports. We believe this to be the most appropriate and accurate data on which to base these rates. Currently, there exists no rural add-on for home health services provided in a rural area. However, LUPA payments are wage adjusted to account for geographic differences.

Comment: Several commenters noted that the home health industry had not billed for supplies or kept good records of supplies used, and that this contributed to the difficulty in analyzing NRS use in general and in LUPA episodes. One commenter suggested that billing for non-routine medical supplies, specifying the type of supply and quantity, should be made mandatory for all episodes and LUPAs to gather data for future evaluation of diagnosis and rates of payment. The commenter also wanted it made mandatory for all episodes and LUPAs to support any request for payment based upon severity scores and severity levels, or such payment will be negated. Another commenter suggested we require that supplies be charged on claims in order to receive NRS payment.

Response: We will continue to study supply use, and will make improvements to our method of accounting for NRS costs as the data warrant. We encourage HHAs to develop in-house mechanisms to improve their supply tracking, and to report supplies used on their claims. In section III.C.4, we address the mandatory reporting of supplies.

Comment: A commenter noted that CMS has determined that later episodes cost 7 percent more, but has chosen not to differentiate early and later LUPA episodes. The commenter questioned data that increases payment for one payment type and does not do the same for another payment type.

Response: Providing for an additional payment for initial and only LUPA episodes is actually similar to the concept of early and later episodes proposed for the full 60-day episode payment. The results of data analysis done on LUPA episodes did not support providing a revised payment for LUPA episodes that exist as the second or subsequent LUPA episode in a sequence of adjacent episodes, as the case-mix model does for all other types of episodes. Instead, data do support a revised payment for initial and only LUPA episodes.

Comment: While we received widespread support for the revised LUPA payment, a commenter noted that the analysis focused principally on nursing and physical therapy visits for LUPAs. The commenter encouraged CMS to examine the presence of other home health service visits (social service, occupational or speech therapy) to ensure that the proposed payment amount recognizes all service costs incurred with these initial visits.

Response: LUPA episodes average approximately 2.5 visits. In an initial or only LUPA episode, the first billable visit for the episode must be a skilled visit. Consequently, the first visits of an initial or only LUPA episode would be either nursing or physical or speech therapy visits. It is these start of care nursing and physical or speech therapy visits that occur when the case is opened and the initial assessment takes place, that are longer than the average visit length. Consequently, we believe it appropriate to base the revised payment for initial and only LUPA episodes on nursing and physical or speech therapy visit rates.

To summarize, additional analysis did not support that all LUPA episodes are negatively impacted by the front-loading of assessment costs and administrative costs. Consequently, for this final rule, we are implementing the proposed provision of paying a revised payment amount to LUPA episodes that occur as the only episode or the first episode in a sequence of adjacent episodes. That additional amount has been calculated to be $87.93, for CY 2008. To account for the additional payment to LUPA episodes that occur as the first episode in a sequence of adjacent episodes or as the only episode, and maintain budget neutrality, we reduce the national standardized 60-day episode payment rate.

3. The Significant Change in Condition (SCIC) Adjustment

In the proposed rule, for 2008, we proposed to eliminate our SCIC policy, which allowed an HHA to adjust payment when a beneficiary experiences a SCIC during the 60-day episode that was not envisioned in the original plan of care. The SCIC policy was designed and implemented primarily to protect HHAs from receiving a lower, inadequate payment for a beneficiary who unexpectedly got worse and became more expensive to the agency during the course of a 60-day episode. Our margin analysis suggested that, on average, SCIC episodes had negative margins. We proposed to eliminate the SCIC policy based on the findings of our analysis and the apparent difficulty the industry had in interpreting when to apply the SCIC adjustment policy. For a full description of the SCIC review and analysis, see CY 2008 HH PPS proposed rule (72 FR 25425–25426).

Comment: Several commenters were concerned that with the elimination of the SCIC, there would be no avenue for reimbursement of supplies that were needed as a result of a change in condition. Some commenters used the example of a home health patient admitted with an unobservable pressure ulcer or surgical wound. The ulcer or wound cannot be staged if it is unobservable, leaving the HHA with a minimum HHRG and large supply expenses; the care needs greatly increase when stageable. One commenter asked for a simplified supply SCIC to cover unanticipated supply costs that occur when a patient's condition changes.

Response: As noted in a response to a comment in section III.B.8, currently, the OASIS guidelines for M0460 do not

allow a pressure ulcer with any eschar to be staged. We are aware of recent revisions issued by the National Pressure Ulcer Advisory Panel, (NPUAP). Essentially, the NPUAP guidance permits the assessment of a wound for staging when the wound bed is not completely covered with eschar or slough. If the bed of the ulcer is completely covered with eschar/slough, NPUAP guidance stipulates that the wound cannot be staged until some of the necrotic tissue is removed. After reviewing the NPUAP guidance, we have revised the instructions accompanying this OASIS item to allow a wound to be staged if the bed of the wound is partially covered by necrotic tissue and if the presence of eschar does not obscure the depth of the tissue loss. We hope this encourages HHAs to properly treat pressure ulcers and promote their healing. We believe this will allow for accurate payment for home health patients with wounds that are partially covered with eschar/slough.

Comment: A majority of commenters appreciated the concept behind the SCIC, but supported our decision to eliminate the SCIC, citing complexity and administrative burden.

Response: We appreciate the support for our proposal to eliminate the SCIC adjustment.

Comment: Several commenters noted that if the SCIC is eliminated, completion of an ''Other Follow-up'' OASIS will not be necessary for payment purposes. However, the Medicare home health CoPs requires completion of the ''Other Follow-up'' OASIS when there is a SCIC. The commenters stated that completion of these assessments has been problematic, inconsistent, and burdensome for HHAs, partly because of limited guidance from CMS regarding the kinds of clinical changes that require a new comprehensive assessment. Specifically, when a patient does have a change in condition, the plan of care is updated by contacting the physician and recording verbal/phone orders. This action by HHAs is not dependent on completion of the OASIS. Additionally, collection and submission of OASIS data at this time point often masks improvement made in the patient's condition before the SCIC. Outcomes measures based on the follow-up comprehensive assessment are likely to show less improvement than a comparison of the patient at start of care and discharge. The commenters recommended that this Condition of Participation be eliminated.

Response: We appreciate the comments regarding the significant change in condition (SCIC) assessment. We note our proposal was limited to eliminating the SCIC payment adjustment from the HH PPS. Currently, the assessment used in SCIC situations is used in the quality monitoring aspect of the OASIS. This assessment is a requirement integrated into the CoPs, found at § 484.18(b), and therefore any change to the CoP requirement is beyond the scope of this payment rule.

Comment: A commenter suggested that the adjustment to the national standardized 60-day episode payment of $15.71 for the elimination of the SCIC was incorrect. The commenter suggested that since SCICs have little impact on outlays (0.5 percent of total payments regardless of urban/rural status, ownership, or size) the calculation should have been $2,521.17 × 0.5 percent = $12.64 rather than the $15.71 quoted in the proposed rule and asked that the national standardized 60-day episode payment be adjusted.

Response: The adjustments to the national standardized amount reflect our best estimates of the amount of the budget-neutral target that is allocated in order to account for elimination of the SCIC, the LUPA add-on, and other refinements that are taken as offsets to the national standardized amount. The estimates of the cost of these adjustments also reflect the interaction of the outlier payments with other payment elements during the simulation.

Comment: A commenter suggested that the SCIC adjustment not be eliminated. Another asked that we withdraw our proposal to remove the SCIC until there had been time to review the other changes resulting from the refinement.

Response: The SCIC policy was designed and implemented primarily to protect HHAs from receiving a lower, inadequate payment for a beneficiary that unexpectedly got worse and became more expensive to the agency during the course of a 60-day episode. Our examination of the SCIC adjustment confirmed industry comments that HHAs have had difficulty applying the SCIC policy, and that margin analysis, on average, shows that SCIC episodes have negative margins. We believe that it is now appropriate to remove the SCIC payment adjustment from HH PPS and that the proposed refinement changes would not have had a significant impact on the SCIC payment policy.

In summary, based in part, upon comments received, as well as our continued analysis of this issue, we are finalizing our proposal to eliminate the SCIC adjustment policy. To account for the elimination of the SCIC adjustment, and to maintain budget neutrality, we reduce the national standardized 60-day episode payment rate. As such, we are revising 42 CFR 484.205, 484.237, and 484.240 to remove all references to the SCIC adjustment.

4. Non-Routine Medical Supplies (NRS)

To ensure that the variation in non-routine supplies is more appropriately reflected in HH PPS, we proposed to replace the original portion ($43.54) of the HH PPS base rate that accounted for NRS, with a system that pays for non-routine supplies based on 5 severity groups. The classification algorithm is based on selected OASIS assessment items, similar to the way the clinical model was developed. We noted we believed the original amount of $43.54 (updated through 2008) per episode that accounts for NRS does not accurately reflect the large variation in non-routine medical supplies use across patient type. In general, use of non-routine medical supplies is unevenly distributed across episodes of care in home health. Specifically, we found that patients with certain conditions, many of them related to skin conditions, were more likely to require high non-routine medical supply utilization. For a complete description of our analysis and research, we refer readers to the CY 2008 HH PPS proposed rule (72 FR 25426–25434).

Comment: Several commenters noted that conditions that generate high NRS costs are not accounted for in the NRS weights. They asked that NRS diagnoses include catheters, enteral nutrition, chest drains, gastrointestinal tubes, and an expanded list of ostomy supplies. Some commenters noted that wound supply payments are still inadequate. Commenters asked that the proposed case-mix model be changed to allow scoring for these items, and that payment for these items be increased beyond what is proposed in the rule.

Response: Section 1861(m)(5) of the Act defines home health services and specifically lists catheters, catheter supplies, ostomy bags and ostomy supplies as medical supplies. Accordingly, catheters and catheter supplies and bowel ostomy supplies are already included as covered NRS in the proposed rule. We also expanded the NRS listing of ostomy supplies to include those for cystostomy, tracheostomy, and urostomy.

The proposed rule notes that enteral and parenteral nutrition are Part B services not covered by the home health benefit and not defined as non-routine supplies. The Medicare coverage guidelines for enteral nutrition are

included in the proposed rule, along with a table of ''Enteral Items and Services'' which includes the HCPCS codes needed for billing. The table includes codes for tubing and other supplies needed for administering enteral nutrition. If a home health patient needs enteral nutrition and meets the criteria for coverage, providers may claim reimbursement by using the UB–92 claim form. Payment is then made by the RHHI under the Part B Medicare Fee Schedule, rather than through the home health benefit.

Comment: Most commenters believed that NRS supplies are underreported; the industry is grappling with an efficient mechanism to consistently capture the supplies used. While most commenters appreciated our proposed increase in our approach to better account for NRS payments, many noted that the analysis was based on incomplete information that inadequately reflects the providers' true costs. One commenter suggested that CMS consider requiring agencies to report supply costs if they wish to receive reimbursement above the first severity level. Without such a requirement, agencies that fail to make the effort to identify and report these costs will receive the same advantages as those that do, and would have an unfair result.

CMS was also encouraged to continue studying the NRS issue as the compensation can fall far short of what agencies expend for their most supply-intensive patients.

Response: We appreciate the commenter's concern that without a requirement for HHAs to report NRS on the claim, those agencies that fail to make the effort to identify and report NRS costs will receive the same considerations for payment as those that do report NRS. We believe that it is imperative that HHAs report these supplies on their claims so that we can improve the accuracy of our system and better reflect costs when paying for NRS.

We have consistently encouraged home health agencies to develop in-house mechanisms to improve their supply tracking, and to report supplies used on their claims. Our data for 2003 indicate that the percentages of agencies not reporting supplies on claims to be similar to percentages that existed during the HH IPS baseline. We are concerned with the commenter's assertion that NRS supplies are underreported, and the limitations this underreporting puts on any future work towards refining payment to HHAs for providing NRS. To adequately account for and pay for NRS costs, we expect that HHAs will report NRS costs on their claims. To ensure that NRS costs are being reported, claims that do not report NRS costs, unless explicitly noted by the HHA that NRS was not provided, will be returned to the provider (RTP). For episodes in which NRS was provided, the provider will need to resubmit the claim with NRS reported. For episodes in which NRS was not provided, the HHA will need to explicitly note that fact on the claim. We will allow a grace period, which will be determined and communicated in instructions from CMS. This will provide stronger incentives to HHAs to report NRS, resulting in more accurate NRS data for possible future refinements to this aspect of the HH PPS. We will continue to study supply use, and will make improvements to how we account for and pay for NRS as the data warrant.

Comment: A commenter is concerned that the bundling of NRS in a budget-neutral system will continue to create a growing payment disparity as new and more expensive technologies are applied to home care. Each year, new supplies are added to the HH PPS bundle that did not exist when the baseline was established for HH PPS. The commenter urged CMS to freeze NRS codes that are currently bundled and unbundle new NRS technology from HH PPS as it emerges. Another commenter asked that NRS be reimbursed through the DME fee schedule.

Response: We appreciate the concern about supply costs and particularly about the cost of new technologies. If agencies will report these supplies on their claims, the costs of supplies, including new technologies, will be captured in future data analyses. Section 1895 of the Act, as added by section 4603(a) of the Balanced Budget Act of 1997, provided the authority for the development of a HH PPS for all Medicare-covered home health services paid on a reasonable cost basis. Section 1895(b)(1) of the Act requires the Secretary to establish a HH PPS for all costs of home health services, including medical supplies. Therefore, medical supplies are bundled into the HH PPS payment, as required by the statute, and are subject to consolidated billing. DME, on the other hand, was explicitly statutorily excluded from consolidated billing.

Comment: Several commenters were concerned that the proposed model for reimbursing NRS has poor performance and a low R-squared of 13.7 percent. The commenter cited industry difficulties in reporting supply costs, and high supply costs for particular diagnoses. One commenter noted that their RHHI could not process supply lines on claims for an unspecified period of time. Several commenters mentioned high supply costs for particular items, such as chest drains, which can cost $500 to $600 per month. Commenters asked that CMS abandon the NRS supply model as proposed as it would underpay HHAs for supplies used.

Response: In general, we acknowledge NRS use is unevenly distributed across episodes of care in home health. While most patients do not use NRS, many use a small amount, and a small number of patients use a large amount. It is important to note that while Durable Medical Equipment (DME) is covered under the home health benefit, such items are not included in the HH PPS payment and thus can be billed for separately either by the HHA or a DME supplier and are not subject to home health consolidated billing. In developing the proposed approach for NRS payment, we sought to more accurately match Medicare payments for NRS to agency costs. The proposed and final regression models were developed after creating additional variables from OASIS items and targeting certain conditions expected to be predictors of NRS use based on clinical considerations. The sample only included HHAs whose total charges on claims matched their total charges on their cost reports for that same year, and thus, any issues with RHHI processing did not impede the analysis.

Since the proposed rule, we updated our data base for the NRS analysis to be representative of episodes from 2004 and 2005. This analysis relies on cost reports to derive cost-to-charge ratios for estimating NRS costs on claims, and the latest data available incorporated 2004 cost reports. The results of modeling the NRS costs are shown in the scoring table, Table 10A. Since updating the data base, we have added several new variables, such as diabetic ulcers, and re-specified the treatment of certain wound variables (for example, counts and stages of pressure ulcers) in the final model.

We explored the concern that the proposed 5th severity group level did not provide adequate reimbursement for episodes with a high-utilization of NRS. In response to those comments, and as a result of further analysis, we are implementing a system that pays for non-routine supplies based on 6 severity groups. The 6th group is a subset of the previously proposed 5th group. Our analysis revealed that a small percentage of cases in the proposed 5th severity group may not have adequately reflected the resources required for

providing care in this group. Consequently, in recognizing that a small percentage of episodes incur higher costs than the majority of episodes in the 5th severity group, we split the small percentage of high cost NRS cases from the 5th severity group to form a 6th severity group. Under the final 6 severity NRS approach, the 6th severity level is associated with a higher score and higher payment than any of the severity levels in the proposed rule.

The R-squared for this final model is 16.6 percent. The sample was trimmed to eliminate outliers, where outliers were defined to be episodes with NRS costs estimated to be $3,500 or higher. The trimming procedure resulted in a small loss from the total sample size. A total of 2,653 episodes were excluded (less than 0.09 percent) out of a total sample of 2,974,678 episodes. Our sample for the NRS analysis consisted of all agencies whose total charges reported on claims matched their total charges reported in the cost reports, but as these trimming requirements show, the resulting sample included a relative few questionable sample data points. We believe the final regression model represents the relationships between case-mix and NRS cost among a highly representative sample of episodes and agencies nationally.

While we have not yet developed a statistical model that has performed with a high degree of predictive accuracy, we believe this may due to the limited data available to model NRS costs, and the likelihood that OASIS does not have any measures available for some kinds of NRS. Notwithstanding these concerns, we are changing the payment system because the majority of episodes do not incur any NRS costs, and the current payment system overcompensates these episodes. The final NRS approach better matches NRS payments with NRS costs incurred in the episode. We will continue to look for ways to improve our approach to account for NRS.

Comment: Several commenters noted that the NRS analysis was based on 1997 costs rather than more recent data; one suggested using 2005 data. Another suggested that we tie annual increases in supply costs to a medical supply inflation index.

Response: The analysis file used to develop the proposed NRS case-mix model for the proposed rule was based on 2001 cost reports. The cost reports were then linked to claims to determine the cost-to-charge ratios, which were used to estimate NRS costs for the episodes in the sample. For this final rule, we updated the database upon which our payment proposal for NRS was based to use 2004 and 2005 data. Again, to refine payments for NRS will depend on the quality of the data available in claims and costs reports for succeeding years. We note we are revising our NRS policy to require HHAs to specifically note on submitted claims NRS in any episode in which a NRS is provided.

Comment: A commenter asked that HHAs only be responsible for providing NRS for those conditions that are included in the plan of care.

Response: The plan of care is to be established and periodically reviewed by the patient's physician. The CoPs for HHAs in 42 CFR 484.18 state that ''the plan of care developed in consultation with the agency staff covers all pertinent diagnoses, including mental status, types of services and equipment required, frequency of visits, prognosis, rehabilitation potential, functional limitations, activities permitted, nutritional requirements, medications and treatments, any safety measures to protect against injury, instructions for timely discharge or referral, and any other appropriate items.'' Accordingly, because the CoPs require that all pertinent diagnoses are included on the plan of care, the plan of care should include any conditions for which NRS is necessary for the treatment of those diagnoses, and NRS should be provided and reported being supplied.

Comment: Several commenters asked for additional diagnoses codes to be included in the NRS supply list. A few asked for V44.0–V.44.9 specifically. While they appreciate the attempt to improve NRS payment, several commenters noted that the payments are still inadequate.

Response: We tested selected stoma V-codes mentioned by the commenter. We selected codes for testing that were not already represented by other variables in the model. The final NRS model reflects additional conditions for scoring, when reported using the selected V-codes. We also believe under our final 6 severity group methodology, HH PPS will better reflect the NRS costs and usage.

In summary, we are implementing a 6 severity group methodology for the paying of NRS in the HH PPS, as shown in Table 9 below. We believe that adding a 6th severity group better recognizes episodes with higher NRS costs. To account for paying of NRS through the implementation of a 6-severity group methodology, and to maintain budget neutrality, we reduce the national standardized 60-day episode payment rate.

TABLE 9. RELATIVE WEIGHTS FOR NON-ROUTINE MEDICAL SUPPLIES—SIX-GROUP APPROACH

Severity level	Percentage of episodes	Points (scoring)	Relative weight	Payment amount
1	63.7	0	0.2698	$14.12
2	20.6	1 to 14	0.9742	51.00
3	6.7	15 to 27	2.6712	139.84
4	5.4	28 to 48	3.9686	207.76
5	3.2	49 to 98	6.1198	320.37
6	0.3	99+	10.5254	551.00

Note: NRS conversion factor = $52.35. The NRS conversion factor is the market-basket-updated amount CMS originally included in the HH PPS episode base rate ($49.62), after adjustment for nominal change in case-mix.

We have also included the final versions of Table 10A and Table 10B below.

TABLE 10A.—NRS CASE-MIX ADJUSTMENT VARIABLES AND SCORES

Item	Description	Score
	SELECTED SKIN CONDITIONS	
1	Primary diagnosis = Anal fissure, fistula and abscess	15
2	Other diagnosis = Anal fissure, fistula and abscess	13
3	Primary diagnosis = Cellulitis and abscess	14
4	Other diagnosis = Cellulitis and abscess	8
5	Primary or other diagnosis = Diabetic ulcers	20
6	Primary diagnosis = Gangrene	11
7	Other diagnosis = Gangrene	8
8	Primary diagnosis = Malignant neoplasms of skin	15
9	Other diagnosis = Malignant neoplasms of skin	4
10	Primary or Other diagnosis = Non-pressure and non-stasis ulcers	13
11	Primary diagnosis = Other infections of skin and subcutaneous tissue	16
12	Other diagnosis = Other infections of skin and subcutaneous tissue	7
13	Primary diagnosis = Post-operative Complications	23
14	Other diagnosis = Post-operative Complications	15
15	Primary diagnosis = Traumatic Wounds and Burns	19
16	Other diagnosis = Traumatic Wounds and Burns	8
17	Primary or other diagnosis = V code, Cystostomy care	16
18	Primary or other diagnosis = V code, Tracheostomy care	23
19	Primary or other diagnosis = V code, Urostomy care	24
20	OASIS M0450 = 1 or 2 pressure ulcers, stage 1	4
21	OASIS M0450 = 3+ pressure ulcers, stage 1	6
22	OASIS M0450 = 1 pressure ulcer, stage 2	14
23	OASIS M0450 = 2 pressure ulcers, stage 2	22
24	OASIS M0450 = 3 pressure ulcers, stage 2	29
25	OASIS M0450 = 4+ pressure ulcers, stage 2	35
26	OASIS M0450 = 1 pressure ulcer, stage 3	29
27	OASIS M0450 = 2 pressure ulcers, stage 3	41
28	OASIS M0450 = 3 pressure ulcers, stage 3	46
29	OASIS M0450 = 4+ pressure ulcers, stage 3	58
30	OASIS M0450 = 1 pressure ulcer, stage 4	48
31	OASIS M0450 = 2 pressure ulcers, stage 4	67
32	OASIS M0450 = 3+ pressure ulcers, stage 4	75
33	OASIS M0450e = 1 (unobserved pressure ulcer(s))	17
34	OASIS M0470 = 2 (2 stasis ulcers)	6
35	OASIS M0470 = 3 (3 stasis ulcers)	12
36	OASIS M0470 = 4 (4+ stasis ulcers)	21
37	OASIS M0474 = 1 (unobservable stasis ulcers)	9
38	OASIS M0476 = 1 (status of most problematic stasis ulcer: fully granulating)	6
39	OASIS M0476 = 2 (status of most problematic stasis ulcer: early/partial granulation)	25
40	OASIS M0476 = 3 (status of most problematic stasis ulcer: not healing)	36
41	OASIS M0488 = 2 (status of most problematic surgical wound: early/partial granulation)	4
42	OASIS M0488 = 3 (status of most problematic surgical wound: not healing)	14
	OTHER CLINICAL FACTORS	
43	OASIS M0550 = 1 (ostomy not related to inpt stay/no regimen change)	27
44	OASIS M0550 = 2 (ostomy related to inpt stay/regimen change)	45
45	Any 'Selected Skin Conditions' (rows 1–42 above) AND M0550 = 1 (ostomy not related to inpt stay/no regimen change).	14
46	Any 'Selected Skin Conditions' (rows 1–42 above) AND M0550 = 2 (ostomy related to inpt stay/ regimen change).	11
47	OASIS M0250 (Therapy at home) =1 (IV/Infusion)	5
48	OASIS M0520 = 2 (patient requires urinary catheter)	9
49	OASIS M0540 = 4 or 5 (bowel incontinence, daily or >daily)	10

Note: Points are additive, however points may not be given for the same line item in the table more than once. Points are not assigned for a secondary diagnosis if points are already assigned for a primary diagnosis from the same diagnosis/condition group. See Table 12b for definitions of diagnosis/condition groups.

Please see Medicare Home Health Diagnosis Coding guidance at *http://www.cms.hhs.gov/HomeHealthPPS/03_coding&billing.asp* for definitions of primary and secondary diagnoses.

TABLE 10B.—ICD–9–CM DIAGNOSES INCLUDED IN THE DIAGNOSTIC CATEGORIES FOR THE NONROUTINE SUPPLIES (NRS) CASE-MIX ADJUSTMENT MODEL

Diagnostic Category	ICD–9–CM Code*	Manifestation	Short Description of ICD–9–CM Code
Anal fissure, fistula and abscess	565		ANAL FISSURE AND FISTULA.

TABLE 10B.—ICD–9–CM DIAGNOSES INCLUDED IN THE DIAGNOSTIC CATEGORIES FOR THE NONROUTINE SUPPLIES (NRS) CASE-MIX ADJUSTMENT MODEL—Continued

Diagnostic Category	ICD–9–CM Code*	Manifestation	Short Description of ICD–9–CM Code
	566		ABSCESS OF ANAL AND RECTAL REGIONS.
Cellulitis and abscess	681.00		FINGER—CELLULITIS AND ABSCESS, UNSPECIFIED.
	681.01		FELON.
	681.10		TOE—CELLULITIS AND ABSCESS, UNSPECIFIED.
	681.9		CELLULITIS AND ABSCESS OF UNSPECIFIED DIGIT.
	682		OTHER CELLULITIS AND ABSCESS.
Diabetic Ulcers	250.8x & 707.10–707.9.		(PRIMARY OR FIRST OTHER DIAGNOSIS = 250.8x AND PRIMARY OR FIRST OTHER DIAGNOSIS = 707.10- 707.9).
Gangrene	440.24		ATHERSCLER-ART EXTREM W/GANGRENE.
	785.4	M	GANGRENE.
Malignant neoplasms of skin	172		MALIGNANT MELANOMA OF SKIN.
	173		OTHER MALIGNANT NEOPLASM OF SKIN.
Non-pressure and non-stasis ulcers (other than diabetic).	440.23		ATHEROSCLER-ART EXTREM W/ULCERATION.
	447.2		RUPTURE OF ARTERY.
	447.8		OTHER SPECIFIED DISORDERS OF ARTERIES AND ARTERIOLES.
	707.10		ULCER OF LOWER LIMB, UNSPECIFIED.
	707.11		ULCER OF THIGH.
	707.12		ULCER OF CALF.
	707.13		ULCER OF ANKLE.
	707.14		ULCER OF HEEL AND MIDFOOT.
	707.15		ULCER OF OTHER PART OF FOOT.
	707.19		ULCER OF OTHER PART OF LOWER LIMB.
	707.8		CHRONIC ULCER OTHER SPECIFIED SITE.
	707.9		CHRONIC ULCER OF UNSPECIFIED SITE.
Other infections of skin and subcutaneous tissue.	680		CARBUNCLE AND FURUNCLE.
	683		ACUTE LYMPHADENITIS.
	685		PILONIDAL CYST.
	686		OTH LOCAL INF SKIN&SUBCUT TISSUE.
Post-operative Complications	998.11		HEMORRHAGE COMPLICATING A PROCEDURE.
	998.12		HEMATOMA COMPLICATING A PROCEDURE.
	998.13		SEROMA COMPLICATING A PROCEDURE.
	998.2		ACC PUNCT/LACERATION DURING PROC NEC.
	998.4		FB ACC LEFT DURING PROC NEC.
	998.6		PERSISTENT POSTOPERATIVE FIST NEC.
	998.83		NON-HEALING SURGICAL WOUND NEC.
Traumatic wounds, burns and post-operative complications.	870		OPEN WOUND OF OCULAR ADNEXA.
	872		OPEN WOUND OF EAR.
	873		OTHER OPEN WOUND OF HEAD.
	874		OPEN WOUND OF NECK.
	875		OPEN WOUND OF CHEST.
	876		OPEN WOUND OF BACK.
	877		OPEN WOUND OF BUTTOCK.
	878		OPEN WND GNT ORGN INCL TRAUMAT AMP.
	879		OPEN WOUND OTH&UNSPEC SITE NO LIMBS.
	880		OPEN WOUND OF SHOULDER&UPPER ARM.
	881		OPEN WOUND OF ELBOW, FOREARM&WRIST.
	882		OPEN WOUND HAND EXCEPT FINGER ALONE.
	883		OPEN WOUND OF FINGER.
	884		MX&UNSPEC OPEN WOUND UPPER LIMB.
	885		TRAUMATIC AMPUTATION OF THUMB.
	886		TRAUMATIC AMPUTATION OTHER FINGER.
	887		TRAUMATIC AMPUTATION OF ARM&HAND.
	890		OPEN WOUND OF HIP AND THIGH.
	891		OPEN WOUND OF KNEE, LEG, AND ANKLE.
	892		OPEN WOUND OF FOOT EXCEPT TOE ALONE.
	893		OPEN WOUND OF TOE.
	894		MX&UNSPEC OPEN WOUND LOWER LIMB.
	895		TRAUMATIC AMPUTATION OF TOE.
	896		TRAUMATIC AMPUTATION OF FOOT.
	897		TRAUMATIC AMPUTATION OF LEG.
	941 except 941.0x and 941.1x.		BURN OF FACE, HEAD, AND NECK.
	942 except 942.0x and 942.1x.		BURN OF TRUNK.

TABLE 10B.—ICD–9–CM DIAGNOSES INCLUDED IN THE DIAGNOSTIC CATEGORIES FOR THE NONROUTINE SUPPLIES (NRS) CASE-MIX ADJUSTMENT MODEL—Continued

Diagnostic Category	ICD–9–CM Code*	Manifestation	Short Description of ICD–9–CM Code
	943 except 943.0x and 943.1x.		BURN OF UPPER LIMB, EXCEPT WRIST AND HAND.
	944 except 944.0x and 944.1x.		BURN OF WRIST(S) AND HAND(S).
	945 except 945.0x and 945.1x.		BURN OF LOWER LIMB(S).
	946.2		BURNS OF MULTIPLE SPECIFIED SITES, BLISTERS, EPIDERMAL LOSS [SECOND DEGREE].
	946.3		BURNS OF MULTIPLE SPECIFIED SITES, FULL-THICKNESS SKIN LOSS [THIRD DEGREE NOS].
	946.4		BURNS OF MULTIPLE SPECIFIED SITES, DEEP NECROSIS OF UNDERLYING TISSUES [DEEP THIRD DEGREE] WITHOUT MENTION OF LOSS OF A BODY PART.
	946.5		BURNS OF MULTIPLE SPECIFIED SITES, DEEP NECROSIS OF UNDERLYING TISSUES [DEEP THIRD DEGREE] WITH LOSS OF A BODY PART.
	998.31		DISRUPTION OF INTERNAL OPERATION WOUND.
	998.32		DISRUPTION OF EXTERNAL OPERATION WOUND.
	998.51		INFECTED POSTOPERATIVE SEROMA.
	998.59		OTHER POSTOPERATIVE INFECTION.
V-code, Cystostomy Care	V55.5		CYSTOSTOMY—CARE.
V-code, Tracheostomy Care	V55.0		TRACHEOSTOMY—CARE.
V-code, Urostomy Care	V55.6		OTHER ARTIFICIAL OPENING OF URINARY TRACT-NEPHROSTOMY, URETEROSTOMY, URETHROSTOMY.

To ensure that NRS costs are being reported, claims that do not report NRS costs, unless explicitly noted by the HHA that NRS was not provided, will be returned to the provider (RTP). For episodes in which NRS was provided, the provider will need to resubmit the claim with NRS reported. For episodes in which NRS was not provided, the HHA will need to explicitly note that fact on the claim. We will allow a grace period, which will be determined and communicated in instructions from CMS. This will improve data on NRS, in the home health setting, providing us with better data with which to analyze and evaluate payment to HHAs for NRS in the future. We will monitor the accuracy of the 6-severity group methodology for payment of NRS. We will continue to monitor the accuracy and completeness of the reporting of NRS costs. Finally, we will explore alternative methods for accounting for NRS costs and payments in the future.

D. The Outlier Policy

As noted in section II, of this final rule with comment period, outlier payments are made for episodes for which the estimated cost exceeds a threshold amount and are intended to address home health episodes that incur unusually high costs due to patient health care needs. Section 1895(b)(5) of the Act requires that the estimated total outlier payments are no more than 5 percent of total estimated HH PPS payments. For a full description of our outlier policy, we refer to the CY 2008 HH PPS proposed rule (72 FR 25434–25435).

The wage adjusted fixed dollar loss (FDL) amount represents the amount of loss that an agency must bear before an episode becomes eligible for outlier payments. The loss sharing ratio is 0.80. As noted in the proposed rule, when the HH PPS system was implemented, we chose a value of 0.80 for the loss-sharing ratio and an FDL ratio of 1.13. In the October 2004 final rule, we revised the FDL ratio to 0.70, based on analysis of CY 2003 HH PPS data. We believed this updated FDL ratio of 0.70 preserved a reasonable degree of cost sharing, allowed a greater number of episodes to qualify for outlier payments, and yet did not result in a projected target percentage of estimated outlier payments of more than 5 percent.

Our CY 2006 update to the HH PPS rates, which was based upon CY 2004 HH claims data, again revised the FDL ratio from 0.70 to 0.65 to allow even more home health episodes to qualify for outlier payments and to better meet the estimated 5 percent target of outlier payments as a percentage of total HH PPS payments. In our CY 2007 update, we again changed the FDL ratio from 0.65 to 0.67 to better meet the 5 percent target of outlier payments to total HH PPS payments, and based the change on analysis of CY 2005 HH claims.

In the proposed rule (72 FR 25434), we stated that preliminary analysis showed that outlier payments, as a percentage of total HH PPS payments, have increased on a yearly basis. With outlier payments having increased in recent years, and given the unknown effects that the proposed refinements may have on outliers, we proposed to maintain the FDL ratio at 0.67. We believed that this would continue to meet the statutory requirement of having an outlier payment outlay that does not exceed 5 percent of total HH PPS payments, while still providing for an adequate number of episodes to qualify for outlier payments. We stated in the proposed rule that we would rely on the latest data and best analysis available at the time to estimate outlier payments and update the FDL ratio in the final rule if appropriate.

Comment: A commenter supported our proposed outlier policy but does not understand why it needs to be capped at 5 percent.

Response: The statute, at section 1895(b)(5) of the Act, limits estimated outlier payments to no more than 5 percent of the total estimated HH PPS payments during a given year.

Comment: Commenters stated that the fixed dollar loss (FDL) ratio should be

reduced since the 0.67 FDL ratio will not result in CMS spending the targeted 5 percent for outlier payments as a percentage of total estimated HH PPS payments. CMS should adjust its technique for calculating the FDL ratio by using its historical data on actual outlays.

Response: Given that outlier payments as a percentage of total HH PPS payments have increased in recent years and given the unknown effects of the proposed refinements, we proposed to maintain the FDL ratio at 0.67. At the time of the proposed rule, data indicated that by maintaining the FDL ratio at 0.67 we would continue to meet the statutory requirement that estimated outlier payments be no more than 5 percent of total estimated HH PPS payments, yet an adequate number of episodes would qualify for outlier payments. In the proposed rule, we indicated that preliminary analysis, which was based on 2003 data, showed the FDL ratio could be as low as 0.42.

The 2003 data used in Abt's modeling of the refined HH PPS for the proposed rule was somewhat limited in that it was not able to take into account more recent trends in actual outlier expenditures. Similarly, Abt's modeling of the refined HH PPS for this final rule is still somewhat limited in that it is not able to take into account the latest available data on actual outlier expenditures. Consequently, as we stated in the proposed rule, in the interest of using the latest data and best analysis available, we have performed supplemental analysis on more recent data in order to best estimate the FDL ratio.

When we revised the FDL from 1.13 to .70 in CY 2005, we expected to observe an increase in outlier payments as a percent of total payments to better meet our projected target percentage of not more than 5 percent. In addition, for CY 2006 and CY 2007 (with relatively stable FDLs of .65 and .67), we would have anticipated that outlier payments would have remained relatively stable and not exceed 5 percent of estimated HH PPS payments for each given year. Instead, experience has shown that outlier payments have been increasing as a percent of total payments from 4.1 percent in CY 2005 to 4.97 percent in CY 2006 and, we estimate, 5.33 percent in CY 2007. These increasing percents imply that the cost distribution of episodes is changing and that our estimates of the FDL need to account for these changes in order to better match experience and to not exceed the statutory limit of not more than 5 percent as a percentage of total estimated HH PPS payments.

The current model's estimate of the FDL ratio, using CY 2005 data, is 0.47. This is higher than the estimate from the FY 2003 data, which was 0.42, reflecting growth in the outlier percentage, as noted earlier. Given current trends, we estimate that we would exceed the 5 percent statutory limit on outlier payments using either the model's FDL ratio of 0.47, or the proposed FDL ratio of 0.67. In order to capture the most recent trends in the increase of outlier payments, and to appropriately account for seasonal differences that may exist in outlier episodes, we compared the percentage of outlier payments as a percentage of total HH PPS payments from the first quarter of CY 2006 (4.52 percent) and the first quarter of CY 2007 (4.85 percent). That estimated annual percentage increase in outlier payments is calculated to be 7.3 percent. We estimate the percentage of outlier payments for CY 2007 by multiplying 4.97 percent (the percentage of outlier payments for CY 2006) by 1.073 (the estimated annual percentage increase in outlier payments noted above) for an estimated percentage of outlier payments as a percent of total estimated HH PPS payments for CY 2007 of 5.33 percent. We multiply the 5.33 percent by 1.073, to estimate the percentage of outlier payments as a percent of total estimated HH PPS payments for CY 2008. That calculation results in an estimated percentage of outlier payments as a percent of total estimated HH PPS payments for CY 2008 of 5.7 percent.

We then analyzed the sensitivity of the percent of outlier payments to total payments to variations in the FDL ratio. Using simulations of the values of FDLs consistent with alternative outlier payment percents based on CY 2005 data (the latest data available for such an analysis), we used linear regression to estimate the change in the FDL ratio associated with a 1 percentage point change in the percent of outlier payments. That linear regression analysis shows that a one percentage point change in the outlier payment percentage is associated with a negative 0.31 change in the FDL ratio. That is, to reduce the percent of outlier payments by one percentage point, it would be necessary to increase the FDL ratio by 0.31.

Using this analysis we looked to see what adjustment, to the FDL ratio, would be appropriate in estimating outlier payments of up to but not more than 5 percent of total estimated HH PPS payments in CY 2008. As also mentioned above, we have estimated that with an FDL ratio of 0.67, outlier payments as a percentage of total estimated HH PPS payments are estimated to be approximately 5.7 percent. We take the 0.7 percent (the percentage amount in excess of the 5 percent target) and multiply it by 0.31 (the estimated amount of change in the FDL ratio for every one percentage point change in the outlier payment percentage), (0.7 * 0.31), resulting in a change in the FDL ratio of 0.22. We add that 0.22 change in the FDL ratio to the FDL ratio in effect in 2007 (0.67), arriving at a final FDL ratio of 0.89.

Based on this analysis, we believe that setting the FDL ratio at 0.89 would be the most prudent course given these trends and the unknown effects of the refinements on outliers. As previously stated, we further believe that a FDL ratio of 0.89 will continue to meet the statutory requirement of having an estimated outlier payment outlay that does not exceed the 5 percent of total estimated HH PPS payments, while still providing for an adequate number of episodes to qualify for outlier payments. As our best estimate is that an FDL of 0.89 is consistent with outlier payments of no more than 5.0 percent of total estimated HH PPS payments, we will account for the estimated 5 percent outlier payments in our updating of the HH PPS rates. We will continue to monitor the trends in outlier payments and the effects of the refinements, and will adjust the FDL ratio as needed.

Comment: Several commenters supported eliminating the outlier policy and redistributing the 5 percent outlier allocation, which has never been fully distributed anyway, in order to increase the standardized payment rates. The commenters believed that the outlier policy is disadvantageous to efficient and effective HHAs. Despite caring for very sick, resource intensive patients, some HHAs have never received any benefit from the outlier policy. The commenters suggested that redistributing the outlier allocation to the standardized payment rates would ensure a more effective use of the budgeted Medicare home health funds.

Another commenter suggested we reduce the maximum outlier payments as a percentage of total HH PPS payment from 5 percent to 1 percent.

Response: We appreciate the comment. However, we continue to believe that maintaining an outlier policy is beneficial to the home health community. We have set the loss sharing ratio and the fixed dollar loss amount in such a way to preserve a reasonable degree of cost sharing while allowing an appropriate number of episodes to qualify for outlier payments.

We disagree with the suggestion that we reduce the maximum outlier

percentage from 5 percent of total HH PPS payments to 1 percent. We believe that the current policy is more equitable, and that reducing the percentage could result in reducing access to home health care by high needs patients.

Comment: A commenter stated that the outlier policy is fiscally punitive to the HH industry and that it appears to be a back door mechanism to reduce payments to the industry. The commenter suggested eliminating the outlier policy and revising the standardized rates to include the 5 percent outlier allocation.

Response: Section 1895(b)(5) of the Act allows the Secretary to provide an adjustment to the case-mix and wage adjusted national 60-day episode payment amount when episodes incur unusually large costs due to patient home care needs. Section 1895(b)(5) of the Act further stipulates that the total outlier payments in a given year may not exceed 5 percent of total projected estimated HH PPS payments. Again, as stated above, we continue to believe that the benefit to the home health community of maintaining an outlier policy is consistent with the statute and outweighs not having an outlier policy.

Comment: One commenter asked that standards for the outlier provision be changed to allow agencies to recover their costs for those most expensive, high needs patients. This would encourage agencies to accept these cases and provide appropriate care.

Response: We appreciate the comment. Again, we believe we have set the loss sharing ratio and the fixed dollar loss amount in such a way as to preserve a reasonable degree of cost sharing while allowing an appropriate number of episodes to qualify for outlier payments. We also believe the FDL ratio will allow us to better meet the statutory percentage imposed on outlier payments.

Comment: A commenter wrote that it was unwise to dismiss the need to adjust the outlier threshold at the same time that an increase in HH PPS predictive power was being implemented via the refinements.

Response: Our proposal to keep the FDL at 0.67 for CY 2007 was based upon the most recent data analysis at that time, and the unknown effects of the HH PPS refinements on outlier payments. As noted above, further analysis and use of more recent and updated data has led us to revise the outlier FDL ratio.

In summary, since the publication of the CY 2008 HH PPS proposed rule, we have updated our analysis file, on which the Abt model is based, to include 2005 data. Using the best analysis and data available, including trend analysis and linear regression analysis described above, we have adjusted the current FDL ratio of 0.67 to 0.89. We believe that we have accounted for the latest observed trends in outlier payments, and incorporated the best analysis available to determine that an increase in the FDL ratio is necessary in order to continue to meet the statutory requirement of having an outlier payment outlay that does not exceed 5 percent of total HH PPS payments, while still providing for an adequate number of episodes to qualify for outlier payments.

Therefore, in this final rule we are implementing a FDL ratio of 0.89 for FY 2008. To account for an outlier policy that estimates outlier payments to be no more than 5 percent of total HH PPS payments, and to maintain budget neutrality, we reduce the national standardized 60-day episode payment rate. We are revising 42 CFR 484.240(b) (''Methodology used for the calculation of the outlier payment'') to remove references to the SCIC adjustment. We will continue to monitor trends in the data, along with the effects of the refinements, on outlier payments, and will update the FDL as needed. We will also continue to review the outlier payments using the administrative data we monitor yearly. Future reviews will consider the appropriateness of outlier payments in the entire context of the refinements being finalized in this regulation.

E. The Update of the HH PPS Rates

1. The Home Health Market Basket Update

Section 1895(b)(3)(B) of the Act, as amended by section 5201 of the DRA, requires for CY 2008 that the standard prospective payment amounts be increased by a factor equal to the applicable home health market basket percentage increase. The proposed rule contained a home health market basket percentage increase of 2.9 percent. Using revised updated data, we now estimate a home health market basket percentage increase of 3.0 percent for CY 2008.

2. The Rebasing and Revising of the Home Health Market Basket

In the proposed rule, we proposed to rebase and revise the home health market basket to ensure it continues to adequately reflect the price changes of efficiently providing home health services. Specifically, we proposed to update the home health market basket base year from 2000 to 2003. We also proposed to revise the home health market basket. For full description of our proposal to revise and rebase the home health market basket, we refer to the CY 2008 HH PPS proposed rule (72 FR 25435–25442). In the proposed revised and rebased home health market basket, the labor-related share would be 77.082 percent. The labor-related share includes wages and salaries and employee benefits. The proposed non labor-related share would be 22.918 percent. The increase in the labor-related share using the 2003-based home health market basket is primarily due to the increase in the benefit cost weight.

Comment: Several commenters objected to our proposal to change the labor-related share to 77.082 percent and requested that CMS maintain a labor-related share of 76.775 percent. One commenter noted that the higher labor-related share would have an adverse impact on reimbursement particularly for rural home health care providers who have wage indices of less than 1.0. The commenter proposed that CMS should withdraw its proposal to increase the labor-related share of the HH PPS rate.

Response: Since the inception of HH PPS, the home health labor-related share has been based on the sum of the weights for wages and salaries and fringe benefits of the home health market basket index. We also note the wage index is estimated independently from the labor-related share. The labor-related share is calculated based on data submitted on the home health Medicare cost reports for both rural and urban freestanding home health care facilities. The proposed change in the labor-related share is primarily attributable to the rebasing of the market basket from base year 2000 to 2003. The 2003 data, the most recent and comprehensive data available at the time of this rebasing, reflect that labor-related costs are increasing faster than aggregate non labor-related costs. Based on the submitted cost report data from 2001 to 2003, the weight for wages and salaries has been declining while the weight for fringe benefits has been increasing, thus driving the labor-related share higher overall. We believe the proposed 77.082 percent to be the most technically accurate measure of labor-related costs. We will continue to analyze HH cost report data on a regular basis to ensure it accurately reflects the cost structures facing HH providers serving Medicare beneficiaries.

Comment: Several commenters disagreed with the proposed market basket update for home health providers of 2.9 percent for CY 2008, which is lower than the proposed FY inpatient hospital and skilled nursing facility

(SNF) market basket updates. One commenter noted that the lower market basket update relative to other providers will have an adverse impact on the industry's ability to attract health care workers.

Response: The final HH market basket update for CY 2008 is 3.0 percent, which is based on Global Insight Inc.'s (GII) 2007 2nd quarter forecast, the most current forecast available at the time of publication of the final rule. The update in the proposed rule was based on GII's 2006 3rd quarter forecast. GII is a nationally recognized economic and financial forecasting firm that contracts with CMS to forecast the components of the market baskets. CMS calculates each market basket (both weight composition and price proxy selection) specific to the respective industry and independent of the other market baskets.

The HH PPS market basket measures the change in prices for an exhaustive list of categories that represent the inputs required to provide services to Medicare beneficiaries. The HH index weights are based on data reported on the Medicare cost report forms which provide actual cost share data specific to home health agencies. Likewise, the hospital and SNF market baskets are based on actual cost shares reported on their respective cost reports. Each cost category in all market baskets is matched to a price proxy that is determined to be the most technically appropriate price proxy for that category. For example, the HH wage price proxy measures price pressures specific to the occupational skill mix within the HH industry while the SNF wage price proxy measures price pressures specific to the skilled nursing facility industry.

We believe that HH compensation costs are accurately captured within the HH market basket. The associated weight is derived directly from the Medicare cost report data, which indicates that compensation in the HH industry is higher relative to that of other market industries. We believe this reflects the labor-intensive nature of the home health industry. Moreover, the indices used to proxy changes in the price of labor reflect the occupational mix of the laborers in the HH industry and are thus also technically appropriate.

Comment: Several commenters stated that HH providers face higher transportation costs than other types of providers which should be reflected in a higher market basket update.

Response: We believe HH transportation costs are accurately captured within the HH market basket. The transportation base year cost weight is derived from the data reported on the 2003 HHA Medicare cost reports. In determining the market basket percentage increase, these costs are proxied using the CPI for private transportation. Forecasts of this price proxy reflect the price changes of fuel, as well as other transportation costs such as vehicle purchase/lease, maintenance, repair, and insurance. We believe this is the most appropriate price proxy to use for transportation as home health providers face all aspects of vehicle expenses and as such, these costs are appropriately captured in the rebased and revised home health market basket.

Comment: Several commenters stated that the present wage structure does not provide adequate reimbursement for increased nursing and therapist wages. Additionally, one commenter suggested CMS should use data from the Bureau of Labor Statistics (BLS) for clinician costs.

Response: The current price proxy used for the compensation portion of the home health market basket was designed based on the occupational skill mix specific to the home health industry. The proxy accounts for all related compensation expenditures for an exhaustive list of occupations within the home health industry, including but not limited to, nurses, therapists, and clinicians. These three occupations fall into the cost category for skilled nursing, therapists, and other professional/technical workers, a cost category accounting for 50.506 percent of the total home health wage proxy (72 FR 25440). These wages are proxied by a 50/50 blend of the employment cost index (ECI) for professional & technical (P&T) workers and the ECI for hospital workers. Accordingly, we believe that the home health occupational wage and salary index is the most representative measure of home health wage pressures.

We are implementing the revised and rebased HH market basket as proposed.

3. Wage Index

The statute at sections 1895(b)(4)(A)(ii) and 1895(b)(4) of the Act requires the Secretary to establish wage adjustment factors that reflect the relevant level of wages and wage-related costs applicable to the furnishing of home health services and to provide appropriate adjustment to the episode payment amount under the HH PPS to account for area wage differences. Section 1895(b)(4)(C) of the Act further provides that the wage adjustment factors may be the factors used by the Secretary for purposes of section 1886(d)(3)(E) of the Act for hospital wage adjustment factors. We apply the appropriate wage index value to the proposed labor portion (77.082 percent; see Table 22 of the proposed rule) of the HH PPS rates based on the geographic area where the beneficiary received the home health services. As implemented under the HH PPS in the July 3, 2000 HH PPS final rule, each HHA's labor market area is based on definitions of Metropolitan Statistical Areas (MSAs) issued by the OMB. We have consistently used and proposed again in the CY 2008 HH PPS proposed rule to use the pre-floor and pre-reclassified hospital wage index data to adjust the labor portion of the HH PPS rates based on the geographic area where the beneficiary receives home health services (72 FR 25448). We believe the use of the pre-floor and pre-reclassified hospital wage index data results in the appropriate adjustment to the labor portion of the costs as required by statute.

In the August 11, 2004 IPPS final rule [69 FR 49206], revised labor market area definitions were adopted at § 412.64(b), which were effective October 1, 2004 for acute care hospitals. The new standards, Core Based Statistical Areas (CBSAs), were announced by OMB in late 2000 and were also discussed in greater detail in the July 14, 2005 HH PPS proposed rule. For the purposes of the HH PPS, the term ''MSA-based'' refers to wage index values and designations based on the previous MSA designations. Conversely, the term ''CBSA-based'' refers to wage index values and designations based on the new OMB revised MSA designations which now include CBSAs. In the November 9, 2005 HH PPS final rule (70 FR 68132), we implemented a 1-year transition policy using a 50/50 blend of the CBSA-based wage index values and the Metropolitan Statistical Area (MSA)-based wage index values for CY 2006. The 1-year transition policy ended in CY 2006. Currently, wage index values for CY 2007 are based on CBSA designations. For CY 2008, we will continue to use a wage index based on the CBSA designations.

As implemented under the HH PPS in the July 3, 2000 HH PPS final rule, each HHA's labor market is determined based on definitions of MSAs issued by OMB. In general, an urban area is defined as an MSA or New England County Metropolitan Area (NECMA) as defined by OMB. Under § 412.64(b)(1)(ii)(C), a rural area is defined as any area outside of the urban area. The urban and rural area geographic classifications are defined in § 412.64(b)(1)(ii)(A) and § 412.64(b)(1)(II)(C) respectively, and have been used under the HH PPS since implementation.

Under the HH PPS, the wage index value used is based upon the location of the beneficiary's home. As has been our longstanding practice, any area not included in an MSA (urban area) is considered to be non-urban § 412.64(b)(1)(ii)(C) and receives the statewide rural wage index value (see, for example, 65 FR 41173).

As discussed previously and set forth in the July 3, 2000 final rule, the statute provides that the wage adjustment factors may be the factors used by the Secretary for purposes of section 1886(d)(3)(E) of the Act for hospital wage adjustment factors. As discussed in the July 3, 2000 final rule, we proposed to again use the pre-floor and pre-reclassified hospital wage index data to adjust the labor portion of the HH PPS rates based on the geographic area where the beneficiary receives home health services. We believe the use of the pre-floor and pre-reclassified hospital wage index data results in the appropriate adjustment to the labor portion of the costs as required by statute. For the CY 2008 update to home health payment rates, we would continue to use the most recent pre-floor and pre-reclassified hospital wage index available at the time of publication.

In adopting the CBSA designations, we identified some geographic areas where there are no hospitals, and thus no hospital wage data on which to base the calculation of the home health wage index. Beginning in CY 2006, we adopted a policy that, for urban labor markets without an urban hospital from which a hospital wage index can be derived, all of the urban CBSA-wage index values within the State would be used to calculate a statewide urban average wage index to use as a reasonable proxy for these areas. Currently, the only CBSA that would be affected by this policy is CBSA 25980, Hinesville, Georgia. We proposed to continue this policy for CY 2008.

Currently, the only rural areas where there are no hospitals from which to calculate a hospital wage index are Massachusetts and Puerto Rico. For CY 2006, we adopted a policy in the HH PPS November 9, 2005 final rule (70 FR 68138) of using the CY 2005 pre-floor, pre-reclassified hospital wage index value. In the August 3, 2006 proposed rule, we again proposed to apply the CY 2005 pre-floor/pre-reclassified hospital wage index to rural areas where no hospital wage data is available. In response to commenters' concerns and in recognition that, in the future, there may be additional rural areas impacted by a lack of hospital wage data from which to derive a wage index, we adopted, in the November 9, 2006 final rule (71 FR 65905), the following methodology for imputing a rural wage index for areas where no hospital wage data are available as an acceptable proxy. The methodology that we implemented for CY 2007 imputed an average wage index value by averaging the wage index values from contiguous CBSAs as a reasonable proxy for rural areas with no hospital wage data from which to calculate a wage index. We believe this methodology best met our criteria for imputing a rural wage index as well as representing an appropriate wage index proxy for rural areas without hospital wage data. Specifically, such a methodology uses pre-floor, pre-reclassified hospital wage data, is easy to evaluate, is updateable from year to year, and uses the most local data available. In determining an imputed rural wage index, we define ''contiguous'' as sharing a border. For Massachusetts, rural Massachusetts currently consists of Dukes and Nantucket Counties. We determined that the borders of Dukes and Nantucket counties are ''contiguous'' with Barnstable and Bristol counties. We again proposed to apply this methodology for imputing a rural wage index for those rural areas without rural hospital wage data.

However, as we noted in the HH PPS final rule for CY 2007, we did not believe that this policy was appropriate for Puerto Rico. As noted in the August 3, 2006 proposed rule, there are sufficient economic differences between the hospitals in the United States and those in Puerto Rico, including the fact that hospitals in Puerto Rico are paid on blended Federal/Commonwealth-specific rates, that a separate, distinct policy for Puerto Rico is necessary. Consequently, any alternative methodology for imputing a wage index for rural Puerto Rico would need to take into account those differences. Our policy of imputing a rural wage index by using an averaged wage index of CBSAs contiguous to that rural area does not recognize the unique circumstances of Puerto Rico. For CY 2008, we again proposed to continue to use the most recent wage index previously available for Puerto Rico which is 0.4047.

Comment: A commenter supported ensuring that the hospital cost reports that are used to calculate the wage index are accurate. The commenter stated that CMS should not accept or utilize faulty cost report data.

Response: We appreciate the comment and note CMS utilizes efficient means to ensure and review the accuracy of the cost report data and resulting wage index. The home health wage index is derived from the pre-floor, pre-reclassified hospital wage index which is calculated based on cost report data from hospitals paid under the hospital inpatient prospective payment system (IPPS). All IPPS hospitals must complete the wage index survey (Worksheet S–3, Parts II and III) as part of their Medicare cost reports. Cost reports will be rejected if Worksheet S–3 is not completed. In addition, our intermediaries perform desk reviews on all hospitals' Worksheet S–3 wage data, and we run edits on the wage data to further ensure the accuracy and validity of the wage data. Furthermore, HHAs have the opportunity to submit comments on the hospital wage index data during the annual IPPS rulemaking period. Therefore, we believe our review processes result in an accurate reflection of the applicable wages for the areas given.

Comment: Several commenters expressed concerns about using the pre-floor, pre-reclassified hospital wage index for the home health wage index. These commenters believe that CMS has the regulatory authority to replace the current wage index with one that achieves parity with hospitals in order to compete in the same geographic labor markets. Further, these commenters support stabilizing the wage index through limits on year-to-year changes. Specific recommendations include applying a rural floor in addition to allowing HHAs to apply for the type of geographic reclassification that IPPS hospitals are provided.

Response: The commenters are referring to rural floor and geographic reclassification provisions in the IPPS which are only applicable to hospital payments. The rural floor provision is provided at section 4410 of Public Law 105–33 and is specific to hospitals. The reclassification provision provided at section 1886(d)(10) of the Act is also specific to hospitals. Because these floors and reclassifications apply only to hospitals, and not to HHAs, we believe the use of the most recent available pre-floor and pre-reclassified hospital wage index data results in the most appropriate adjustment to the labor portion of home health costs as required at 1895(b)(4)(C). We also note that the HH PPS wage adjustment is based on the geographic area where the beneficiary is located, not where the HHA is located.

Comment: One commenter recommended that CMS adopt a ''rural floor'' policy for the home health wage index, comparable to the policy that exists for hospitals. The commenter believed that CMS has the authority to

make the change in the regulation. The commenter expressed that its proposal would be the simplest, fairest, and most cost effective solution to the ''wage index problems'' and would serve as an important bridge to any legislative revision to the wage index provisions, which is likely to take years to enact.

Response: Sections 1895(b)(4)(A)(ii) and (b)(4)(C) of the Act require the Secretary to establish area wage adjustment factors that reflect the relative level of wages and wage-related costs applicable to the furnishing of home health services and to provide appropriate adjustments to the episode payment amounts under the HH PPS to account for area wage differences. The wage adjustment factors may be the factors used by the Secretary for purposes of section 1886(d)(3)(E) of the Act. We believe the use of the hospital wage data, without application of a rural floor, results in appropriate adjustment to the labor portion of costs based on an appropriate wage index as required under section 1895(b)(3)(A)(i), (b)(4)(A)(ii), and (b)(4)(C) of the Act. Additionally, as stated above, the rural floor provision provided at section 4410 of Pub. L. 105–33 is specific to hospital payments.

Comment: Several commenters expressed concern that in FY 2004, we dropped Critical Access Hospitals (CAHs) from our calculation of the hospital wage index. Commenters stated that wage cost data from over 1,000 CAHs are no longer included in the calculation of the hospital wage index. These hospitals are located in rural areas and therefore impact the calculation of the rural wage indexes. The commenters believed not including CAH cost report data in the wage index calculation has had a significant impact on HHAs that serve beneficiaries in rural areas.

Response: As noted previously, we adopted the pre-floor, pre-classified hospital wage index data as we believe they most appropriately reflect the relative level of wages and wage-related costs applicable to the furnishing of home health services and provide appropriate adjustments to the episode payment amounts under the HH PPS to account for area wage differences. Therefore, for this final rule, we are adopting the pre-floor, pre-reclassified hospital wage index. Comments as to how the IPPS should construct that wage index are beyond the scope of this rule.

Comment: One commenter stated that we should use the HHA wage data that we collected and analyzed to rebase the labor share of the home health market basket in order to develop a home health specific wage index. Similarly, other commenters recommended that CMS develop a home health specific wage index to reflect the true costs of HHAs.

Response: While we appreciate the commenters' desire to use a home health specific wage index, we note that our previous attempts at either proposing or developing a home health specific wage index were not well received by commenters or the industry. Generally, the volatility of the home health wage data and the resources needed to audit and verify that data, make it difficult to ensure that such a wage index accurately reflects the wages and wage-related costs applicable to the furnishing of services. Thus, we are not adopting a home health specific wage index at this time. We believe it is important that a home health specific wage index be more reflective of the wages and salaries paid in a specific area, be based upon a stable data source, and significantly improve our ability to determine home health payments without being overly burdensome. We continue to believe that using the most recent available pre-floor, pre-reclassified hospital wage index results in the appropriate adjustment to the labor portion of the costs as required by the statute.

Comment: Several commenters proposed that CMS adopt MedPAC's proposed method for calculating the hospital wage index and apply it to the HH PPS. Chapter 6 of MedPAC's June 2007 Report to Congress, entitled ''Promoting Greater Efficiency in Medicare'' discusses MedPAC's proposed methodology. Under MedPAC's system, HHAs and hospitals in the same market would have the same wage index. The new methodology would be available for all labor areas, eliminating the need for imputing an index for agencies in areas with no hospital wage data. One commenter urged CMS to begin implementing MedPAC's proposed wage index methodology for home health in CY 2009.

Response: Section 106(b)(1) of the MIEA–TRHCA (Pub. L. 109–432) requires MedPAC to submit to Congress, not later than June 30, 2007, a report on the Medicare wage index classification system applied under the Medicare Prospective Payment System. Section 106(b) of MIEA–TRHCA requires the report to include any alternatives that MedPAC recommends to the method used to compute the wage index under section 1886(d)(3)(E) of the Act.

We thank the commenters for their ideas and suggestions on the wage index in response to the statutory requirements under Pub. L. 109–432. We are reviewing MedPAC's Report to Congress and the wage index methodology recommended therein. We will carefully consider MedPAC's recommendations as they apply to the HH PPS. Finally, we note that MedPAC released its June 2007 report to Congress on June 15, 2007. As the statute requires, the report includes MedPAC's analysis and recommendations on alternatives to the method to compute the wage index. The full report can be downloaded from MedPAC's Web Site at *http://www.medpac.gov/documents/Jun07_EntireReport.pdf.*

Comment: A commenter expressed concern because the wage index for CBSA 25180, Berkeley County, WV is lower than other nearby CBSAs in the Washington, DC area. In addition, the commenter stated that CBSA 25180 is one of the fastest growing areas in the nation, thereby increasing property values and hence labor costs.

Response: CBSA 25180 ''Hagerstown–Martinsburg, MD–WV'' includes not only Berkeley County, WV but also Morgan County, WV and Washington County, MD. Prior to our adoption of OMB's revised geographic area designations in CY 2006, Morgan County was classified as rural. Prior to CY 2006, Berkeley County was grouped with 24 other geographic areas (23 counties and the District of Columbia) in order to calculate a wage index for this area, which was classified as MSA 8840 ''Washington, DC–MD–VA–WV.'' After adopting OMB's revised geographic area designations, Morgan, Berkeley, and Washington counties' hospital wage data are now added together to calculate the wage index for CBSA 25180. We were aware that changes to wage index values might result from adopting the revised OMB designations. Therefore, we provided a one-year transition period in CY 2006 as a means to phase in the changes and to mitigate the resulting adverse impact of a CBSA-based wage index on certain HHAs. As to the appropriateness of what CBSA a particular area has been designated into, CBSA designations are determined by the Office of Management and Budget (OMB). This information is available at the following Web site address: *http://www.whitehouse.gov/omb/bulletins/b03–04.html.* We continue to believe that OMB's CBSA designations reflect the most recent available geographic classifications and are a reasonable and appropriate way to define geographic areas for purposes of determining wage index values.

Comment: A commenter pointed out that the CY 2007 wage index for rural

Massachusetts is listed as 1.0661 in the proposed rule but that it should be 1.1661.

Response: This was an inadvertent typographical error in the proposed rule. The HH PPS Pricer for CY 2007 contains the correct value of 1.1661. Accordingly, payments made to HHAs who serve patients residing in rural areas of Massachusetts are being paid based upon the correct wage index value of 1.1661.

For the CY 2008 update to home health payment rates, we are finalizing the wage index and associated policies in that we will continue to use the most recent pre-floor and pre-reclassified hospital wage index. In addition, we note that we plan to evaluate any policies adopted in the FY 2008 IPPS final rule that affect the wage index, including how we treat certain New England hospitals under § 601(g) of the Social Security Amendments of 1983 (Pub. L. 98–21). We continue to believe that the use of the pre-floor and pre-reclassified hospital wage index data for HH PPS results in the appropriate adjustment to the labor portion of the costs as required by statute.

4. Home Health Care Quality Improvement

Section 5201(c)(2) of the DRA added section 1895(b)(3)(B)(v)(II) to the Act, requiring that ''each home health agency shall submit to the Secretary such data that the Secretary determines are appropriate for the measurement of health care quality. Such data shall be submitted in a form and manner, and at a time, specified by the Secretary for purposes of this clause.'' In addition, section 1895(b)(3)(B)(v)(I) of the Act, as also added by section 5201(c)(2) of the DRA, dictates that ''for 2007 and each subsequent year, in the case of a home health agency that does not submit data to the Secretary in accordance with subclause (II) with respect to such a year, the home health market basket percentage increase applicable under such clause for such year shall be reduced by 2 percentage points.''

The OASIS data currently provide consumers and HHAs with 10 publicly-reported home health quality measures which have been endorsed by the National Quality Forum (NQF). Reporting these quality data has also required the development of several supporting mechanisms such as the HAVEN software used to encode and transmit data using a CMS standard electronic record layout, edit specifications, and data dictionary. The HAVEN software includes the required OASIS data set that has become a standard part of HHA operations. These early investments in data infrastructure and supporting software that CMS and HHAs have made over the past several years in order to create this quality reporting structure have been successful in making quality reporting and measurement an integral component of the HHA industry. For CY 2007, we specified 10 OASIS quality measures as appropriate for measurements of health care quality. These measures were to be submitted by HHAs to meet their statutory requirement to submit quality data for a full increase in their market basket percentage increase amount. The 10 measures are:

(1) Improvement in ambulation/locomotion
(2) Improvement in bathing
(3) Improvement in transferring
(4) Improvement in management of oral medications
(5) Improvement in pain interfering with activity
(6) Acute care hospitalization
(7) Emergent care
(8) Improvement in dyspnea
(9) Improvement in urinary incontinence
(10) Discharge to community

For CY 2007, we specified 10 OASIS quality measures as appropriate for measurements of health care quality. These measures were to be submitted by HHAs to meet their statutory requirement to submit quality data for a full increase in their market basket percentage increase amount. For CY 2008, we proposed to expand the existing set of 10 quality measures by adding up to 2 NQF-endorsed measures. The proposed additional measures for 2008 were:

- Emergent Care for Wound Infections, Deteriorating Wound Status
- Improvement in the Status of Surgical Wounds (For a complete list and description of the quality measure requirements see the proposed rule (72 FR 25449–25452)).

Comment: Several commenters suggested that CMS continue to refine and enhance the OASIS assessment instrument and associated Quality Measures, and suggested item-specific or quality measure-specific items in use in the home health quality reporting requirement.

Response: CMS is constantly working to improve the OASIS instrument and the quality measures that are built upon it. We will continue to pursue improving the assessment instrument's accuracy in reflecting both the health status and improvements in condition of our beneficiaries. On July 27, 2007, a notice was published in the **Federal Register** (CMS–10238) which seeks public comment on a version of the OASIS that we plan to begin testing in early 2008 (72 FR 41328).

Comment: A number of commenters requested that we eliminate OASIS item M0175. Commenters also requested numerous item-specific revisions to the OASIS.

Response: We are presently unable to accommodate the request to delete OASIS item M0175. OASIS item M0175 has a critical role in risk adjusting many quality measures as it is used to determine the type of facility the patient was discharged from in the previous 14 days before HH admission. However, we will continue to look for ways to reduce the overall burden to providers and determine if this information can be obtained in a more simplified or automated manner as we re-examine the OASIS instrument.

The remainder of the item-specific comments received relate to data items that will be addressed in an upcoming notice concerning revisions of the OASIS mentioned above. These revisions are currently planned for an OASIS update in calendar year 2009. These changes are responsive to the comments we have received, and reflect months of development and analysis, as well as industry input and concerns.

On July 27, 2007, a notice was published in the **Federal Register** (CMS–10238) which seeks public comment on a version of the OASIS that we plan to begin testing in early 2008. Based on the finding from the testing, we may pursue adopting the commenter's suggested changes in future payment rule notices.

Comment: Some commenters were concerned about the proposed quality measure regarding emergent care for wound infections.

Response: We note that the title and description of the quality measure do not fully reflect the breadth of the issue being measured. Specifically, the quality measure entitled ''Emergent Care for Wound Infections, Deteriorating Wound Status'' is calculated using a data item that includes new pressure ulcers and lesions, and therefore the title of the measure may cause some confusion. Nonetheless, we feel that the quality measure is an important indicator and we intend to conform the title of the measure to more accurately reflect the concepts being measured.

Comment: Several commenters suggested that we delete two quality items to compensate for the two new quality items added. Some also suggested that we reduce the total number of OASIS items. Another suggested we develop quality measures for fall prevention.

Response: CMS is not adding new OASIS quality items to be reported in this rule. CMS is adding two quality measures to expand the number of measures currently being reported for quality reporting purposes by using existing OASIS data. The data elements used to calculate these measures are already captured by the OASIS instrument and do not require additional reporting or burden to HHAs. We believe that through this expansion of measures for the HH PPS quality reporting segment, we are providing the public with a wider array of comparable and consensus-based (endorsed by the National Quality Forum in 2005) information on health care quality.

CMS will continue to review the OASIS items collected for the purposes of quality to determine if any changes, additions, or deletions are appropriate, and the public will have the opportunity to comment on proposed changes to the OASIS items.

CMS agrees with the commenter that the domain of falls prevention is a critical aspect of health care quality. On July 27, 2007, a notice was published in the **Federal Register** (CMS–10238) which seeks public comment on a version of the OASIS that we plan to begin testing in early 2008. This version of OASIS incorporates several process measures, one of which is geared specifically toward fall prevention outcome measures in future updates of the OASIS instrument for the purpose of pay for reporting.

Comment: A commenter was in favor of adding Improvement of Status of Surgical Wound to the home health compare quality measures, but he felt adding an adverse event (Emergent Care for Wound Status) was not appropriate. Outcome Based Quality Management (OBQM) instructs the agency to audit the record to determine if an adverse event occurred. With the definition of emergent care being an unplanned physician visit within 24 hours, this reporting could be detrimental. In the commenter's area there is physician office availability that encourages appointments to be made within 24 hours. It is seen as good practice rather than an adverse event. The commenter recommended removing ''Emergent Care for Wound Infections, Deteriorating Wound Status'' from the home health quality measures. Another commenter suggested we revise the instructions so only visits to an emergency room or outpatient emergency clinic constitute emergent care. Two commenters noted that it is not appropriate to present outcomes that are not risk adjusted or Adverse Event Outcomes. One commenter asked that we clarify the intent of M0830, Emergent Care for Wound Infections, before publicly reporting data. If the focus is only on infections or deteriorating status, then the commenter suggested we revise the wording of the data element.

Response: This measure addresses high-risk, high-volume, high-cost conditions. These conditions are identifiable, preventable and serious in their consequences and they can cause serious harm to beneficiaries. Public reporting of the measure will continue to enable providers to investigate and take corrective actions to improve safety and quality of care delivered. In addition, it is responsive to the NQF proposed priority for measures associated with the frail elderly population. CMS continues to believe that the additional measures selected for the reporting of quality are appropriate.

On July 27, 2007, a notice was published in the **Federal Register** (72 FR 41328) which seeks public comment on a version of the OASIS that we plan to begin testing in early 2008. This new version of the OASIS addresses many of the item-specific and quality measure specific comments that we have received, including those of the commenters. A critical element of this testing will be the gathering of data necessary to make a more accurate estimate of the provider burden that the OASIS and the anticipated revisions would require.

Comment: Numerous commenters noted that data submitted for Home Health Compare reporting include both Medicare and Medicaid patients. They noted that inclusion of Medicaid data can skew the data as Medicaid and Medicare admission criteria are not the same. One commenter stated that many Medicaid patients are seen in lieu of more costly nursing home placement; therefore at discharge, their outcomes (especially those related to activities of daily living) have deteriorated.

Several commenters felt that HHAs with high Medicaid caseloads will most likely be damaged in the public reporting process because these patients are less likely to show marked improvement due to their chronic conditions. The public reporting does not give an accurate picture of the agency's performance or outcomes. When pay for performance begins, this negative impact could create issues of access to care for Medicaid patients. These commenters suggested only including Medicare patients in the publicly reported data and Home Health Compare.

Another commenter suggested that we stratify CMS Compare information into at least three categories: traditional Medicare, Medicare Advantage, and Medicaid. This commenter suggested we use the information to monitor outcomes from Medicare Advantage plans compared to traditional Medicare, or require Medicare Advantage plans to pay agencies according to the HH PPS rule, thereby putting the physician and agency back in control of managing the patient. This commenter also suggested removing ''private duty'' Medicaid patients, such as ventilator dependent patients, from the CMS Compare data.

Response: We appreciate the comment and we will consider this with regard to future changes to the Home Health Compare site. However, it is beyond the scope of this rule to address specific issues concerning Home Health Compare.

Comment: Numerous commenters wrote that many of the Medicaid waiver programs authorize ''skilled nursing services'' based on their payment terminology, when in reality, the services are not ''skilled'' by Medicare's definition. Clients on waiver programs tend to be chronically ill and show no improvement in outcomes, but rather show stabilization in their condition. Under current regulations, these waiver clients are required to have OASIS collection performed. With the inclusion of these waiver clients, the data skews provider outcomes as well as aggregate state outcomes. The commenters suggested eliminating the requirement to complete OASIS assessments on non-Medicare clients. OASIS should be for traditional Medicare only.

Response: The request to change the regulation in § 484.55 concerning OASIS collection requirements is beyond the scope of this rule and will not be addressed here.

Comment: One commenter wrote that in New York, there is a 1915 waiver program called the Long Term Home Health Care Program (LTHHCP), which provides an intensive array of Medicaid home and community-based services to nursing home eligible patients. The majority of patients in LTHHCP are dually eligible, but Medicaid is the appropriate payer of services approximately 90 percent of the time. Patients must also meet the requirements of a mandatory state assessment every 120 days, which is separate from the federal OASIS requirements. The commenter is concerned that CMS does not differentiate between LTHHP and traditional Medicare providers regarding submitted OASIS data. The commenter urges CMS to exclude LTHHCPs and any Special Needs Certified Home Health Agencies from the OASIS

Quality Reporting and Pay for Reporting Initiative.

Response: For the purposes of the Home Health quality reporting requirements, HHAs are required to submit quality measures to CMS through the OASIS instrument. CMS has also specified the circumstances under which home health agencies would be excluded from the HH PPS quality reporting requirement (72 FR 25449). The existing LTHHCP does not fall under any of those exclusions.

Comment: A commenter is concerned that the OASIS was designed to measure outcomes by asking nurses to assess the ability of the patient to perform a task, rather than by using performance based measures. The commenter gave the example of activities of daily living (ADL) measures.

Response: The instrument was designed to collect the information needed to measure changes in health status over several designated time points. The OASIS data set was designed for the purpose of enabling rigorous and systematic measurement of patient home health outcomes. We believe that the quality measures selected from the OASIS accurately reflect measures of quality, and that those measures meet the statutory requirement to report quality data.

Comment: A commenter wrote that pay for performance would have a negative effect on whether high acuity patients would be able to find agencies willing to help them.

Response: Currently, CMS only requires reporting of the specified quality measures for the HH PPS quality report for reporting. At this time, there is no ''Pay for Performance'' requirement in HH PPS. However, we believe the current reporting requirements and any future work on ''Pay for Performance'' initiatives will help ensure that Medicare beneficiaries continue to have access to the highest quality care possible.

Comment: A few commenters were concerned that the estimates of burden on reporting the reporting burden have been underestimated.

Response: We believe our determination of the collection burden is based upon our best estimates given the information and data available to us at this time. CMS published a notice in the **Federal Register** that begins the process of testing a new version of the OASIS instrument which addresses many of the item-specific and quality measure specific comments that we have received. A critical element of this testing will be the gathering of data necessary to make a more accurate estimate of the provider burden that the OASIS and the anticipated revisions would require.

We are adopting, as final, the two quality measures and note that a total of 12 quality measures are necessary to meet the statutory submission of quality data to maintain the full home health market basket percentage increase.

Additionally, section 1895(b)(3)(B)(v)(II) of the Act provides the Secretary with the discretion to submit the required data in a form, manner, and time specified by him/her. We proposed, for CY 2008, to consider OASIS data submitted by HHAs to CMS for episodes beginning on or after July 1, 2006 and before July 1, 2007 as meeting the reporting requirement for calendar year 2008. This reporting time period will allow 12 full months of data and will provide CMS the time necessary to analyze and make any necessary payment adjustments to the CY 2008 payment rates. HHAs that meet the reporting requirement shall be eligible for the full home health market basket percentage increase. We received no comments and are adopting this proposal as final.

As noted in the proposed rule (72 FR 25449), the home health CoPs (part 484) that require OASIS submission also provide for exclusions from this requirement. Generally, agencies excluded from the OASIS submission requirement do not receive Medicare payments as they either do not provide services to Medicare beneficiaries or the patients are not receiving Medicare-covered home health services. Under the CoP, agencies are excluded from the OASIS reporting requirement on individual patients if:

- Those patients are receiving only non-skilled services,
- Neither Medicare nor Medicaid is paying for home health care (patients receiving care under a Medicare or Medicaid Managed Care Plan are not excluded from the OASIS reporting requirement),
- Those patients are receiving pre-or post-partum services, and
- Those patients are under the age of 18 years.

We believe that the rationale behind the exclusion of these agencies from submission of OASIS on patients which are excluded from OASIS submission as a CoP is equally applicable to HHAs for quality purposes. Therefore, we again proposed for CY 2008 that if an agency is not submitting OASIS for patients excluded from OASIS submission for purposes of a CoP, that the submission of OASIS for quality measures for Medicare purposes is likewise not necessary.

We received no comments on this proposal. Accordingly, we are adopting, as final, that those agencies do not need to submit quality measures for reporting purposes for those patients who are excluded from OASIS submission as a CoP.

We also proposed that agencies newly certified (on or after May 31, 2007 for payments to be made in CY 2008) be excluded from the quality reporting requirement as data submission and analysis will not be possible for an agency certified this late in the reporting time period. In future years, agencies that certify on or after May 31 of the preceding year involved would be excluded from any payment penalty for quality reporting purposes for the following CY. We note, these exclusions only affect quality reporting requirements and do not affect the agency's OASIS reporting responsibilities under the CoP (72 FR 25449). We received no comments on this proposal, and are adopting it as final.

We note that all HHAs, unless covered by these specific exclusions, must meet the reporting requirement, or be subject to a 2 percent reduction in the home health market basket percentage increase in accordance with section 1895(b)(3)(B)(v)(I) of the Act.

Section 1895(b)(3)(B)(v)(III) of the Act further requires that the ''Secretary shall establish procedures for making data submitted under subclause (II) available to the public.'' Additionally, the statute requires that ''such procedures shall ensure that a home health agency has the opportunity to review the data that is to be made public with respect to the agency prior to such data being made public.'' To meet the requirement for making such data public, we proposed, to continue for CY 2008 to use the *Home Health Compare* Web site whereby HHAs are listed geographically. Currently the 10 quality measures are posted on the Home Health Compare Web site, and this site would be updated to reflect the performance level of the proposed 2 additional quality measures. Consumers can search for all Medicare-approved home health providers that serve their city or zip code and then find the agencies offering the types of services they need as well as the proposed quality measures. See *http://www.medicare.gov/HHCompare/Home.asp*. HHAs currently have access (through the Home Health Compare contractor) to their own agency's quality data (updated periodically), thus enabling each agency to know how it is performing before public posting of data on Home Health Compare (72 FR 25452). We received no comments on

the proposed process and are adopting it in the final rule with comment period for CY 2008.

5. CY 2008 Payment Updates

The Medicare HH PPS has been effective since October 1, 2000. As set forth in the final rule published July 3, 2000 in the **Federal Register** (65 FR 41128), the unit of payment under the Medicare HH PPS is a national standardized 60-day episode payment rate. As set forth in § 484.220, we adjust the national standardized 60-day episode payment rate by a case-mix grouping and a wage index value based on the site of service for the beneficiary. The CY 2008 HH PPS rates use the case-mix methodology discussed in the proposed rule (72 FR 25395), incorporating the changes discussed in III.B of this rule and application of the wage index adjustment to the labor portion of the HH PPS rates as set forth in the July 3, 2000 final rule. As stated in section III.E.2. of this rule, we are rebasing and revising the home health market basket, resulting in a revised and rebased labor related share of 77.082 percent and a non-labor portion of 22.918 percent. We multiply the national standardized 60-day episode payment rate by the patient's applicable case-mix weight. We divide the case-mix adjusted amount into a labor and non-labor portion. We multiply the labor portion by the applicable wage index based on the site of service of the beneficiary. For CY 2008, we are basing the wage index adjustment to the labor portion of the HH PPS rates on the most recent pre-floor and pre-reclassified hospital wage index as discussed in section III.E.3. of this rule (not including any reclassifications under section 1886(d)(8)(B) of the Act).

As discussed in the July 3, 2000 HH PPS final rule, for episodes with four or fewer visits, Medicare pays the national per-visit amount by discipline, referred to as a LUPA. We update the national per-visit amounts by discipline annually by the applicable home health market basket percentage. We adjust the national per-visit amount by the appropriate wage index based on the site of service for the beneficiary as set forth in § 484.230. We adjust the labor portion of the updated national per-visit amounts by discipline used to calculate the LUPA by the most recent pre-floor and pre-reclassified hospital wage index, as discussed in section III.E.3. of this rule.

Medicare pays the 60-day case-mix and wage-adjusted episode payment on a split percentage payment approach. The split percentage payment approach includes an initial percentage payment and a final percentage payment as set forth in § 484.205(b)(1) and (b)(2). We may base the initial percentage payment on the submission of a request for anticipated payment and the final percentage payment on the submission of the claim for the episode, as discussed in § 409.43. The claim for the episode that the HHA submits for the final percentage payment determines the total payment amount for the episode and whether we make an applicable adjustment to the 60-day case-mix and wage-adjusted episode payment. The end date of the 60-day episode as reported on the claim determines which CY rates Medicare will use to pay the claim.

We may also adjust the 60-day case-mix and wage-adjusted episode payment based on the information submitted on the claim to reflect the following:

- A LUPA provided on a per-visit basis as set forth in § 484.205(c) and § 484.230.
- A PEP adjustment as set forth in § 484.205(d) and § 484.235.
- An outlier payment as set forth in § 484.205(f) and § 484.240.

As discussed in section III.C.3 of this final rule with comment period, we are implementing the removal of the SCIC adjustment from the HH PPS.

This rule reflects the updated CY 2008 rates that will become effective January 1, 2008.

Section 1895(b)(3)(B) of the Act, as amended by section 5201 of the DRA, requires for CY 2008 that the standard prospective payment amounts be increased by a factor equal to the applicable home health market basket update for those HHAs that submit quality data as required by the Secretary. The applicable home health market basket update will be reduced by 2 percentage points for those HHAs that fail to submit the required quality data.

- CY 2008 Adjustments.

In calculating the annual update for the CY 2008 national standardized 60-day episode payment rates, we first look at the CY 2007 rates as a starting point. The CY 2007 national standardized 60-day episode payment rate is $2,339.00.

In order to calculate the CY 2008 national standardized 60-day episode payment rate, we first increase the CY 2007 national standardized 60-day episode payment rate ($2,339.00) by the rebased and revised home health market basket update of 3.0 percent for CY 2008.

Given this updated rate, we would then take a reduction of 2.75 percent to account for change in case-mix not related to actual change in case-mix. We would multiply the resulting value by 1.05 and 0.95 to account for the estimated percentage of outlier payments for CY 2008 (that is, $2,339.00 * 1.030 * 0.9725 * 1.05 * 0.95), to yield a CY 2008 national standardized 60-day episode payment rate of $2,337.06 for episodes that begin in CY 2007 and end in CY 2008 (see Table 11A below). For episodes that begin in CY 2007 and end in CY 2008, the new 153 HHRG case-mix model (and associated Grouper) would not yet be in effect. For that reason, episodes that begin in CY 2007 and end in CY 2008 will be paid at the rate of $2,337.06, and be further adjusted for wage differences and for case-mix, based on the current 80 HHRG case-mix model. We recognize that the annual update for CY 2008 is for all episodes that end on or after January 1, 2008 and before January 1, 2009. By paying this rate ($2,337.06) for episodes that begin in CY 2007 and end in CY 2008, we will have appropriately recognized that these episodes are entitled to receive the CY 2008 home health market, even though the new case-mix model will not yet be in effect.

TABLE 11A.—NATIONAL 60-DAY EPISODE AMOUNTS UPDATED BY THE HOME HEALTH MARKET BASKET UPDATE FOR CY 2008, BEFORE CASE-MIX ADJUSTMENT, WAGE INDEX ADJUSTMENT BASED ON THE SITE OF SERVICE FOR THE BENEFICIARY OR APPLICABLE PAYMENT ADJUSTMENT FOR EPISODES BEGINNING IN CY 2007 AND ENDING IN CY 2008

Total CY 2007 national standardized 60-day episode payment rate	Multiply by the home health market basket update (3.0 percent) [1]	Reduce by 2.75 percent for nominal change in case-mix	Adjusted to account for the 5 percent outlier policy	National standardized 60-day episode payment rate for episodes beginning in CY 2007 and ending in CY 2008
$2,339.00	× 1.030	× 0.9725	× 1.05 × 0.95	$2,337.06

[1] The estimated home health market basket update of 3.0 percent for CY 2008 is based on Global Insight, Inc, 2nd Qtr, 2007 forecast with historical data through 1st Qtr, 2007.

Next, in order to establish new rates based on a new case-mix system, we again start with the CY 2007 national standardized 60-day episode payment rate and increase that rate by the rebased and revised home health market basket update (3.0 percent) ($2,339.00 * 1.030 = $2,409.17). We next have to put dollars associated with the outlier targeted estimates back into the base rate. In the 2000 HH PPS final rule (65 FR 41184), we divided the base rate by 1.05 to account for the outlier target policy. Therefore, we proposed to multiply the $2,409.17 by 1.05, resulting in $2,529.63. Next, we need to reduce this amount to pay for each of our final policies. As noted previously, based upon our change to the LUPA payment, the NRS redistribution, and the elimination of the SCIC policy, the amounts needed to account for outlier payments, and the reduction to account for the 2.75 percent case-mix change adjustment, we reduce the national standardized 60-day episode payment rate by $5.70, $45.87, $10.96, $127.22, and $69.56, respectively. This results in a CY 2008 updated national standardized 60-day episode payment rate, for episodes beginning and ending in CY 2008, of $2,270.32 (see Table 11B). These episodes would be further adjusted for case-mix based on the 153 HHRG case-mix model for episodes beginning and ending in CY 2008. As we noted in section II.A.2.d. of the proposed rule, we increased the case-mix weights by a budget neutrality factor of 1.194227193. In this final rule, the case-mix weights were increased by a budget neutrality factor of 1.238848031.

TABLE 11B.—NATIONAL 60-DAY EPISODE AMOUNTS UPDATED BY THE HOME HEALTH MARKET BASKET UPDATE FOR CY 2008, BEFORE CASE-MIX ADJUSTMENT, WAGE INDEX ADJUSTMENT BASED ON THE SITE OF SERVICE FOR THE BENEFICIARY OR APPLICABLE PAYMENT ADJUSTMENT FOR EPISODES BEGINNING AND ENDING IN CY 2008

Total CY 2007 national standardized 60-day episode payment rate	Multiply by the home health market basket update (3.00 percent) [1]	Adjusted to return the outlier funds to the national standardized 60-day episode payment rate	Updated and outlier adjusted national standardized 60-day episode payment	Changes to account for LUPA adjustment ($5.70), NRS payment ($45.87), elimination of SCIC policy ($10.96), outlier policy ($127.22), and 2.75 percent reduction for nominal change in case-mix (69.56) for episodes beginning and ending in CY 2008	CY 2008 national standardized 60-day episode payment rate for episodes beginning and ending in CY 2008
$2,339.00	X 1.030	X 1.05	$2,529.63	−$259.31	$2,270.32

[1] The estimated home health market basket update of 3.0 percent for CY 2008 is based on Global Insight, Inc, 2nd Qtr, 2007 forecast with historical data through 1st Qtr, 2007.

Under the HH PPS, NRS payment, which was $49.62 at the onset of the HH PPS, has been updated yearly as part of the national standardized 60-day episode payment rate. As discussed previously in section III.C.4., we are removing the current NRS payment amount portion from the national standardized 60-day episode payment rate and adding a severity-adjusted NRS payment amount subject to case-mix and wage adjustment to the national standardized 60-day episode payment rate. To calculate an episode's prospective payment amount, take the non-adjusted national standardized 60-day episode payment rate and multiply it by the appropriate case-mix weight from Table 5 of this rule. Next, multiply the case-mix adjusted national standardized 60-day episode payment by the labor portion (77.082 percent); multiply this result by the appropriate wage index factor listed in Addendum A or B to wage-adjust the 60-day episode payment. Next multiply the case-mix adjusted national standardized 60-day episode payment by 22.918 percent to compute the non-labor portion. Add this result to the wage-adjusted labor portion to get the case-mix and wage adjusted national 60-day episode payment without NRS.

To calculate the NRS amount, multiply the episode's NRS weight (taken from Table 9 of this rule) by the NRS conversion factor ($52.35). This adjusted NRS payment is added to the case-mix and wage-adjusted national standardized 60-day episode payment. The resulting amount is the case-mix and wage-adjusted national standardized 60-day episode payment rate including NRS for that particular episode.

The following example illustrates the computation described above:

Example 1. An HHA is providing services to a Medicare beneficiary in Grand Forks, ND; the episode begins and ends in 2008. The national standardized payment rate is $2,270.32 (see Table 11B). The HHA determines that the beneficiary is in his or her 3rd episode and thus falls under the C1F3S3 HHRG for 3rd+ episodes with 0 to 13 therapy visits (Case-Mix Weight = 1.4674). It is also determined that the beneficiary falls under NRS severity level #4. The NRS Severity Level #4 weight = 3.9686 and the NRS Conversion Factor = $52.35 (see Table 9).

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Calculate the Case-Mix Rate:

Case-mix weight from Table 5 for HHRG C1F3S3 for 3rd+ episodes with 0-13 therapy visits | 1.4674

National Standardized 60-Day Episode Payment Rate without NRS Amount for CY 2008 | $2,270.32

Calculate the Case-Mix Rate:

($2,270.32 * 1.4674) | **$3,331.47**

Calculate the Wage-Adjusted Labor and Non-Labor Portions of the Payment:

Case-Mix adjusted National Standardized 60-Day Episode Payment Rate without NRS Amount: | $3,331.47

Labor Portion | 0.77082

Non-labor Portion | 0.22918

Wage Index Value for Grand Forks, North Dakota | 0.7881

Calculate the labor portion of the Case-Mix adjusted National Standardized 60-Day Episode Payment without NRS Amount:

($3,331.47 * .77082) | $2,567.96

Apply the wage index factor for Grand Forks to the labor potion

($2,567.96.47 * 0.7881) | **$2,023.81**

Calculate the non-labor portion of the Case-Mix adjusted National Standardized 60-Day Episode Payment without NRS Amount:

($3,331.47 * 0.22918) | **$ 763.51**

Calculate the Total Prospective Payment Rate:

Case-Mix adjusted Wage Adjusted Labor Portion of the Rate without NRS Amount | $2,023.81

Case-Mix Adjusted Non-Labor Portion of the Rate without NRS Amount | $ 763.51

Calculate the Total Case-Mix and Wage Adjusted National Standardized 60-Day Episode Payment Rate without NRS Amount

($) | **$2,787.32**

Calculate the NRS Amount:

NRS Conversion Factor | $ 52.35

NRS Severity Level #4 Relative Weight | 3.9686

Calculate the NRS Amount

($52.35* 3.9686) | **$ 207.76**

Calculate the Total Case-Mix and Wage Adjusted National Standardized 60-Day Episode Payment Rate including NRS Amount

($2,787.32+ $207.76) | $2,995.08

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National Per-Visit Amounts Used To Pay LUPAs and Compute Imputed Costs Used in Outlier Calculations

As discussed previously in the CY 2008 HH PPS proposed rule, the policies governing LUPAs and the outlier calculations set forth in the July 3, 2000 HH PPS final rule will continue (65 FR 41128) with an increase of $87.93 for initial and only episode LUPAs during CY 2008. In calculating the CY 2008 national per-visit amounts used to calculate payments for LUPA episodes and to compute the imputed costs in outlier calculations, we start with the CY 2007 per-visit amounts. We increase the CY 2007 per-visit amounts for each home health discipline for CY 2008 by the rebased and revised home health market basket update (3.0 percent), then multiply by 1.05 and 0.95 to account for the estimated percentage of outlier payments (see Table 12 below). LUPA rates are not being reduced due to the increase in case-mix since they are per-visit rates and hence are not subject to changes in case-mix.

TABLE 12.—NATIONAL PER-VISIT AMOUNTS FOR LUPAS (NOT INCLUDING THE INCREASE IN PAYMENT FOR A BENEFICIARY'S ONLY EPISODE OR THE INITIAL EPISODE IN A SEQUENCE OF ADJACENT EPISODES) AND OUTLIER CALCULATIONS UPDATED BY THE HOME HEALTH MARKET BASKET UPDATE FOR CY 2008, BEFORE WAGE INDEX ADJUSTMENT BASED ON THE SITE OF SERVICE FOR THE BENEFICIARY

Home health discipline type	Final CY 2007 per-visit amounts per 60-day episode for LUPAs	Multiply by the home health market basket (3.0 percent) [1]	Adjusted to account for the 5 percent outlier policy	CY 2008 per-visit payment amount per discipline
Home Health Aide	$46.24	× 1.030	× 1.05 × 0.95	$47.51
Medical Social Services	163.68	× 1.030	× 1.05 × 0.95	168.17
Occupational Therapy	112.40	× 1.030	× 1.05 × 0.95	115.48
Physical Therapy	111.65	× 1.030	× 1.05 × 0.95	114.71
Skilled Nursing	102.11	× 1.030	× 1.05 × 0.95	104.91
Speech-Language Pathology	121.22	× 1.030	× 1.05 × 0.95	124.54

[1] The estimated home health market basket update of 3.0 percent for CY 2008 is based on Global Insight, Inc, 2nd Qtr, 2007 forecast with historical data through 2nd Qtr, 2007.

Payment for LUPA episodes is changed in that for LUPAs that occur as initial episodes in a sequence of adjacent episodes or as the only episode, a revised payment amount (see our proposal in section II.A.5. of the CY 2008 HH PPS proposed rule and final amount in section III.C.2. of this rule) is to be added to the LUPA payment. Table 12 rates below are before that adjustment and are the rates paid to all other LUPA episodes. LUPA episodes that occur as the only episode or initial episode in a sequence of adjacent episodes are adjusted by adding $87.93 to the LUPA payment before adjusting for wage index.

Example 2. An HHA is providing services to a Medicare beneficiary in rural New Hampshire. During the 60-day episode the beneficiary receives only 3 visits. It is the initial episode during a sequence of adjacent episodes for this beneficiary. The HHA submits all its required quality data.

Number of Visits, Visit Type, and Per-Visit Payment Amounts

1 Skilled Nursing Visit	(per-visit payment amount from Table 12)	$104.91
2 Home Health Aide Visits	(per-visit payment amount from Table 12)	$ 47.51
Wage Index Value for Rural New Hampshire		1.0863
Increase in LUPA episode payment for only or initial episodes in a sequence of adjacent episodes		$ 87.93

Calculate the total wage adjusted adjustment amount for only or initial episodes in a sequence of Adjacent episodes:

Calculate the wage adjusted portion of the $87.93 adjustment for only or initial episodes in a sequence of adjacent episodes: (0.77082 * $87.93)	**$ 67.78**
Apply the wage index factor from rural New Hampshire from Addendum A: (1.0863 * $67.78)	**$ 73.63**
Calculate the non-labor portion of the $87.93 adjustment for only or initial episodes in a sequence of adjacent episodes: (0.22918 * $87.93)	**$ 20.15**
Calculate the total wage adjusted adjustment amount for only or initial episodes in a sequence of Adjacent episodes: ($73.63 + $20.15)	**$ 93.78**

Calculate the wage adjusted LUPA payment amount for the skilled nursing portion of the payment:

Calculate the labor portion of the per-visit payment amount for 1 skilled nursing visit:

(0.77082 * $104.91)	$ 80.87

Apply the wage index factor from rural New Hampshire from Addendum A	(1.0863 * $80.87)	$ 87.85
Calculate the non-labor portion of the per-visit payment amount for 1 skilled nursing visit (0.22918 * 104.91)		$ 24.04
Calculate the wage adjusted LUPA payment amount for 1 skilled nursing visit ($87.85 + $24.04)		$111.89
Calculate the wage adjusted LUPA payment amount for the home health aide portion of the payment		
Calculate the labor portion of the per-visit payment amount for 2 home health aide visits: (0.77082 * ($47.51 + $47.51))		$ 73.24
Apply the wage index factor from rural New Hampshire from Addendum A	(1.0863 * $73.24)	$ 79.56
Calculate the non-labor portion of the per-visit payment amount for 2 home health aide visits (0.22918 * ($47.51 + $47.51))		$ 21.78
Calculate the wage adjusted LUPA payment amount for 2 home health aide visits ($79.56 + $21.78)		$101.34
Calculate the LUPA amount for 1-skilled nursing/2-home health aide episode, before applying any increase for the only episode or initial episode in a sequence of adjacent episodes ($111.89 + $101.34)		$213.23
Calculate the Total LUPA payment amount (with proposed increase for an only episode or initial episode in a sequence of adjacent episodes)	**($213.23 + $93.78)**	**$307.01**

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Outlier payments are determined and calculated using the same methodology that has been used since the implementation of the HH PPS. Example 3 details the calculation of an outlier payment.

Example 3. Calculation of an Outlier Payment

The outlier payment amount is the product of the imputed amount in excess of the outlier threshold absorbed by the HHA and the loss sharing ratio. The outlier payment is added to the sum of the wage and case-mix adjusted 60-day episode amount. The steps to calculate the total episode payment, including an outlier payment, are given below.

For this example, assume that a beneficiary lives in Greenville, SC and that the episode in question began and ended in CY 2008. The episode has a case-mix severity = C3F3S5, and is a second episode with 63 visits (30 skilled nursing, 20 home health aide visits, and 13 physical therapy visits). The beneficiary had 105 NRS points, for an NRS severity level = 6. Therefore,

from Table 9, the NRS payment amount = $551.00

from Table 5, the case-mix weight = 1.9413

from Addendum B, the wage index = 0.9860

1. Calculate case-mix and wage-adjusted 60-day episode payment, including NRS.

National standardized 60-day episode payment amount for episodes beginning and ending in CY 2008:

= $2,270.32

Calculate the case-mix adjusted episode payment:

Multiply the national standardized 60-day episode payment by the applicable case-mix weight:

$2,270.32 × 1.9413 = $4,407.37

Divide the case-mix adjusted episode payment into the labor and non-labor portions:

Labor portion: 0.77082 × $4,407.37 = $3,397.29
Non-labor portion: 0.22918 × $4,407.37 = $1,010.08

Wage-adjust the labor portion by multiplying it by the wage index factor for Greenville, SC:

0.9860 × $3,397.29 = $3,349.73

Add wage-adjusted labor portion to the non-labor portion to calculate the total case-mix and wage-adjusted 60-day episode payment before NRS added:

$3,349.73 + $1,010.08 = $4,359.81

Add NRS amount to get the total case-mix and wage-adjusted 60-day episode payment, including NRS:

$551.00 + $4,359.81 = $4,910.81

2. Calculate wage-adjusted outlier threshold.

Fixed dollar loss amount = national standardized 60-day episode payment multiplied by 0.89 FDL:

$2,270.32 × 0.89 = $2,020.58

Divide fixed dollar loss amount into labor and non-labor portions:

Labor portion: 0.77082 × $2,020.58 = $1,557.50
Non-labor portion: 0.22918 × $2,020.58 = $463.08

Wage-adjust the labor portion by multiplying the labor portion of the fixed dollar loss amount by the wage index:

$1,557.50 × 0.9860 = $1,535.70

Calculate the wage-adjusted fixed dollar loss amount without NRS by adding the wage-adjusted portion of the fixed dollar loss amount to the non-labor portion of the fixed dollar loss amount:

$1,535.70 + $463.08 = $1,998.78

Calculate the fixed dollar loss amount of NRS by multiplying the NRS payment amount by the FDL ratio:

$551.00 × 0.89 = $490.39

Divide NRS fixed dollar loss amount into labor and non-labor portions:

Labor portion: 0.77082 × $490.39 = $378.00
Non-labor portion: 0.22918 × $490.39 = $112.39

Wage-adjust the labor portion by multiplying the labor portion of the NRS fixed dollar loss amount by the wage index:

$378.00 × 0.9860 = $372.71

Add the wage-adjusted labor portion to the non-labor portion for the total NRS amount:

$372.71 + $112.39 = $485.10

Calculate the total wage-adjusted fixed dollar loss amount including NRS by adding the wage-adjusted fixed dollar loss amount of NRS to the wage-adjusted fixed dollar loss amount without NRS:

$485.10 + $1,998.78 = $2,483.88

Add the case-mix and wage-adjusted 60-day episode amount including NRS and the wage-adjusted fixed dollar loss amount including NRS to get the wage-adjusted outlier threshold:

$4,910.81 + $2,483.88 = $7,394.69

3. Calculate the wage-adjusted imputed cost of the episode.

Multiply the total number of visits by the national average per-visit amounts listed in Table 12:

30 skilled nursing visits × $104.91 = $3,147.30
20 home health aide visits × $47.51 = $950.20
13 physical therapy visits × $114.71 = $1,491.23

Calculate the wage-adjusted labor and non-labor portions for the imputed skilled nursing visit costs:

Labor portion: 0.77082 × $3,147.30 = $2,426.00
Non-labor portion: 0.22918 × $3,147.30 = $721.30

Adjust the labor portion of the skilled nursing visits by the wage index:

0.9860 × $2,426.00 = $2,392.04

Add the wage-adjusted labor portion of the skilled nursing visits to the non-labor portion for the total wage-adjusted imputed costs for skilled nursing visits:

$2,392.04 + $721.30 = $3,113.34

Calculate the wage-adjusted labor and non-labor portions for the imputed home health aide visits:

Labor portion: 0.77082 × $950.20 = $732.43
Non-labor portion: 0.22918 × $950.20 = $217.77

Adjust the labor portion of the home health aide visits by the wage index:

0.9860 × $732.43 = $722.18

Add the wage-adjusted labor portion of the home health aide visits to the non-labor portion for the total wage-adjusted imputed costs for home health aide visits:

$722.18 + $217.77 = $939.95

Calculate the wage-adjusted labor and non-labor portions for the imputed physical therapy visits:

Labor portion: 0.77082 × $1,491.23 = $1,149.47
Non-labor portion: 0.22918 × $1,491.23 = $341.76

Adjust the labor portion of the home health aide visits by the wage index:

0.9860 × $1,149.47 = $1,133.38

Add the wage-adjusted labor portion of the home health aide visits to the non-labor portion for the total wage-adjusted imputed costs for home health aide visits:

$1,133.38 + $341.76 = $1,475.14

Total wage adjusted imputed per-visit costs for skilled nursing, home health aide, and physical therapy visits during the 60-day episode:

$3,113.34 + $939.95 + $1,475.14 = $5,528.43

4. Calculate the amount absorbed by the HHA in excess of the outlier threshold.

Subtract the outlier threshold from (2) from the total wage-adjusted imputed per-visit costs for the episode from (3).

$5,528.43 − $4,910.81 = $617.62

5. Calculate the outlier payment and total episode payment.

Multiply the imputed amount in excess of the outlier threshold absorbed by the HHA from (4) by the loss sharing ratio of 0.80:

$617.62 × 0.80 = $494.10 = outlier payment

Add the outlier payment to the case-mix and wage-adjusted 60-day episode payment, including NRS, calculated in (1):

$494.10 + $4,910.81 = $5,404.91

$5,404.91 equals the total payment for the episode, including the outlier payment.

For episodes that begin in CY 2007 and end in CY 2008, the new 153 HHRG case-mix model (and associated Grouper) would not yet be in effect. For that reason, for HHAs that do not submit required quality data (for episodes that begin in CY 2007 and end in CY 2008), HH PPS rates are calculated as follows (see section III.E.4., of this rule, for an explanation of the DRA requirement for submission of quality data and the minus 2 percentage points for failure to submit that quality data): First, we update the CY 2007 rate of $2,339.00 by the home health market basket percentage update (3.0 percent) minus 2 percent, reduced by 2.75 percent to account for the case-mix change adjustment, and multiplied by 1.05 and 0.95 to account for the estimated percentage of outlier payments ($2,339.00 * 1.010 * 0.9725 * 1.05 * 0.95), to yield an updated CY 2008 national standardized 60-day episode payment rate of $2,291.68 for episodes that begin in CY 2007 and end in CY 2008 for HHAs that do not submit required quality data (see Table 13A).

As stated in the CY 2008 HH PPS proposed rule, these episodes would be further adjusted for case-mix based on the 80 HHRG case-mix model for episodes beginning in CY 2007 and ending in CY 2008 (72 FR 25450).

TABLE 13A.—FOR HHAS THAT DO NOT SUBMIT THE REQUIRED QUALITY DATA—NATIONAL 60-DAY EPISODE AMOUNTS UPDATED BY THE HOME HEALTH MARKET BASKET UPDATE FOR CY 2008, MINUS 2 PERCENTAGE POINTS, FOR EPISODES THAT BEGIN IN CY 2007 AND END IN CY 2008 BEFORE CASE-MIX ADJUSTMENT, WAGE INDEX ADJUSTMENT BASED ON THE SITE OF SERVICE FOR THE BENEFICIARY OR APPLICABLE PAYMENT ADJUSTMENT

Total CY 2007 national standardized 60-day episode payment rate	Multiply by the home health market basket update (3.0 percent) [1] minus 2 percent	Reduce by 2.75 percent for nominal change in case-mix	Adjusted to account for the 5 percent outlier policy	National standardized 60-day episode payment rate for episodes beginning in CY 2007 and ending in CY 2008 for HHAs that do not submit required quality data
$2,339.00	× 1.010	× 0.9725	× 1.05 × 0.95	$2,291.68

[1] The estimated home health market basket update of 3.0 percent for CY 2008 is based on Global Insight, Inc, 2nd Qtr, 2007 forecast with historical data through 1st Qtr, 2007.

Next, in order to establish new rates based on a new case-mix system, we again start with the CY 2007 national standardized 60-day episode payment rate and increase that rate by the rebased and revised home health market basket update (3.0 percent) minus 2 percent ($2,339.00 * 1.010 = $2,362.39). We next have to put dollars associated with the outlier target estimate back into the base rate. In the 2000 HH PPS final rule (65 FR 41184), we divided the base rate by 1.05 to account for outlier payments. Therefore, we proposed to multiply the $2,362.39 by 1.05, resulting in $2,480.51. Next, we need to reduce this amount to pay for each of our final policy changes. To do this, we take the payment adjustment amount to pay for our policy changes of this rule, determined in Table 11A of $259.31, multiply it by (1/1.030) to take away the 3.0 percent increase, and multiply that number by 1.010 to impose the 1.0 percent update for episodes where HHAs have not submitted the required quality data. This results in a payment adjustment amount of $254.27. Finally, subtract the payment adjustment amount of $254.27 from $2,480.51, for a final rate of $2,226.24 for HHAs that do not submit quality data, for episodes that begin and end in CY 2008 (see Table 13B).

These episodes would be further adjusted for case-mix based on the 153 HHRG case-mix model for episodes beginning and ending in CY 2008. We increase the case-mix weights by a budget neutrality factor of 1.238848031.

TABLE 13B.—FOR HHAS THAT DO NOT SUBMIT THE REQUIRED QUALITY DATA—NATIONAL 60-DAY EPISODE AMOUNTS UPDATED BY THE HOME HEALTH MARKET BASKET UPDATE FOR CY 2008, MINUS 2 PERCENTAGE POINTS, FOR EPISODES THAT BEGIN AND END IN CY 2008, BEFORE CASE-MIX ADJUSTMENT, WAGE INDEX ADJUSTMENT BASED ON THE SITE OF SERVICE FOR THE BENEFICIARY OR APPLICABLE PAYMENT ADJUSTMENT

Total CY 2007 national standardized 60-day episode payment rate	Multiply by the home health market basket update (3.0 percent) [1] minus 2.0 percent	Adjusted to return the outlier funds to the national standardized 60-day episode payment rate	Updated and outlier adjusted national standardized 60-day episode payment	Changes to account for LUPA adjustment ($5.70), NRS payment ($45.87), elimination of SCIC policy ($10.96), outlier policy ($127.22), and 2.75 percent reduction for nominal change in case-mix ($69.56) = $259.31; minus 2 percentage points off of the home health market basket update (3.0 percent) [1] for episodes beginning and ending in CY 2008	CY 2008 national standardized 60-day for episode payment rate for episodes beginning and ending in CY 2008 that do not submit required quality data
$2,339.00	× 1.010	× 1.05	$2,480.51	− $254.27	$2,226.24

[1] The estimated home health market basket update of 3.0 percent for CY 2008 is based on Global Insight, Inc, 2nd Qtr, 2007 forecast with historical data through 1st Qtr, 2007.

In calculating the CY 2008 national per-visit amounts used to calculate payments for LUPA episodes for HHAs that do not submit required quality data and to compute the imputed costs in outlier calculations for those episodes, we start with the CY 2007 per-visit rates. We multiply those amounts by the home health market basket update (3.0 percent) minus 2 percentage points, then multiply by 1.05 and 0.95 to account for the estimated percentage of outlier payments, to yield the updated per-visit amounts for each home health discipline for CY 2008 for HHAs that do not submit required quality data (see Table 14).

TABLE 14.—FOR HHAS THAT DO NOT SUBMIT THE REQUIRED QUALITY DATA—NATIONAL PER-VISIT AMOUNTS FOR LUPAS (NOT INCLUDING THE INCREASE IN PAYMENT FOR A BENEFICIARY'S ONLY EPISODE OR THE INITIAL EPISODE IN A SEQUENCE OF ADJACENT EPISODES) AND OUTLIER CALCULATIONS UPDATED BY THE HOME HEALTH MARKET BASKET UPDATE FOR CY 2008, MINUS 2 PERCENTAGE POINTS, BEFORE WAGE INDEX ADJUSTMENT BASED ON THE SITE OF SERVICE FOR THE BENEFICIARY

Home health discipline type	Final CY 2007 per-visit amounts per 60-day episode for LUPAs	Multiply by the home health market basket (3.0 percent) [1] minus 2.0 percent	Adjusted to account for the 5 percent outlier policy	CY 2008 per-visit payment amount per discipline for a beneficiary who resides in a non-MSA for HHAs that do not submit required quality data
Home Health Aide	$46.24	× 1.010	× 1.05 × 0.95	$46.59
Medical Social Services	163.68	× 1.010	× 1.05 × 0.95	164.90
Occupational Therapy	112.40	× 1.010	× 1.05 × 0.95	113.24
Physical Therapy	111.65	× 1.010	× 1.05 × 0.95	112.48
Skilled Nursing	102.11	× 1.010	× 1.05 × 0.95	102.87
Speech-Language Pathology	121.22	× 1.010	× 1.05 × 0.95	122.13

[1] The estimated home health market basket update of 3.0 percent for CY 2008 is based on Global Insight, Inc, 2nd Qtr, 2007 forecast with historical data through 1st Qtr, 2007.

IV. Provisions of the Final Rule With Comment Period

In this final rule with comment period, we are adopting the provisions as set forth in the CY 2008 HH PPS proposed rule, except as noted in the specific response to comments in the applicable sections of this rule (for example, case-mix refinements; payment adjustments to include the LUPA, SCIC, and NRS; outlier policy; and the update of the HH PPS rates to include the home health market basket and the wage index). We are specifically soliciting comments on the 2.71 percent reduction to the HH PPS payment rates schedule in 2011, to account for changes in coding that were not related to an underlying change in patient health status (see Section III.B.6.)

V. Collection of Information Requirements

Under the Paperwork Reduction Act (PRA) of 1995, we are required to provide 30-day notice in the **Federal Register** and solicit public comment before a collection of information requirement is submitted to the Office of Management and Budget (OMB) for review and approval. In order to fairly evaluate whether an information collection should be approved by OMB, section 3506(c)(2)(A) of the PRA of 1995 requires that we solicit comment on the following issues:

- The need for the information collection and its usefulness in carrying out the proper functions of our agency.
- The accuracy of our estimate of the information collection burden.
- The quality, utility, and clarity of the information to be collected.
- Recommendations to minimize the information collection burden on the affected public, including automated collection techniques.

We solicited public comments on each of aforementioned issues for the information collection requirements discussed below. In this final rule with comment period, we are restating the discussion of the information collection requirements as it appeared in the HH PPS proposed rule that published on May 4, 2007 (72 FR 25356).

To implement the OASIS changes discussed in sections II.A.(2)(a), II.A.(2)(b), and II.A.(2)(c) of the proposed rule, and further discussed and clarified in sections III.B.2, III.B.3, and III.B.4 of this rule in the analysis of and public response to public comments on the proposed rule, which are currently approved in § 484.55, § 484.205, and § 484.250, a few items in the OASIS will need to be modified, deleted, or added. The requirements and burden associated with the OASIS are currently approved under OMB control number 0938–0760 with an expiration date of August 31, 2007. We solicited public comment on each of the proposed changes for the information collection requirements (ICRs) as summarized and discussed below. For the purposes of soliciting public review and comment, we also placed a draft of the proposed changes to the OASIS on the CMS Web site at:

http://www.cms.hhs.gov/PaperworkReductionActof1995/PRAL/list.asp#TopOfPage.

As discussed in section II.A.(2)(a) of the proposed rule, and further clarified in section III.B.2 of this rule, in order for the OASIS to have the information necessary to allow the grouper to price-out the claim, we proposed to make the following changes to the OASIS to capture whether an episode is an early or later episode.

The creation of a new OASIS item to capture whether a particular assessment is for an episode considered to be an early episode or a later episode in the patient's current sequence of adjacent Medicare home health payment episodes. As defined in section II.A.1. of the proposed rule, and further clarified in section III.B.2 of this rule, we define a sequence of adjacent episodes for a beneficiary as a series of claims with no more than 60 days without home care between the end of one episode, which is the 60th day (except for episode that have been PEP-adjusted), and the beginning of the next episode. This definition holds true regardless of

whether or not the same HHA provided care for the entire sequence of adjacent episodes. The HHA will chose from the options: ''Early'' for single episodes or the first or second episode in a sequence of adjacent episodes, ''Later'' for third or later episodes, ''UK'' for unknown if the HHA is uncertain as to whether the episode is an early or later episode (the payment grouper software will default to the definition of an ''early'' episode), and ''NA'' for not applicable (no Medicare case-mix group to be defined by this assessment).

As discussed in section II.A.(2)(b) of the proposed rule, we proposed to make changes to the OASIS in order to enable agencies to report secondary case-mix diagnosis codes. The proposed changes clarify how to appropriately fill out OASIS items M0230 and M0240, using ICD–9–CM sequencing requirements if multiple coding is indicated for any diagnosis. Additionally, if a V-code is reported in place of a case-mix diagnosis for OASIS item M0230 or M0240, then the new optional OASIS item (which is replacing existing OASIS item M0245) may then be completed. A case-mix diagnosis is a diagnosis that determines the HH PPS case-mix group. Further discussion or clarification of these proposed changes can be found in section III.B.3 of this rule.

As discussed in section II.A.(2)(c) of the proposed rule, we proposed to make changes to the OASIS to capture the projected total number of therapy visits for a given episode. With the projected total number of therapy visits, the payment grouper would be able to group that episode into the appropriate case-mix group for payment. The existing OASIS item M0825 asks an HHA if the projected number of therapy visits would meet the therapy threshold or not. As noted previously, we proposed to delete OASIS item M0825 and replace it with a new OASIS item. The OASIS item would ask the following: ''In the plan of care for the Medicare payment episode for which this assessment will define a case-mix group, what is the indicated need for therapy visits (total of reasonable and necessary physical, occupational, and speech-pathology visits combined)?'' The HHA would provide the total number of projected therapy visits for that Medicare payment episode, unless not applicable (that is, no case-mix group defined by this assessment). The HHA would enter ''000'' if no therapy visits were projected for that particular episode. Further discussion and clarification of these proposed changes can be found in section III.B.4 of this rule.

The burden associated with the proposed changes discussed in sections II.A.(2)(a), II.A.(2)(b), and II.A.(2)(c) of the proposed rule, and further discussed and clarified in section III.B.2, III.B.3, and III.B.4 of this rule, includes possible training of staff, the time and effort associated with downloading a new form and replacing previously pre-printed versions of the OASIS, and utilizing updated vendor software. However, as stated above, CMS is removing or modifying existing questions in the OASIS data set to accommodate the proposed requirements referenced above. In addition, as a result of the proposed changes, we expect that the claims processing system will automatically adjust the therapy visits both upward and downward on the final claim, according to the information on the final claim. Consequently, the HHA would no longer have to withdraw and resubmit a revised claim when the number of therapy visits delivered to the patient is higher than the level report on the RAP. Therefore, CMS believes the burden increase associated with these changes is negated by the removal or modification of several current data items.

We have submitted a copy of this final rule to OMB for its review of the information collection requirements described above. These requirements are not effective until OMB has approved them.

If you comment on any of these information collection and record keeping requirements, please mail copies directly to the following:

Centers for Medicare & Medicaid Services, Office of Strategic Operations and Regulatory Affairs, Regulations Development Group, Attn.: Melissa Musotto, CMS–1541–FC, Room C4–26–05, 7500 Security Boulevard, Baltimore, MD 21244–1850; and

Office of Information and Regulatory Affairs, Office of Management and Budget, Room 10235, New Executive Office Building, Washington, DC 20503, Attn: Carolyn Lovett, CMS Desk Officer, (CMS–1541–FC), *carolyn_lovett@omb.eop.gov.* Fax (202) 395–6974.

VI. Regulatory Impact Analysis

A. Overall Impact

We have examined the impacts of this rule as required by Executive Order 12866 (September 1993, Regulatory Planning and Review), the Regulatory Flexibility Act (RFA) (September 19, 1980, Pub. L. 96–354), section 1102(b) of the Social Security Act, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4), and Executive Order 13132.

Executive Order 12866 (as amended by Executive Order 13258, which merely reassigns responsibility of duties) directs agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). A regulatory impact analysis (RIA) must be prepared for major rules with economically significant effects ($100 million or more in any 1 year). This final rule will be a major rule, as defined in Title 5, United States Code, section 804(2), because we estimate the impact to the Medicare program, and the annual effects to the overall economy, will be more than $100 million. The update set forth in this proposed rule would apply to Medicare payments under the HH PPS in CY 2008.

Accordingly, the following analysis describes the impact in CY 2008 only. We estimate that the net impact in this rule, including a 2.75 percent reduction to the payment rate to account for the case-mix change adjustment in case-mix, is estimated to be approximately $20 million in CY 2008 expenditures. That estimate incorporates the 3.0 percent home health market basket increase (an estimated additional $430 million in CY 2008 expenditures attributable only to the CY 2008 home health market basket update), and the 2.75 percent decrease (−$410 million for the first year of a 4-year phase-in) to the HH PPS national standardized 60-day episode rate to account for the case-mix change adjustment under the HH PPS. The $20 million is reflected in column 7 of Table 15 as a 0.2 percent increase in expenditures when comparing the current CY 2007 system to the revised CY 2008 system. In the proposed rule, the difference between the proposed 2.9 percent update ($410 million) and the 2.75 percent decrease ($400 million) was $10 million. The additional $130 million difference, in the proposed rule, between estimated CY 2007 and CY 2008 total payments resulted from the differential treatment of the outlier offsets to the payment rates and the percent of outlier payments between the two simulations. Specifically, the $130 million difference reflected the lower payments estimated for CY 2007 resulting from the estimated outlier payments of only 4.14 percent rather than 5 percent. Our analysis of more recent data than the CY 2005 data available for both the CY 2007 and CY

2008 impact analysis simulations strongly suggests that outlier payments in CY 2007 and CY 2008 are or will be greater than 5 percent of total payments. Since the CY 2005 data show outlier payments of only about 4.1 percent, the CY 2005 data are not informative about actual outlier experience in CY 2007 and CY 2008. For the final rule impact analysis, we have set the FDLs in the CY 2007 and CY 2008 simulations to be consistent with outlier payments of 5 percent so that outlier payments have similar effects in all of the impact simulations. We believe that this approach comes as close as possible to estimating the desired impacts in a comparable manner, given the recent changes in outlier payments.

The RFA requires agencies to analyze options for regulatory relief of small businesses. For purposes of the RFA, small entities include small businesses, nonprofit organizations, and small governmental jurisdictions. Most hospitals and most other providers and suppliers are small entities, either by nonprofit status or by having revenues of $6 million to $29 million in any 1 year. For purposes of the RFA, approximately 75 percent of HHAs are considered small businesses according to the Small Business Administration's size standards with total revenues of $11.5 million or less in any 1 year. Individuals and States are not included in the definition of a small entity. As stated above, this final rule will have an estimated positive effect upon small entities that are HHAs.

In addition, section 1102(b) of the Act requires us to prepare a regulatory impact analysis if a rule may have a significant impact on the operations of a substantial number of small rural hospitals. This analysis must conform to the provisions of section 603 of the RFA. For purposes of section 1102(b) of the Act, we define a small rural hospital as a hospital that is located outside of a Metropolitan Statistical Area and has fewer than 100 beds. We have determined that this final rule will not have a significant economic impact on the operations of a substantial number of small rural hospitals.

Section 202 of the Unfunded Mandates Reform Act of 1995 also requires that agencies assess anticipated costs and benefits before issuing any rule that may result in expenditure in any 1 year by State, local, or tribal governments, in the aggregate, or by the private sector, of $110 million. We believe this final rule will not mandate expenditures in that amount.

Executive Order 13132 establishes certain requirements that an agency must meet when it promulgates a proposed rule (and subsequent final rule) that imposes substantial direct requirement costs on State and local governments, preempts State law, or otherwise has Federalism implications. We have determined that this final rule will not have substantial direct effects on the rights, roles, and responsibilities of States.

B. Anticipated Effects

This final rule with comment period updates the HH PPS rates contained in the CY 2007 final rule (71 FR 65884, November 9, 2006). The impact analysis of this final rule presents the refinement related policy changes in this rule. We use the latest data and best analysis available, but we do not attempt to predict behavioral responses to these changes, and we do not make adjustments for future changes in such variables as days or case-mix.

This analysis incorporates the latest estimates of growth in service use and payments under the Medicare home health benefit, based on the latest available Medicare claims from 2005. We note that certain events may combine to limit the scope or accuracy of our impact analysis, because such an analysis is future-oriented and, thus, susceptible to forecasting errors due to other changes in the forecasted impact time period. Some examples of such possible events are newly-legislated general Medicare program funding changes made by the Congress, or changes specifically related to HHAs. In addition, changes to the Medicare program may continue to be made as a result of the BBA, the BBRA, the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000, the MMA, the DRA, or new statutory provisions. Although these changes may not be specific to the HH PPS, the nature of the Medicare program is such that the changes may interact, and the complexity of the interaction of these changes could make it difficult to predict accurately the full scope of the impact upon HHAs.

Table 15 represents how home health agencies are likely to be affected by the policy changes described in this rule. For each agency type listed below, Table 15 displays the average case-mix index, both under the current HH PPS case-mix system and the CY 2008 HH PPS case-mix system. For this analysis, we used the most recent data available that linked home health claims and OASIS assessments, a 20-percent sample of episodes occurring in CY 2005. In Table 15, the average case-mix is the same, in the aggregate, between the current HH PPS system and the proposed revised HH PPS system, due to our application of a budget neutrality factor for the case-mix weights. Column one of this table classifies HHAs according to a number of characteristics including provider type, geographic region, and urban versus rural location. Column two displays the average case-mix weight for each type of agency under the current payment system. Column three displays the average case-mix weight for each type of agency incorporating all of the changes/refinements discussed above. The average case-mix weight for proprietary (for profit) agencies is estimated to decrease from 1.2821 to 1.2620. Comparatively, the average case-mix weight for voluntary non-profit agencies is estimated to increase from 1.1875 to 1.2334. Rural agencies are estimated to experience a decrease in their average case-mix from 1.2047 to 1.1798. It is estimated that urban agencies would see a slight increase in their average case-mix weight from 1.2520 to 1.2616. In particular, the New England, Mid-Atlantic, South Atlantic, East North Central, West North Central, and Mountain areas of the country are estimated to see their average case-mix increase under the proposed refinements of this rule. Conversely, the East South Central, West South Central, and Pacific areas of the country are estimated to see their average case-mix decrease as a result of refinements of this rule. Both small and large agencies are estimated to see decreases in their average case-mix under the new proposed case-mix system, the only exception being much larger agencies (200+ first episodes), which are estimated to see an increase of their average case-mix from 1.2376 to 1.2398.

For the purposes of analyzing impacts on payments, we performed five simulations and compared them to each other.

Based on our estimate that outliers, as a percentage of total HH PPS payments, will be at least 5 percent in CY 2007, the 2007 baseline, for the purposes of these simulations, we assumed that the full 5 percent outlay for outliers will be paid. The first simulation estimates 2008 payments under the current system (to include the 2007 wage index and labor share). The second simulation estimates 2008 payments under the current system, but with the 2008 wage index and the new 2008 labor share. The second simulation produces an estimate of what total payments using the sample data will be in 2008 without making any of the refinement-related changes described in this final rule. The third simulation estimates 2008 payment with the old, 2007 labor share and a 2008 wage index. The fourth simulation

estimates 2008 payments with a new 2008 labor share and a 2007 wage index.

These first four simulations allow us to demonstrate the effects of a new 2008 wage index and a new 2008 labor share as a percentage change in estimated expenditures. Specifically, the fourth column of Table 15 shows the percent change due to the combined effects of the new 2008 labor share and the 2008 wage index. Column five shows the percent change due to the effects of the new labor share. And finally, column 6 shows us the percent change due to the effects of updated wage data (2008 wage index).

The fifth, and final, simulation estimates what total payments would be in 2008, using the final case-mix model, the additional payment for initial and only episode LUPA episodes, the removal of SCIC adjustments, and the revised approach to making NRS payments. The fifth simulation also assumes payments will incorporate the rebased and revised home health market basket increase of 3.0 percent, the new outlier threshold determined by an updated FDL ratio of 0.89, and the 2.75 percent reduction in the national standardized 60-day episode payment rate to account for the case-mix change adjustment. All five simulations use a CBSA-based wage index (we used a crosswalk from the MSA reported on the 2005 claims to the CBSA to determine the appropriate wage index).

Column seven shows the percentage change in estimated total payments in moving from the current CY 2007 to the revised CY 2008 system outlined in this final rule. As a result of changes in our approach to the impact analysis simulations between the proposed rule and this rule, our estimate of the change in total payments between CY 2007 and CY 2008 is substantially less than what we presented in the proposed rule. The percentage change in estimated total payments from CY 2007 to the revised CY 2008 system is now the difference between the 3.0 percent update and the 2.75 percent reduction in the rates for an increase of $20 million, or approximately 0.2 percent).

In the proposed rule, we stated that the estimated additional $130 million yielding the $140 million in estimated spending for CY 2008 is due to the fixed dollar loss ratio at 0.67 (72 FR 25454). What that means is that the CY 2008 simulation compensated for fixing the FDL at 0.67 by raising all the payment rates to meet the target expenditure total. In the CY 2008 simulation, this compensatory adjustment raised total payments by an amount that would have been equivalent to spending the entire outlier target of 5% of total expenditures. However, the CY 2007 payment simulation in our proposed rule predicted outlier payments of only 4.14 percent with the CY 2007 FDL of 0.67. Since in the CY 2007 simulation we made no upward adjustment to the rates similar to the offsetting adjustment we made in the CY 2008 simulation, estimated CY 2007 total payments with the .67 FDL were lower than they would have been had outlier payments been 5 percent of total payments. This asymmetrical approach to the comparative simulations for CY 2007 and CY 2008 yielded an estimated $130 million in additional payments from moving to the new system.

We have revised the final rule's impact analysis by simulating CY 2007 and CY 2008 payments in a consistent manner with respect to outlier policy. We made no adjustment to the rates in either simulation of the kind we made to the proposed regulation's CY 2008 simulation. In other words, both sets of rates and the FDL ratios assume outlier payments reach the 5 percent target. The basis for taking this approach is that our supplementary analysis of more recent data than the CY 2005 data available for both the CY 2007 and CY 2008 simulations strongly suggests that outlier payments in CY 2007 and CY 2008 are or will be greater than 5 percent of total payments. Since the CY 2005 data show outlier payments of only about 4.1 percent, the CY 2005 data are not informative about actual outlier experience in CY 2007 and CY 2008. For the final rule impact analysis, we have set the FDLs in the CY 2007 and CY 2008 simulations to be consistent with outlier payments of 5 percent so that outlier payments have similar effects in all of the impact simulations. We believe that this approach comes as close as possible to estimating the desired impacts in a comparable manner, given the recent changes in outlier payments. As a result of these changes in approach, our estimate of the change in total payments between CY 2007 and CY 2008 is an increase of $20 million or approximately 0.1 to 0.2 percent.

In general, voluntary non-profit HHAs (3.60 percent), facility-based HHAs (3.66 percent), and government owned HHAs (3.04 percent) are estimated to see an increase in the percentage change in estimated total payments from CY 2007 to the revised CY 2008 system. Proprietary and freestanding HHAs, on the other hand, are estimated to see decreases of 2.37 percent and 0.64 percent, respectively, in estimated total payments from CY 2007 to the proposed revised CY 2008 system. As it was in the proposed rule, the major contributor to the decrease 2.37 percent for proprietary HHAs is the free-standing proprietary HHAs, which are estimated to see a decrease of 2.49 percent in the percentage change in estimated total payment from CY 2007 to the revised CY 2008 system.

We note that some of these impacts are partly explained by practice patterns associated with certain types of agencies. For example, LUPA episodes are relatively common among nonprofit agencies and freestanding government-owned agencies. Our implementing an additional payment for certain LUPA episodes would tend to increase payments for such classes of agencies with higher-than-average LUPA rates, while tending to decrease payments for agencies with comparatively low LUPA rates. Similarly, the elimination of the SCIC policy would tend to favorably affect total payments for agencies with relatively high rates of SCIC episodes, such as facility-based proprietary agencies and facility-based government agencies.

The percentage change in estimated total payments from CY 2007 to a CY 2008 system that incorporates all of the refinements to the HH PPS for rural HHAs is a decrease of 1.77 percent, while for urban HHAs an increase of 0.80 percent is expected. Urban agencies have somewhat higher LUPA rates than rural agencies, so urban agencies would be expected to benefit, relative to rural agencies, from the proposal to make an additional payment for certain LUPA episodes. Urban agencies are also more likely to benefit from elimination of the SCIC policy. Urban agencies are less likely to bill a SCIC episode than rural agencies. However, when urban agencies do bill a SCIC episode the payment is reduced more, on average, than when rural agencies bill a SCIC. The net effect of these two components (relative frequency and payment impact per SCIC episode) is a larger expected reduction for urban agencies under the SCIC adjustment policy. Therefore, while both urban and rural agencies benefit from eliminating the SCIC policy, urban agencies benefit more.

HHAs in the North are expected to experience a percentage change increase of 4.57 percent in estimated total payments from CY 2007 to the revised CY 2008 system. One region, the South, is estimated to experience a decrease in the percentage change in estimated total payments from CY 2007 to the revised CY 2008 system. That percentage change is an estimated decrease of 2.91 percent.

It is estimated that New England and Mid Atlantic area HHAs will experience percentage change increases

approaching 4 or 5 percent, respectively (New England, 3.83 percent and the Mid-Atlantic, 4.96 percent) in estimated total payments from CY 2007 to the revised CY 2008 system. Conversely, West South Central HHAs are expected to experience a decrease (−6.32 percent) in the percentage change in estimated total payments from CY 2007 to the revised CY 2008 system. In general, HHAs with less than 200 Medicare home health initial episodes per year are expected to experience a decrease (ranging from −0.78 percent to 1.93 percent) for their percentage change in estimated total payments from CY 2007 to the revised CY 2008 system. Conversely, the largest HHAs (those with 200 or more Medicare home health initial episodes per year) are estimated to experience a slight increase of 0.36 percent change in estimated total payments from CY 2007 to the CY 2008 system.

TABLE 15.—IMPACT BY AGENCY TYPE

Group	Case-Mix		Comparisons			
	Case-Mix Index Current 80 HHRGs	Case-Mix Index, Revised 153 HHRGs	Percent Change Due to the Combined Effects of the New Labor Share (0.77082) and the Updated Wage Data (2008 Wage Index)	Percent Change Due to the Effects of the New Labor Share (0.77082)	Percent Change Due to the Effects of the Updated Wage Data (2008 Wage Index)	Percent Change from the Current CY 2007 System to the Revised CY 2008 System
Type of Facility						
Unknown	1.5011	1.4848	0.10	0.02	0.07	−1.64
Free-Standing/Other Vol/NP	1.1982	1.2467	0.09	0.00	0.08	3.47
Free-Standing/Other Proprietary	1.2841	1.2625	−0.06	−0.02	−0.04	−2.49
Free-Standing/Other Government	1.2038	1.2576	0.04	−0.05	0.09	2.84
Facility-Based Vol/NP	1.1736	1.2162	0.04	−0.02	0.05	3.78
Facility-Based Proprietary	1.2145	1.2439	−0.03	−0.05	0.01	2.79
Facility-Based Government	1.1513	1.1857	−0.10	−0.05	−0.05	3.28
Subtotal: Freestanding	1.2551	1.2576	−0.02	−0.02	0.00	−0.64
Subtotal: Facility-based	1.1737	1.2146	0.02	−0.02	0.04	3.66
Subtotal: Vol/PNP	1.1875	1.2334	0.07	−0.01	0.07	3.60
Subtotal: Proprietary	1.2821	1.2620	−0.06	−0.02	−0.04	−2.37
Subtotal: Government	1.1796	1.2244	−0.02	−0.05	0.03	3.04
TOTAL	1.2388	1.2388	−0.01	−0.02	0.00	0.20
Type of Facility (Rural* Only)						
Unknown	0.8205	0.8221	0.05	0.05	0.00	−0.15
Free-Standing/Other Vol/NP	1.1746	1.1895	0.09	−0.05	0.14	1.14
Free-Standing/Other Proprietary	1.2429	1.1936	−0.14	−0.08	−0.06	−5.57
Free-Standing/Other Government	1.1883	1.2490	0.08	−0.07	0.14	2.74
Facility-Based Vol/NP	1.1588	1.1790	−0.04	−0.06	0.02	2.12
Facility-Based Proprietary	1.2073	1.2242	−0.09	−0.08	−0.01	1.98
Facility-Based Government	1.1440	1.1701	−0.10	−0.07	−0.04	2.67
Type of Facility (Urban* Only)						
Unknown	1.5025	1.4861	0.10	0.02	0.07	−1.64
Free-Standing/Other Vol/NP	1.2037	1.2598	0.09	0.01	0.07	3.92
Free-Standing/Other Proprietary	1.2983	1.2836	−0.04	−0.01	−0.04	−1.67
Free-Standing/Other Government	1.2312	1.2749	−0.01	−0.02	0.00	2.99
Facility-Based Vol/NP	1.1803	1.2332	0.07	0.00	0.06	4.41
Facility-Based Proprietary	1.2225	1.2655	0.02	−0.02	0.03	3.54
Facility-Based Government	1.1737	1.2336	−0.09	−0.02	−0.08	4.86
Type of Facility: Urban* or Rural*						
Rural*	1.2047	1.1798	−0.06	−0.07	0.00	−1.77
Urban*	1.2520	1.2616	0.01	0.00	0.01	0.80
TOTAL	1.2388	1.2388	−0.01	−0.02	0.00	0.20
Type of Facility: Region						
North	1.1499	1.2090	0.12	0.02	0.10	4.57
South	1.2761	1.2351	−0.19	−0.04	−0.15	−2.91
Midwest	1.2249	1.2645	0.16	−0.02	0.18	3.12
West	1.2423	1.2382	0.18	0.02	0.15	0.03
Other	1.2716	1.2933	−0.04	−0.06	0.02	2.13
TOTAL	1.2388	1.2388	−0.01	−0.02	0.00	0.20

TABLE 15.—IMPACT BY AGENCY TYPE—Continued

Group	Case-Mix		Comparisons			
	Case-Mix Index Current 80 HHRGs	Case-Mix Index, Revised 153 HHRGs	Percent Change Due to the Combined Effects of the New Labor Share (0.77082) and the Updated Wage Data (2008 Wage Index)	Percent Change Due to the Effects of the New Labor Share (0.77082)	Percent Change Due to the Effects of the Updated Wage Data (2008 Wage Index)	Percent Change from the Current CY 2007 System to the Revised CY 2008 System
Type of Facility: Area of the Country						
New England	1.1106	1.1611	0.10	0.02	0.07	3.83
Mid Atlantic	1.1706	1.2343	0.14	0.01	0.12	4.96
South Atlantic	1.2862	1.2877	−0.09	−0.03	−0.07	0.44
East South Central	1.2897	1.2667	−0.22	−0.07	−0.16	−1.99
West South Central	1.2618	1.1781	−0.27	−0.05	−0.23	−6.32
East North Central	1.2409	1.2818	0.22	−0.01	0.23	3.14
West North Central	1.1705	1.2055	−0.04	−0.04	−0.01	3.04
Mountain	1.2660	1.3161	−0.06	−0.04	−0.03	3.22
Pacific	1.2305	1.1992	0.28	0.05	0.22	−1.21
Other	1.2716	1.2933	−0.04	−0.06	0.02	2.13
TOTAL	1.2388	1.2388	−0.01	−0.02	0.00	0.20
Type of Facility: Size (Number of First Episodes/Year)						
Unknown	1.0130	0.8895	−0.27	−0.03	−0.24	−7.85
1 to 5	1.2056	1.1866	−0.02	−0.02	0.00	−1.05
6 to 9	1.2145	1.1806	0.00	−0.03	0.02	−1.83
10 to 14	1.2297	1.2128	−0.07	−0.02	−0.05	−0.78
15 to 19	1.2335	1.2186	−0.05	−0.02	−0.03	−1.10
20 to 29	1.2412	1.2065	−0.05	−0.02	−0.03	−1.93
30 to 49	1.2463	1.2335	−0.05	−0.02	−0.03	−0.86
50 to 99	1.2505	1.2360	−0.04	−0.02	−0.02	−0.84
100 to 199	1.2489	1.2334	−0.03	−0.02	−0.01	−0.92
200 or More	1.2376	1.2398	−0.01	−0.02	0.01	0.36
TOTAL	1.2388	1.2388	−0.01	−0.02	0.00	0.20

Note: Based on a 20 percent sample of CY 2005 claims linked to OASIS assessment. Due to sample differences, national average case-mix weight in this table differs slightly from national average for CY 2005 reported in the text (1.2361).

*Urban/rural status, for the purposes of these simulations, is based on the wage index on which episode payment is based. The wage index is based on the site of service of the beneficiary.

C. Accounting Statement

As Required by OMB Circular A-4 (available at *http://www.whitehouse.gov/omb/circulars/a004/a-4.pdf*), in Table 16 below, we have prepared an accounting statement showing the classification of the expenditures associated with the provisions of this final rule. This table provides our best estimate of the increase in Medicare payments under the HH PPS as a result of the changes presented in this final rule with comment period based on the data for 8,164 HHAs in our database. All expenditures are classified as transfers to Medicare providers (that is, HHAs).

TABLE 16.—ACCOUNTING STATEMENT: CLASSIFICATION OF ESTIMATED EXPENDITURES, FROM CY 2007 TO CY 2008

[In millions]

Category	Transfers
Annualized Monetized Transfers	$20.
From Whom to Whom	Federal Government to HHAs.

In accordance with the provisions of Executive Order 12866, this regulation was reviewed by the Office of Management and Budget.

List of Subjects in 42 CFR Part 484

Health facilities, Health professions, Medicare, and Reporting and recordkeeping requirements.

■ For the reasons set forth in the preamble, the Centers for Medicare & Medicaid Services amends 42 CFR chapter IV as set forth below:

PART 484—HOME HEALTH SERVICES

■ 1. The authority citation for part 484 continues to read as follows:

Authority: Secs. 1102 and 1871 of the Social Security Act (42 U.S.C. 1302 and 1395(hh)).

Subpart E—Prospective Payment System for Home Health Agencies

§ 484.205 [Amended]

■ 2. Amend § 484.205 by—

■ A. Removing paragraph (a)(3).

■ B. Redesignating paragraph (a)(4) as paragraph (a)(3).

■ C. Revising paragraph (b) introductory text.

■ D. Removing paragraph (e).

■ E. Redesignating paragraph (f) as paragraph (e).

The revisions read as follows:

§ 484.205 Basis of payment.

* * * * *

(b) *Episode payment.* The national prospective 60-day episode payment represents payment in full for all costs associated with furnishing home health services previously paid on a reasonable cost basis (except the osteoporosis drug listed in section 1861(m) of the Act as defined in section 1861(kk) of the Act) as of August 5, 1997 unless the national 60-day episode payment is subject to a low-utilization payment adjustment set forth in § 484.230, a partial episode payment adjustment set forth at § 484.235, or an additional outlier payment set forth in § 484.240. All payments under this system may be subject to a medical review adjustment reflecting beneficiary eligibility, medical necessity determinations, and HHRG assignment. DME provided as a home health service as defined in section 1861(m) of the Act continues to be paid the fee schedule amount.

* * * * *

■ 3. Revise § 484.220 to read as follows:

§ 484.220 Calculation of the adjusted national prospective 60-day episode payment rate for case-mix and area wage levels.

CMS adjusts the national prospective 60-day episode payment rate to account for the following:

(a) HHA case-mix using a case-mix index to explain the relative resource utilization of different patients. To address changes to the case-mix that are a result of changes in the coding or classification of different units of service that do not reflect real changes in case-mix, the national prospective 60-day episode payment rate will be adjusted downward as follows:

(1) For CY 2008, the adjustment is 2.75 percent.

(2) For CY 2009 and CY 2010, the adjustment is 2.75 percent in each year.

(3) For CY 2011, the adjustment is 2.71 percent.

(b) Geographic differences in wage levels using an appropriate wage index based on the site of service of the beneficiary.

■ 4. Amend § 484.230 by adding a third, fourth, and fifth sentence after the second sentence to read as follows:

§ 484.230 Methodology used for the calculation of the low-utilization payment adjustment.

* * * For 2008 and subsequent calendar years, an amount will be added to low-utilization payment adjustments for low-utilization episodes that occur as the beneficiary's only episode or initial episode in a sequence of adjacent episodes. For purposes of the home health PPS, a sequence of adjacent episodes for a beneficiary is a series of claims with no more than 60 days without home care between the end of one episode, which is the 60th day (except for episodes that have been PEP-adjusted), and the beginning of the next episode. This additional amount will be updated annually after 2008 by a factor equal to the applicable home health market basket percentage.

§ 484.237 [Removed]

■ 5. Remove § 484.237.

■ 6. Amend § 484.240 by revising paragraph (b) to read as follows:

§ 484.240 Methodology used for the calculation of the outlier payment.

* * * * *

(b) The outlier threshold for each case-mix group is the episode payment amount for that group, the PEP adjustment amount for the episode plus a fixed dollar loss amount that is the same for all case-mix groups.

* * * * *

(Catalog of Federal Domestic Assistance Program No. 93.773, Medicare—Hospital Insurance; and Program No. 93.774, Medicare—Supplementary Medical Insurance Program)

Dated: August 17, 2007.

Herb. B. Kuhn,

Acting Deputy Administrator, Centers for Medicare & Medicaid Services.

Approved: August 20, 2007.

Michael O. Leavitt,

Secretary.

Note: The following addenda will not be published in the Code of Federal Regulations.

BILLING CODE 4120–01–P

ADDENDUM A. CY 2008 WAGE INDEX FOR RURAL AREAS BY CBSA; APPLICABLE PRE-FLOOR AND PRE-RECLASSIFIED HOSPITAL WAGE INDEX

CBSA Code	Nonurban Area	Wage Index
01	Alabama	0.7533
02	Alaska	1.2109
03	Arizona	0.8479
04	Arkansas	0.7371
05	California	1.2023
06	Colorado	0.9704
07	Connecticut	1.1283
08	Delaware	0.9727
10	Florida	0.8465
11	Georgia	0.7659
12	Hawaii	1.0612
13	Idaho	0.7920
14	Illinois	0.8335
15	Indiana	0.8576
16	Iowa	0.8566
17	Kansas	0.7981
18	Kentucky	0.7793
19	Louisiana	0.7373
20	Maine	0.8476
21	Maryland	0.9034

CBSA Code	Nonurban Area	Wage Index
22	Massachusetts[1]	1.1644
23	Michigan	0.8953
24	Minnesota	0.9079
25	Mississippi	0.7700
26	Missouri	0.7930
27	Montana	0.8379
28	Nebraska	0.8849
29	Nevada	0.9272
30	New Hampshire	1.0863
31	New Jersey[1]	------
32	New Mexico	0.8940
33	New York	0.8268
34	North Carolina	0.8603
35	North Dakota	0.7182
36	Ohio	0.8714
37	Oklahoma	0.7492
38	Oregon	0.9906
39	Pennsylvania	0.8385
40	Puerto Rico[1]	0.4047
41	Rhode Island[1]	------
42	South Carolina	0.8656
43	South Dakota	0.8549
44	Tennessee	0.7723
45	Texas	0.7968
46	Utah	0.8116

1 All counties within the State are classified as urban, with the exception of Massachusetts and Puerto Rico. Massachusetts and Puerto Rico have areas designated as rural, however, no short-term, acute care hospitals are located in the area(s) for CY 2007.

CBSA Code	Nonurban Area	Wage Index
47	Vermont	0.9919
48	Virgin Islands	0.6830
49	Virginia	0.7896
50	Washington	1.0259
51	West Virginia	0.7454
52	Wisconsin	0.9667
53	Wyoming	0.9287
65	Guam	0.9611

ADDENDUM B.- CY 2008 WAGE INDEX FOR URBAN AREAS BY CBSA; APPLICABLE PRE-FLOOR AND PRE-RECLASSIFIED HOSPITAL WAGE INDEX

CBSA Code	Urban Area (Constituent Counties)	Wage Index
10180	Abilene, TX Callahan County, TX Jones County, TX Taylor County, TX	0.7957
10380	Aguadilla-Isabela-San Sebastián, PR Aguada Municipio, PR Aguadilla Municipio, PR Añasco Municipio, PR Isabela Municipio, PR Lares Municipio, PR Moca Municipio, PR Rincón Municipio, PR San Sebastián Municipio, PR	0.3448
10420	Akron, OH Portage County, OH Summit County, OH	0.8794

CBSA Code	Urban Area (Constituent Counties)	Wage Index
10500	Albany, GA Baker County, GA Dougherty County, GA Lee County, GA Terrell County, GA Worth County, GA	0.8514
10580	Albany-Schenectady-Troy, NY Albany County, NY Rensselaer County, NY Saratoga County, NY Schenectady County, NY Schoharie County, NY	0.8588
10740	Albuquerque, NM Bernalillo County, NM Sandoval County, NM Torrance County, NM Valencia County, NM	0.9554
10780	Alexandria, LA Grant Parish, LA Rapides Parish, LA	0.7979
10900	Allentown-Bethlehem-Easton, PA-NJ Warren County, NJ Carbon County, PA Lehigh County, PA Northampton County, PA	0.9865
11020	Altoona, PA Blair County, PA	0.8618
11100	Amarillo, TX Armstrong County, TX Carson County, TX Potter County, TX Randall County, TX	0.9116
11180	Ames, IA	1.0046

CBSA Code	Urban Area (Constituent Counties)	Wage Index
	Story County, IA	
11260	Anchorage, AK Anchorage Municipality, AK Matanuska-Susitna Borough, AK	1.1913
11300	Anderson, IN Madison County, IN	0.8827
11340	Anderson, SC Anderson County, SC	0.9086
11460	Ann Arbor, MI Washtenaw County, MI	1.0539
11500	Anniston-Oxford, AL Calhoun County, AL	0.7926
11540	Appleton, WI Calumet County, WI Outagamie County, WI	0.9598
11700	Asheville, NC Buncombe County, NC Haywood County, NC Henderson County, NC Madison County, NC	0.9185
12020	Athens-Clarke County, GA Clarke County, GA Madison County, GA Oconee County, GA Oglethorpe County, GA	1.0517

CBSA Code	Urban Area (Constituent Counties)	Wage Index
12060	Atlanta-Sandy Springs-Marietta, GA Barrow County, GA Bartow County, GA Butts County, GA Carroll County, GA Cherokee County, GA Clayton County, GA Cobb County, GA Coweta County, GA Dawson County, GA DeKalb County, GA Douglas County, GA Fayette County, GA Forsyth County, GA Fulton County, GA Gwinnett County, GA Haralson County, GA Heard County, GA Henry County, GA Jasper County, GA Lamar County, GA Meriwether County, GA Newton County, GA Paulding County, GA Pickens County, GA Pike County, GA Rockdale County, GA Spalding County, GA Walton County, GA	0.9828
12100	Atlantic City, NJ Atlantic County, NJ	1.2198
12220	Auburn-Opelika, AL Lee County, AL	0.8090

CBSA Code	Urban Area (Constituent Counties)	Wage Index
12260	Augusta-Richmond County, GA-SC Burke County, GA Columbia County, GA McDuffie County, GA Richmond County, GA Aiken County, SC Edgefield County, SC	0.9645
12420	Austin-Round Rock, TX Bastrop County, TX Caldwell County, TX Hays County, TX Travis County, TX Williamson County, TX	0.9544
12540	Bakersfield, CA Kern County, CA	1.1051
12580	Baltimore-Towson, MD Anne Arundel County, MD Baltimore County, MD Carroll County, MD Harford County, MD Howard County, MD Queen Anne's County, MD Baltimore City, MD	1.0134
12620	Bangor, ME Penobscot County, ME	0.9978
12700	Barnstable Town, MA Barnstable County, MA	1.2603

CBSA Code	Urban Area (Constituent Counties)	Wage Index
12940	Baton Rouge, LA Ascension Parish, LA East Baton Rouge Parish, LA East Feliciana Parish, LA Iberville Parish, LA Livingston Parish, LA Pointe Coupee Parish, LA St. Helena Parish, LA West Baton Rouge Parish, LA West Feliciana Parish, LA	0.8034
12980	Battle Creek, MI Calhoun County, MI	1.0179
13020	Bay City, MI Bay County, MI	0.8897
13140	Beaumont-Port Arthur, TX Hardin County, TX Jefferson County, TX Orange County, TX	0.8531
13380	Bellingham, WA Whatcom County, WA	1.1474
13460	Bend, OR Deschutes County, OR	1.0942
13644	Bethesda-Frederick-Gaithersburg, MD Frederick County, MD Montgomery County, MD	1.0511
13740	Billings, MT Carbon County, MT Yellowstone County, MT	0.8666
13780	Binghamton, NY Broome County, NY Tioga County, NY	0.8949

CBSA Code	Urban Area (Constituent Counties)	Wage Index
13820	Birmingham-Hoover, AL Bibb County, AL Blount County, AL Chilton County, AL Jefferson County, AL St. Clair County, AL Shelby County, AL Walker County, AL	0.8898
13900	Bismarck, ND Burleigh County, ND Morton County, ND	0.7225
13980	Blacksburg-Christiansburg-Radford, VA Giles County, VA Montgomery County, VA Pulaski County, VA Radford City, VA	0.8192
14020	Bloomington, IN Greene County, IN Monroe County, IN Owen County, IN	0.8915
14060	Bloomington-Normal, IL McLean County, IL	0.9325
14260	Boise City-Nampa, ID Ada County, ID Boise County, ID Canyon County, ID Gem County, ID Owyhee County, ID	0.9465
14484	Boston-Quincy, MA Norfolk County, MA Plymouth County, MA Suffolk County, MA	1.1639

CBSA Code	Urban Area (Constituent Counties)	Wage Index
14500	Boulder, CO Boulder County, CO	1.0426
14540	Bowling Green, KY Edmonson County, KY Warren County, KY	0.8159
14740	Bremerton-Silverdale, WA Kitsap County, WA	1.0904
14860	Bridgeport-Stamford-Norwalk, CT Fairfield County, CT	1.2735
15180	Brownsville-Harlingen, TX Cameron County, TX	0.8914
15260	Brunswick, GA Brantley County, GA Glynn County, GA McIntosh County, GA	0.9475
15380	Buffalo-Niagara Falls, NY Erie County, NY Niagara County, NY	0.9568
15500	Burlington, NC Alamance County, NC	0.8747
15540	Burlington-South Burlington, VT Chittenden County, VT Franklin County, VT Grand Isle County, VT	0.9660
15764	Cambridge-Newton-Framingham, MA Middlesex County, MA	1.1215
15804	Camden, NJ Burlington County, NJ Camden County, NJ Gloucester County, NJ	1.0411
15940	Canton-Massillon, OH Carroll County, OH Stark County, OH	0.8935

CBSA Code	Urban Area (Constituent Counties)	Wage Index
15980	Cape Coral-Fort Myers, FL Lee County, FL	0.9396
16180	Carson City, NV Carson City, NV	0.9353
16220	Casper, WY Natrona County, WY	0.9385
16300	Cedar Rapids, IA Benton County, IA Jones County, IA Linn County, IA	0.8852
16580	Champaign-Urbana, IL Champaign County, IL Ford County, IL Piatt County, IL	0.9392
16620	Charleston, WV Boone County, WV Clay County, WV Kanawha County, WV Lincoln County, WV Putnam County, WV	0.8289
16700	Charleston-North Charleston, SC Berkeley County, SC Charleston County, SC Dorchester County, SC	0.9124
16740	Charlotte-Gastonia-Concord, NC-SC Anson County, NC Cabarrus County, NC Gaston County, NC Mecklenburg County, NC Union County, NC York County, SC	0.9520

CBSA Code	Urban Area (Constituent Counties)	Wage Index
16820	Charlottesville, VA Albemarle County, VA Fluvanna County, VA Greene County, VA Nelson County, VA Charlottesville City, VA	0.9277
16860	Chattanooga, TN-GA Catoosa County, GA Dade County, GA Walker County, GA Hamilton County, TN Marion County, TN Sequatchie County, TN	0.8994
16940	Cheyenne, WY Laramie County, WY	0.9308
16974	Chicago-Naperville-Joliet, IL Cook County, IL DeKalb County, IL DuPage County, IL Grundy County, IL Kane County, IL Kendall County, IL McHenry County, IL Will County, IL	1.0735
17020	Chico, CA Butte County, CA	1.1290

CBSA Code	Urban Area (Constituent Counties)	Wage Index
17140	Cincinnati-Middletown, OH-KY-IN	0.9784
	Dearborn County, IN	
	Franklin County, IN	
	Ohio County, IN	
	Boone County, KY	
	Bracken County, KY	
	Campbell County, KY	
	Gallatin County, KY	
	Grant County, KY	
	Kenton County, KY	
	Pendleton County, KY	
	Brown County, OH	
	Butler County, OH	
	Clermont County, OH	
	Hamilton County, OH	
	Warren County, OH	
17300	Clarksville, TN-KY	0.8251
	Christian County, KY	
	Trigg County, KY	
	Montgomery County, TN	
	Stewart County, TN	
17420	Cleveland, TN	0.8052
	Bradley County, TN	
	Polk County, TN	
17460	Cleveland-Elyria-Mentor, OH	0.9339
	Cuyahoga County, OH	
	Geauga County, OH	
	Lake County, OH	
	Lorain County, OH	
	Medina County, OH	

CBSA Code	Urban Area (Constituent Counties)	Wage Index
17660	Coeur d'Alene, ID Kootenai County, ID	0.9532
17780	College Station-Bryan, TX Brazos County, TX Burleson County, TX Robertson County, TX	0.9358
17820	Colorado Springs, CO El Paso County, CO Teller County, CO	0.9719
17860	Columbia, MO Boone County, MO Howard County, MO	0.8658
17900	Columbia, SC Calhoun County, SC Fairfield County, SC Kershaw County, SC Lexington County, SC Richland County, SC Saluda County, SC	0.8800
17980	Columbus, GA-AL Russell County, AL Chattahoochee County, GA Harris County, GA Marion County, GA Muscogee County, GA	0.8729
18020	Columbus, IN Bartholomew County, IN	0.9537

CBSA Code	Urban Area (Constituent Counties)	Wage Index
18140	Columbus, OH Delaware County, OH Fairfield County, OH Franklin County, OH Licking County, OH Madison County, OH Morrow County, OH Pickaway County, OH Union County, OH	1.0085
18580	Corpus Christi, TX Aransas County, TX Nueces County, TX San Patricio County, TX	0.8588
18700	Corvallis, OR Benton County, OR	1.0959
19060	Cumberland, MD-WV Allegany County, MD Mineral County, WV	0.8294
19124	Dallas-Plano-Irving, TX Collin County, TX Dallas County, TX Delta County, TX Denton County, TX Ellis County, TX Hunt County, TX Kaufman County, TX Rockwall County, TX	0.9915
19140	Dalton, GA Murray County, GA Whitfield County, GA	0.8760
19180	Danville, IL Vermilion County, IL	0.8957

CBSA Code	Urban Area (Constituent Counties)	Wage Index
19260	Danville, VA Pittsylvania County, VA Danville City, VA	0.8240
19340	Davenport-Moline-Rock Island, IA-IL Henry County, IL Mercer County, IL Rock Island County, IL Scott County, IA	0.8830
19380	Dayton, OH Greene County, OH Miami County, OH Montgomery County, OH Preble County, OH	0.9190
19460	Decatur, AL Lawrence County, AL Morgan County, AL	0.7885
19500	Decatur, IL Macon County, IL	0.8074
19660	Deltona-Daytona Beach-Ormond Beach, FL Volusia County, FL	0.9031
19740	Denver-Aurora, CO Adams County, CO Arapahoe County, CO Broomfield County, CO Clear Creek County, CO Denver County, CO Douglas County, CO Elbert County, CO Gilpin County, CO Jefferson County, CO Park County, CO	1.0718

CBSA Code	Urban Area (Constituent Counties)	Wage Index
19780	Des Moines, IA Dallas County, IA Guthrie County, IA Madison County, IA Polk County, IA Warren County, IA	0.9226
19804	Detroit-Livonia-Dearborn, MI Wayne County, MI	0.9999
20020	Dothan, AL Geneva County, AL Henry County, AL Houston County, AL	0.7270
20100	Dover, DE Kent County, DE	1.0099
20220	Dubuque, IA Dubuque County, IA	0.9058
20260	Duluth, MN-WI Carlton County, MN St. Louis County, MN Douglas County, WI	0.9975
20500	Durham, NC Chatham County, NC Durham County, NC Orange County, NC Person County, NC	0.9816
20740	Eau Claire, WI Chippewa County, WI Eau Claire County, WI	0.9475
20764	Edison, NJ Middlesex County, NJ Monmouth County, NJ Ocean County, NJ Somerset County, NJ	1.1181

CBSA Code	Urban Area (Constituent Counties)	Wage Index
20940	El Centro, CA Imperial County, CA	0.8914
21060	Elizabethtown, KY Hardin County, KY Larue County, KY	0.8711
21140	Elkhart-Goshen, IN Elkhart County, IN	0.9611
21300	Elmira, NY Chemung County, NY	0.8264
21340	El Paso, TX El Paso County, TX	0.8989
21500	Erie, PA Erie County, PA	0.8495
21660	Eugene-Springfield, OR Lane County, OR	1.0932
21780	Evansville, IN-KY Gibson County, IN Posey County, IN Vanderburgh County, IN Warrick County, IN Henderson County, KY Webster County, KY	0.8662
21820	Fairbanks, AK Fairbanks North Star Borough, AK	1.1050
21940	Fajardo, PR Ceiba Municipio, PR Fajardo Municipio, PR Luquillo Municipio, PR	0.4375
22020	Fargo, ND-MN Cass County, ND Clay County, MN	0.8042
22140	Farmington, NM San Juan County, NM	0.9587

CBSA Code	Urban Area (Constituent Counties)	Wage Index
22180	Fayetteville, NC Cumberland County, NC Hoke County, NC	0.9368
22220	Fayetteville-Springdale-Rogers, AR-MO Benton County, AR Madison County, AR Washington County, AR McDonald County, MO	0.8742
22380	Flagstaff, AZ Coconino County, AZ	1.1687
22420	Flint, MI Genesee County, MI	1.1220
22500	Florence, SC Darlington County, SC Florence County, SC	0.8249
22520	Florence-Muscle Shoals, AL Colbert County, AL Lauderdale County, AL	0.7680
22540	Fond du Lac, WI Fond du Lac County, WI	0.9667
22660	Fort Collins-Loveland, CO Larimer County, CO	0.9897
22744	Fort Lauderdale-Pompano Beach-Deerfield Beach, FL Broward County, FL	1.0229
22900	Fort Smith, AR-OK Crawford County, AR Franklin County, AR Sebastian County, AR Le Flore County, OK Sequoyah County, OK	0.7933
23020	Fort Walton Beach-Crestview-Destin, FL Okaloosa County, FL	0.8743

CBSA Code	Urban Area (Constituent Counties)	Wage Index
23060	Fort Wayne, IN Allen County, IN Wells County, IN Whitley County, IN	0.9284
23104	Fort Worth-Arlington, TX Johnson County, TX Parker County, TX Tarrant County, TX Wise County, TX	0.9693
23420	Fresno, CA Fresno County, CA	1.0993
23460	Gadsden, AL Etowah County, AL	0.8159
23540	Gainesville, FL Alachua County, FL Gilchrist County, FL	0.9196
23580	Gainesville, GA Hall County, GA	0.9216
23844	Gary, IN Jasper County, IN Lake County, IN Newton County, IN Porter County, IN	0.9224
24020	Glens Falls, NY Warren County, NY Washington County, NY	0.8256
24140	Goldsboro, NC Wayne County, NC	0.9288
24220	Grand Forks, ND-MN Polk County, MN Grand Forks County, ND	0.7881
24300	Grand Junction, CO Mesa County, CO	0.9864

CBSA Code	Urban Area (Constituent Counties)	Wage Index
24340	Grand Rapids-Wyoming, MI Barry County, MI Ionia County, MI Kent County, MI Newaygo County, MI	0.9315
24500	Great Falls, MT Cascade County, MT	0.8675
24540	Greeley, CO Weld County, CO	0.9658
24580	Green Bay, WI Brown County, WI Kewaunee County, WI Oconto County, WI	0.9727
24660	Greensboro-High Point, NC Guilford County, NC Randolph County, NC Rockingham County, NC	0.9010
24780	Greenville, NC Greene County, NC Pitt County, NC	0.9402
24860	Greenville, SC Greenville County, SC Laurens County, SC Pickens County, SC	0.9860
25020	Guayama, PR Arroyo Municipio, PR Guayama Municipio, PR Patillas Municipio, PR	0.3064
25060	Gulfport-Biloxi, MS Hancock County, MS Harrison County, MS Stone County, MS	0.8773
25180	Hagerstown-Martinsburg, MD-WV	0.9013

CBSA Code	Urban Area (Constituent Counties)	Wage Index
	Washington County, MD Berkeley County, WV Morgan County, WV	
25260	Hanford-Corcoran, CA Kings County, CA	1.0499
25420	Harrisburg-Carlisle, PA Cumberland County, PA Dauphin County, PA Perry County, PA	0.9280
25500	Harrisonburg, VA Rockingham County, VA Harrisonburg City, VA	0.8867
25540	Hartford-West Hartford-East Hartford, CT Hartford County, CT Litchfield County, CT Middlesex County, CT Tolland County, CT	1.0937
25620	Hattiesburg, MS Forrest County, MS Lamar County, MS Perry County, MS	0.7366
25860	Hickory-Lenoir-Morganton, NC Alexander County, NC Burke County, NC Caldwell County, NC Catawba County, NC	0.9028
25980[2]	Hinesville-Fort Stewart, GA Liberty County, GA Long County, GA	0.9187
26100	Holland-Grand Haven, MI Ottawa County, MI	0.9006
26180	Honolulu, HI Honolulu County, HI	1.1556

CBSA Code	Urban Area (Constituent Counties)	Wage Index
26300	Hot Springs, AR Garland County, AR	0.9109
26380	Houma-Bayou Cane-Thibodaux, LA Lafourche Parish, LA Terrebonne Parish, LA	0.7892
26420	Houston-Baytown-Sugar Land, TX Austin County, TX Brazoria County, TX Chambers County, TX Fort Bend County, TX Galveston County, TX Harris County, TX Liberty County, TX Montgomery County, TX San Jacinto County, TX Waller County, TX	0.9939
26580	Huntington-Ashland, WV-KY-OH Boyd County, KY Greenup County, KY Lawrence County, OH Cabell County, WV Wayne County, WV	0.9041
26620	Huntsville, AL Limestone County, AL Madison County, AL	0.9146
26820	Idaho Falls, ID Bonneville County, ID Jefferson County, ID	0.9264

CBSA Code	Urban Area (Constituent Counties)	Wage Index
26900	Indianapolis, IN Boone County, IN Brown County, IN Hamilton County, IN Hancock County, IN Hendricks County, IN Johnson County, IN Marion County, IN Morgan County, IN Putnam County, IN Shelby County, IN	0.9844
26980	Iowa City, IA Johnson County, IA Washington County, IA	0.9568
27060	Ithaca, NY Tompkins County, NY	0.9630
27100	Jackson, MI Jackson County, MI	0.9329
27140	Jackson, MS Copiah County, MS Hinds County, MS Madison County, MS Rankin County, MS Simpson County, MS	0.8011
27180	Jackson, TN Chester County, TN Madison County, TN	0.8676
27260	Jacksonville, FL Baker County, FL Clay County, FL Duval County, FL Nassau County, FL St. Johns County, FL	0.9021

CBSA Code	Urban Area (Constituent Counties)	Wage Index
27340	Jacksonville, NC Onslow County, NC	0.8079
27500	Janesville, WI Rock County, WI	0.9702
27620	Jefferson City, MO Callaway County, MO Cole County, MO Moniteau County, MO Osage County, MO	0.8478
27740	Johnson City, TN Carter County, TN Unicoi County, TN Washington County, TN	0.7677
27780	Johnstown, PA Cambria County, PA	0.7543
27860	Jonesboro, AR Craighead County, AR Poinsett County, AR	0.7790
27900	Joplin, MO Jasper County, MO Newton County, MO	0.8951
28020	Kalamazoo-Portage, MI Kalamazoo County, MI Van Buren County, MI	1.0433
28100	Kankakee-Bradley, IL Kankakee County, IL	1.0238

CBSA Code	Urban Area (Constituent Counties)	Wage Index
28140	Kansas City, MO-KS Franklin County, KS Johnson County, KS Leavenworth County, KS Linn County, KS Miami County, KS Wyandotte County, KS Bates County, MO Caldwell County, MO Cass County, MO Clay County, MO Clinton County, MO Jackson County, MO Lafayette County, MO Platte County, MO Ray County, MO	0.9504
28420	Kennewick-Richland-Pasco, WA Benton County, WA Franklin County, WA	1.0075
28660	Killeen-Temple-Fort Hood, TX Bell County, TX Coryell County, TX Lampasas County, TX	0.8249
28700	Kingsport-Bristol-Bristol, TN-VA Hawkins County, TN Sullivan County, TN Bristol City, VA Scott County, VA Washington County, VA	0.7658
28740	Kingston, NY Ulster County, NY	0.9556

CBSA Code	Urban Area (Constituent Counties)	Wage Index
28940	Knoxville, TN Anderson County, TN Blount County, TN Knox County, TN Loudon County, TN Union County, TN	0.8036
29020	Kokomo, IN Howard County, IN Tipton County, IN	0.9591
29100	La Crosse, WI-MN Houston County, MN La Crosse County, WI	0.9685
29140	Lafayette, IN Benton County, IN Carroll County, IN Tippecanoe County, IN	0.8869
29180	Lafayette, LA Lafayette Parish, LA St. Martin Parish, LA	0.8247
29340	Lake Charles, LA Calcasieu Parish, LA Cameron Parish, LA	0.7777
29404	Lake County-Kenosha County, IL-WI Lake County, IL Kenosha County, WI	1.0315
29420	Lake Havasu City-Kingman, AZ	0.9333
29460	Lakeland, FL Polk County, FL	0.8661
29540	Lancaster, PA Lancaster County, PA	0.9252
29620	Lansing-East Lansing, MI Clinton County, MI Eaton County, MI	1.0119

CBSA Code	Urban Area (Constituent Counties)	Wage Index
	Ingham County, MI	
29700	Laredo, TX Webb County, TX	0.8093
29740	Las Cruces, NM Dona Ana County, NM	0.8676
29820	Las Vegas-Paradise, NV Clark County, NV	1.1799
29940	Lawrence, KS Douglas County, KS	0.8227
30020	Lawton, OK Comanche County, OK	0.8025
30140	Lebanon, PA Lebanon County, PA	0.8192
30300	Lewiston, ID-WA Nez Perce County, ID Asotin County, WA	0.9454
30340	Lewiston-Auburn, ME Androscoggin County, ME	0.9193
30460	Lexington-Fayette, KY Bourbon County, KY Clark County, KY Fayette County, KY Jessamine County, KY Scott County, KY Woodford County, KY	0.9191
30620	Lima, OH Allen County, OH	0.9424
30700	Lincoln, NE Lancaster County, NE Seward County, NE	1.0051

CBSA Code	Urban Area (Constituent Counties)	Wage Index
30780	Little Rock-North Little Rock, AR Faulkner County, AR Grant County, AR Lonoke County, AR Perry County, AR Pulaski County, AR Saline County, AR	0.8863
30860	Logan, UT-ID Franklin County, ID Cache County, UT	0.9183
30980	Longview, TX Gregg County, TX Rusk County, TX Upshur County, TX	0.8717
31020	Longview, WA Cowlitz County, WA	1.0827
31084	Los Angeles-Long Beach-Glendale, CA Los Angeles County, CA	1.1771
31140	Louisville, KY-IN Clark County, IN Floyd County, IN Harrison County, IN Washington County, IN Bullitt County, KY Henry County, KY Jefferson County, KY Meade County, KY Nelson County, KY Oldham County, KY Shelby County, KY Spencer County, KY Trimble County, KY	0.9065

CBSA Code	Urban Area (Constituent Counties)	Wage Index
31180	Lubbock, TX Crosby County, TX Lubbock County, TX	0.8680
31340	Lynchburg, VA Amherst County, VA Appomattox County, VA Bedford County, VA Campbell County, VA Bedford City, VA Lynchburg City, VA	0.8732
31420	Macon, GA Bibb County, GA Crawford County, GA Jones County, GA Monroe County, GA Twiggs County, GA	0.9541
31460	Madera, CA Madera County, CA	0.8069
31540	Madison, WI Columbia County, WI Dane County, WI Iowa County, WI	1.0935
31700	Manchester-Nashua, NH Hillsborough County, NH Merrimack County, NH	1.0063
31900	Mansfield, OH Richland County, OH	0.9271
32420	Mayagüez, PR Hormigueros Municipio, PR Mayagüez Municipio, PR	0.3711
32580	McAllen-Edinburg-Pharr, TX Hidalgo County, TX	0.9123

CBSA Code	Urban Area (Constituent Counties)	Wage Index
32780	Medford, OR Jackson County, OR	1.0318
32820	Memphis, TN-MS-AR Crittenden County, AR DeSoto County, MS Marshall County, MS Tate County, MS Tunica County, MS Fayette County, TN Shelby County, TN Tipton County, TN	0.9250
32900	Merced, CA Merced County, CA	1.2120
33124	Miami-Miami Beach-Kendall, FL Miami-Dade County, FL	1.0002
33140	Michigan City-La Porte, IN LaPorte County, IN	0.8914
33260	Midland, TX Midland County, TX	1.0017
33340	Milwaukee-Waukesha-West Allis, WI Milwaukee County, WI Ozaukee County, WI Washington County, WI Waukesha County, WI	1.0214

CBSA Code	Urban Area (Constituent Counties)	Wage Index
33460	Minneapolis-St. Paul-Bloomington, MN-WI Anoka County, MN Carver County, MN Chisago County, MN Dakota County, MN Hennepin County, MN Isanti County, MN Ramsey County, MN Scott County, MN Sherburne County, MN Washington County, MN Wright County, MN Pierce County, WI St. Croix County, WI	1.1093
33540	Missoula, MT Missoula County, MT	0.8953
33660	Mobile, AL Mobile County, AL	0.8033
33700	Modesto, CA Stanislaus County, CA	1.1962
33740	Monroe, LA Ouachita Parish, LA Union Parish, LA	0.7832
33780	Monroe, MI Monroe County, MI	0.9414
33860	Montgomery, AL Autauga County, AL Elmore County, AL Lowndes County, AL Montgomery County, AL	0.8088
34060	Morgantown, WV Monongalia County, WV Preston County, WV	0.8321

CBSA Code	Urban Area (Constituent Counties)	Wage Index
34100	Morristown, TN Grainger County, TN Hamblen County, TN Jefferson County, TN	0.7388
34580	Mount Vernon-Anacortes, WA Skagit County, WA	1.0529
34620	Muncie, IN Delaware County, IN	0.8214
34740	Muskegon-Norton Shores, MI Muskegon County, MI	0.9836
34820	Myrtle Beach-Conway-North Myrtle Beach, SC Horry County, SC	0.8634
34900	Napa, CA Napa County, CA	1.4476
34940	Naples-Marco Island, FL Collier County, FL	0.9487
34980	Nashville-Davidson--Murfreesboro, TN Cannon County, TN Cheatham County, TN Davidson County, TN Dickson County, TN Hickman County, TN	0.9689
	Macon County, TN Robertson County, TN Rutherford County, TN Smith County, TN Sumner County, TN Trousdale County, TN Williamson County, TN Wilson County, TN	
35004	Nassau-Suffolk, NY Nassau County, NY Suffolk County, NY	1.2640

CBSA Code	Urban Area (Constituent Counties)	Wage Index
35084	Newark-Union, NJ-PA Essex County, NJ Hunterdon County, NJ Morris County, NJ Sussex County, NJ Union County, NJ Pike County, PA	1.1862
35300	New Haven-Milford, CT New Haven County, CT	1.1871
35380	New Orleans-Metairie-Kenner, LA Jefferson Parish, LA Orleans Parish, LA Plaquemines Parish, LA St. Bernard Parish, LA St. Charles Parish, LA St. John the Baptist Parish, LA St. Tammany Parish, LA	0.8897
35644	New York-Wayne-White Plains, NY-NJ Bergen County, NJ Hudson County, NJ Passaic County, NJ Bronx County, NY Kings County, NY New York County, NY Putnam County, NY Queens County, NY Richmond County, NY Rockland County, NY Westchester County, NY	1.3115
35660	Niles-Benton Harbor, MI Berrien County, MI	0.9141
35980	Norwich-New London, CT New London County, CT	1.1432

CBSA Code	Urban Area (Constituent Counties)	Wage Index
36084	Oakland-Fremont-Hayward, CA Alameda County, CA Contra Costa County, CA	1.5685
36100	Ocala, FL Marion County, FL	0.8627
36140	Ocean City, NJ Cape May County, NJ	1.0988
36220	Odessa, TX Ector County, TX	1.0042
36260	Ogden-Clearfield, UT Davis County, UT Morgan County, UT Weber County, UT	0.9000
36420	Oklahoma City, OK Canadian County, OK Cleveland County, OK Grady County, OK Lincoln County, OK Logan County, OK McClain County, OK Oklahoma County, OK	0.8815
36500	Olympia, WA Thurston County, WA	1.1512
36540	Omaha-Council Bluffs, NE-IA Harrison County, IA Mills County, IA Pottawattamie County, IA Cass County, NE Douglas County, NE Sarpy County, NE Saunders County, NE Washington County, NE	0.9561

CBSA Code	Urban Area (Constituent Counties)	Wage Index
36740	Orlando, FL Lake County, FL Orange County, FL Osceola County, FL Seminole County, FL	0.9226
36780	Oshkosh-Neenah, WI Winnebago County, WI	0.9551
36980	Owensboro, KY Daviess County, KY Hancock County, KY McLean County, KY	0.8652
37100	Oxnard-Thousand Oaks-Ventura, CA Ventura County, CA	1.1852
37340	Palm Bay-Melbourne-Titusville, FL Brevard County, FL	0.9325
37380	Palm Coast, FL Flagler County, FL	0.8945
37460	Panama City-Lynn Haven, FL Bay County, FL	0.8313
37620	Parkersburg-Marietta, WV-OH Washington County, OH Pleasants County, WV Wirt County, WV Wood County, WV	0.8105
37700	Pascagoula, MS George County, MS Jackson County, MS	0.8647
37764	Peabody, MA Essex County, MA	1.0650
37860	Pensacola-Ferry Pass-Brent, FL Escambia County, FL Santa Rosa County, FL	0.8281

CBSA Code	Urban Area (Constituent Counties)	Wage Index
37900	Peoria, IL Marshall County, IL Peoria County, IL Stark County, IL Tazewell County, IL Woodford County, IL	0.9299
37964	Philadelphia, PA Bucks County, PA Chester County, PA Delaware County, PA Montgomery County, PA Philadelphia County, PA	1.0925
38060	Phoenix-Mesa-Scottsdale, AZ Maricopa County, AZ Pinal County, AZ	1.0264
38220	Pine Bluff, AR Cleveland County, AR Jefferson County, AR Lincoln County, AR	0.7839
38300	Pittsburgh, PA Allegheny County, PA Armstrong County, PA Beaver County, PA Butler County, PA Fayette County, PA Washington County, PA Westmoreland County, PA	0.8525
38340	Pittsfield, MA Berkshire County, MA	1.0091
38540	Pocatello, ID Bannock County, ID Power County, ID	0.9465

CBSA Code	Urban Area (Constituent Counties)	Wage Index
38660	Ponce, PR Juana Díaz Municipio, PR Ponce Municipio, PR Villalba Municipio, PR	0.4450
38860	Portland-South Portland-Biddeford, ME Cumberland County, ME Sagadahoc County, ME York County, ME	1.0042
38900	Portland-Vancouver-Beaverton, OR-WA Clackamas County, OR Columbia County, OR Multnomah County, OR Washington County, OR Yamhill County, OR Clark County, WA Skamania County, WA	1.1498
38940	Port St. Lucie-Fort Pierce, FL Martin County, FL St. Lucie County, FL	1.0016
39100	Poughkeepsie-Newburgh-Middletown, NY Dutchess County, NY Orange County, NY	1.0982
39140	Prescott, AZ Yavapai County, AZ	1.0020
39300	Providence-New Bedford-Fall River, RI-MA Bristol County, MA Bristol County, RI Kent County, RI Newport County, RI Providence County, RI Washington County, RI	1.0685
39340	Provo-Orem, UT Juab County, UT	0.9557

CBSA Code	Urban Area (Constituent Counties)	Wage Index
	Utah County, UT	
39380	Pueblo, CO Pueblo County, CO	0.8851
39460	Punta Gorda, FL Charlotte County, FL	0.9254
39540	Racine, WI Racine County, WI	0.9498
39580	Raleigh-Cary, NC Franklin County, NC Johnston County, NC Wake County, NC	0.9839
39660	Rapid City, SD Meade County, SD Pennington County, SD	0.8811
39740	Reading, PA Berks County, PA	0.9356
39820	Redding, CA Shasta County, CA	1.3541
39900	Reno-Sparks, NV Storey County, NV Washoe County, NV	1.0959

CBSA Code	Urban Area (Constituent Counties)	Wage Index
40060	Richmond, VA Amelia County, VA Caroline County, VA Charles City County, VA Chesterfield County, VA Cumberland County, VA Dinwiddie County, VA Goochland County, VA Hanover County, VA Henrico County, VA King and Queen County, VA King William County, VA Louisa County, VA New Kent County, VA Powhatan County, VA Prince George County, VA Sussex County, VA Colonial Heights City, VA Hopewell City, VA Petersburg City, VA Richmond City, VA	0.9425
40140	Riverside-San Bernardino-Ontario, CA Riverside County, CA San Bernardino County, CA	1.1100
40220	Roanoke, VA Botetourt County, VA Craig County, VA Franklin County, VA Roanoke County, VA Roanoke City, VA Salem City, VA	0.8691

CBSA Code	Urban Area (Constituent Counties)	Wage Index
40340	Rochester, MN Dodge County, MN Olmsted County, MN Wabasha County, MN	1.0755
40380	Rochester, NY Livingston County, NY Monroe County, NY Ontario County, NY Orleans County, NY Wayne County, NY	0.8858
40420	Rockford, IL Boone County, IL Winnebago County, IL	0.9814
40484	Rockingham County-Strafford County, NH Rockingham County, NH Strafford County, NH	1.0111
40580	Rocky Mount, NC Edgecombe County, NC Nash County, NC	0.9001
40660	Rome, GA Floyd County, GA	0.9042
40900	Sacramento--Arden-Arcade--Roseville, CA El Dorado County, CA Placer County, CA Sacramento County, CA Yolo County, CA	1.3505
40980	Saginaw-Saginaw Township North, MI Saginaw County, MI	0.8812
41060	St. Cloud, MN Benton County, MN Stearns County, MN	1.0549
41100	St. George, UT Washington County, UT	0.9358

CBSA Code	Urban Area (Constituent Counties)	Wage Index
41140	St. Joseph, MO-KS Doniphan County, KS Andrew County, MO Buchanan County, MO DeKalb County, MO	0.8762
41180	St. Louis, MO-IL Bond County, IL Calhoun County, IL Clinton County, IL Jersey County, IL Macoupin County, IL Madison County, IL Monroe County, IL St. Clair County, IL Crawford County, MO Franklin County, MO Jefferson County, MO Lincoln County, MO St. Charles County, MO St. Louis County, MO Warren County, MO Washington County, MO St. Louis City, MO	0.9024
41420	Salem, OR Marion County, OR Polk County, OR	1.0572
41500	Salinas, CA Monterey County, CA	1.4775
41540	Salisbury, MD Somerset County, MD Wicomico County, MD	0.8994

CBSA Code	Urban Area (Constituent Counties)	Wage Index
41620	Salt Lake City, UT Salt Lake County, UT Summit County, UT Tooele County, UT	0.9399
41660	San Angelo, TX Irion County, TX Tom Green County, TX	0.8579
41700	San Antonio, TX Atascosa County, TX Bandera County, TX Bexar County, TX Comal County, TX Guadalupe County, TX Kendall County, TX Medina County, TX Wilson County, TX	0.8834
41740	San Diego-Carlsbad-San Marcos, CA San Diego County, CA	1.1492
41780	Sandusky, OH Erie County, OH	0.8822
41884	San Francisco-San Mateo-Redwood City, CA Marin County, CA San Francisco County, CA San Mateo County, CA	1.5195
41900	San Germán-Cabo Rojo, PR Cabo Rojo Municipio, PR Lajas Municipio, PR Sabana Grande Municipio, PR San Germán Municipio, PR	0.4729
41940	San Jose-Sunnyvale-Santa Clara, CA San Benito County, CA Santa Clara County, CA	1.5735
41980	San Juan-Caguas-Guaynabo, PR	0.4528

CBSA Code	Urban Area (Constituent Counties)	Wage Index
	Aguas Buenas Municipio, PR	
	Aibonito Municipio, PR	
	Arecibo Municipio, PR	
	Barceloneta Municipio, PR	
	Barranquitas Municipio, PR	
	Bayamón Municipio, PR	
	Caguas Municipio, PR	
	Camuy Municipio, PR	
	Canóvanas Municipio, PR	
	Carolina Municipio, PR	
	Cataño Municipio, PR	
	Cayey Municipio, PR	
	Ciales Municipio, PR	
	Cidra Municipio, PR	
	Comerío Municipio, PR	
	Corozal Municipio, PR	
	Dorado Municipio, PR	
	Florida Municipio, PR	
	Guaynabo Municipio, PR	
	Gurabo Municipio, PR	
	Hatillo Municipio, PR	
	Humacao Municipio, PR	
	Juncos Municipio, PR	
	Las Piedras Municipio, PR	
	Loíza Municipio, PR	
	Manatí Municipio, PR	
	Maunabo Municipio, PR	
	Morovis Municipio, PR	
	Naguabo Municipio, PR	
	Naranjito Municipio, PR	
	Orocovis Municipio, PR	
	Quebradillas Municipio, PR	
	Río Grande Municipio, PR	

CBSA Code	Urban Area (Constituent Counties)	Wage Index
	San Juan Municipio, PR San Lorenzo Municipio, PR Toa Alta Municipio, PR Toa Baja Municipio, PR Trujillo Alto Municipio, PR Vega Alta Municipio, PR Vega Baja Municipio, PR Yabucoa Municipio, PR	
42020	San Luis Obispo-Paso Robles, CA San Luis Obispo County, CA	1.2488
42044	Santa Ana-Anaheim-Irvine, CA Orange County, CA	1.1766
42060	Santa Barbara-Santa Maria-Goleta, CA Santa Barbara County, CA	1.1714
42100	Santa Cruz-Watsonville, CA Santa Cruz County, CA	1.6122
42140	Santa Fe, NM Santa Fe County, NM	1.0734
42220	Santa Rosa-Petaluma, CA Sonoma County, CA	1.4696
42260	Sarasota-Bradenton-Venice, FL Manatee County, FL Sarasota County, FL	0.9933
42340	Savannah, GA Bryan County, GA Chatham County, GA Effingham County, GA	0.9131
42540	Scranton--Wilkes-Barre, PA Lackawanna County, PA Luzerne County, PA Wyoming County, PA	0.8457
42644	Seattle-Bellevue-Everett, WA	1.1572

CBSA Code	Urban Area (Constituent Counties)	Wage Index
	King County, WA Snohomish County, WA	
42680	Sebastian-Vero Beach, FL	0.9412
43100	Sheboygan, WI Sheboygan County, WI	0.8975
43300	Sherman-Denison, TX Grayson County, TX	0.8320
43340	Shreveport-Bossier City, LA Bossier Parish, LA Caddo Parish, LA De Soto Parish, LA	0.8476
43580	Sioux City, IA-NE-SD Woodbury County, IA Dakota County, NE Dixon County, NE Union County, SD	0.9251
43620	Sioux Falls, SD Lincoln County, SD McCook County, SD Minnehaha County, SD Turner County, SD	0.9563
43780	South Bend-Mishawaka, IN-MI St. Joseph County, IN Cass County, MI	0.9617
43900	Spartanburg, SC Spartanburg County, SC	0.9422
44060	Spokane, WA Spokane County, WA	1.0455
44100	Springfield, IL Menard County, IL Sangamon County, IL	0.8944
44140	Springfield, MA Franklin County, MA	1.0366

CBSA Code	Urban Area (Constituent Counties)	Wage Index
	Hampden County, MA Hampshire County, MA	
44180	Springfield, MO Christian County, MO Dallas County, MO Greene County, MO Polk County, MO Webster County, MO	0.8695
44220	Springfield, OH Clark County, OH	0.8694
44300	State College, PA Centre County, PA	0.8768
44700	Stockton, CA San Joaquin County, CA	1.1855
44940	Sumter, SC Sumter County, SC	0.8599
45060	Syracuse, NY Madison County, NY Onondaga County, NY Oswego County, NY	0.9910
45104	Tacoma, WA Pierce County, WA	1.1055
45220	Tallahassee, FL Gadsden County, FL Jefferson County, FL Leon County, FL Wakulla County, FL	0.9025
45300	Tampa-St. Petersburg-Clearwater, FL Hernando County, FL Hillsborough County, FL Pasco County, FL Pinellas County, FL	0.9020

CBSA Code	Urban Area (Constituent Counties)	Wage Index
45460	Terre Haute, IN Clay County, IN Sullivan County, IN Vermillion County, IN Vigo County, IN	0.8805
45500	Texarkana, TX-Texarkana, AR Miller County, AR Bowie County, TX	0.7770
45780	Toledo, OH Fulton County, OH Lucas County, OH Ottawa County, OH Wood County, OH	0.9431
45820	Topeka, KS Jackson County, KS Jefferson County, KS Osage County, KS Shawnee County, KS Wabaunsee County, KS	0.8538
45940	Trenton-Ewing, NJ Mercer County, NJ	1.0699
46060	Tucson, AZ Pima County, AZ	0.9245
46140	Tulsa, OK Creek County, OK Okmulgee County, OK Osage County, OK Pawnee County, OK Rogers County, OK Tulsa County, OK Wagoner County, OK	0.8340

CBSA Code	Urban Area (Constituent Counties)	Wage Index
46220	Tuscaloosa, AL Greene County, AL Hale County, AL Tuscaloosa County, AL	0.8303
46340	Tyler, TX Smith County, TX	0.9114
46540	Utica-Rome, NY Herkimer County, NY Oneida County, NY	0.8486
46660	Valdosta, GA Brooks County, GA Echols County, GA Lanier County, GA Lowndes County, GA	0.8098
46700	Vallejo-Fairfield, CA Solano County, CA	1.4666
47020	Victoria, TX Calhoun County, TX Goliad County, TX Victoria County, TX	0.8302

CBSA Code	Urban Area (Constituent Counties)	Wage Index
47220	Vineland-Millville-Bridgeton, NJ Cumberland County, NJ	1.0133
47260	Virginia Beach-Norfolk-Newport News, VA-NC Currituck County, NC Gloucester County, VA Isle of Wight County, VA James City County, VA Mathews County, VA Surry County, VA York County, VA Chesapeake City, VA Hampton City, VA Newport News City, VA Norfolk City, VA Poquoson City, VA Portsmouth City, VA Suffolk City, VA Virginia Beach City, VA Williamsburg City, VA	0.8818
47300	Visalia-Porterville, CA Tulare County, CA	1.0091
47380	Waco, TX McLennan County, TX	0.8518
47580	Warner Robins, GA Houston County, GA	0.9128
47644	Warren-Farmington Hills-Troy, MI Lapeer County, MI Livingston County, MI Macomb County, MI Oakland County, MI St. Clair County, MI	1.0001

CBSA Code	Urban Area (Constituent Counties)	Wage Index
47894	Washington-Arlington-Alexandria, DC-VA-MD-WV District of Columbia, DC Calvert County, MD Charles County, MD Prince George's County, MD Arlington County, VA Clarke County, VA Fairfax County, VA Fauquier County, VA Loudoun County, VA Prince William County, VA Spotsylvania County, VA Stafford County, VA Warren County, VA Alexandria City, VA Fairfax City, VA Falls Church City, VA Fredericksburg City, VA Manassas City, VA Manassas Park City, VA Jefferson County, WV	1.0855
47940	Waterloo-Cedar Falls, IA Black Hawk County, IA Bremer County, IA Grundy County, IA	0.8519
48140	Wausau, WI Marathon County, WI	0.9679
48260	Weirton-Steubenville, WV-OH Jefferson County, OH Brooke County, WV Hancock County, WV	0.7924

CBSA Code	Urban Area (Constituent Counties)	Wage Index
48300	Wenatchee, WA Chelan County, WA Douglas County, WA	1.1469
48424	West Palm Beach-Boca Raton-Boynton Beach, FL Palm Beach County, FL	0.9728
48540	Wheeling, WV-OH Belmont County, OH Marshall County, WV Ohio County, WV	0.6961
48620	Wichita, KS Butler County, KS Harvey County, KS Sedgwick County, KS Sumner County, KS	0.9062
48660	Wichita Falls, TX Archer County, TX Clay County, TX Wichita County, TX	0.7920
48700	Williamsport, PA Lycoming County, PA	0.8043
48864	Wilmington, DE-MD-NJ New Castle County, DE Cecil County, MD Salem County, NJ	1.0824
48900	Wilmington, NC Brunswick County, NC New Hanover County, NC Pender County, NC	0.9410
49020	Winchester, VA-WV Frederick County, VA Winchester City, VA Hampshire County, WV	0.9913

CBSA Code	Urban Area (Constituent Counties)	Wage Index
49180	Winston-Salem, NC Davie County, NC Forsyth County, NC Stokes County, NC Yadkin County, NC	0.9118
49340	Worcester, MA Worcester County, MA	1.1287
49420	Yakima, WA Yakima County, WA	1.0267
49500	Yauco, PR Guánica Municipio, PR Guayanilla Municipio, PR Peñuelas Municipio, PR Yauco Municipio, PR	0.3284
49620	York-Hanover, PA York County, PA	0.9359
49660	Youngstown-Warren-Boardman, OH-PA Mahoning County, OH Trumbull County, OH Mercer County, PA	0.9002
49700	Yuba City, CA Sutter County, CA Yuba County, CA	1.0756
49740	Yuma, AZ Yuma County, AZ	0.9488

[2]At this time, there are no hospitals in these urban areas on which to base a wage index. Therefore, the urban wage index value is based on the average wage index of all urban areas within the State.

ADDENDUM C. - COMPARISON OF THE CY 2007 HH PPS WAGE INDEX AND THE CY 2008 HH PPS WAGE INDEX

CBSA Code	Nonurban Area	CY07 Wage Index	CY08 Wage Index	Percent Change CY07-CY08
01	Alabama	0.7591	0.7533	-0.76
02	Alaska	1.0661	1.2109	13.58
03	Arizona	0.8908	0.8479	-4.82
04	Arkansas	0.7307	0.7371	0.88
05	California	1.1454	1.2023	4.97
06	Colorado	0.9325	0.9704	4.06
07	Connecticut	1.1709	1.1283	-3.64
08	Delaware	0.9705	0.9727	0.23
10	Florida	0.8594	0.8465	-1.50
11	Georgia	0.7593	0.7659	0.87
12	Hawaii	1.0448	1.0612	1.57
13	Idaho	0.8120	0.7920	-2.46
14	Illinois	0.8320	0.8335	0.18
15	Indiana	0.8538	0.8576	0.45
16	Iowa	0.8681	0.8566	-1.32
17	Kansas	0.7998	0.7981	-0.21
18	Kentucky	0.7768	0.7793	0.32
19	Louisiana	0.7438	0.7373	-0.87
20	Maine	0.8443	0.8476	0.39
21	Maryland	0.8926	0.9034	1.21
22	Massachusetts	1.1661	1.1644	-0.15
23	Michigan	0.9062	0.8953	-1.20
24	Minnesota	0.9153	0.9079	-0.81
25	Mississippi	0.7738	0.7700	-0.49
26	Missouri	0.7927	0.7930	0.04
27	Montana	0.8590	0.8379	-2.46
28	Nebraska	0.8677	0.8849	1.98
29	Nevada	0.8944	0.9272	3.67
30	New Hampshire	1.0853	1.0863	0.09
31	New Jersey	------	------	------
32	New Mexico	0.8332	0.8940	7.30
33	New York	0.8232	0.8268	0.44
34	North Carolina	0.8588	0.8603	0.17
35	North Dakota	0.7215	0.7182	-0.46
36	Ohio	0.8658	0.8714	0.65
37	Oklahoma	0.7629	0.7492	-1.80
38	Oregon	0.9753	0.9906	1.57
39	Pennsylvania	0.8320	0.8385	0.78
40	Puerto Rico	0.4047	0.4047	0.00
41	Rhode Island	------	------	------
42	South Carolina	0.8566	0.8656	1.05

CBSA Code	Nonurban Area	CY07 Wage Index	CY08 Wage Index	Percent Change CY07-CY08
43	South Dakota	0.8480	0.8549	0.81
44	Tennessee	0.7827	0.7723	-1.33
45	Texas	0.7965	0.7968	0.04
46	Utah	0.8140	0.8116	-0.29
47	Vermont	0.9744	0.9919	1.80
48	Virgin Islands	0.8467	0.6830	-19.33
49	Virginia	0.7940	0.7896	-0.55
50	Washington	1.0263	1.0259	-0.04
51	West Virginia	0.7607	0.7454	-2.01
52	Wisconsin	0.9553	0.9667	1.19
53	Wyoming	0.9295	0.9287	-0.09
65	Guam	0.9611	0.9611	0.00

CBSA Code	Urban Area	CY07 Wage Index	CY08 Wage Index	Percent Change CY07-CY08
10180	Abilene, TX	0.8000	0.7957	-0.54
10380	Aguadilla-Isabela-San Sebastián, PR	0.3915	0.3448	-11.93
10420	Akron, OH	0.8654	0.8794	1.62
10500	Albany, GA	0.8991	0.8514	-5.31
10580	Albany-Schenectady-Troy, NY	0.8720	0.8588	-1.51
10740	Albuquerque, NM	0.9458	0.9554	1.02
10780	Alexandria, LA	0.8006	0.7979	-0.34
10900	Allentown-Bethlehem-Easton, PA-NJ	0.9947	0.9865	-0.82
11020	Altoona, PA	0.8812	0.8618	-2.20
11100	Amarillo, TX	0.9169	0.9116	-0.58
11180	Ames, IA	0.9760	1.0046	2.93
11260	Anchorage, AK	1.2023	1.1913	-0.91
11300	Anderson, IN	0.8681	0.8827	1.68
11340	Anderson, SC	0.9017	0.9086	0.77
11460	Ann Arbor, MI	1.0826	1.0539	-2.65
11500	Anniston-Oxford, AL	0.7770	0.7926	2.01
11540	Appleton, WI	0.9455	0.9598	1.51
11700	Asheville, NC	0.9216	0.9185	-0.34
12020	Athens-Clarke County, GA	0.9856	1.0517	6.71
12060	Atlanta-Sandy Springs-Marietta, GA	0.9762	0.9828	0.68
12100	Atlantic City, NJ	1.1831	1.2198	3.10
12220	Auburn-Opelika, AL	0.8096	0.8090	-0.07
12260	Augusta-Richmond County, GA-SC	0.9667	0.9645	-0.23
12420	Austin-Round Rock, TX	0.9344	0.9544	2.14
12540	Bakersfield, CA	1.0725	1.1051	3.04
12580	Baltimore-Towson, MD	1.0088	1.0134	0.46
12620	Bangor, ME	0.9711	0.9978	2.75
12700	Barnstable Town, MA	1.2539	1.2603	0.51
12940	Baton Rouge, LA	0.8084	0.8034	-0.62
12980	Battle Creek, MI	0.9762	1.0179	4.27
13020	Bay City, MI	0.9251	0.8897	-3.83
13140	Beaumont-Port Arthur, TX	0.8595	0.8531	-0.74
13380	Bellingham, WA	1.1104	1.1474	3.33
13460	Bend, OR	1.0743	1.0942	1.85
13644	Bethesda-Frederick-Gaithersburg, MD	1.0903	1.0511	-3.60
13740	Billings, MT	0.8712	0.8666	-0.53

CBSA Code	Urban Area	CY07 Wage Index	CY08 Wage Index	Percent Change CY07-CY08
13780	Binghamton, NY	0.8786	0.8949	1.86
13820	Birmingham-Hoover, AL	0.8894	0.8898	0.04
13900	Bismarck, ND	0.7240	0.7225	-0.21
13980	Blacksburg-Christiansburg-Radford, VA	0.8213	0.8192	-0.26
14020	Bloomington, IN	0.8533	0.8915	4.48
14060	Bloomington-Normal, IL	0.8944	0.9325	4.26
14260	Boise City-Nampa, ID	0.9401	0.9465	0.68
14484	Boston-Quincy, MA	1.1679	1.1639	-0.34
14500	Boulder, CO	1.0350	1.0426	0.73
14540	Bowling Green, KY	0.8148	0.8159	0.14
14740	Bremerton-Silverdale, WA	1.0913	1.0904	-0.08
14860	Bridgeport-Stamford-Norwalk, CT	1.2659	1.2735	0.60
15180	Brownsville-Harlingen, TX	0.9430	0.8914	-5.47
15260	Brunswick, GA	1.0164	0.9475	-6.78
15380	Buffalo-Niagara Falls, NY	0.9424	0.9568	1.53
15500	Burlington, NC	0.8674	0.8747	0.84
15540	Burlington-South Burlington, VT	0.9474	0.9660	1.96
15764	Cambridge-Newton-Framingham, MA	1.0970	1.1215	2.23
15804	Camden, NJ	1.0392	1.0411	0.18
15940	Canton-Massillon, OH	0.9031	0.8935	-1.06
15980	Cape Coral-Fort Myers, FL	0.9342	0.9396	0.58
16180	Carson City, NV	1.0025	0.9353	-6.70
16220	Casper, WY	0.9145	0.9385	2.62
16300	Cedar Rapids, IA	0.8888	0.8852	-0.41
16580	Champaign-Urbana, IL	0.9644	0.9392	-2.61
16620	Charleston, WV	0.8542	0.8289	-2.96
16700	Charleston-North Charleston, SC	0.9145	0.9124	-0.23
16740	Charlotte-Gastonia-Concord, NC-SC	0.9554	0.9520	-0.36
16820	Charlottesville, VA	1.0125	0.9277	-8.38
16860	Chattanooga, TN-GA	0.8948	0.8994	0.51
16940	Cheyenne, WY	0.9060	0.9308	2.74
16974	Chicago-Naperville-Joliet, IL	1.0751	1.0735	-0.15
17020	Chico, CA	1.1053	1.1290	2.14
17140	Cincinnati-Middletown, OH-KY-IN	0.9601	0.9784	1.91
17300	Clarksville, TN-KY	0.8436	0.8251	-2.19

CBSA Code	Urban Area	CY07 Wage Index	CY08 Wage Index	Percent Change CY07-CY08
17420	Cleveland, TN	0.8109	0.8052	-0.70
17460	Cleveland-Elyria-Mentor, OH	0.9400	0.9339	-0.65
17660	Coeur d'Alene, ID	0.9344	0.9532	2.01
17780	College Station-Bryan, TX	0.9045	0.9358	3.46
17820	Colorado Springs, CO	0.9701	0.9719	0.19
17860	Columbia, MO	0.8542	0.8658	1.36
17900	Columbia, SC	0.8933	0.8800	-1.49
17980	Columbus, GA-AL	0.8239	0.8729	5.95
18020	Columbus, IN	0.9318	0.9537	2.35
18140	Columbus, OH	1.0107	1.0085	-0.22
18580	Corpus Christi, TX	0.8564	0.8588	0.28
18700	Corvallis, OR	1.1546	1.0959	-5.08
19060	Cumberland, MD-WV	0.8446	0.8294	-1.80
19124	Dallas-Plano-Irving, TX	1.0075	0.9915	-1.59
19140	Dalton, GA	0.9093	0.8760	-3.66
19180	Danville, IL	0.9266	0.8957	-3.33
19260	Danville, VA	0.8451	0.8240	-2.50
19340	Davenport-Moline-Rock Island, IA-IL	0.8846	0.8830	-0.18
19380	Dayton, OH	0.9037	0.9190	1.69
19460	Decatur, AL	0.8159	0.7885	-3.36
19500	Decatur, IL	0.8172	0.8074	-1.20
19660	Deltona-Daytona Beach-Ormond Beach, FL	0.9263	0.9031	-2.50
19740	Denver-Aurora, CO	1.0930	1.0718	-1.94
19780	Des Moines, IA	0.9214	0.9226	0.13
19804	Detroit-Livonia-Dearborn, MI	1.0281	0.9999	-2.74
20020	Dothan, AL	0.7381	0.7270	-1.50
20100	Dover, DE	0.9847	1.0099	2.56
20220	Dubuque, IA	0.9133	0.9058	-0.82
20260	Duluth, MN-WI	1.0042	0.9975	-0.67
20500	Durham, NC	0.9826	0.9816	-0.10
20740	Eau Claire, WI	0.9630	0.9475	-1.61
20764	Edison, NJ	1.1190	1.1181	-0.08
20940	El Centro, CA	0.9076	0.8914	-1.78
21060	Elizabethtown, KY	0.8697	0.8711	0.16
21140	Elkhart-Goshen, IN	0.9426	0.9611	1.96
21300	Elmira, NY	0.8240	0.8264	0.29
21340	El Paso, TX	0.9053	0.8989	-0.71
21500	Erie, PA	0.8827	0.8495	-3.76
21660	Eugene-Springfield, OR	1.0876	1.0932	0.51

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21780	Evansville, IN-KY	0.9071	0.8662	-4.51
21820	Fairbanks, AK	1.1059	1.1050	-0.08
21940	Fajardo, PR	0.4036	0.4375	8.40
22020	Fargo, ND-MN	0.8250	0.8042	-2.52
22140	Farmington, NM	0.8589	0.9587	11.62
22180	Fayetteville, NC	0.8945	0.9368	4.73
22220	Fayetteville-Springdale-Rogers, AR-MO	0.8865	0.8742	-1.39
22380	Flagstaff, AZ	1.1601	1.1687	0.74
22420	Flint, MI	1.0969	1.1220	2.29
22500	Florence, SC	0.8388	0.8249	-1.66
22520	Florence-Muscle Shoals, AL	0.7843	0.7680	-2.08
22540	Fond du Lac, WI	1.0063	0.9667	-3.94
22660	Fort Collins-Loveland, CO	0.9544	0.9897	3.70
22744	Fort Lauderdale-Pompano Beach-Deerfield Beach,FL	1.0133	1.0229	0.95
22900	Fort Smith, AR-OK	0.7731	0.7933	2.61
23020	Fort Walton Beach-Crestview-Destin, FL	0.8643	0.8743	1.16
23060	Fort Wayne, IN	0.9517	0.9284	-2.45
23104	Fort Worth-Arlington, TX	0.9569	0.9693	1.30
23420	Fresno, CA	1.0943	1.0993	0.46
23460	Gadsden, AL	0.8066	0.8159	1.15
23540	Gainesville, FL	0.9277	0.9196	-0.87
23580	Gainesville, GA	0.8958	0.9216	2.88
23844	Gary, IN	0.9334	0.9224	-1.18
24020	Glens Falls, NY	0.8324	0.8256	-0.82
24140	Goldsboro, NC	0.9171	0.9288	1.28
24220	Grand Forks, ND-MN	0.7949	0.7881	-0.86
24300	Grand Junction, CO	0.9668	0.9864	2.03
24340	Grand Rapids-Wyoming, MI	0.9455	0.9315	-1.48
24500	Great Falls, MT	0.8598	0.8675	0.90
24540	Greeley, CO	0.9602	0.9658	0.58
24580	Green Bay, WI	0.9787	0.9727	-0.61
24660	Greensboro-High Point, NC	0.8866	0.9010	1.62
24780	Greenville, NC	0.9432	0.9402	-0.32
24860	Greenville, SC	0.9804	0.9860	0.57
25020	Guayama, PR	0.3235	0.3064	-5.29
25060	Gulfport-Biloxi, MS	0.8915	0.8773	-1.59
25180	Hagerstown-Martinsburg, MD-WV	0.9038	0.9013	-0.28
25260	Hanford-Corcoran, CA	1.0282	1.0499	2.11

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25420	Harrisburg-Carlisle, PA	0.9402	0.9280	-1.30
25500	Harrisonburg, VA	0.9073	0.8867	-2.27
25540	Hartford-West Hartford-East Hartford, CT	1.0894	1.0937	0.39
25620	Hattiesburg, MS	0.7430	0.7366	-0.86
25860	Hickory-Lenoir-Morganton, NC	0.9010	0.9028	0.20
25980	Hinesville-Fort Stewart, GA	0.9178	0.9187	0.10
26100	Holland-Grand Haven, MI	0.9163	0.9006	-1.71
26180	Honolulu, HI	1.1096	1.1556	4.15
26300	Hot Springs, AR	0.8782	0.9109	3.72
26380	Houma-Bayou Cane-Thibodaux, LA	0.8082	0.7892	-2.35
26420	Houston-Baytown-Sugar Land, TX	1.0008	0.9939	-0.69
26580	Huntington-Ashland, WV-KY-OH	0.8997	0.9041	0.49
26620	Huntsville, AL	0.9007	0.9146	1.54
26820	Idaho Falls, ID	0.9088	0.9264	1.94
26900	Indianapolis, IN	0.9895	0.9844	-0.52
26980	Iowa City, IA	0.9714	0.9568	-1.50
27060	Ithaca, NY	0.9928	0.9630	-3.00
27100	Jackson, MI	0.9560	0.9329	-2.42
27140	Jackson, MS	0.8271	0.8011	-3.14
27180	Jackson, TN	0.8853	0.8676	-2.00
27260	Jacksonville, FL	0.9165	0.9021	-1.57
27340	Jacksonville, NC	0.8231	0.8079	-1.85
27500	Janesville, WI	0.9655	0.9702	0.49
27620	Jefferson City, MO	0.8332	0.8478	1.75
27740	Johnson City, TN	0.8043	0.7677	-4.55
27780	Johnstown, PA	0.8620	0.7543	-12.49
27860	Jonesboro, AR	0.7662	0.7790	1.67
27900	Joplin, MO	0.8605	0.8951	4.02
28020	Kalamazoo-Portage, MI	1.0704	1.0433	-2.53
28100	Kankakee-Bradley, IL	1.0083	1.0238	1.54
28140	Kansas City, MO-KS	0.9495	0.9504	0.09
28420	Kennewick-Richland-Pasco, WA	1.0343	1.0075	-2.59
28660	Killeen-Temple-Fort Hood, TX	0.8901	0.8249	-7.33
28700	Kingsport-Bristol-Bristol, TN-VA	0.7985	0.7658	-4.10

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28740	Kingston, NY	0.9367	0.9556	2.02
28940	Knoxville, TN	0.8249	0.8036	-2.58
29020	Kokomo, IN	0.9669	0.9591	-0.81
29100	La Crosse, WI-MN	0.9426	0.9685	2.75
29140	Lafayette, IN	0.8931	0.8869	-0.69
29180	Lafayette, LA	0.8289	0.8247	-0.51
29340	Lake Charles, LA	0.7914	0.7777	-1.73
29404	Lake County-Kenosha County, IL-WI	1.0570	1.0315	-2.41
29420	Lake Havasu City-Kingman, AZ	------	0.9333	------
29460	Lakeland, FL	0.8879	0.8661	-2.46
29540	Lancaster, PA	0.9589	0.9252	-3.51
29620	Lansing-East Lansing, MI	1.0088	1.0119	0.31
29700	Laredo, TX	0.7811	0.8093	3.61
29740	Las Cruces, NM	0.9273	0.8676	-6.44
29820	Las Vegas-Paradise, NV	1.1430	1.1799	3.23
29940	Lawrence, KS	0.8365	0.8227	-1.65
30020	Lawton, OK	0.8065	0.8025	-0.50
30140	Lebanon, PA	0.8679	0.8192	-5.61
30300	Lewiston, ID-WA	0.9853	0.9454	-4.05
30340	Lewiston-Auburn, ME	0.9126	0.9193	0.73
30460	Lexington-Fayette, KY	0.9181	0.9191	0.11
30620	Lima, OH	0.9042	0.9424	4.22
30700	Lincoln, NE	1.0092	1.0051	-0.41
30780	Little Rock-North Little Rock, AR	0.8890	0.8863	-0.30
30860	Logan, UT-ID	0.9022	0.9183	1.78
30980	Longview, TX	0.8788	0.8717	-0.81
31020	Longview, WA	1.0011	1.0827	8.15
31084	Los Angeles-Long Beach-Glendale, CA	1.1760	1.1771	0.09
31140	Louisville, KY-IN	0.9118	0.9065	-0.58
31180	Lubbock, TX	0.8613	0.8680	0.78
31340	Lynchburg, VA	0.8694	0.8732	0.44
31420	Macon, GA	0.9519	0.9541	0.23
31460	Madera, CA	0.8154	0.8069	-1.04
31540	Madison, WI	1.0840	1.0935	0.88
31700	Manchester-Nashua, NH	1.0243	1.0063	-1.76
31900	Mansfield, OH	0.9271	0.9271	0.00
32420	Mayagüez, PR	0.3848	0.3711	-3.56
32580	McAllen-Edinburg-Pharr, TX	0.8773	0.9123	3.99
32780	Medford, OR	1.0818	1.0318	-4.62

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32820	Memphis, TN-MS-AR	0.9373	0.9250	-1.31
32900	Merced, CA	1.1471	1.2120	5.66
33124	Miami-Miami Beach-Kendall, FL	0.9812	1.0002	1.94
33140	Michigan City-La Porte, IN	0.9118	0.8914	-2.24
33260	Midland, TX	0.9786	1.0017	2.36
33340	Milwaukee-Waukesha-West Allis, WI	1.0218	1.0214	-0.04
33460	Minneapolis-St. Paul-Bloomington, MN-WI	1.0946	1.1093	1.34
33540	Missoula, MT	0.8928	0.8953	0.28
33660	Mobile, AL	0.7913	0.8033	1.52
33700	Modesto, CA	1.1729	1.1962	1.99
33740	Monroe, LA	0.7997	0.7832	-2.06
33780	Monroe, MI	0.9707	0.9414	-3.02
33860	Montgomery, AL	0.8009	0.8088	0.99
34060	Morgantown, WV	0.8423	0.8321	-1.21
34100	Morristown, TN	0.7933	0.7388	-6.87
34580	Mount Vernon-Anacortes, WA	1.0517	1.0529	0.11
34620	Muncie, IN	0.8562	0.8214	-4.06
34740	Muskegon-Norton Shores, MI	0.9941	0.9836	-1.06
34820	Myrtle Beach-Conway-North Myrtle Beach, SC	0.8810	0.8634	-2.00
34900	Napa, CA	1.3374	1.4476	8.24
34940	Naples-Marco Island, FL	0.9941	0.9487	-4.57
34980	Nashville-Davidson--Murfreesboro, TN	0.9847	0.9689	-1.60
35004	Nassau-Suffolk, NY	1.2662	1.2640	-0.17
35084	Newark-Union, NJ-PA	1.1892	1.1862	-0.25
35300	New Haven-Milford, CT	1.1953	1.1871	-0.69
35380	New Orleans-Metairie-Kenner, LA	0.8831	0.8897	0.75
35644	New York-Wayne-White Plains, NY-NJ	1.3177	1.3115	-0.47
35660	Niles-Benton Harbor, MI	0.8915	0.9141	2.54
35980	Norwich-New London, CT	1.1932	1.1432	-4.19
36084	Oakland-Fremont-Hayward, CA	1.5819	1.5685	-0.85
36100	Ocala, FL	0.8867	0.8627	-2.71
36140	Ocean City, NJ	1.0472	1.0988	4.93
36220	Odessa, TX	1.0073	1.0042	-0.31
36260	Ogden-Clearfield, UT	0.8995	0.9000	0.06
36420	Oklahoma City, OK	0.8843	0.8815	-0.32

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36500	Olympia, WA	1.1081	1.1512	3.89
36540	Omaha-Council Bluffs, NE-IA	0.9450	0.9561	1.17
36740	Orlando, FL	0.9452	0.9226	-2.39
36780	Oshkosh-Neenah, WI	0.9315	0.9551	2.53
36980	Owensboro, KY	0.8748	0.8652	-1.10
37100	Oxnard-Thousand Oaks-Ventura, CA	1.1546	1.1852	2.65
37340	Palm Bay-Melbourne-Titusville, FL	0.9443	0.9325	-1.25
37380	Palm Coast, FL	------	0.8945	------
37460	Panama City-Lynn Haven, FL	0.8027	0.8313	3.56
37620	Parkersburg-Marietta, WV-OH	0.7977	0.8105	1.60
37700	Pascagoula, MS	0.8215	0.8647	5.26
37764	Peabody, MA	------	1.0650	------
37860	Pensacola-Ferry Pass-Brent, FL	0.8000	0.8281	3.51
37900	Peoria, IL	0.8982	0.9299	3.53
37964	Philadelphia, PA	1.0996	1.0925	-0.65
38060	Phoenix-Mesa-Scottsdale, AZ	1.0287	1.0264	-0.22
38220	Pine Bluff, AR	0.8383	0.7839	-6.49
38300	Pittsburgh, PA	0.8674	0.8525	-1.72
38340	Pittsfield, MA	1.0266	1.0091	-1.70
38540	Pocatello, ID	0.9400	0.9465	0.69
38660	Ponce, PR	0.4842	0.4450	-8.10
38860	Portland-South Portland-Biddeford, ME	0.9908	1.0042	1.35
38900	Portland-Vancouver-Beaverton, OR-WA	1.1416	1.1498	0.72
38940	Port St. Lucie-Fort Pierce, FL	0.9833	1.0016	1.86
39100	Poughkeepsie-Newburgh-Middletown, NY	1.0911	1.0982	0.65
39140	Prescott, AZ	0.9836	1.0020	1.87
39300	Providence-New Bedford-Fall River, RI-MA	1.0783	1.0685	-0.91
39340	Provo-Orem, UT	0.9537	0.9557	0.21
39380	Pueblo, CO	0.8753	0.8851	1.12
39460	Punta Gorda, FL	0.9405	0.9254	-1.61
39540	Racine, WI	0.9356	0.9498	1.52
39580	Raleigh-Cary, NC	0.9864	0.9839	-0.25

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39660	Rapid City, SD	0.8833	0.8811	-0.25
39740	Reading, PA	0.9622	0.9356	-2.76
39820	Redding, CA	1.3198	1.3541	2.60
39900	Reno-Sparks, NV	1.1963	1.0959	-8.39
40060	Richmond, VA	0.9177	0.9425	2.70
40140	Riverside-San Bernardino-Ontario, CA	1.0904	1.1100	1.80
40220	Roanoke, VA	0.8647	0.8691	0.51
40340	Rochester, MN	1.1408	1.0755	-5.72
40380	Rochester, NY	0.8994	0.8858	-1.51
40420	Rockford, IL	0.9989	0.9814	-1.75
40484	Rockingham County-Strafford County, NH	1.0159	1.0111	-0.47
40580	Rocky Mount, NC	0.8854	0.9001	1.66
40660	Rome, GA	0.9193	0.9042	-1.64
40900	Sacramento--Arden-Arcade--Roseville, CA	1.3372	1.3505	0.99
40980	Saginaw-Saginaw Township North, MI	0.8874	0.8812	-0.70
41060	St. Cloud, MN	1.0362	1.0549	1.80
41100	St. George, UT	0.9265	0.9358	1.00
41140	St. Joseph, MO-KS	1.0118	0.8762	-13.40
41180	St. Louis, MO-IL	0.9005	0.9024	0.21
41420	Salem, OR	1.0438	1.0572	1.28
41500	Salinas, CA	1.4337	1.4775	3.06
41540	Salisbury, MD	0.8953	0.8994	0.46
41620	Salt Lake City, UT	0.9402	0.9399	-0.03
41660	San Angelo, TX	0.8362	0.8579	2.60
41700	San Antonio, TX	0.8844	0.8834	-0.11
41740	San Diego-Carlsbad-San Marcos, CA	1.1354	1.1492	1.22
41780	Sandusky, OH	0.9302	0.8822	-5.16
41884	San Francisco-San Mateo-Redwood City, CA	1.5165	1.5195	0.20
41900	San Germán-Cabo Rojo, PR	0.4885	0.4729	-3.19
41940	San Jose-Sunnyvale-Santa Clara, CA	1.5543	1.5735	1.24
41980	San Juan-Caguas-Guaynabo, PR	0.4452	0.4528	1.71
42020	San Luis Obispo-Paso Robles, CA	1.1598	1.2488	7.67
42044	Santa Ana-Anaheim-Irvine, CA	1.1473	1.1766	2.55

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42060	Santa Barbara-Santa Maria-Goleta, CA	1.1091	1.1714	5.62
42100	Santa Cruz-Watsonville, CA	1.5457	1.6122	4.30
42140	Santa Fe, NM	1.0824	1.0734	-0.83
42220	Santa Rosa-Petaluma, CA	1.4464	1.4696	1.60
42260	Sarasota-Bradenton-Venice, FL	0.9868	0.9933	0.66
42340	Savannah, GA	0.9351	0.9131	-2.35
42540	Scranton--Wilkes-Barre, PA	0.8347	0.8457	1.32
42644	Seattle-Bellevue-Everett, WA	1.1434	1.1572	1.21
42680	Sebastian-Vero Beach, FL	0.9573	0.9412	-1.68
43100	Sheboygan, WI	0.9026	0.8975	-0.57
43300	Sherman-Denison, TX	0.8502	0.8320	-2.14
43340	Shreveport-Bossier City, LA	0.8865	0.8476	-4.39
43580	Sioux City, IA-NE-SD	0.9200	0.9251	0.55
43620	Sioux Falls, SD	0.9559	0.9563	0.04
43780	South Bend-Mishawaka, IN-MI	0.9842	0.9617	-2.29
43900	Spartanburg, SC	0.9174	0.9422	2.70
44060	Spokane, WA	1.0447	1.0455	0.08
44100	Springfield, IL	0.8890	0.8944	0.61
44140	Springfield, MA	1.0079	1.0366	2.85
44180	Springfield, MO	0.8469	0.8695	2.67
44220	Springfield, OH	0.8593	0.8694	1.18
44300	State College, PA	0.8784	0.8768	-0.18
44700	Stockton, CA	1.1442	1.1855	3.61
44940	Sumter, SC	0.8083	0.8599	6.38
45060	Syracuse, NY	0.9691	0.9910	2.26
45104	Tacoma, WA	1.0789	1.1055	2.47
45220	Tallahassee, FL	0.8942	0.9025	0.93
45300	Tampa-St. Petersburg-Clearwater,FL	0.9144	0.9020	-1.36
45460	Terre Haute, IN	0.8765	0.8805	0.46
45500	Texarkana, TX-Texarkana, AR	0.8104	0.7770	-4.12
45780	Toledo, OH	0.9586	0.9431	-1.62
45820	Topeka, KS	0.8730	0.8538	-2.20
45940	Trenton-Ewing, NJ	1.0835	1.0699	-1.26
46060	Tucson, AZ	0.9202	0.9245	0.47
46140	Tulsa, OK	0.8103	0.8340	2.92
46220	Tuscaloosa, AL	0.8542	0.8303	-2.80

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46340	Tyler, TX	0.8811	0.9114	3.44
46540	Utica-Rome, NY	0.8396	0.8486	1.07
46660	Valdosta, GA	0.8369	0.8098	-3.24
46700	Vallejo-Fairfield, CA	1.5137	1.4666	-3.11
47020	Victoria, TX	0.8560	0.8302	-3.01
47220	Vineland-Millville-Bridgeton, NJ	0.9832	1.0133	3.06
47260	Virginia Beach-Norfolk-Newport News, VA-NC	0.8790	0.8818	0.32
47300	Visalia-Porterville, CA	0.9968	1.0091	1.23
47380	Waco, TX	0.8633	0.8518	-1.33
47580	Warner Robins, GA	0.8380	0.9128	8.93
47644	Warren-Farmington Hills-Troy, MI	1.0054	1.0001	-0.53
47894	Washington-Arlington-Alexandria, DC-VA-MD-WV	1.1054	1.0855	-1.80
47940	Waterloo-Cedar Falls, IA	0.8408	0.8519	1.32
48140	Wausau, WI	0.9722	0.9679	-0.44
48260	Weirton-Steubenville, WV-OH	0.8063	0.7924	-1.72
48300	Wenatchee, WA	1.0346	1.1469	10.85
48424	West Palm Beach-Boca Raton-Boynton Beach, FL	0.9649	0.9728	0.82
48540	Wheeling, WV-OH	0.7010	0.6961	-0.70
48620	Wichita, KS	0.9063	0.9062	-0.01
48660	Wichita Falls, TX	0.8311	0.7920	-4.70
48700	Williamsport, PA	0.8139	0.8043	-1.18
48864	Wilmington, DE-MD-NJ	1.0684	1.0824	1.31
48900	Wilmington, NC	0.9835	0.9410	-4.32
49020	Winchester, VA-WV	1.0091	0.9913	-1.76
49180	Winston-Salem, NC	0.9276	0.9118	-1.70
49340	Worcester, MA	1.0722	1.1287	5.27
49420	Yakima, WA	0.9847	1.0267	4.27
49500	Yauco, PR	0.3854	0.3284	-14.79
49620	York-Hanover, PA	0.9397	0.9359	-0.40
49660	Youngstown-Warren-Boardman, OH-PA	0.8802	0.9002	2.27
49700	Yuba City, CA	1.0730	1.0756	0.24
49740	Yuma, AZ	0.9109	0.9488	4.16

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