

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

42 CFR Parts 409, 424, 484, 486, and 488

[CMS-1689-P]

RIN 0938-AT29

Medicare and Medicaid Programs; CY 2019 Home Health Prospective Payment System Rate Update and CY 2020 Case-Mix Adjustment Methodology Refinements; Home Health Value-Based Purchasing Model; Home Health Quality Reporting Requirements; Home Infusion Therapy Requirements; and Training Requirements for Surveyors of National Accrediting Organizations

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

ACTION: Proposed rule.

SUMMARY: This proposed rule would update the home health prospective payment system (HH PPS) payment rates, including the national, standardized 60-day episode payment rates, the national per-visit rates, and the non-routine medical supply (NRS) conversion factor, effective for home health episodes of care ending on or after January 1, 2019. It also proposes updates to the HH PPS case-mix weights for calendar year (CY) 2019 using the most current, complete data available at the time of rulemaking; discusses our efforts to monitor the potential impacts of the rebasing adjustments that were implemented in CYs 2014 through 2017; proposes a rebasing of the HH market basket (which includes a decrease in the labor-related share); proposes the methodology used to determine rural add-on payments for CYs 2019 through 2022, as required by section 50208 of the Bipartisan Budget Act of 2018 hereinafter referred to as the “BBA of 2018”; proposes regulations text changes regarding certifying and recertifying patient eligibility for Medicare home health services; and proposes to define “remote patient monitoring” and recognize the cost associated as an allowable administrative cost. Additionally, it proposes case-mix methodology refinements to be implemented for home health services beginning on or after January 1, 2020, including a change in the unit of payment from 60-day episodes of care to 30-day periods of care, as required by section 51001 of the BBA of 2018; includes information

on the implementation of temporary transitional payments for home infusion therapy services for CYs 2019 and 2020, as required by section 50401 of the BBA of 2018; solicits comments regarding payment for home infusion therapy services for CY 2021 and subsequent years; proposes health and safety standards for home infusion therapy; and proposes an accreditation and oversight process for home infusion therapy suppliers. This rule proposes changes to the Home Health Value-Based Purchasing (HHVBP) Model to remove two OASIS-based measures, replace three OASIS-based measures with two new proposed composite measures, rescore the maximum number of improvement points, and reweight the measures in the applicable measures set. Also, the Home Health Quality Reporting Program provisions include a discussion of the Meaningful Measures Initiative and propose the removal of seven measures to further the priorities of this initiative. In addition, the HH QRP offers a discussion on social risk factors and an update on implementation efforts for certain provisions of the IMPACT Act. This proposed rule clarifies the regulatory text to note that not all OASIS data is required for the HH QRP. Finally, it would require that accrediting organization surveyors take CMS-provided training.

DATES: To be assured consideration, comments must be received at one of the addresses provided below, no later than 5 p.m. on August 31, 2018.

ADDRESSES: In commenting, please refer to file code CMS-1689-P. Because of staff and resource limitations, we cannot accept comments by facsimile (FAX) transmission.

Comments, including mass comment submissions, must be submitted in one of the following three ways (please choose only one of the ways listed):

1. *Electronically.* You may submit electronic comments on this regulation to <http://www.regulations.gov>. Follow the “Submit a comment” instructions.

2. *By regular mail.* You may mail written comments to the following address ONLY: Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS-1689-P, P.O. Box 8013, Baltimore, MD 21244-8013. 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 to the following address ONLY: Centers for Medicare & Medicaid Services, Department of Health and Human

Services, Attention: CMS-1689-P, Mail Stop C4-26-05, 7500 Security Boulevard, Baltimore, MD 21244-1850.

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

FOR FURTHER INFORMATION CONTACT: For general information about the Home Health Prospective Payment System (HH PPS), send your inquiry via email to: HomehealthPolicy@cms.hhs.gov.

For general information about home infusion payment, send your inquiry via email to: HomeInfusionPolicy@cms.hhs.gov.

For information about the Home Health Value-Based Purchasing (HHVBP) Model, send your inquiry via email to: HHVBPquestions@cms.hhs.gov.

For information about the Home Health Quality Reporting Program (HH QRP) contact: Joan Proctor, (410) 786-0949.

For information about home infusion therapy health and safety standards, contact: Sonia Swancy, (410) 786-8445 or CAPT Jacqueline Leach, (410) 786-4282.

For information about health infusion therapy accreditation and oversight, contact: Caroline Gallaher (410) 786-8705.

SUPPLEMENTARY INFORMATION:

Inspection of Public Comments: All comments received before the close of the comment period are available for viewing by the public, including any personally identifiable or confidential business information that is included in a comment. We post all comments received before the close of the comment period on the following website as soon as possible after they have been received: <http://www.regulations.gov>. Follow the search instructions on that website to view public comments.

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I. Executive Summary

A. Purpose

1. Home Health Prospective Payment System (HH PPS)

This proposed rule would update the payment rates for home health agencies (HHAs) for calendar year (CY) 2019, as required under section 1895(b) of the Social Security Act (the Act). This proposed rule would also update the case-mix weights under section 1895(b)(4)(A)(i) and (b)(4)(B) of the Act for CY 2019. For home health services beginning on or after January 1, 2020, this rule proposes case-mix methodology refinements, which eliminate the use of therapy thresholds for case-mix adjustment purposes; and proposes to change the unit of payment from a 60-day episode of care to a 30-day period of care, as mandated by section 51001 of the Bipartisan Budget Act of 2018 (Pub. L. 115–123) (hereinafter referred to as the “BBA of 2018”). This proposed rule also: Proposes the methodology used to determine rural add-on payments for CYs 2019 through 2022, as required by section 50208 of the BBA of 2018; proposes regulations text changes regarding certifying and recertifying patient eligibility for Medicare home health services under sections 1814(a) and 1835(a) of the Act; and proposes to define “remote patient monitoring” under the Medicare home health benefit and to include the costs of such monitoring as an allowable administrative cost. Lastly, this rule proposes changes to the Home Health Value Based Purchasing (HHVBP) Model under the authority of section 1115A of the Act, and the Home Health Quality Reporting Program (HH QRP) requirements under the authority of section 1895(b)(3)(B)(v) of the Act.

2. Home Infusion Therapy Services

This proposed rule would establish a transitional payment for home infusion therapy services for CYs 2019 and 2020, as required by section 50401 of the BBA of 2018. In addition, this rule proposes health and safety standards for home

infusion therapy, proposes an accreditation and oversight process for qualified home infusion therapy suppliers, and solicits comments regarding payment for the home infusion therapy services benefit for CY 2021 and subsequent years, as required by section 5012 of the 21st Century Cures Act (Pub. L. 114–255).

3. Safety Standards for Home Infusion Therapy Services

This proposed rule would establish health and safety standards for qualified home infusion therapy suppliers as required by Section 5012 of the 21st Century Cures Act. These proposed standards would establish a foundation for ensuring patient safety and quality care by establishing requirements for the plan of care to be initiated and updated by a physician; 7-day-a-week, 24-hour-a-day access to services and remote monitoring; and patient education and training regarding their home infusion therapy care.

B. Summary of the Major Provisions

1. Home Health Prospective Payment System (HH PPS)

Section III.A. of this rule discusses our efforts to monitor for potential impacts due to the rebasing adjustments implemented in CY 2014 through CY 2017, as mandated by section 3131(a) of the Patient Protection and Affordable Care Act of 2010 (Pub. L. 111–148, enacted March 23, 2010) as amended by the Health Care and Education Reconciliation Act of 2010 (Pub. L. 111–152, enacted March 30, 2010), collectively referred to as the “Affordable Care Act”. In the CY 2015 HH PPS final rule (79 FR 66072), we finalized our proposal to recalibrate the case-mix weights every year with the most current and complete data available at the time of rulemaking. In section III.B of this rule, we are recalibrating the HH PPS case-mix weights, using the most current cost and utilization data available, in a budget-neutral manner. In section III.C., we propose to rebase the home health market basket and update the payment rates under the HH PPS by the home health payment update percentage of 2.1 percent (using the proposed 2016-based Home Health Agency (HHA) market basket update of 2.8 percent, minus 0.7 percentage point for multifactor productivity) as required by section 1895(b)(3)(B)(vi)(I) of the Act. Also in section III.C. of this proposed rule, we propose to decrease the labor-related share from 78.5 to 76.1 percent of total costs on account of the rebasing of the home health market basket. Lastly, in

section III.C. of this rule, we propose to update the CY 2019 home health wage index using FY 2015 hospital cost report data. In section III.D. of this proposed rule, we are proposing a new methodology for applying rural add-on payments for CYs 2019 through 2022, as required by section 50208 of the BBA of 2018. In section III.E. of this rule, we are proposing to reduce the fixed-dollar loss ratio from 0.55 to 0.51 for CY 2019 in order to increase outlier payments as a percentage of total payments so that this percentage is closer to, but no more than, 2.5 percent.

In the CY 2018 HH PPS proposed rule, CMS proposed an alternative case-mix model, called the Home Health Groupings Model (HHGM). Ultimately the HHGM, including a proposed change in the unit of payment from 60 days to 30 days, was not finalized in the CY 2018 HH PPS final rule in order to allow CMS additional time to consider public comments for potential refinements to the model and other alternative case-mix models (82 FR 51676). In section III.F. of this proposed rule, we are again proposing to implement case-mix methodology refinements and a change in the unit of payment from a 60-day episode of care to a 30-day period of care; however, these changes would be effective January 1, 2020 and would be implemented in a budget neutral manner, as required by section 51001 of the BBA of 2018. Since the proposed case-mix methodology refinements represent a more patient-driven approach to payment we are renaming the proposed case-mix adjustment methodology refinements, formerly known as the Home Health Groupings Model or “HHGM”, as the “Patient-Driven Groupings Model” or PDGM. The proposed PDGM relies more heavily on clinical characteristics and other patient information to place patients into meaningful payment categories and eliminates the use of therapy service thresholds, as required by section 51001(a)(3) of the BBA of 2018, that are currently used to case-mix adjust payments under the HH PPS. There is also a proposal regarding how CMS would determine whether 30-day periods of care are subject to a Low-Utilization Payment Adjustment (LUPA). The LUPA add-on policy, the partial episode payment adjustment policy, and the methodology used to calculate payments for high-cost outliers would remain unchanged except for occurring on a 30-day basis rather than a 60-day basis.

In section III.G. of this proposed rule, we are proposing regulation text changes at 42 CFR 424.22(b)(2) to

eliminate the requirement that the certifying physician must estimate how much longer skilled services will be needed as part of the recertification statement. In addition, in section III.G of this rule, consistent with section 51002 of the BBA of 2018, we are proposing to align the regulations text at 42 CFR 424.22(c) with current subregulatory guidance to allow medical record documentation from the HHA to be used to support the basis for certification and/or recertification of home health eligibility, if certain requirements are met.

In section III.H. of this proposed rule, we propose to define “remote patient monitoring” under the Medicare home health benefit as the collection of physiologic data (for example, ECG, blood pressure, glucose monitoring) digitally stored and/or transmitted by the patient and/or caregiver to the HHA. Additionally in this section of the rule, we propose changes to the regulations at 42 CFR 409.46 to include costs of remote patient monitoring as allowable administrative costs.

2. Home Health Value Based Purchasing

In section IV of this proposed rule, we are proposing changes to the Home Health Value Based Purchasing (HHVBP) Model implemented January 1, 2016. We are proposing, beginning with performance year (PY) 4, to: Remove two Outcome and Assessment Information Set (OASIS) based measures, Influenza Immunization Received for Current Flu Season and Pneumococcal Polysaccharide Vaccine Ever Received, from the set of applicable measures; replace three OASIS-based measures (Improvement in Ambulation-Locomotion, Improvement in Bed Transferring, and Improvement in Bathing) with two proposed composite measures on total normalized composite change in self-care and mobility; change how we calculate the Total Performance Scores by changing the weighting methodology for the OASIS-based, claims-based, and HHCAHPS measures; and change the scoring methodology by reducing the maximum amount of improvement points an HHA could earn, from 10 points to 9 points. While we are not making a specific proposal at this time, we are also providing an update on the progress towards developing public reporting of performance under the HHVBP Model and seeking comment on what information should be made publicly available.

3. Home Health Quality Reporting Program

In section V. of this proposed rule, we are proposing to update our policy for removing previously adopted Home Health (HH) Quality Reporting Program (QRP) measures and to adopt eight measure removal factors to align with other QRPs, to remove seven measures beginning with the CY 2021 HH QRP, and to update our regulations to clarify that not all OASIS data is required for the HH QRP. We are also providing an update on the implementation of certain provisions of the IMPACT Act, and a discussion of accounting for social risk factors in the HH QRP. Finally, we are proposing to increase the number of years of data used to calculate the Medicare Spending per Beneficiary measure for purposes of display from 1 year to 2 years.

4. Home Infusion Therapy

In section VI.A. of this proposed rule, we discuss general background of home infusion therapy services and how that will relate to the implementation of the new home infusion benefit. In section VI.B. of this proposed rule, we are proposing to add a new subpart I under the regulations at 42 CFR part 486 to incorporate health and safety requirements for home infusion therapy suppliers. The proposed regulations would provide a framework for CMS to approve home infusion therapy accreditation organizations. Proposed subpart I would include General Provisions (Scope and Purpose, and Definitions) and Standards for Home Infusion Therapy (Plan of Care and Required Services). In section VI.C. of this proposed rule, we include information on temporary transitional payments for home infusion therapy services for CYs 2019 and 2020 as mandated by section 50401 of the BBA of 2018, and solicits comments on the proposed regulatory definition of “Infusion Drug Administration Calendar Day”. Also in section VI.C. of this proposed rule, we solicit comments regarding payment for home infusion therapy services for CY 2021 and subsequent years as required by section 5012(d) of the 21st Century Cures Act.

In section VI.D. of this proposed rule, we discuss the requirements set forth in section 1861(iii)(3)(D)(III) of the Act, which mandates that suppliers of home infusion therapy receive accreditation from a CMS-approved Accrediting Organization (AO) in order to receive Medicare payment. The Secretary must designate AOs to accredit suppliers furnishing Home Infusion therapy (HIT) not later than January 1, 2021. Qualified

HIT suppliers are required to receive accreditation before receiving Medicare payment for services provided to Medicare beneficiaries.

At this time, no regulations exist to address the following elements of CMS' approval and oversight of the AOs that accredit suppliers of Home Infusion Therapy: (1) The required components to be included in a Home Infusion Therapy AO's initial or renewal accreditation program application; (2) regulations related to CMS' review and approval of the Home Infusion Therapy AOs application for approval of its accreditation program; and (3) the ongoing monitoring and oversight of CMS-approved Home Infusion Therapy

AOs. Therefore in this rule, we propose to establish a set of regulations that will govern the CMS approval and oversight process for all HIT AOs.

We also propose to modify the regulations for oversight for AOs that accredit any Medicare-certified providers and suppliers at 42 CFR 488.5 by adding a requirement that the AOs must include a statement with their application acknowledging that all AO surveyors are required to complete the relevant program specific CMS online trainings initially, and thereafter, consistent with requirements established by CMS for state and federal surveyors. We would also add another requirement at § 488.5 that would

require the AOs for Medicare certified providers and suppliers to provide a written statement with their application stating that if a fully accredited and facility deemed to be in good-standing provides written notification that they wish to voluntarily withdraw from the AO's CMS-approved accreditation program, the AO must continue the facility's current accreditation until the effective date of withdrawal identified by the facility or the expiration date of the term of accreditation, whichever comes first.

C. Summary of Costs, Transfers, and Benefits

TABLE 1—SUMMARY OF COSTS, TRANSFERS, AND BENEFITS

Provision description	Costs and cost savings	Transfers	Benefits
CY 2019 HH PPS Payment Rate Update.	The overall economic impact of the HH PPS payment rate update is an estimated \$400 million (2.1 percent) in increased payments to HHAs in CY 2019.	To ensure home health payments are consistent with statutory payment authority for CY 2019.
CY 2019 Temporary Transitional Payments for Home Infusion Therapy Services.	The overall economic impact of the temporary transitional payment for home infusion therapy services is an estimated \$60 million in increased payments to home infusion therapy suppliers in CY 2019.	To ensure temporary transitional payments for home infusion therapy are consistent with statutory authority for CY 2019.
CY 2019 HHVBP Model	The overall economic impact of the HHVBP Model provision for CY 2018 through 2022 is an estimated \$378 million in total savings from a reduction in unnecessary hospitalizations and SNF usage as a result of greater quality improvements in the HH industry (none of which is attributable to the changes proposed in this proposed rule). As for payments to HHAs, there are no aggregate increases or decreases expected to be applied to the HHAs competing in the model.	
CY 2020 OASIS Changes	The overall economic impact of the HH QRP and the case-mix adjustment methodology changes is annual savings to HHAs of an estimated \$60 million.	.....	A reduction in burden to HHAs of approximately 73 hours annually for a savings of approximately \$5,150 annually per HHA.
CY 2020 Case-Mix Adjustment Methodology Changes, Including a Change in the Unit of Service from 60 to 30 days.	The overall economic impact of the proposed case-mix adjustment methodology changes, including a change in the unit of service from 60 to 30 days, for CY 2020 results in no estimated dollar impact to HHAs, as section 51001(a) of the BBA of 2018 requires such change to be implemented in a budget-neutral manner.	To ensure home health payments are consistent with statutory payment authority for CY 2020.

TABLE 1—SUMMARY OF COSTS, TRANSFERS, AND BENEFITS—Continued

Provision description	Costs and cost savings	Transfers	Benefits
Accreditation for Home Infusion Therapy suppliers.		<p>The cost related to an AO obtaining CMS approval of a home infusion therapy accreditation program is estimated to be \$8,014.50 per each AO, for AOs that have previously submitted an accreditation application to CMS. The cost across the potential 6 home infusion therapy AOs would be \$48,087.</p> <p>The cost related to each home infusion therapy AO for obtaining CMS approval of a home infusion therapy accreditation program is estimated to be \$12,453 per each AO, for AOs that <i>have not</i> previously submitted an accreditation application to CMS. The cost across the potential 6 home infusion therapy AOs would be \$74,718.</p> <p>We further estimate that each home infusion therapy AO would incur an estimated cost burden in the amount of \$23,258 for compliance with the proposed home infusion therapy AO approval and oversight regulations at §§ 488.1010 through 488.1050 (including the filing of an application). The cost across the 6 potential home infusion therapy AOs would be \$139,548.</p>	

D. Improving Patient Outcomes and Reducing Burden Through Meaningful Measures

Regulatory reform and reducing regulatory burden are high priorities for us. To reduce the regulatory burden on the healthcare industry, lower health care costs, and enhance patient care, in October 2017, we launched the Meaningful Measures Initiative.¹ This initiative is one component of our agency-wide Patients Over Paperwork Initiative² which is aimed at evaluating and streamlining regulations with a goal to reduce unnecessary cost and burden, increase efficiencies, and improve beneficiary experience. The Meaningful Measures Initiative is aimed at identifying the highest priority areas for

quality measurement and quality improvement in order to assess the core quality of care issues that are most vital to advancing our work to improve patient outcomes. The Meaningful Measures Initiative represents a new approach to quality measures that fosters operational efficiencies, and will reduce costs including, the collection and reporting burden while producing quality measurement that is more focused on meaningful outcomes.

The Meaningful Measures Framework has the following objectives:

- Address high-impact measure areas that safeguard public health;
- Patient-centered and meaningful to patients;
- Outcome-based where possible;

- Fulfill each program’s statutory requirements;
- Minimize the level of burden for health care providers (for example, through a preference for EHR-based measures where possible, such as electronic clinical quality measures);
- Provide significant opportunity for improvement;
- Address measure needs for population based payment through alternative payment models; and
- Align across programs and/or with other payers.

In order to achieve these objectives, we have identified 19 Meaningful Measures areas and mapped them to six overarching quality priorities as shown in Table 2:

TABLE 2—MEANINGFUL MEASURES FRAMEWORK DOMAINS AND MEASURE AREAS

Quality priority	Meaningful measure area
Making Care Safer by Reducing Harm Caused in the Delivery of Care	Healthcare-Associated Infections. Preventable Healthcare Harm.

¹ Meaningful Measures web page: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/MMF/General-info-Sub-Page.html>.

² See Remarks by Administrator Seema Verma at the Health Care Payment Learning and Action Network (LAN) Fall Summit, as prepared for delivery on October 30, 2017 <https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2017-Fact-Sheet-items/2017-10-30.html>.

<https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2017-Fact-Sheet-items/2017-10-30.html>.

TABLE 2—MEANINGFUL MEASURES FRAMEWORK DOMAINS AND MEASURE AREAS—Continued

Quality priority	Meaningful measure area
Strengthen Person and Family Engagement as Partners in Their Care	Care is Personalized and Aligned with Patient's Goals. End of Life Care according to Preferences. Patient's Experience of Care. Patient Reported Functional Outcomes.
Promote Effective Communication and Coordination of Care	Medication Management. Admissions and Readmissions to Hospitals. Transfer of Health Information and Interoperability.
Promote Effective Prevention and Treatment of Chronic Disease	Preventive Care. Management of Chronic Conditions. Prevention, Treatment, and Management of Mental Health. Prevention and Treatment of Opioid and Substance Use Disorders. Risk Adjusted Mortality.
Work with Communities to Promote Best Practices of Healthy Living	Equity of Care. Community Engagement.
Make Care Affordable	Appropriate Use of Healthcare. Patient-focused Episode of Care. Risk Adjusted Total Cost of Care.

By including Meaningful Measures in our programs, we believe that we can also address the following cross-cutting measure criteria:

- Eliminating disparities;
- Tracking measurable outcomes and impact;
- Safeguarding public health;
- Achieving cost savings;
- Improving access for rural communities; and
- Reducing burden.

We believe that the Meaningful Measures Initiative will improve outcomes for patients, their families, and health care providers while reducing burden and costs for clinicians and providers and promoting operational efficiencies.

II. Background

A. Statutory Background

1. Home Health Prospective Payment System

a. Background

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

Section 4603(a) of the BBA mandated the development of a HH PPS for all Medicare-covered home health services provided under a plan of care (POC) that were paid on a reasonable cost basis by adding section 1895 of the Act, entitled “Prospective Payment For Home Health Services.” 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)(2)

of the Act requires that, in defining a prospective payment amount, the Secretary will consider an appropriate unit of service and the number, type, and duration of visits provided within that unit, potential changes in the mix of services provided within that unit and their cost, and a general system design that provides for continued access to quality services.

Section 1895(b)(3)(A) of the Act requires the following: (1) The computation of a standard prospective payment amount that includes all costs for HH services covered and paid for on a reasonable cost basis, and that such amounts be initially based on the most recent audited cost report data available to the Secretary (as of the effective date of the 2000 final rule), and (2) the standardized prospective payment amount be adjusted to account for the effects of case-mix and wage levels among HHAs.

Section 1895(b)(3)(B) of the Act requires the standard prospective payment amounts be annually updated by the home health applicable percentage increase. 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 to 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 change adjustment factor 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. Under section 1895(b)(4)(C) of the Act, the wage-adjustment factors used by the Secretary may be the factors used under 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 paid in the case of outliers due to unusual variations in the type or amount of medically necessary care. Section 3131(b)(2) of the Affordable Care Act revised section 1895(b)(5) of the Act so that total outlier payments in a given year would not exceed 2.5 percent of total payments projected or estimated. The provision also made permanent a 10 percent agency-level outlier payment cap.

In accordance with the statute, as amended by the BBA, we published a final rule in the July 3, 2000 **Federal Register** (65 FR 41128) 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 for Fiscal Year 1999 (OCESAA), (Pub. L. 105–277, enacted October 21, 1998); and by sections 302, 305, and 306 of the Medicare, Medicaid, and SCHIP Balanced Budget Refinement Act of 1999, (BBRA) (Pub. L. 106–113, enacted 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 (65 FR 41128 through 41214).

Section 5201(c) of the Deficit Reduction Act of 2005 (DRA) (Pub. L. 109–171, enacted February 8, 2006) added new section 1895(b)(3)(B)(v) to the Act, requiring HHAs to submit data for purposes of measuring health care quality, and linking the quality data submission to the annual applicable payment percentage increase. This data submission 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 is reduced by 2 percentage points. In the November 9, 2006 **Federal Register** (71 FR 65884, 65935), we published a final rule to implement the pay-for-reporting requirement of the DRA, which was codified at § 484.225(h) and (i) in accordance with the statute. The pay-for-reporting requirement was implemented on January 1, 2007.

The Affordable Care Act made additional changes to the HH PPS. One of the changes in section 3131 of the Affordable Care Act is the amendment to section 421(a) of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) (Pub. L. 108–173, enacted on December 8, 2003) as amended by section 5201(b) of the DRA. Section 421(a) of the MMA, as amended by section 3131 of the Affordable Care Act, requires that the Secretary increase, by 3 percent, the payment amount otherwise made under section 1895 of the Act, for HH services furnished in a rural area (as defined in section 1886(d)(2)(D) of the Act) with respect to episodes and visits ending on or after April 1, 2010, and before January 1, 2016.

Section 210 of the Medicare Access and CHIP Reauthorization Act of 2015 (Pub. L. 114–10) (MACRA) amended section 421(a) of the MMA to extend the 3 percent rural add-on payment for home health services provided in a rural area (as defined in section 1886(d)(2)(D) of the Act) through January 1, 2018. In addition, section 411(d) of MACRA amended section 1895(b)(3)(B) of the Act such that CY 2018 home health payments be updated by a 1 percent market basket increase. This year, section 50208(a)(1) of the BBA of 2018 again extended the rural add-on through the end of 2018. In addition, this section of the BBA of 2018 made some important changes to the rural add-on for CYs 2019 through 2022, to be discussed below.

b. Current System for Payment of Home Health Services

Generally, Medicare currently makes payment under the HH PPS on the basis of a national, standardized 60-day episode payment rate that is adjusted for the applicable case-mix and wage index. The national, standardized 60-day episode rate includes the six home health disciplines (skilled nursing, home health aide, physical therapy, speech-language pathology, occupational therapy, and medical social services). Payment for non-routine supplies (NRS) is not part of the national, standardized 60-day episode rate, but is computed by multiplying the relative weight for a particular NRS severity level by the NRS conversion factor. Payment for durable medical equipment covered under the HH benefit is made outside the HH PPS payment system. To adjust for case-mix, the HH PPS uses a 153-category case-mix classification system to assign patients to a home health resource group (HHRG). The clinical severity level, functional severity level, and service utilization are computed from responses to selected data elements in the OASIS assessment instrument and are used to place the patient in a particular HHRG. Each HHRG has an associated case-mix weight which is used in calculating the payment for an episode. Therapy service use is measured by the number of therapy visits provided during the episode and can be categorized into nine visit level categories (or thresholds): 0 to 5; 6 to 9; 10; 11 to 13; 14 to 15; 16 to 17; 18 to 19; and 20 or more visits.

For episodes with four or fewer visits, Medicare pays national per-visit rates based on the discipline(s) providing the services. An episode consisting of four or fewer visits within a 60-day period receives what is 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). For certain cases that exceed a specific cost threshold, an outlier adjustment may also be available.

c. Updates to the Home Health Prospective Payment System

As required by section 1895(b)(3)(B) of the Act, we have historically updated the HH PPS rates annually in the **Federal Register**. The August 29, 2007 final rule with comment period set forth an update to the 60-day national episode rates and the national per-visit rates under the HH PPS for CY 2008.

The CY 2008 HH PPS final rule included an analysis performed on CY 2005 home health claims data, which indicated a 12.78 percent increase in the observed case-mix since 2000. Case-mix represents the variations in conditions of the patient population served by the HHAs. Subsequently, a more detailed analysis was performed on the 2005 case-mix data to evaluate if any portion of the 12.78 percent increase was associated with a change in the actual clinical condition of home health patients. We identified 8.03 percent of the total case-mix change as real, and therefore, decreased the 12.78 percent of total case-mix change by 8.03 percent to get a final nominal case-mix increase measure of 11.75 percent ($0.1278 * (1 - 0.0803) = 0.1175$).

To account for the changes in case-mix that were not related to an underlying change in patient health status, we implemented a reduction, over 4 years, to the national, standardized 60-day episode payment rates. That reduction was to be 2.75 percent per year for 3 years beginning in CY 2008 and 2.71 percent for the fourth year in CY 2011. In the CY 2011 HH PPS final rule (76 FR 68532), we updated our analyses of case-mix change and finalized a reduction of 3.79 percent, instead of 2.71 percent, for CY 2011 and deferred finalizing a payment reduction for CY 2012 until further study of the case-mix change data and methodology was completed.

In the CY 2012 HH PPS final rule (76 FR 68526), we updated the 60-day national episode rates and the national per-visit rates. In addition, as discussed in the CY 2012 HH PPS final rule (76 FR 68528), our analysis indicated that there was a 22.59 percent increase in overall case-mix from 2000 to 2009 and that only 15.76 percent of that overall observed case-mix percentage increase was due to real case-mix change. As a result of our analysis, we identified a 19.03 percent nominal increase in case-mix. At that time, to fully account for the 19.03 percent nominal case-mix growth identified from 2000 to 2009, we finalized a 3.79 percent payment reduction in CY 2012 and a 1.32 percent payment reduction for CY 2013.

In the CY 2013 HH PPS final rule (77 FR 67078), we implemented the 1.32 percent reduction to the payment rates for CY 2013 finalized the previous year, to account for nominal case-mix growth from 2000 through 2010. When taking into account the total measure of case-mix change (23.90 percent) and the 15.97 percent of total case-mix change estimated as real from 2000 to 2010, we obtained a final nominal case-mix change measure of 20.08 percent from

2000 to 2010 ($0.2390 * (1 - 0.1597) = 0.2008$). To fully account for the remainder of the 20.08 percent increase in nominal case-mix beyond that which was accounted for in previous payment reductions, we estimated that the percentage reduction to the national, standardized 60-day episode rates for nominal case-mix change would be 2.18 percent. Although we considered proposing a 2.18 percent reduction to account for the remaining increase in measured nominal case-mix, we finalized the 1.32 percent payment reduction to the national, standardized 60-day episode rates in the CY 2012 HH PPS final rule (76 FR 68532). Section 3131(a) of the Affordable Care Act added new section 1895(b)(3)(A)(iii) to the Act, which required that, beginning in CY 2014, we apply an adjustment to the national, standardized 60-day episode rate and other amounts that reflect factors such as changes in the number of visits in an episode, the mix of services in an episode, the level of intensity of services in an episode, the average cost of providing care per episode, and other relevant factors. Additionally, we were required to phase in any adjustment over a 4-year period in equal increments, not to exceed 3.5 percent of the payment amount (or amounts) as of the date of enactment of the Affordable Care Act in 2010, and fully implement the rebasing adjustments by CY 2017. Therefore, in the CY 2014 HH PPS final rule (78 FR 72256) for each year, CY 2014 through CY 2017, we finalized a fixed-dollar reduction to the national, standardized 60-day episode payment rate of \$80.95 per year, increases to the national per-visit payment rates per year, and a decrease to the NRS conversion factor of 2.82 percent per year. We also finalized three separate LUPA add-on factors for skilled nursing, physical therapy, and speech-language pathology and removed 170 diagnosis codes from assignment to diagnosis groups in the HH PPS Grouper. In the CY 2015 HH PPS final rule (79 FR 66032), we implemented the second year of the 4-year phase-in of the rebasing adjustments to the HH PPS payment rates and made changes to the HH PPS case-mix weights. In addition, we simplified the face-to-face encounter regulatory requirements and the therapy reassessment timeframes.

In the CY 2016 HH PPS final rule (80 FR 68624), we implemented the third year of the 4-year phase-in of the rebasing adjustments to the national, standardized 60-day episode payment amount, the national per-visit rates and the NRS conversion factor (as discussed previously). In the CY 2016 HH PPS

final rule, we also recalibrated the HH PPS case-mix weights, using the most current cost and utilization data available, in a budget-neutral manner and finalized reductions to the national, standardized 60-day episode payment rate in CY 2016, CY 2017, and CY 2018 of 0.97 percent in each year to account for estimated case-mix growth unrelated to increases in patient acuity (that is, nominal case-mix growth) between CY 2012 and CY 2014. Finally, section 421(a) of the MMA, as amended by section 210 of the MACRA, extended the payment increase of 3 percent for HH services provided in rural areas (as defined in section 1886(d)(2)(D) of the Act) to episodes or visits ending before January 1, 2018.

In the CY 2017 HH PPS final rule (81 FR 76702), we implemented the last year of the 4-year phase-in of the rebasing adjustments to the national, standardized 60-day episode payment amount, the national per-visit rates and the NRS conversion factor (as outlined previously). We also finalized changes to the methodology used to calculate outlier payments under the authority of section 1895(b)(5) of the Act. Lastly, in accordance with section 1834(s) of the Act, as added by section 504(a) of the Consolidated Appropriations Act, 2016 (Pub. L. 114–113, enacted December 18, 2015), we implemented changes in payment for furnishing Negative Pressure Wound Therapy (NPWT) using a disposable device for patients under a home health plan of care for which payment would otherwise be made under section 1895(b) of the Act.

2. Home Infusion Therapy

Section 5012 of the 21st Century Cures Act (“the Cures Act”) (Pub. L. 114–255), which amended sections 1861(s)(2) and 1861(iii) of the Act, established a new Medicare home infusion therapy benefit. The Medicare home infusion therapy benefit covers the professional services including nursing services furnished in accordance with the plan of care, patient training and education (not otherwise covered under the durable medical equipment benefit), remote monitoring, and monitoring services for the provision of home infusion therapy and home infusion drugs furnished by a qualified home infusion therapy supplier. This benefit will ensure consistency in coverage for home infusion benefits for all Medicare beneficiaries. Section 50401 of the BBA of 2018 amended section 1834(u) of the Act by adding a new paragraph (7) that establishes a home infusion therapy services temporary transitional payment for eligible home infusion suppliers for

certain items and services furnished in coordination with the furnishing of transitional home infusion drugs beginning January 1, 2019. This temporary payment covers the cost of the same items and services, as defined in section 1861(iii)(2)(A) and (B) of the Act, related to the administration of home infusion drugs. The temporary transitional payment would begin on January 1, 2019 and end the day before the full implementation of the home infusion therapy benefit on January 1, 2021, as required by section 5012 of the 21st Century Cures Act.

Home infusion therapy is a treatment option for patients with a wide range of acute and chronic conditions, ranging from bacterial infections to more complex conditions such as late-stage heart failure and immune deficiencies. Home infusion therapy affords a patient independence and better quality of life, because it is provided in the comfort of the patient’s home at a time that best fits his or her needs. This is significant, because generally patients can return to their daily activities after they receive their infusion treatments and, in many cases, they can continue their activities while receiving their treatments. In addition, home infusion therapy can provide improved safety and better outcomes. The home has been shown to be a safe setting for patients to receive infusion therapy.³ Additionally, patients receiving treatment outside of the hospital setting may be at lower risk of hospital-acquired infections, which can be more difficult to treat because of multi-drug resistance than those that are community-acquired. This is particularly important for vulnerable patients such as those who are immunocompromised, as hospital-acquired infections are increasingly caused by antibiotic-resistant pathogens.

Infusion therapy typically means that a drug is administered intravenously, but the term may also refer to situations where drugs are provided through other non-oral routes, such as intramuscular injections and epidural routes (into the membranes surrounding the spinal cord). Diseases that may require infusion therapy include infections that are unresponsive to oral antibiotics, cancer and cancer-related pain,

³ Bhole, M.V., Burton, J., & Chapel, H.M., (2008). Self-infusion programs for immunoglobulin replacement at home: Feasibility, safety and efficacy. *Immunology and Allergy Clinics of North America*, 28(4), 821–832. doi:10.1016/j.iac.2008.06.005.

Souayah, N., Hasan, A., Khan, H., et al. (2011). The safety profile of home infusion of intravenous immunoglobulin in patients with neuroimmunologic disorders. *Journal of Clinical Neuroimmunology*, 12(suppl 4), S1–10. doi: 10.1097/CND.0b013e3182212589.

dehydration, and gastrointestinal diseases or disorders which prevent normal functioning of the gastrointestinal system. Other conditions treated with specialty infusion therapies may include some forms of cancers, congestive heart failure, Crohn's Disease, hemophilia, hepatitis, immune deficiencies, multiple sclerosis and rheumatoid arthritis. Infusion therapy originates with a prescription order from a physician or another qualified prescriber who is overseeing the care of the patient. The prescription order is sent to a home infusion therapy supplier, which is a state-licensed pharmacy, physician, or other provider of services or suppliers licensed by the state.

A 2010 Government Accountability Office (GAO) report (10-426) found that most health insurers rely on credentialing, accreditation, or both to help ensure that plan members receive quality home infusion services from their network suppliers.⁴ Home infusion AOs conduct on-site surveys to evaluate all components of the service, including medical equipment, nursing, and pharmacy. Accreditation standards can include such requirements as the CMS Conditions of Participation for home health services, other Federal government regulations, and industry best practices. All of the accreditation standards evaluate a range of provider competencies, such as having a complete plan of care, response to adverse events, and implementation of a quality improvement plan.

Sections 1861(iii)(3)(D)(III) and 1834(u)(5) of the Act, as amended by section 5012 of the Cures Act requires that, in order to participate in Medicare, home infusion therapy suppliers must select a CMS-approved AO and undergo an accreditation review process to demonstrate that the home infusion therapy program meets the accreditation organization's standards. Section 1861(iii) of the Act, as amended by section 5012 of the Cures Act, sets forth standards in three areas: (1) Ensuring that all patients have a plan of care established and updated by a physician that sets out the care and prescribed infusion therapy necessary to meet the patient-specific needs, (2) having procedures to ensure that remote monitoring services associated with administering infusion drugs in a

patient's home are provided, and (3) having procedures to ensure that patients receive education and training on the effective use of medications and equipment in the home.

D. Advancing Health Information Exchange

The Department of Health and Human Services (HHS) has a number of initiatives designed to encourage and support the adoption of interoperable health information technology and to promote nationwide health information exchange to improve health care. The Office of the National Coordinator for Health Information Technology (ONC) and CMS work collaboratively to advance interoperability across settings of care, including post-acute care.

The Improving Medicare Post-Acute Care Transformation Act of 2014 (Pub. L. 113-185) (IMPACT Act) requires assessment data to be standardized and interoperable to allow for exchange of the data among post-acute providers and other providers. To further interoperability in post-acute care, CMS is developing a Data Element Library to serve as a publically available centralized, authoritative resource for standardized data elements and their associated mappings to health IT standards. These interoperable data elements can reduce provider burden by allowing the use and reuse of healthcare data, support provider exchange of electronic health information for care coordination, person-centered care, and support real-time, data driven, clinical decision making. Once available, standards in the Data Element Library can be referenced on the CMS website and in the ONC Interoperability Standards Advisory (ISA).

The 2018 Interoperability Standards Advisory (ISA) is available at: <https://www.healthit.gov/standards-advisory>.

Most recently, the 21st Century Cures Act (Pub. L. 114-255), enacted in 2016, requires HHS to take new steps to enable the electronic sharing of health information ensuring interoperability for providers and settings across the care continuum. Specifically, Congress directed ONC to "develop or support a trusted exchange framework, including a common agreement among health information networks nationally." This framework (<https://beta.healthit.gov/topic/interoperability/trusted-exchange-framework-and-common-agreement>) outlines a common set of principles for

trusted exchange and minimum terms and conditions for trusted exchange in order to enable interoperability across disparate health information networks. In another important provision, Congress defined "information blocking" as practices likely to interfere with, prevent, or materially discourage access, exchange, or use of electronic health information, and established new authority for HHS to discourage these practices. We invite providers to learn more about these important developments and how they are likely to affect HHAs.

III. Proposed Provisions for Payment Under the Home Health Prospective Payment System (HH PPS)

A. Monitoring for Potential Impacts—Affordable Care Act Rebasing Adjustments

1. Analysis of FY 2016 HHA Cost Report Data

As part of our efforts in monitoring the potential impacts of the rebasing adjustments finalized in the CY 2014 HH PPS final rule (78 FR 72293), we continue to update our analysis of home health cost report and claims data. Previous years' cost report and claims data analyses and results can be found in the CY 2018 HH PPS proposed rule (82 FR 35277-35278). For this proposed rule, we analyzed the 2016 HHA cost report data (the most recent, complete data available at the time of this proposed rule) and 2016 HHA claims data to obtain the average number of visits per episode that match to the year of cost report data analyzed. To determine the 2016 average cost per visit per discipline, we applied the same trimming methodology outlined in the CY 2014 HH PPS proposed rule (78 FR 40284) and weighted the costs per visit from the 2016 cost reports by size, facility type, and urban/rural location so the costs per visit were nationally representative according to 2016 claims data. The 2016 average number of visits was taken from 2016 claims data. We estimated the cost of a 60-day episode in CY 2016 to be \$2,538.54 using 2016 cost report data (Table 2). However, the national, standardized 60-day episode payment amount in CY 2016 was \$2,965.12. The difference between the 60-day episode payment rate and average cost per episode of care for CY 2016 was 16.8 percent.

⁴ <https://www.gao.gov/assets/310/305261.pdf>.

TABLE 2—2016 ESTIMATED COST PER EPISODE

Discipline	2016 Average costs per visit	2016 Average NRS costs per visit	2016 Average cost + NRS per visit	2016 Average number of visits	2016 60-Day episode costs
Skilled Nursing	\$132.83	\$3.41	\$136.24	8.81	\$1,200.27
Physical Therapy	156.04	3.41	159.45	5.58	889.73
Occupational Therapy	153.53	3.41	156.94	1.56	244.83
Speech Pathology	170.06	3.41	173.47	0.32	55.51
Medical Social Services	219.73	3.41	223.14	0.14	31.24
Home Health Aides	60.50	3.41	63.91	1.83	116.96
Total				18.24	2,538.54

Source: Medicare cost reports pulled in March 2018 and Medicare claims data from 2015 and 2016 for episodes (excluding low-utilization payment adjusted episodes and partial-episode-payment adjusted episodes), linked to OASIS assessments for episodes ending in CY 2016.

2. Analysis of CY 2017 HHA Claims Data

In the CY 2014 HH PPS final rule (78 FR 72256), some commenters expressed concern that the rebasing of the HH PPS payment rates would result in HHA closures and would therefore diminish access to home health services. In addition to examining more recent cost report data, for this proposed rule we examined home health claims data from all four years during which rebasing adjustments were made (CY 2014, CY 2015, CY 2016, and CY 2017), the first calendar year of the HH PPS (CY 2001),

and claims data for the year prior to the implementation of the rebasing adjustments (CY 2013). Preliminary analysis of CY 2017 home health claims data indicates that the number of episodes decreased by 5.3 percent and the number of home health users that received at least one episode of care decreased by 3.2 percent from 2016 to 2017, while the number of FFS beneficiaries decreased 0.1 percent from 2016 to 2017. Between 2013 and 2014 there appears to be a net decrease in the number of HHAs billing Medicare for home health services of 1.6 percent, a continued decrease of 1.7 percent from

2014 to 2015, a decrease of 3.4 percent from 2015 to 2016, and a decrease of 4.4 percent from 2016 to 2017. We note that in CY 2016 there were 2.9 HHAs per 10,000 FFS beneficiaries and 2.8 HHAs per 10,000 FFS beneficiaries in CY 2017, which remains markedly higher than the 1.9 HHAs per 10,000 FFS beneficiaries close to the inception of the HH PPS in 2001 (the HH PPS was implemented on October 1, 2000). The number of home health users, as a percentage of FFS beneficiaries, has decreased from 9.0 percent in 2013 to 8.4 percent in 2017.

TABLE 3—HOME HEALTH STATISTICS, CY 2001 AND CY 2013 THROUGH CY 2017

	2001	2013	2014	2015	2016	2017
Number of episodes	3,896,502	6,708,923	6,451,283	6,340,932	6,294,234	5,963,780
Beneficiaries receiving at least 1 episode (Home Health Users)	2,412,318	3,484,579	3,381,635	3,365,512	3,350,174	3,242,346
Part A and/or B FFS beneficiaries	34,899,167	38,505,609	38,506,534	38,506,534	38,555,150	38,509,031
Episodes per Part A and/or B FFS beneficiaries	0.11	0.17	0.17	0.17	0.16	0.15
Home health users as a percentage of Part A and/or B FFS beneficiaries	6.9%	9.0%	8.8%	8.8%	8.7%	8.4%
HHAs providing at least 1 episode	6,511	11,889	11,693	11,381	11,102	10,612
HHAs per 10,000 Part A and/or B FFS beneficiaries	1.9	3.1	3.0	3.0	2.9	2.8

Source: National claims history (NCH) data obtained from Chronic Condition Warehouse (CCW)—Accessed on May 14, 2014 and August 19, 2014 for CY 2013 data; accessed on May 7, 2015 for CY 2001 and CY 2014 data; accessed on April 7, 2016 for CY 2015 data; accessed on March 20, 2017 for CY 2016 data; accessed on March 8, 2018 for CY 2017 data; and Medicare enrollment information obtained from the CCW Master Beneficiary Summary File. Beneficiaries are the total number of beneficiaries in a given year with at least 1 month of Part A and/or Part B Fee-for-Service coverage without having any months of Medicare Advantage coverage.

Note(s): These results include all episode types (Normal, PEP, Outlier, LUPA) and also include episodes from outlying areas (outside of 50 States and District of Columbia). Only episodes with a through date in the year specified are included. Episodes with a claim frequency code equal to “0” (“Non-payment/zero claims”) and “2” (“Interim—first claim”) are excluded. If a beneficiary is treated by providers from multiple states within a year the beneficiary is counted within each state’s unique number of beneficiaries served.

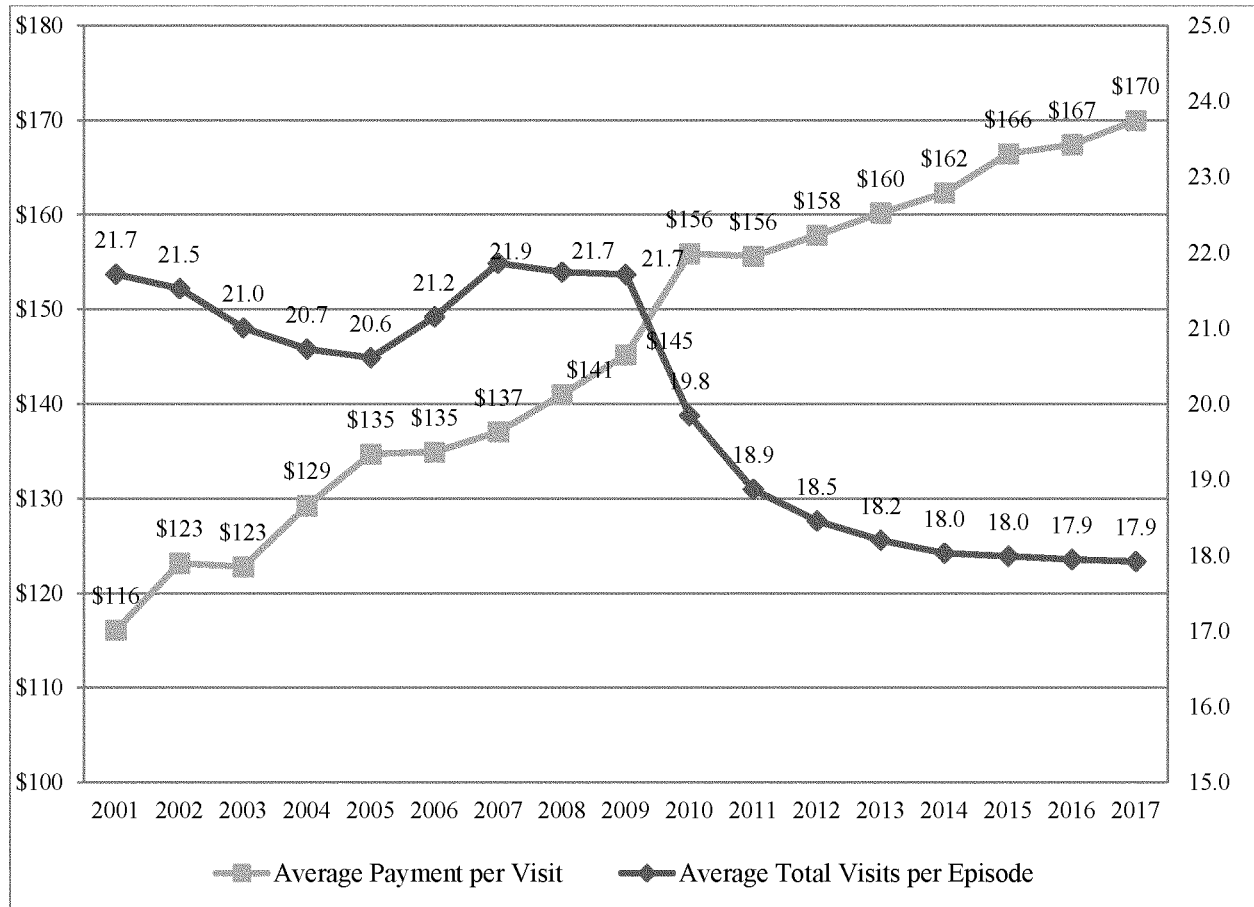
In addition to examining home health claims data from all four years of the implementation of rebasing adjustments required by the Affordable Care Act, we examined trends in home health utilization for all years starting in CY 2001 and up through CY 2017. Figure 1, displays the average number of visits per 60-day episode of care and the

average payment per visit. While the average payment per visit has steadily increased from approximately \$116 in CY 2001 to \$170 for CY 2017, the average total number of visits per 60-day episode of care has declined, most notably between CY 2009 (21.7 visits per episode) and CY 2010 (19.8 visits per episode), which was the first year

that the 10 percent agency-level cap on HHA outlier payments was implemented. The average of total visits per episode has steadily decreased from 21.7 in 2009 to 17.9 in 2017.

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FIGURE 1: AVERAGE TOTAL NUMBER OF VISITS AND AVERAGE PAYMENT PER VISIT FOR A MEDICARE HOME HEALTH 60-DAY EPISODE OF CARE, CY 2001 THROUGH CY 2017



Source: National claims history (NCH) data obtained from Chronic Condition Warehouse (CCW) – 2001 to 2014 data accessed on May 21, 2014, CY 2015 data accessed on April 25, 2016, CY 2016 data accessed on March 16, 2017, and CY 2017 data accessed on March 6, 2018.

Note(s): These results exclude LUPA episodes, but include episodes from outlying areas (outside of 50 States and District of Columbia). Only episodes with a through date in the year specified are included. Episodes with a claim frequency code equal to "0" ("Non-payment/zero claims") and "2" ("Interim - first claim") are excluded. If a beneficiary is treated by providers from multiple states within a year the beneficiary is counted within each state's unique number of beneficiaries served.

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Figure 2 displays the average number of visits by discipline type for a 60-day episode of care and shows that while the number of therapy visits per 60-day episode of care has increased steadily, the number of skilled nursing and home health aide visits have decreased between CY 2009 and CY 2017. The results of the Report to Congress, "Medicare Home Health Study: An Investigation on Access to Care and

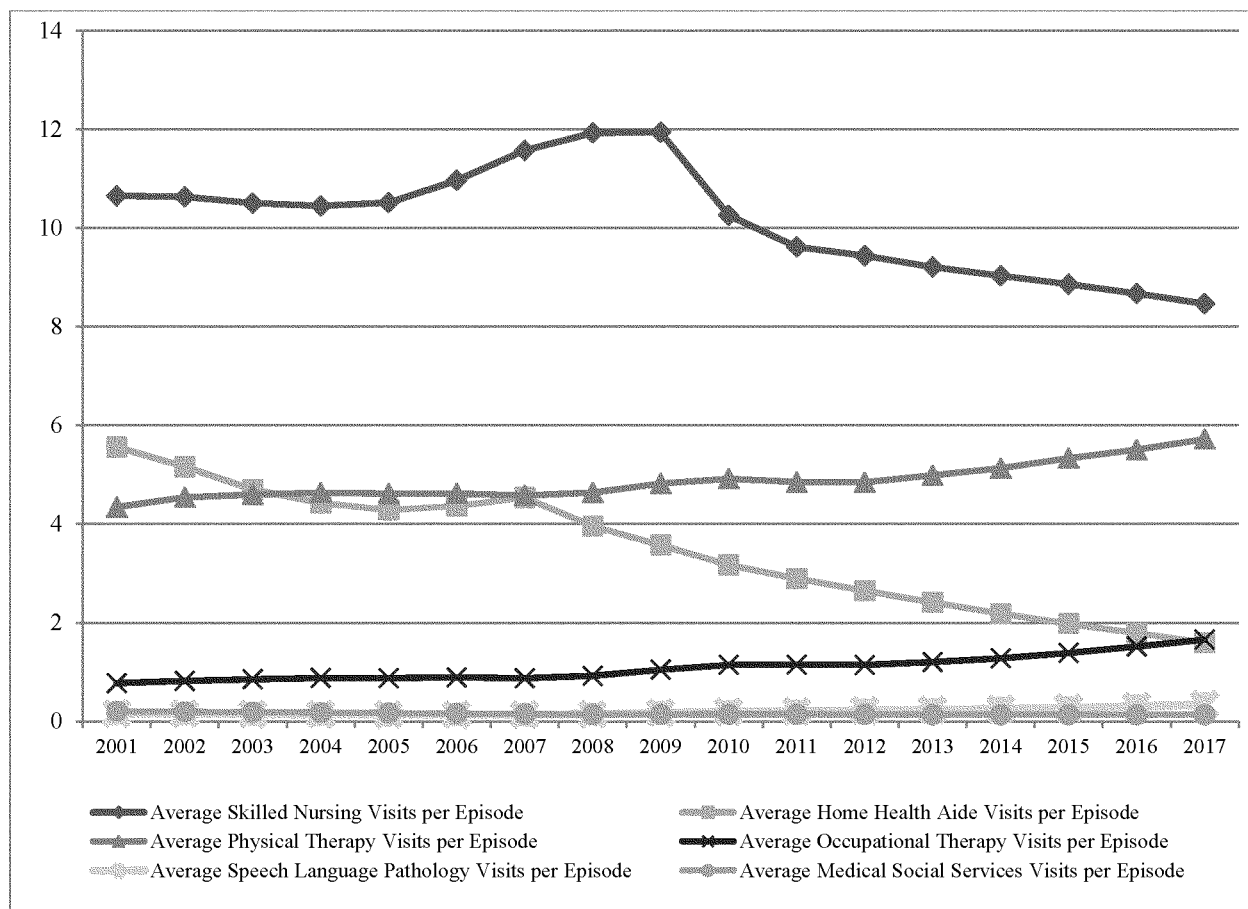
Payment for Vulnerable Patient Populations", required by section 3131(d) of the Affordable Care Act, suggests that the current home health payment system may discourage HHAs from serving patients with clinically complex and/or poorly controlled chronic conditions who do not qualify for therapy but require a large number of skilled nursing visits.⁵ The home

⁵ Report to Congress Medicare Home Health Study: An Investigation on Access to Care and

health study results seem to be consistent with the recent trend in the decreased number of visits per episode of care driven by decreases in skilled nursing and home health aide services evident in Figures 1 and 2.

Payment for Vulnerable Patient Populations (2014). Available at: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/Downloads/HH-Report-to-Congress.pdf>.

FIGURE 2: AVERAGE NUMBER OF VISITS BY DISCIPLINE TYPE FOR A MEDICARE HOME HEALTH 60-DAY EPISODE OF CARE, CY 2001 THROUGH CY 2017



Source: National claims history (NCH) data obtained from Chronic Condition Warehouse (CCW) - 2001 to 2014 data accessed on May 21, 2014, CY 2015 data accessed on April 25, 2016, CY 2016 data accessed on March 16, 2017, and CY 2017 data accessed on March 6, 2018.

Note(s): These results exclude LUPA episodes, but include episodes from outlying areas (outside of 50 States and District of Columbia). Only episodes with a through date in the year specified are included. Episodes with a claim frequency code equal to "0" ("Non-payment/zero claims") and "2" ("Interim - first claim") are excluded. If a beneficiary is treated by providers from multiple states within a year the beneficiary is counted within each state's unique number of beneficiaries served.

As part of our monitoring efforts, we also examined the trends in episode timing and service use over time. Specifically, we examined the percentage of early episodes with 0 to 19 therapy visits, late episodes with 0 to 19 therapy visits, and episodes with 20+ therapy visits from CY 2008 to CY 2017. In CY 2008, we implemented refinements to the HH PPS case-mix system. As part of those refinements, we added additional therapy thresholds and differentiated between early and late episodes for those episodes with less than 20+ therapy visits. Early episodes are defined as the 1st or 2nd episode in a sequence of adjacent

covered episodes. Late episodes are defined as the 3rd and subsequent episodes in a sequence of adjacent covered episodes. Table 4 shows that the percentage of early and late episodes from CY 2008 to CY 2017 has remained relatively stable over time. There has been a decrease in the percentage of early episodes with 0 to 19 therapy visits from 65.9 percent in CY 2008 to 61.3 percent in CY 2017 and a slight increase in the percentage of late episodes with 0 to 19 therapy visits from 29.5 percent in CY 2008 to 31.2 percent in CY 2017. In 2015, the case-mix weights for the third and later episodes of care with 0 to 19 therapy

visits decreased as a result of the CY 2015 recalibration of the case-mix weights. Despite the decreases in the case-mix weights for the later episodes, the percentage of late episodes with 0 to 19 therapy visits did not change substantially. However, episode timing is not a variable in the determination of the case-mix weights for those episodes with 20+ therapy visits and the percentage of episodes with 20+ therapy visits has increased from 4.6 percent in CY 2008 to 7.6 percent in CY 2017.

TABLE 4—HOME HEALTH EPISODES BY EPISODE TIMING, CY 2008 THROUGH CY 2017

Year	All episodes	Number of early episodes (excluding episodes with 20+ visits)	% of early episodes (excluding episodes with 20+ visits)	Number of late episodes (excluding episodes with 20+ visits)	% of late episodes (excluding episodes with 20+ visits)	Number of episodes with 20+ visits	% of episodes with 20+ visits
2008	5,423,037	3,571,619	65.9	1,600,587	29.5	250,831	4.6
2009	6,530,200	3,701,652	56.7	2,456,308	37.6	372,240	5.7
2010	6,877,598	3,872,504	56.3	2,586,493	37.6	418,601	6.1
2011	6,857,885	3,912,982	57.1	2,564,859	37.4	380,044	5.5
2012	6,767,576	3,955,207	58.4	2,458,734	36.3	353,635	5.2
2013	6,733,146	4,023,486	59.8	2,347,420	34.9	362,240	5.4
2014	6,616,875	3,980,151	60.2	2,263,638	34.2	373,086	5.6
2015	6,644,922	4,008,279	60.3	2,205,052	33.2	431,591	6.5
2016	6,294,232	3,802,254	60.4	2,053,972	32.6	438,006	7.0
2017	5,963,778	3,655,636	61.3	1,857,840	31.2	450,302	7.6

Source: National claims history (NCH) data obtained from Chronic Condition Warehouse (CCW)—Accessed on March 6, 2018.

Note(s): Only episodes with a through date in the year specified are included. Episodes with a claim frequency code equal to “0” (“Non-payment/zero claims”) and “2” (“Interim—first claim”) are excluded.

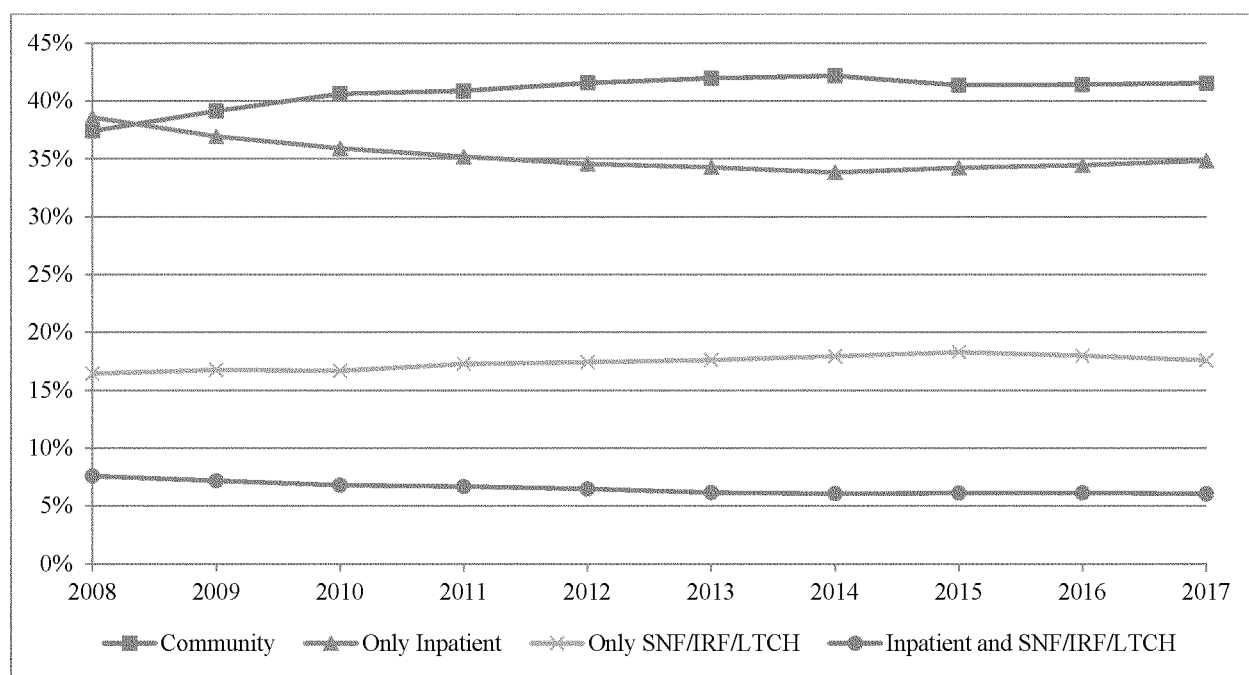
We also examined trends in admission source for home health episodes over time. Specifically, we examined the admission source for the “first or only” episodes of care (first episodes in a sequence of adjacent episodes of care or the only episode of care) from CY 2008 through CY 2017 (Figure 3). The percentage of first or only episodes with an acute admission source, defined as episodes with an inpatient hospital stay within the 14 days prior to a home health episode, has decreased from 38.6 percent in CY 2008 to 34.8 percent in CY 2017. The percentage of first or only episodes with a post-acute admission source, defined as episodes which had a stay at a skilled nursing facility (SNF), inpatient rehabilitation facility (IRF), or long term care hospital (LTCH) within 14 days

prior to the home health episode, has slightly increased from 16.4 percent in CY 2008 to 17.6 percent in CY 2017. The percentage of first or only episodes with a community admission source, defined as episodes which did not have an acute or post-acute stay in the 14 days prior to the home health episode, increased from 37.4 percent in CY 2008 to 41.5 percent in CY 2017. Our findings on the trends in admission source show a similar pattern with MedPAC’s as outlined in their 2015 Report to the Congress.⁶ MedPAC concluded that

⁶ Medicare Payment Advisory Commission (MedPAC). “Home Health Care Services.” *Report to the Congress: Medicare Payment Policy*. Washington, DC, March 2015. P. 214. Accessed on 3/28/2017 at: <http://www.medpac.gov/docs/default-source/reports/chapter-9-home-health-care-services-march-2015-report-.pdf?sfvrsn=0>.

there has been tremendous growth in the use of home health for patients residing in the community (that is, episodes not preceded by a prior hospitalization) and that these episodes have more than doubled since 2001. However, MedPAC examined admission source trends from 2002 up through 2013 and included first and subsequent episodes of care, whereas CMS analysis, as described above, included “first or only” episodes of care. Nonetheless, both analyses show a trend of increasing episodes of care without a preceding inpatient stay. MedPAC suggests there is significant potential for overuse, particularly since Medicare does not currently require any cost sharing for home health care.

FIGURE 3: HOME HEALTH EPISODE TRENDS BY ADMISSION SOURCE (FIRST OR ONLY EPISODES), CY 2008 THROUGH CY 2017



Source: National claims history (NCH) data obtained from Chronic Condition Warehouse (CCW) - Accessed on March 6, 2018.

Note(s): Only episodes with a through date in the year specified are included. Episodes with a claim frequency code equal to "0" ("Non-payment/zero claims") and "2" ("Interim - first claim") are excluded.

We will continue to monitor for potential impacts due to the rebasing adjustments required by section 3131(a) of the Affordable Care Act and other policy changes in the future. Independent effects of any one policy may be difficult to discern in years where multiple policy changes occur in any given year.

B. Proposed CY 2019 HH PPS Case-Mix Weights

In the CY 2015 HH PPS final rule (79 FR 66072), we finalized a policy to annually recalibrate the HH PPS case-mix weights—adjusting the weights relative to one another—using the most current, complete data available. To recalibrate the HH PPS case-mix weights for CY 2018, we will use the same methodology finalized in the CY 2008 HH PPS final rule (72 FR 49762), the CY

2012 HH PPS final rule (76 FR 68526), and the CY 2015 HH PPS final rule (79 FR 66032). Annual recalibration of the HH PPS case-mix weights ensures that the case-mix weights reflect, as accurately as possible, current home health resource use and changes in utilization patterns.

To generate the proposed CY 2019 HH PPS case-mix weights, we used CY 2017 home health claims data (as of March 2, 2018) with linked OASIS data. These data are the most current and complete data available at this time. We will use CY 2017 home health claims data (as of June 30, 2018 or later) with linked OASIS data to generate the CY 2019 HH PPS case-mix weights in the CY 2019 HH PPS final rule. The process we used to calculate the HH PPS case-mix weights are outlined below.

Step 1: Re-estimate the four-equation model to determine the clinical and functional points for an episode using wage-weighted minutes of care as our dependent variable for resource use. The wage-weighted minutes of care are determined using the CY 2016 Bureau of Labor Statistics national hourly wage plus fringe rates for the six home health disciplines and the minutes per visit from the claim. The points for each of the variables for each leg of the model, updated with CY 2017 home health claims data, are shown in Table 5. The points for the clinical variables are added together to determine an episode's clinical score. The points for the functional variables are added together to determine an episode's functional score.

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TABLE 5: 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+
	<i>EQUATION:</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>CLINICAL DIMENSION</i>					
1	Primary or Other Diagnosis = Blindness/Low Vision	.	.	.	.
2	Primary or Other Diagnosis = Blood disorders	.	2	.	.
3	Primary or Other Diagnosis = Cancer, selected benign neoplasms	.	4	.	4
4	Primary Diagnosis = Diabetes	.	2	.	2
5	Other Diagnosis = Diabetes	.	.	.	.
6	Primary or Other Diagnosis = Dysphagia <i>AND</i> Primary or Other Diagnosis = Neuro 3 – Stroke	2	15	.	15
7	Primary or Other Diagnosis = Dysphagia <i>AND</i> M1030 (Therapy at home) = 3 (Enteral)	.	5	.	5
8	Primary or Other Diagnosis = Gastrointestinal disorders	.	1	.	2
9	Primary or Other Diagnosis = Gastrointestinal disorders <i>AND</i> M1630 (ostomy)= 1 or 2	.	5	.	.
10	Primary or Other Diagnosis = Gastrointestinal disorders <i>AND</i> 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	.	.	.	.
11	Primary or Other Diagnosis = Heart Disease OR Hypertension	2	3	.	2
12	Primary Diagnosis = Neuro 1 - Brain disorders and paralysis	2	7	4	7
13	Primary or Other Diagnosis = Neuro 1 - Brain disorders and paralysis <i>AND</i> M1840 (Toilet transfer) = 2 or more	.	2	.	.
14	Primary or Other Diagnosis = Neuro 1 - Brain disorders and paralysis <i>OR</i> Neuro 2 - Peripheral neurological disorders <i>AND</i> M1810 or M1820 (Dressing upper or lower body)= 1, 2, or 3	3	5	2	3
15	Primary or Other Diagnosis = Neuro 3 - Stroke	3	6	2	.
16	Primary or Other Diagnosis = Neuro 3 - Stroke <i>AND</i> M1810 or M1820 (Dressing upper or lower body)= 1, 2, or 3	.	3	.	.
17	Primary or Other Diagnosis = Neuro 3 - Stroke <i>AND</i> M1860 (Ambulation) = 4 or more	.	.	.	.
18	Primary or Other Diagnosis = Neuro 4 - Multiple Sclerosis <i>AND AT LEAST ONE OF THE FOLLOWING:</i> M1830 (Bathing) = 2 or more <i>OR</i> M1840 (Toilet transfer) = 2 or more <i>OR</i> M1850 (Transferring) = 2 or more	2	7	3	7

	OR M1860 (Ambulation) = 4 or more				
19	Primary or Other Diagnosis = Ortho 1 - Leg Disorders or Gait Disorders AND M1324 (most problematic pressure ulcer stage)= 1, 2, 3 or 4	7	2	7	.
20	Primary or Other Diagnosis = Ortho 1 - Leg OR Ortho 2 - Other orthopedic disorders AND M1030 (Therapy at home) = 1 (IV/Infusion) or 2 (Parenteral)	.	2	3	.
21	Primary or Other Diagnosis = Psych 1 – Affective and other psychoses, depression	.	.	.	.
22	Primary or Other Diagnosis = Psych 2 - Degenerative and other organic psychiatric disorders	.	.	.	.
23	Primary or Other Diagnosis = Pulmonary disorders	.	.	.	.
24	Primary or Other Diagnosis = Pulmonary disorders AND M1860 (Ambulation) = 1 or more	.	1	.	.
25	Primary Diagnosis = Skin 1 -Traumatic wounds, burns, and post-operative complications	2	14	6	14
26	Other Diagnosis = Skin 1 - Traumatic wounds, burns, post-operative complications	5	11	7	11
27	Primary or Other Diagnosis = Skin 1 -Traumatic wounds, burns, and post-operative complications OR Skin 2 – Ulcers and other skin conditions AND M1030 (Therapy at home) = 1 (IV/Infusion) or 2 (Parenteral)	.	.	.	.
28	Primary or Other Diagnosis = Skin 2 - Ulcers and other skin conditions	1	14	7	14
29	Primary or Other Diagnosis = Tracheostomy	1	10	.	10
30	Primary or Other Diagnosis = Urostomy/Cystostomy	.	17	.	10
31	M1030 (Therapy at home) = 1 (IV/Infusion) or 2 (Parenteral)	.	10	1	10
32	M1030 (Therapy at home) = 3 (Enteral)	.	13	.	7
33	M1200 (Vision) = 1 or more	1	.	.	.
34	M1242 (Pain)= 3 or 4	3	.	2	.
35	M1308 = Two or more pressure ulcers at stage 3 or 4	2	4	2	.
36	M1324 (Most problematic pressure ulcer stage)= 1 or 2	3	16	6	15
37	M1324 (Most problematic pressure ulcer stage)= 3 or 4	5	27	8	22
38	M1334 (Stasis ulcer status)= 2	3	12	5	12
39	M1334 (Stasis ulcer status)= 3	5	15	7	15
40	M1342 (Surgical wound status)= 2	2	6	4	11
41	M1342 (Surgical wound status)= 3	.	5	4	8
42	M1400 (Dyspnea) = 2, 3, or 4	1	1	.	.
43	M1620 (Bowel Incontinence) = 2 to 5	.	4	.	3
44	M1630 (Ostomy)= 1 or 2	2	9	2	7
45	M2030 (Injectable Drug Use) = 0, 1, 2, or 3	.	.	.	.
FUNCTIONAL DIMENSION					
46	M1810 or M1820 (Dressing upper or lower body)= 1, 2, or 3	1	2	.	.
47	M1830 (Bathing) = 2 or more	6	4	5	.
48	M1840 (Toilet transferring) = 2 or more	1	.	.	.
49	M1850 (Transferring) = 2 or more	2	1	2	.

50	M1860 (Ambulation) = 1, 2 or 3	6	.	4	.
51	M1860 (Ambulation) = 4 or more	7	7	6	7

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 (as of March 2, 2018) for which we had a linked OASIS assessment. LUPA episodes, outlier episodes, and episodes with PEP adjustments were excluded.

Note(s): 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 https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/coding_billing.html for definitions of primary and secondary diagnoses.

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In updating the four-equation model for CY 2019, using 2017 home health claims data (the last update to the four-equation model for CY 2018 used CY 2016 home health claims data), there were few changes to the point values for the variables in the four-equation model. These relatively minor changes reflect the change in the relationship between the grouper variables and resource use between CY 2016 and CY 2017. The CY 2019 four-equation model resulted in 113 point-giving variables being used in the model (as compared to the 119 variables for the CY 2018 recalibration, which can be found in Table 2 of the CY 2018 HH PPS final rule (82 FR 51684)). There were 7 variables that were added to the model and 13 variables that were dropped from the model due to the absence of additional resources associated with the variable. Of the variables that were in both the four-equation model for CY 2019 and the four-equation model for

CY 2018, the points for 10 variables increased in the CY 2019 four-equation model and the points for 67 variables decreased in the CY 2019 4-equation model. There were 29 variables with the same point values.

Step 2: Re-defining the clinical and functional thresholds so they are reflective of the new points associated with the CY 2019 four-equation model. After estimating the points for each of the variables and summing the clinical and functional points for each episode, we look at the distribution of the clinical score and functional score, breaking the episodes into different steps. The categorizations for the steps are as follows:

- Step 1: First and second episodes, 0–13 therapy visits.
- Step 2.1: First and second episodes, 14–19 therapy visits.
- Step 2.2: Third episodes and beyond, 14–19 therapy visits.
- Step 3: Third episodes and beyond, 0–13 therapy visits.

- Step 4: Episodes with 20+ therapy visits.

We then divide the distribution of the clinical score for episodes within a step such that a third of episodes are classified as low clinical score, a third of episodes are classified as medium clinical score, and a third of episodes are classified as high clinical score. The same approach is then done looking at the functional score. It was not always possible to evenly divide the episodes within each step into thirds due to many episodes being clustered around one particular score.⁷ Also, we looked at the average resource use associated with each clinical and functional score and used that as a guide for setting our thresholds. We grouped scores with similar average resource use within the same level (even if it meant that more or less than a third of episodes were placed within a level). The new thresholds, based off the CY 2019 four-equation model points are shown in Table 6.

TABLE 6—PROPOSED CY 2019 CLINICAL AND FUNCTIONAL THRESHOLDS

		1st and 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
Equations used to calculate points (see Table 2)		1	2	3	4	(2&4)
Dimension	Severity Level	.....	.....	.....	.....	.....
Clinical	C1	0 to 1	0 to 1	0 to 1	0 to 1	0 to 3.
	C2	2 to 3	2 to 7	2	2 to 9	4 to 16.
	C3	4+	8+	3+	10+	17+.
Functional	F1	0 to 12	0 to 7	0 to 6	0 to 2	0 to 2.
	F2	13	8 to 12	7 to 10	3 to 7	3 to 6.
	F3	14+	13+	11+	8+	7+.

Step 3: Once the clinical and functional thresholds are determined and each episode is assigned a clinical and functional level, the payment regression is estimated with an episode’s wage-weighted minutes of

care as the dependent variable. Independent variables in the model are indicators for the step of the episode as well as the clinical and functional levels within each step of the episode. Like the four-equation model, the payment

regression model is also estimated with robust standard errors that are clustered at the beneficiary level. Table 7 shows the regression coefficients for the variables in the payment regression model updated with CY 2017 home

⁷ For Step 1, 41% of episodes were in the medium functional level (All with score 13).

For Step 2.1, 86.7% of episodes were in the low functional level (Most with scores 6 to 7).

For Step 2.2, 81.5% of episodes were in the low functional level (Most with score 0).

For Step 3, 46.7% of episodes were in the medium functional level (Most with score 9).

For Step 4, 29.9% of episodes were in the medium functional level (Most with score 6).

health claims data. The R-squared value for the payment regression model is 0.5508 (an increase from 0.5095 for the CY 2018 recalibration).

TABLE 7—PAYMENT REGRESSION MODEL

	Payment regression from 4-equation model for CY 2019
Step 1, Clinical Score Medium	\$21.81
Step 1, Clinical Score High	54.06
Step 1, Functional Score Medium	70.54
Step 1, Functional Score High	99.78
Step 2.1, Clinical Score Medium	50.90
Step 2.1, Clinical Score High	118.77
Step 2.1, Functional Score Medium	25.36
Step 2.1, Functional Score High	31.96
Step 2.2, Clinical Score Medium	48.03
Step 2.2, Clinical Score High	187.73
Step 2.2, Functional Score Medium	50.06
Step 2.2, Functional Score High	0.00
Step 3, Clinical Score Medium	18.05
Step 3, Clinical Score High	83.67
Step 3, Functional Score Medium	56.10
Step 3, Functional Score High	81.90
Step 4, Clinical Score Medium	70.97
Step 4, Clinical Score High	245.97
Step 4, Functional Score Medium	4.60
Step 4, Functional Score High	17.77
Step 2.1, 1st and 2nd Episodes, 14 to 19 Therapy Visits	515.04
Step 2.2, 3rd+ Episodes, 14 to 19 Therapy Visits	510.26
Step 3, 3rd+ Episodes, 0–13 Therapy Visits	– 60.34
Step 4, All Episodes, 20+ Therapy Visits	895.79
Intercept	375.32

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 (as of March 2, 2018) for which we had a linked OASIS assessment.

Step 4: We use the coefficients from the payment regression model to predict each episode's wage-weighted minutes of care (resource use). We then divide these predicted values by the mean of the dependent variable (that is, the average wage-weighted minutes of care across all episodes used in the payment regression). This division constructs the weight for each episode, which is simply the ratio of the episode's predicted wage-weighted minutes of care divided by the average wage-weighted minutes of care in the sample. Each episode is then aggregated into one of the 153 home health resource groups (HHRGs) and the "raw" weight for each HHRG was calculated as the average of the episode weights within the HHRG.

Step 5: The raw weights associated with 0 to 5 therapy visits are then increased by 3.75 percent, the weights associated with 14–15 therapy visits are decreased by 2.5 percent, and the weights associated with 20+ therapy

visits are decreased by 5 percent. These adjustments to the case-mix weights were finalized in the CY 2012 HH PPS final rule (76 FR 68557) and were done to address MedPAC's concerns that the HH PPS overvalues therapy episodes and undervalues non-therapy episodes and to better align the case-mix weights with episode costs estimated from cost report data.⁸

Step 6: After the adjustments in step 5 are applied to the raw weights, the weights are further adjusted to create an increase in the payment weights for the therapy visit steps between the therapy thresholds. Weights with the same clinical severity level, functional severity level, and early/late episode status were grouped together. Then within those groups, the weights for each therapy step between thresholds are gradually increased. We do this by

⁸ Medicare Payment Advisory Commission (MedPAC), *Report to the Congress: Medicare Payment Policy*. March 2011, P. 176.

interpolating between the main thresholds on the model (from 0–5 to 14–15 therapy visits, and from 14–15 to 20+ therapy visits). We use a linear model to implement the interpolation so the payment weight increase for each step between the thresholds (such as the increase between 0–5 therapy visits and 6 therapy visits and the increase between 6 therapy visits and 7–9 therapy visits) are constant. This interpolation is identical to the process finalized in the CY 2012 HH PPS final rule (76 FR 68555).

Step 7: The interpolated weights are then adjusted so that the average case-mix for the weights is equal to 1.0000.⁹ This last step creates the proposed CY 2019 case-mix weights shown in Table 8.

⁹ When computing the average, we compute a weighted average, assigning a value of one to each normal episode and a value equal to the episode length divided by 60 for PEPs.

TABLE 8—PROPOSED CY 2019 CASE-MIX PAYMENT WEIGHTS

Pay group	Description	Clinical and functional levels (1 = low; 2 = medium; 3 = high)	Proposed weights for CY 2019
10111	1st and 2nd Episodes, 0 to 5 Therapy Visits	C1F1S1	0.5459
10112	1st and 2nd Episodes, 6 Therapy Visits	C1F1S2	0.6801
10113	1st and 2nd Episodes, 7 to 9 Therapy Visits	C1F1S3	0.8143
10114	1st and 2nd Episodes, 10 Therapy Visits	C1F1S4	0.9485
10115	1st and 2nd Episodes, 11 to 13 Therapy Visits	C1F1S5	1.0828
10121	1st and 2nd Episodes, 0 to 5 Therapy Visits	C1F2S1	0.6485
10122	1st and 2nd Episodes, 6 Therapy Visits	C1F2S2	0.7691
10123	1st and 2nd Episodes, 7 to 9 Therapy Visits	C1F2S3	0.8897
10124	1st and 2nd Episodes, 10 Therapy Visits	C1F2S4	1.0104
10125	1st and 2nd Episodes, 11 to 13 Therapy Visits	C1F2S5	1.1310
10131	1st and 2nd Episodes, 0 to 5 Therapy Visits	C1F3S1	0.6910
10132	1st and 2nd Episodes, 6 Therapy Visits	C1F3S2	0.8049
10133	1st and 2nd Episodes, 7 to 9 Therapy Visits	C1F3S3	0.9189
10134	1st and 2nd Episodes, 10 Therapy Visits	C1F3S4	1.0328
10135	1st and 2nd Episodes, 11 to 13 Therapy Visits	C1F3S5	1.1467
10211	1st and 2nd Episodes, 0 to 5 Therapy Visits	C2F1S1	0.5776
10212	1st and 2nd Episodes, 6 Therapy Visits	C2F1S2	0.7194
10213	1st and 2nd Episodes, 7 to 9 Therapy Visits	C2F1S3	0.8612
10214	1st and 2nd Episodes, 10 Therapy Visits	C2F1S4	1.0030
10215	1st and 2nd Episodes, 11 to 13 Therapy Visits	C2F1S5	1.1448
10221	1st and 2nd Episodes, 0 to 5 Therapy Visits	C2F2S1	0.6802
10222	1st and 2nd Episodes, 6 Therapy Visits	C2F2S2	0.8084
10223	1st and 2nd Episodes, 7 to 9 Therapy Visits	C2F2S3	0.9366
10224	1st and 2nd Episodes, 10 Therapy Visits	C2F2S4	1.0648
10225	1st and 2nd Episodes, 11 to 13 Therapy Visits	C2F2S5	1.1930
10231	1st and 2nd Episodes, 0 to 5 Therapy Visits	C2F3S1	0.7227
10232	1st and 2nd Episodes, 6 Therapy Visits	C2F3S2	0.8442
10233	1st and 2nd Episodes, 7 to 9 Therapy Visits	C2F3S3	0.9657
10234	1st and 2nd Episodes, 10 Therapy Visits	C2F3S4	1.0872
10235	1st and 2nd Episodes, 11 to 13 Therapy Visits	C2F3S5	1.2087
10311	1st and 2nd Episodes, 0 to 5 Therapy Visits	C3F1S1	0.6245
10312	1st and 2nd Episodes, 6 Therapy Visits	C3F1S2	0.7755
10313	1st and 2nd Episodes, 7 to 9 Therapy Visits	C3F1S3	0.9264
10314	1st and 2nd Episodes, 10 Therapy Visits	C3F1S4	1.0774
10315	1st and 2nd Episodes, 11 to 13 Therapy Visits	C3F1S5	1.2284
10321	1st and 2nd Episodes, 0 to 5 Therapy Visits	C3F2S1	0.7271
10322	1st and 2nd Episodes, 6 Therapy Visits	C3F2S2	0.8645
10323	1st and 2nd Episodes, 7 to 9 Therapy Visits	C3F2S3	1.0019
10324	1st and 2nd Episodes, 10 Therapy Visits	C3F2S4	1.1392
10325	1st and 2nd Episodes, 11 to 13 Therapy Visits	C3F2S5	1.2766
10331	1st and 2nd Episodes, 0 to 5 Therapy Visits	C3F3S1	0.7696
10332	1st and 2nd Episodes, 6 Therapy Visits	C3F3S2	0.9003
10333	1st and 2nd Episodes, 7 to 9 Therapy Visits	C3F3S3	1.0310
10334	1st and 2nd Episodes, 10 Therapy Visits	C3F3S4	1.1617
10335	1st and 2nd Episodes, 11 to 13 Therapy Visits	C3F3S5	1.2923
21111	1st and 2nd Episodes, 14 to 15 Therapy Visits	C1F1S1	1.2170
21112	1st and 2nd Episodes, 16 to 17 Therapy Visits	C1F1S2	1.3756
21113	1st and 2nd Episodes, 18 to 19 Therapy Visits	C1F1S3	1.5342
21121	1st and 2nd Episodes, 14 to 15 Therapy Visits	C1F2S1	1.2516
21122	1st and 2nd Episodes, 16 to 17 Therapy Visits	C1F2S2	1.4008
21123	1st and 2nd Episodes, 18 to 19 Therapy Visits	C1F2S3	1.5499
21131	1st and 2nd Episodes, 14 to 15 Therapy Visits	C1F3S1	1.2607
21132	1st and 2nd Episodes, 16 to 17 Therapy Visits	C1F3S2	1.4126
21133	1st and 2nd Episodes, 18 to 19 Therapy Visits	C1F3S3	1.5646
21211	1st and 2nd Episodes, 14 to 15 Therapy Visits	C2F1S1	1.2866
21212	1st and 2nd Episodes, 16 to 17 Therapy Visits	C2F1S2	1.4535
21213	1st and 2nd Episodes, 18 to 19 Therapy Visits	C2F1S3	1.6204
21221	1st and 2nd Episodes, 14 to 15 Therapy Visits	C2F2S1	1.3212
21222	1st and 2nd Episodes, 16 to 17 Therapy Visits	C2F2S2	1.4786
21223	1st and 2nd Episodes, 18 to 19 Therapy Visits	C2F2S3	1.6361
21231	1st and 2nd Episodes, 14 to 15 Therapy Visits	C2F3S1	1.3302
21232	1st and 2nd Episodes, 16 to 17 Therapy Visits	C2F3S2	1.4905
21233	1st and 2nd Episodes, 18 to 19 Therapy Visits	C2F3S3	1.6508
21311	1st and 2nd Episodes, 14 to 15 Therapy Visits	C3F1S1	1.3793
21312	1st and 2nd Episodes, 16 to 17 Therapy Visits	C3F1S2	1.5930
21313	1st and 2nd Episodes, 18 to 19 Therapy Visits	C3F1S3	1.8067
21321	1st and 2nd Episodes, 14 to 15 Therapy Visits	C3F2S1	1.4140
21322	1st and 2nd Episodes, 16 to 17 Therapy Visits	C3F2S2	1.6182

TABLE 8—PROPOSED CY 2019 CASE-MIX PAYMENT WEIGHTS—Continued

Pay group	Description	Clinical and functional levels (1 = low; 2 = medium; 3 = high)	Proposed weights for CY 2019
21323	1st and 2nd Episodes, 18 to 19 Therapy Visits	C3F2S3	1.8224
21331	1st and 2nd Episodes, 14 to 15 Therapy Visits	C3F3S1	1.4230
21332	1st and 2nd Episodes, 16 to 17 Therapy Visits	C3F3S2	1.6300
21333	1st and 2nd Episodes, 18 to 19 Therapy Visits	C3F3S3	1.8371
22111	3rd+ Episodes, 14 to 15 Therapy Visits	C1F1S1	1.2104
22112	3rd+ Episodes, 16 to 17 Therapy Visits	C1F1S2	1.3713
22113	3rd+ Episodes, 18 to 19 Therapy Visits	C1F1S3	1.5321
22121	3rd+ Episodes, 14 to 15 Therapy Visits	C1F2S1	1.2789
22122	3rd+ Episodes, 16 to 17 Therapy Visits	C1F2S2	1.4189
22123	3rd+ Episodes, 18 to 19 Therapy Visits	C1F2S3	1.5589
22131	3rd+ Episodes, 14 to 15 Therapy Visits	C1F3S1	1.2789
22132	3rd+ Episodes, 16 to 17 Therapy Visits	C1F3S2	1.4248
22133	3rd+ Episodes, 18 to 19 Therapy Visits	C1F3S3	1.5706
22211	3rd+ Episodes, 14 to 15 Therapy Visits	C2F1S1	1.2761
22212	3rd+ Episodes, 16 to 17 Therapy Visits	C2F1S2	1.4465
22213	3rd+ Episodes, 18 to 19 Therapy Visits	C2F1S3	1.6169
22221	3rd+ Episodes, 14 to 15 Therapy Visits	C2F2S1	1.3445
22222	3rd+ Episodes, 16 to 17 Therapy Visits	C2F2S2	1.4942
22223	3rd+ Episodes, 18 to 19 Therapy Visits	C2F2S3	1.6438
22231	3rd+ Episodes, 14 to 15 Therapy Visits	C2F3S1	1.3445
22232	3rd+ Episodes, 16 to 17 Therapy Visits	C2F3S2	1.5000
22233	3rd+ Episodes, 18 to 19 Therapy Visits	C2F3S3	1.6555
22311	3rd+ Episodes, 14 to 15 Therapy Visits	C3F1S1	1.4670
22312	3rd+ Episodes, 16 to 17 Therapy Visits	C3F1S2	1.6515
22313	3rd+ Episodes, 18 to 19 Therapy Visits	C3F1S3	1.8360
22321	3rd+ Episodes, 14 to 15 Therapy Visits	C3F2S1	1.5355
22322	3rd+ Episodes, 16 to 17 Therapy Visits	C3F2S2	1.6992
22323	3rd+ Episodes, 18 to 19 Therapy Visits	C3F2S3	1.8629
22331	3rd+ Episodes, 14 to 15 Therapy Visits	C3F3S1	1.5355
22332	3rd+ Episodes, 16 to 17 Therapy Visits	C3F3S2	1.7050
22333	3rd+ Episodes, 18 to 19 Therapy Visits	C3F3S3	1.8746
30111	3rd+ Episodes, 0 to 5 Therapy Visits	C1F1S1	0.4581
30112	3rd+ Episodes, 6 Therapy Visits	C1F1S2	0.6086
30113	3rd+ Episodes, 7 to 9 Therapy Visits	C1F1S3	0.7591
30114	3rd+ Episodes, 10 Therapy Visits	C1F1S4	0.9095
30115	3rd+ Episodes, 11 to 13 Therapy Visits	C1F1S5	1.0600
30121	3rd+ Episodes, 0 to 5 Therapy Visits	C1F2S1	0.5397
30122	3rd+ Episodes, 6 Therapy Visits	C1F2S2	0.6876
30123	3rd+ Episodes, 7 to 9 Therapy Visits	C1F2S3	0.8354
30124	3rd+ Episodes, 10 Therapy Visits	C1F2S4	0.9832
30125	3rd+ Episodes, 11 to 13 Therapy Visits	C1F2S5	1.1310
30131	3rd+ Episodes, 0 to 5 Therapy Visits	C1F3S1	0.5772
30132	3rd+ Episodes, 6 Therapy Visits	C1F3S2	0.7176
30133	3rd+ Episodes, 7 to 9 Therapy Visits	C1F3S3	0.8579
30134	3rd+ Episodes, 10 Therapy Visits	C1F3S4	0.9982
30135	3rd+ Episodes, 11 to 13 Therapy Visits	C1F3S5	1.1385
30211	3rd+ Episodes, 0 to 5 Therapy Visits	C2F1S1	0.4844
30212	3rd+ Episodes, 6 Therapy Visits	C2F1S2	0.6427
30213	3rd+ Episodes, 7 to 9 Therapy Visits	C2F1S3	0.8011
30214	3rd+ Episodes, 10 Therapy Visits	C2F1S4	0.9594
30215	3rd+ Episodes, 11 to 13 Therapy Visits	C2F1S5	1.1178
30221	3rd+ Episodes, 0 to 5 Therapy Visits	C2F2S1	0.5660
30222	3rd+ Episodes, 6 Therapy Visits	C2F2S2	0.7217
30223	3rd+ Episodes, 7 to 9 Therapy Visits	C2F2S3	0.8774
30224	3rd+ Episodes, 10 Therapy Visits	C2F2S4	1.0331
30225	3rd+ Episodes, 11 to 13 Therapy Visits	C2F2S5	1.1888
30231	3rd+ Episodes, 0 to 5 Therapy Visits	C2F3S1	0.6035
30232	3rd+ Episodes, 6 Therapy Visits	C2F3S2	0.7517
30233	3rd+ Episodes, 7 to 9 Therapy Visits	C2F3S3	0.8999
30234	3rd+ Episodes, 10 Therapy Visits	C2F3S4	1.0481
30235	3rd+ Episodes, 11 to 13 Therapy Visits	C2F3S5	1.1963
30311	3rd+ Episodes, 0 to 5 Therapy Visits	C3F1S1	0.5798
30312	3rd+ Episodes, 6 Therapy Visits	C3F1S2	0.7573
30313	3rd+ Episodes, 7 to 9 Therapy Visits	C3F1S3	0.9347
30314	3rd+ Episodes, 10 Therapy Visits	C3F1S4	1.1122
30315	3rd+ Episodes, 11 to 13 Therapy Visits	C3F1S5	1.2896
30321	3rd+ Episodes, 0 to 5 Therapy Visits	C3F2S1	0.6614
30322	3rd+ Episodes, 6 Therapy Visits	C3F2S2	0.8362

TABLE 8—PROPOSED CY 2019 CASE-MIX PAYMENT WEIGHTS—Continued

Pay group	Description	Clinical and functional levels (1 = low; 2 = medium; 3 = high)	Proposed weights for CY 2019
30323	3rd+ Episodes, 7 to 9 Therapy Visits	C3F2S3	1.0110
30324	3rd+ Episodes, 10 Therapy Visits	C3F2S4	1.1858
30325	3rd+ Episodes, 11 to 13 Therapy Visits	C3F2S5	1.3607
30331	3rd+ Episodes, 0 to 5 Therapy Visits	C3F3S1	0.6989
30332	3rd+ Episodes, 6 Therapy Visits	C3F3S2	0.8662
30333	3rd+ Episodes, 7 to 9 Therapy Visits	C3F3S3	1.0336
30334	3rd+ Episodes, 10 Therapy Visits	C3F3S4	1.2009
30335	3rd+ Episodes, 11 to 13 Therapy Visits	C3F3S5	1.3682
40111	All Episodes, 20+ Therapy Visits	C1F1S1	1.6929
40121	All Episodes, 20+ Therapy Visits	C1F2S1	1.6990
40131	All Episodes, 20+ Therapy Visits	C1F3S1	1.7165
40211	All Episodes, 20+ Therapy Visits	C2F1S1	1.7874
40221	All Episodes, 20+ Therapy Visits	C2F2S1	1.7935
40231	All Episodes, 20+ Therapy Visits	C2F3S1	1.8110
40311	All Episodes, 20+ Therapy Visits	C3F1S1	2.0204
40321	All Episodes, 20+ Therapy Visits	C3F2S1	2.0266
40331	All Episodes, 20+ Therapy Visits	C3F3S1	2.0441

To ensure the changes to the HH PPS case-mix weights are implemented in a budget neutral manner, we then apply a case-mix budget neutrality factor to the proposed CY 2019 national, standardized 60-day episode payment rate (see section III.C.3. of this proposed rule). The case-mix budget neutrality factor is calculated as the ratio of total payments when the CY 2019 HH PPS case-mix weights (developed using CY 2017 home health claims data) are applied to CY 2017 utilization (claims) data to total payments when CY 2018 HH PPS case-mix weights (developed using CY 2016 home health claims data) are applied to CY 2017 utilization data. This produces a case-mix budget neutrality factor for CY 2019 of 1.0163.

C. CY 2019 Home Health Payment Rate Update

1. Rebasings and Revising of the Home Health Market Basket

a. Background

Section 1895(b)(3)(B) of the Act requires that the standard prospective payment amounts for CY 2019 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. Effective for cost reporting periods beginning on or after July 1, 1980, we developed and adopted an HHA input price index (that is, the home health “market basket”). Although “market basket” technically describes the mix of goods and services used to produce home health care, this term is also commonly used to denote the input price index derived from that market

basket. Accordingly, the term “home health market basket” used in this document refers to the HHA input price index.

The percentage change in the home health market basket reflects the average change in the price of goods and services purchased by HHAs in providing an efficient level of home health care services. We first used the home health market basket to adjust HHA cost limits by an amount that reflected the average increase in the prices of the goods and services used to furnish reasonable cost home health care. This approach linked the increase in the cost limits to the efficient utilization of resources. For a greater discussion on the home health market basket, see the notice with comment period published in the February 15, 1980 **Federal Register** (45 FR 10450, 10451), the notice with comment period published in the February 14, 1995 **Federal Register** (60 FR 8389, 8392), and the notice with comment period published in the July 1, 1996 **Federal Register** (61 FR 34344, 34347). Beginning with the FY 2002 HHA PPS payments, we used the home health market basket to update payments under the HHA PPS. We last rebased the home health market basket effective with the CY 2013 update (77 FR 67081).

The home health market basket is a fixed-weight, Laspeyres-type price index. A Laspeyres-type price index measures the change in price, over time, of the same mix of goods and services purchased in the base period. Any changes in the quantity or mix of goods and services (that is, intensity) purchased over time are not measured.

The index itself is constructed in three steps. First, a base period is selected (in this proposed rule, we are proposing to use 2016 as the base period) and total base period expenditures are estimated for a set of mutually exclusive and exhaustive spending categories, with the proportion of total costs that each category represents being calculated. These proportions are called “cost weights” or “expenditure weights.” Second, each expenditure category is matched to an appropriate price or wage variable, referred to as a “price proxy.” In almost every instance, these price proxies are derived from publicly available statistical series that are published on a consistent schedule (preferably at least on a quarterly basis). Finally, the expenditure weight for each cost category is multiplied by the level of its respective price proxy. The sum of these products (that is, the expenditure weights multiplied by their price index levels) for all cost categories yields the composite index level of the market basket in a given period. Repeating this step for other periods produces a series of market basket levels over time. Dividing an index level for a given period by an index level for an earlier period produces a rate of growth in the input price index over that timeframe.

As noted previously, the market basket is described as a fixed-weight index because it represents the change in price over time of a constant mix (quantity and intensity) of goods and services needed to provide HHA services. The effects on total expenditures resulting from changes in the mix of goods and services purchased

subsequent to the base period are not measured. For example, a HHA hiring more nurses to accommodate the needs of patients would increase the volume of goods and services purchased by the HHA, but would not be factored into the price change measured by a fixed-weight home health market basket. Only when the index is rebased would changes in the quantity and intensity be captured, with those changes being reflected in the cost weights. Therefore, we rebase the market basket periodically so that the cost weights reflect recent changes in the mix of goods and services that HHAs purchase (HHA inputs) to furnish inpatient care between base periods.

b. Rebasing and Revising the Home Health Market Basket

We believe that it is desirable to rebase the home health market basket periodically so that the cost category weights reflect changes in the mix of goods and services that HHAs purchase in furnishing home health care. We based the cost category weights in the current home health market basket on CY 2010 data. We are proposing to rebase and revise the home health market basket to reflect 2016 Medicare cost report (MCR) data, the latest available and most complete data on the actual structure of HHA costs.

The terms “rebasing” and “revising,” while often used interchangeably, denote different activities. The term “rebasing” means moving the base year for the structure of costs of an input price index (that is, in this exercise, we are proposing to move the base year cost structure from CY 2010 to CY 2016) without making any other major changes to the methodology. The term “revising” means changing data sources, cost categories, and/or price proxies used in the input price index.

For this proposed rebasing and revising, we are rebasing the detailed wages and salaries and benefits cost weights to reflect 2016 BLS Occupational Employment Statistics (OES) data on HHAs. The 2010-based home health market basket used 2010 BLS OES data on HHAs. We are also proposing to break out the All Other (residual) cost category weight into more detailed cost categories, based on the 2007 Benchmark U.S. Department of Commerce, Bureau of Economic Analysis (BEA) Input-Output (I-O) Table for HHAs. The 2010-based home health market basket used the 2002 I-O data. Finally, due to its small weight, we are proposing to eliminate the cost category ‘Postage’ and include these expenses in the ‘All Other Services’ cost weight.

c. Derivation of the Proposed 2016-Based Home Health Market Basket Cost Weights

The major cost weights for this proposed revised and rebased home health market basket are derived from the Medicare Cost Reports (MCR; CMS Form 1728–94) data for freestanding HHAs whose cost reporting period began on or after October 1, 2015 and before October 1, 2016. Of the 2016 Medicare cost reports for freestanding HHAs, approximately 84 percent of the reports had a begin date on January 1, 2016, approximately 6 percent had a begin date on July 1, 2016, and approximately 4 percent had a begin date on October 1, 2015. Using this methodology allowed our sample to include HHAs with varying cost report years including, but not limited to, the Federal fiscal or calendar year. We refer to the market basket as a calendar year market basket because the base period for all price proxies and weights are set to CY 2016.

We propose to maintain our policy of using data from freestanding HHAs, which account for over 90 percent of HHAs (82 FR 35383), because we have determined that they better reflect HHAs’ actual cost structure. Expense data for hospital-based HHAs can be affected by the allocation of overhead costs over the entire institution.

We are proposing to derive eight major expense categories (Wages and Salaries, Benefits, Contract Labor, Transportation, Professional Liability Insurance (PLI), Fixed Capital, Movable Capital, and a residual “All Other”) from the 2016 Medicare HHA cost reports. Due to its small weight, we are proposing to eliminate the cost category ‘Postage’ and include these expenses in the “All Other (residual)” cost weight. These major expense categories are based on those cost centers that are reimbursable under the HHA PPS, specifically Skilled Nursing Care, Physical Therapy, Occupational Therapy, Speech Pathology, Medical Social Services, Home Health Aide, and Supplies. These are the same cost centers that were used in the 2014 base payment rebasing (78 FR 72276), which are described in the Abt Associates Inc. June 2013, Technical Paper, “Analyses In Support of Rebasing and Updating Medicare Home Health Payment Rates” (<https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/Downloads/Analyses-in-Support-of-Rebasing-and-Updating-the-Medicare-Home-Health-Payment-Rates-Technical-Report.pdf>). Total costs for the HHA PPS reimbursable services reflect overhead allocation. We provide

detail on the calculations for each major expense category.

(1) Wages and Salaries: Wages and Salaries costs reflect direct patient care wages and salaries costs as well as wages and salaries costs associated with Plant Operations and Maintenance, Transportation, and Administrative and General. Specifically, we are proposing to calculate Wages and Salaries by summing costs from Worksheet A, column 1, lines 3 through 12 and subtracting line 5.03 (A&G Nonreimbursable costs).

(2) Benefits: Benefits costs reflect direct patient care benefit costs as well as benefit costs associated with Plant Operations and Maintenance, Transportation, and Administrative and General. Specifically, we are proposing to calculate Benefits by summing costs from Worksheet A, column 2, lines 3 through 12 and subtracting line 5.03 (A&G Nonreimbursable costs).

(3) Direct Patient Care Contract Labor: Contract Labor costs reflect direct patient care contract labor. Specifically, we are proposing to calculate Contract Labor by summing costs from Worksheet A, column 4, lines 6 through 11.

(4) Transportation: Transportation costs reflect direct patient care costs as well as transportation costs associated with Capital Expenses, Plant Operations and Maintenance, and Administrative and General. Specifically, we are proposing to calculate Transportation by summing costs from Worksheet A, column 3, lines 1 through 12 and subtracting line 5.03 (A&G Nonreimbursable costs).

(5) Professional Liability Insurance: Professional Liability Insurance reflects premiums, paid losses, and self-insurance costs. Specifically we are proposing to calculate Professional Liability Insurance by summing costs from Worksheet S2, lines 27.01, 27.02 and 27.03.

(6) Fixed Capital: Fixed Capital-related costs reflect the portion of Medicare-allowable costs reported in “Capital Related Buildings and Fixtures” (Worksheet A, column 5, line 1). We calculate this Medicare allowable portion by first calculating a ratio for each provider that reflects fixed capital costs as a percentage of HHA reimbursable services. Specifically this ratio is calculated as the sum of costs from Worksheet B, column 1, lines 6 through 12 divided by the sum of costs from Worksheet B, column 1, line 1 minus lines 3 through 5. This percentage is then applied to the sum of the costs from Worksheet A, column 5, line 1.

(7) Movable Capital: Movable Capital-related costs reflect the portion of Medicare-allowable costs reported in “Capital Related Moveable Equipment” (Worksheet A, column 5, line 2). We calculate this Medicare allowable portion by first calculating a ratio for each provider that reflects movable capital costs as a percentage of HHA reimbursable services. Specifically this ratio is calculated as the sum of costs from Worksheet B, column 2, lines 6 through 12 divided by the sum of costs from Worksheet B, column 2, line 2 minus lines 3 through 5. This percentage is then applied to the sum of the costs from Worksheet A, column 5, line 2.

(8) All Other (residual): The “All Other” cost weight is a residual, calculated by subtracting the major cost weight percentages (Wages and Salaries, Benefits, Direct Patient Care Contract Labor, Transportation, Professional Liability Insurance, Fixed Capital, and Movable Capital) from 1.

As prescription drugs and DME are not payable under the HH PPS, we continue to exclude those items from the home health market basket. Totals within each of the major cost categories were edited to remove reports where the data were deemed unreasonable (for example, when total costs were not greater than zero). We then determined the proportion of total Medicare allowable costs that each category

represents. For all of the major cost categories except the “residual” All Other cost weight, we then removed those providers whose derived cost weights fall in the top and bottom five percent of provider-specific cost weights to ensure the removal of outliers. After the outliers were removed, we summed the costs for each category across all remaining providers. We then divided this by the sum of total Medicare allowable costs across all remaining providers to obtain a cost weight for the proposed 2016-based home health market basket for the given category.

Table 9 shows the major cost categories and their respective cost weights as derived from the Medicare cost reports for this proposed rule.

TABLE 9—MAJOR COST CATEGORIES AS DERIVED FROM THE MEDICARE COST REPORTS

Major cost categories	2010 based	Proposed 2016 based
Wages and Salaries (including allocated direct patient care contract labor)	66.3	65.1
Benefits (including allocated direct patient care contract labor)	12.2	10.9
Transportation	2.5	2.6
Professional Liability Insurance (Malpractice)	0.4	0.3
Fixed Capital	1.5	1.4
Moveable Capital	0.6	0.6
“All Other” residual	16.5	19.0

* Figures may not sum to 100.0 due to rounding.

The decrease in the wages and salaries cost weight of 1.2 percentage points and the decrease in the benefits cost weight of 1.3 percentage points is attributable to both employed compensation and direct patient care contract labor costs as reported on the MCR data. Our analysis of the MCR data shows that the decrease in the compensation cost weight of 2.4 percentage points (calculated by combining wages and salaries and benefits) from 2010 to 2016 occurred among for-profit, nonprofit, and government providers and among providers serving only rural beneficiaries, only urban beneficiaries, or both rural and urban beneficiaries.

Over the 2010 to 2016 time period, the average number of FTEs per provider decreased considerably. This corresponds with the HHA claims analysis published on page 35279 of the CY 2018 proposed rule (<https://www.gpo.gov/fdsys/pkg/FR-2017-07-28/pdf/2017-15825.pdf>), which shows that the number of visits per 60-day episode has decreased from 19.8 visits in 2010 to 17.9 visits in 2016 for Medicare PPS. Medicare visits account for approximately 60 percent of total visits.

The direct patient care contract labor costs are contract labor costs for skilled nursing, physical therapy, occupational

therapy, speech therapy, and home health aide cost centers. We allocated these direct patient care contract labor costs to the Wages and Salaries and Benefits cost categories based on each provider’s relative proportions of both employee wages and salaries and employee benefits costs. For example, the direct patient care contract labor costs that are allocated to wages and salaries is equal to: (A) The employee wages and salaries costs as a percent of the sum of employee wages and salaries costs and employee benefits costs times; and (B) direct patient care contract labor costs. Nondirect patient care contract labor costs (such as contract labor costs reported in the Administrative and General cost center of the MCR) are captured in the “All Other” residual cost weight and later disaggregated into more detail as described below. This is a similar methodology that was implemented for the 2010-based home health market basket.

We further divide the “All Other” residual cost weight estimated from the 2016 Medicare cost report data into more detailed cost categories. To divide this cost weight we are proposing to use the 2007 Benchmark I–O “Use Tables/ Before Redefinitions/Purchaser Value” for NAICS 621600, Home Health Agencies, published by the BEA. These

data are publicly available at http://www.bea.gov/industry/io_annual.htm. The BEA Benchmark I–O data are generally scheduled for publication every five years. The most recent data available at the time of rebasing was for 2007. The 2007 Benchmark I–O data are derived from the 2007 Economic Census and are the building blocks for BEA’s economic accounts. Therefore, they represent the most comprehensive and complete set of data on the economic processes or mechanisms by which output is produced and distributed.¹⁰ Besides Benchmark I–O estimates, BEA also produces Annual I–O estimates. While based on a similar methodology, the Annual I–O estimates reflect less comprehensive and less detailed data sources and are subject to revision when benchmark data become available. Instead of using the less detailed Annual I–O data, we are proposing to inflate the detailed 2007 Benchmark I–O data forward to 2016 by applying the annual price changes from the respective price proxies to the appropriate market basket cost categories that are obtained from the 2007 Benchmark I–O data. We repeated this practice for each year. We then calculated the cost shares that each cost

¹⁰ http://www.bea.gov/papers/pdf/IOmanual_092906.pdf.

category represents of the 2007 data inflated to 2016. These resulting 2016 cost shares were applied to the “All Other” residual cost weight to obtain the detailed cost weights for the proposed 2016-based home health market basket. For example, the cost for Operations and Maintenance represents 8.0 percent of the sum of the “All Other” 2007 Benchmark I–O HHA Expenditures inflated to 2016. Therefore, the Operations and Maintenance cost weight represents 8.0 percent of the proposed 2016-based home health market basket’s “All Other” cost category (19.0 percent),

yielding an Operations and Maintenance proposed cost weight of 1.5 percent in the proposed 2016-based home health market basket (0.080 × 19.0 percent = 1.5 percent). For the 2010-based home health market basket, we used the same methodology utilizing the 2002 Benchmark I–O data (aged to 2010).

Using this methodology, we are proposing to derive nine detailed cost categories from the proposed 2016-based home health market basket “All Other” residual cost weight (19.0 percent). These categories are: (1) Operations and Maintenance; (2) Administrative Support; (3) Financial

Services; (4) Medical Supplies; (5) Rubber and Plastics; (6) Telephone; (7) Professional Fees; (8) Other Products; and (9) Other Services. The 2010-based home health market basket included a separate cost category for Postage; however, due to its small weight for the 2016-based home health market basket, we propose to eliminate the stand-alone cost category for Postage and include these expenses in the Other Services cost category.

Table 10 lists the proposed 2016-based home health market basket cost categories, cost weights, and price proxies.

TABLE 10—COST CATEGORIES, WEIGHTS, AND PRICE PROXIES IN PROPOSED 2016-BASED HOME HEALTH MARKET BASKET

Cost categories	Weight	Price proxy
Compensation, including allocated contract services' labor.	76.1	
Wages and Salaries, including allocated contract services' labor.	65.1	Proposed Home Health Blended Wages and Salaries Index (2016).
Benefits, including allocated contract services' labor.	10.9	Proposed Home Health Blended Benefits Index (2016).
Operations & Maintenance	1.5	CPI-U for Fuel and utilities.
Professional Liability Insurance	0.3	CMS Physician Professional Liability Insurance Index.
Administrative & General & Other Expenses including allocated contract services' labor.	17.4	
Administrative Support	1.0	ECI for Total compensation for Private industry workers in Office and administrative support.
Financial Services	1.9	ECI for Total compensation for Private industry workers in Financial activities.
Medical Supplies	0.9	PPI Commodity data for Medical, surgical & personal aid devices.
Rubber & Plastics	1.6	PPI Commodity data for Rubber and plastic products.
Telephone	0.7	CPI-U for Telephone services.
Professional Fees	5.3	ECI for Total compensation for Private industry workers in Professional and related.
Other Products	2.8	PPI Commodity data for Finished goods less foods and energy.
Other Services	3.2	ECI for Total compensation for Private industry workers in Service occupations.
Transportation	2.6	CPI-U for Transportation.
Capital-Related	2.1	
Fixed Capital	1.4	CPI-U for Owners' equivalent rent of residences.
Movable Capital	0.6	PPI Commodity data for Machinery and equipment.
Total	* 100.0	

* Figures may not sum due to rounding.

d. Proposed 2016-Based Home Health Market Basket Price Proxies

After we computed the CY 2016 cost category weights for the proposed rebased home health market basket, we selected the most appropriate wage and price indexes to proxy the rate of change for each expenditure category. With the exception of the price index for Professional Liability Insurance costs, the proposed price proxies are based on Bureau of Labor Statistics (BLS) data and are grouped into one of the following BLS categories:

- *Employment Cost Indexes*—Employment Cost Indexes (ECIs) measure the rate of change in employee

wage rates and employer costs for employee benefits per hour worked. These indexes are fixed-weight indexes and strictly measure the change in wage rates and employee benefits per hour. They are not affected by shifts in skill mix. ECIs are superior to average hourly earnings as price proxies for input price indexes for two reasons: (a) They measure pure price change; and (b) they are available by occupational groups, not just by industry.

- *Consumer Price Indexes*—Consumer Price Indexes (CPIs) measure change in the prices of final goods and services bought by the typical consumer. Consumer price indexes are

used when the expenditure is more similar to that of a purchase at the retail level rather than at the wholesale level, or if no appropriate Producer Price Indexes (PPIs) were available.

- *Producer Price Indexes*—PPIs measures average changes in prices received by domestic producers for their goods and services. PPIs are used to measure price changes for goods sold in other than retail markets. For example, a PPI for movable equipment is used rather than a CPI for equipment. PPIs in some cases are preferable price proxies for goods that HHAs purchase at wholesale levels. These fixed-weight indexes are a measure of price change

at the producer or at the intermediate stage of production.

We evaluated the price proxies using the criteria of reliability, timeliness, availability, and relevance. Reliability indicates that the index is based on valid statistical methods and has low sampling variability. Widely accepted statistical methods ensure that the data were collected and aggregated in way that can be replicated. Low sampling variability is desirable because it indicates that sample reflects the typical members of the population. (Sampling variability is variation that occurs by chance because a sample was surveyed rather than the entire population.) Timeliness implies that the proxy is published regularly, preferably at least once a quarter. The market baskets are updated quarterly and therefore it is important the underlying price proxies be up-to-date, reflecting the most recent data available. We believe that using proxies that are published regularly helps ensure that we are using the most recent data available to update the market basket. We strive to use publications that are disseminated frequently because we believe that this is an optimal way to stay abreast of the most current data available. Availability means that the proxy is publicly available. We prefer that our proxies are publicly available because this will help ensure that our market basket updates are as transparent to the public as possible. In addition, this enables the

public to be able to obtain the price proxy data on a regular basis. Finally, relevance means that the proxy is applicable and representative of the cost category weight to which it is applied. The CPIs, PPIs, and ECIs selected by us to be proposed in this regulation meet these criteria. Therefore, we believe that they continue to be the best measure of price changes for the cost categories to which they would be applied.

As part of the revising and rebasing of the home health market basket, we are proposing to rebase the home health blended Wages and Salaries index and the home health blended Benefits index. We propose to use these blended indexes as price proxies for the Wages and Salaries and the Benefits portions of the proposed 2016-based home health market basket, as we did in the 2010-based home health market basket. A more detailed discussion is provided below.

- *Wages and Salaries:* For measuring price growth in the 2016-based home health market basket, we are proposing to apply six price proxies to six occupational subcategories within the Wages and Salaries component, which would reflect the HHA occupational mix. This is the same approach used for the 2010-based index. We use a blended wage proxy because there is not a published wage proxy specific to the home health industry.

We are proposing to continue to use the National Industry-Specific

Occupational Employment and Wage estimates for North American Industrial Classification System (NAICS) 621600, Home Health Care Services, published by the BLS Office of Occupational Employment Statistics (OES) as the data source for the cost shares of the home health blended wage and benefits proxy. This is the same data source that was used for the 2010-based HHA blended wage and benefit proxies; however, we are proposing to use the May 2016 estimates in place of the May 2010 estimates. Detailed information on the methodology for the national industry-specific occupational employment and wage estimates survey can be found at http://www.bls.gov/oes/current/oes_tec.htm.

The needed data on HHA expenditures for the six occupational subcategories (Health-Related Professional and Technical, Non Health-Related Professional and Technical, Management, Administrative, Health and Social Assistance Service, and Other Service Workers) for the wages and salaries component were tabulated from the May 2016 OES data for NAICS 621600, Home Health Care Services. Table 11 compares the proposed 2016 occupational assignments to the 2010 occupational assignments of the six CMS designated subcategories. If an OES occupational classification does not exist in the 2010 or 2016 data we use “n/a.”

TABLE 11—PROPOSED 2016 OCCUPATIONAL ASSIGNMENTS COMPARED TO 2010 OCCUPATIONAL ASSIGNMENTS FOR CMS HOME HEALTH WAGES AND SALARIES BLEND

2016 proposed occupational groupings		2010 occupational groupings	
Group 1	Health-related professional and technical	Group 1	Health-related professional and technical
n/a	n/a	29-1021	Dentists, General.
29-1031	Dietitians and Nutritionists	29-1031	Dietitians and Nutritionists.
29-1051	Pharmacists	29-1051	Pharmacists.
29-1062	Family and General Practitioners	29-1062	Family and General Practitioners.
29-1063	Internists, General	29-1063	Internists, General.
29-1065	Pediatricians, General	n/a	n/a.
29-1066	Psychiatrists	n/a	n/a.
29-1069	Physicians and Surgeons, All Other	29-1069	Physicians and Surgeons, All Other.
29-1071	Physician Assistants	29-1071	Physician Assistants.
n/a	n/a	29-1111	Registered Nurses.
29-1122	Occupational Therapists	29-1122	Occupational Therapists.
29-1123	Physical Therapists	29-1123	Physical Therapists.
29-1125	Recreational Therapists	29-1125	Recreational Therapists.
29-1126	Respiratory Therapists	29-1126	Respiratory Therapists.
29-1127	Speech-Language Pathologists	29-1127	Speech-Language Pathologists.
29-1129	Therapists, All Other	29-1129	Therapists, All Other.
29-1141	Registered Nurses	n/a	n/a.
29-1171	Nurse Practitioners	n/a	n/a.
29-1199	Health Diagnosing and Treating Practitioners, All Other.	29-1199	Health Diagnosing and Treating Practitioners, All Other.

2016 proposed occupational groups		2010 occupational groupings	
Group 2	Non health related professional & technical	Group 2	Non health related professional & technical
13-0000	Business and Financial Operations Occupations	13-0000	Business and Financial Operations Occupations.
15-0000	Computer and Mathematical Occupations	15-0000	Computer and Mathematical Science Occupations.
n/a	n/a	17-0000	Architecture and Engineering Occupations.
19-0000	Life, Physical, and Social Science Occupations	19-0000	Life, Physical, and Social Science Occupations.
n/a	n/a	23-0000	Legal Occupations.
25-0000	Education, Training, and Library Occupations	25-0000	Education, Training, and Library Occupations.
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations.	27-0000	Arts, Design, Entertainment, Sports, and Media Occupations.
Group 3	Management	Group 3	Management
11-0000	Management Occupations	11-0000	Management Occupations.
Group 4	Administrative	Group 4	Administrative
43-0000	Office and Administrative Support Occupations	43-0000	Office and Administrative Support Occupations.
Group 5	Health and social assistance services	Group 5	Health and social assistance services
21-0000	Community and Social Service Occupations	21-0000	Community and Social Services Occupations.
29-2011	Medical and Clinical Laboratory Technologists	29-2011	Medical and Clinical Laboratory Technologists.
29-2012	Medical and Clinical Laboratory Technicians	29-2012	Medical and Clinical Laboratory Technicians.
29-2021	Dental Hygienists	29-2021	Dental Hygienists.
29-2032	Diagnostic Medical Sonographers	29-2032	Diagnostic Medical Sonographers.
29-2034	Radiologic Technologists	29-2034	Radiologic Technologists and Technicians.
29-2041	Emergency Medical Technicians and Paramedics	29-2041	Emergency Medical Technicians and Paramedics.
29-2051	Dietetic Technicians	29-2051	Dietetic Technicians.
29-2052	Pharmacy Technicians	29-2052	Pharmacy Technicians.
29-2053	Psychiatric Technicians	n/a	n/a.
29-2054	Respiratory Therapy Technicians	29-2054	Respiratory Therapy Technicians.
29-2055	Surgical Technologists	n/a	n/a.
29-2061	Licensed Practical and Licensed Vocational Nurses	29-2061	Licensed Practical and Licensed Vocational Nurses.
29-2071	Medical Records and Health Information Technicians	29-2071	Medical Records and Health Information Technicians.
29-2099	Health Technologists and Technicians, All Other	29-2099	Health Technologists and Technicians, All Other.
n/a	n/a	29-9012	Occupational Health and Safety Technicians.
29-9099	Healthcare Practitioners and Technical Workers, All Other.	29-9099	Healthcare Practitioner and Technical Workers, All Other.
31-0000	Healthcare Support Occupations	31-0000	Healthcare Support Occupations.
Group 6	Other service workers	Group 6	Other service workers
33-0000	Protective Service Occupations	33-0000	Protective Service Occupations.
35-0000	Food Preparation and Serving Related Occupations	35-0000	Food Preparation and Serving Related Occupations.
37-0000	Building and Grounds Cleaning and Maintenance Occupations.	37-0000	Building and Grounds Cleaning and Maintenance Occupations.
39-0000	Personal Care and Service Occupations	39-0000	Personal Care and Service Occupations.
41-0000	Sales and Related Occupations	41-0000	Sales and Related Occupations.
47-0000	Construction and Extraction Occupations	n/a	n/a.
49-0000	Installation, Maintenance, and Repair Occupations	49-0000	Installation, Maintenance, and Repair Occupations.
51-0000	Production Occupations	51-0000	Production Occupations.
53-0000	Transportation and Material Moving Occupations	53-0000	Transportation and Material Moving Occupations.

Total expenditures by occupation were calculated by taking the OES number of employees multiplied by the OES annual average salary for each subcategory, and then calculating the proportion of total wage costs that each subcategory represents. The proportions listed in Table 12 represent the Wages and Salaries blend weights.

TABLE 12—COMPARISON OF THE PROPOSED 2016-BASED HOME HEALTH WAGES AND SALARIES BLEND AND THE 2010-BASED HOME HEALTH WAGES AND SALARIES BLEND

Cost subcategory	Proposed 2016 weight	2010 weight	Price proxy	BLS series ID
Health-Related Professional and Technical.	33.7	33.4	ECI for Wages and salaries for All Civilian workers in Hospitals.	CIU1026220000000I.
Non Health-Related Professional and Technical.	2.3	2.3	ECI for Wages and salaries for Private industry workers in Professional, scientific, and technical services.	CIU2025400000000I.
Management	7.6	8.3	ECI for Wages and salaries for Private industry workers in Management, business, and financial.	CIU2020000110000I.

TABLE 12—COMPARISON OF THE PROPOSED 2016-BASED HOME HEALTH WAGES AND SALARIES BLEND AND THE 2010-BASED HOME HEALTH WAGES AND SALARIES BLEND—Continued

Cost subcategory	Proposed 2016 weight	2010 weight	Price proxy	BLS series ID
Administrative	6.7	7.7	ECI for Wages and salaries for Private industry workers in Office and administrative support. ECI for Wages and salaries for All Civilian workers in Health care and social assistance. ECI for Wages and salaries for Private industry workers in Service occupations.	CIU2020000220000I.
Health and Social Assistance Services.	35.3	35.8		CIU1026200000000I.
Other Service Occupations	14.4	12.6		CIU2020000300000I.
Total *	100.0	100.0		

* Totals may not sum due to rounding.

A comparison of the yearly changes from CY 2016 to CY 2019 for the 2010-based home health Wages and Salaries

blend and the proposed 2016-based home health Wages and Salaries blend is shown in Table 13. The annual

increases in the two price proxies are the same when rounded to one decimal place.

TABLE 13—ANNUAL GROWTH IN PROPOSED 2016 AND 2010 HOME HEALTH WAGES AND SALARIES BLEND

	2016	2017	2018	2019
Wage Blend 2016	2.3	2.5	2.6	3.0
Wage Blend 2010	2.3	2.5	2.6	3.0

Source: IHS Global Insight Inc. 1st Quarter 2018 forecast with historical data through 4th Quarter 2017.

• *Benefits:* For measuring Benefits price growth in the proposed 2016-based home health market basket, we are proposing to apply applicable price

proxies to the six occupational subcategories that are used for the Wages and Salaries blend. The proposed six categories in Table 14 are the same

as those in the 2010-based home health market basket and include the same occupational mix as listed in Table 14.

TABLE 14—COMPARISON OF THE PROPOSED 2016-BASED HOME HEALTH BENEFITS BLEND AND 2010-BASED HOME HEALTH BENEFITS BLEND

Cost category	Proposed 2016 weight	2010 weight	Price proxy
Health-Related Professional and Technical	33.9	33.5	ECI for Benefits for All Civilian workers in Hospitals. ECI for Benefits for Private industry workers in Professional, scientific, and technical services.
Non Health-Related Professional and Technical.	2.3	2.2	
Management	7.3	8.0	ECI for Benefits for Private industry workers in Management, business, and financial.
Administrative	6.7	7.8	ECI for Benefits for Private industry workers in Office and administrative support.
Health and Social Assistance Services	35.5	35.9	ECI for Benefits for All Civilian workers in Health care and social assistance.
Other Service Workers	14.2	12.5	ECI for Benefits for Private industry workers in Service occupations.
Total *	100.0	100.0	

* Totals may not sum due to rounding.

There is no available data source that exists for benefit expenditures by occupation for the home health industry. Thus, to construct weights for the home health benefits blend we calculated the ratio of benefits to wages and salaries for CY 2016 for the six ECI series we are proposing to use in the blended ‘wages and salaries’ and ‘benefits’ indexes. To derive the relevant benefits weight, we applied the benefit-to-wage ratios to each of the six occupational subcategories from the

2016 OES wage and salary weights, and normalized. For example, the ratio of benefits to wages from the 2016 home health wages and salaries blend and the benefits blend for the management category is 0.984. We apply this ratio to the 2016 OES weight for wages and salaries for management, 7.6 percent, and then normalize those weights relative to the other five benefit occupational categories to obtain a benefit weight for management of 7.3 percent.

A comparison of the yearly changes from CY 2016 to CY 2019 for the 2010-based home health Benefits blend and the proposed 2016-based home health Benefits blend is shown in Table 15. With the exception of a 0.1 percentage point difference in 2019, the annual increases in the two price proxies are the same when rounded to one decimal place.

TABLE 15—ANNUAL GROWTH IN THE PROPOSED 2016 HOME HEALTH BENEFITS BLEND AND THE 2010 HOME HEALTH BENEFITS BLEND

	2016	2017	2018	2019
Benefits Blend 2016	1.7	1.9	2.4	3.0
Benefits Blend 2010	1.7	1.9	2.4	2.9

Source: IHS Global Insight Inc. 1st Quarter 2018 forecast with historical data through 4th Quarter 2017.

- *Operations and Maintenance:* We are proposing to use CPI U.S. city average for Fuel and utilities (BLS series code #CUUR0000SAH2) to measure price growth of this cost category. The same proxy was used for the 2010-based home health market basket.

- *Professional Liability Insurance:* We are proposing to use the CMS Physician Professional Liability Insurance price index to measure price growth of this cost category. The same proxy was used for the 2010-based home health market basket.

To accurately reflect the price changes associated with physician PLI, each year we collect PLI premium data for physicians from a representative sample of commercial carriers and publically available rate filings as maintained by each State’s Association of Insurance Commissioners. As we require for our other price proxies, the PLI price proxy is intended to reflect the pure price change associated with this particular cost category. Thus, the level of liability coverage is held constant from year to year. To accomplish this, we obtain premium information from a sample of commercial carriers for a fixed level of coverage, currently \$1 million per occurrence and a \$3 million annual limit. This information is collected for every State by physician specialty and risk class. Finally, the State-level, physician-specialty data are aggregated to compute a national total, using counts of physicians by State and specialty as provided in the AMA publication, *Physician Characteristics and Distribution in the U.S.*

- *Administrative and Support:* We are proposing to use the ECI for Total compensation for Private industry

workers in Office and administrative support (BLS series code #CIU2010000220000I) to measure price growth of this cost category. The same proxy was used for the 2010-based home health market basket.

- *Financial Services:* We are proposing to use the ECI for Total compensation for Private industry workers in Financial activities (BLS series code #CIU201520A000000I) to measure price growth of this cost category. The same proxy was used for the 2010-based home health market basket.

- *Medical Supplies:* We are proposing to use the PPI Commodity data for Miscellaneous products-Medical, surgical & personal aid devices (BLS series code #WPU156) to measure price growth of this cost category. The same proxy was used for the 2010-based home health market basket.

- *Rubber and Plastics:* We are proposing to use the PPI Commodity data for Rubber and plastic products (BLS series code #WPU07) to measure price growth of this cost category. The same proxy was used for the 2010-based home health market basket.

- *Telephone:* We are proposing to use CPI U.S. city average for Telephone services (BLS series code #CUUR0000SEED) to measure price growth of this cost category. The same proxy was used for the 2010-based home health market basket.

- *Professional Fees:* We are proposing to use the ECI for Total compensation for Private industry workers in Professional and related (BLS series code #CIS2010000120000I) to measure price growth of this category. The same proxy was used for the 2010-based home health market basket.

- *Other Products:* We are proposing to use the PPI Commodity data for Final demand-Finished goods less foods and energy (BLS series code #WPUFD4131) to measure price growth of this category. The same proxy was used for the 2010-based home health market basket.

- *Other Services:* We are proposing to use the ECI for Total compensation for Private industry workers in Service occupations (BLS series code #CIU2010000300000I) to measure price growth of this category. The same proxy was used for the 2010-based home health market basket.

- *Transportation:* We are proposing to use the CPI U.S. city average for Transportation (BLS series code #CUUR0000SAT) to measure price growth of this category. The same proxy was used for the 2010-based home health market basket.

- *Fixed capital:* We are proposing to use the CPI U.S. city average for Owners’ equivalent rent of residences (BLS series code #CUUS0000SEHC) to measure price growth of this cost category. The same proxy was used for the 2010-based home health market basket.

- *Movable Capital:* We are proposing to use the PPI Commodity data for Machinery and equipment (BLS series code #WPU11) to measure price growth of this cost category. The same proxy was used for the 2010-based home health market basket.

e. Rebasing Results

A comparison of the yearly changes from CY 2014 to CY 2021 for the 2010-based home health market basket and the proposed 2016-based home health market basket is shown in Table 16.

TABLE 16—COMPARISON OF THE 2010-BASED HOME HEALTH MARKET BASKET AND THE PROPOSED 2016-BASED HOME HEALTH MARKET BASKET, PERCENT CHANGE, 2014–2021

	Home health market basket, 2010-based	Proposed home health market basket, 2016-based	Difference (proposed 2016-based less 2010-based)
Historical data:			
CY 2014	1.6	1.6	0.0
CY 2015	1.6	1.5	-0.1
CY 2016	2.0	2.0	0.0
CY 2017	2.3	2.3	0.0

TABLE 16—COMPARISON OF THE 2010-BASED HOME HEALTH MARKET BASKET AND THE PROPOSED 2016-BASED HOME HEALTH MARKET BASKET, PERCENT CHANGE, 2014–2021—Continued

	Home health market basket, 2010-based	Proposed home health market basket, 2016-based	Difference (proposed 2016-based less 2010-based)
Average CYs 2014–2017	1.9	1.9	0.0
Forecast:			
CY 2018	2.5	2.5	0.0
CY 2019	2.8	2.8	0.0
CY 2020	3.0	3.0	0.0
CY 2021	3.0	3.0	0.0
Average CYs 2018–2021	2.8	2.8	0.0

Source: IHS Global Inc. 1st Quarter 2018 forecast with historical data through 4th Quarter 2017.

Table 16 shows that the forecasted rate of growth for CY 2019 for the proposed 2016-based home health market basket is 2.8 percent, the same rate of growth as estimated using the 2010-based home health market basket; other forecasted years also show a similar increase. Similarly, the historical estimates of the growth in the 2016-based and 2010-based home health market basket are the same except for CY 2015 where the 2010-based home health market basket is 0.1 percentage point higher. We note that if more recent data are subsequently available (for example, a more recent estimate of

the market basket), we would use such data to determine the market basket increases in the final rule.

f. Labor-Related Share

Effective for CY 2019, we are proposing to revise the labor-related share to reflect the proposed 2016-based home health market basket Compensation (Wages and Salaries plus Benefits) cost weight. The current labor-related share is based on the Compensation cost weight of the 2010-based home health market basket. Based on the proposed 2016-based home health market basket, the labor-related share would be 76.1 percent and the

proposed non-labor-related share would be 23.9 percent. The labor-related share for the 2010-based home health market basket was 78.5 percent and the non-labor-related share was 21.5 percent. As explained earlier, the decrease in the compensation cost weight of 2.4 percentage points is attributable to both employed compensation (wages and salaries and benefits for employees) and direct patient care contract labor costs as reported in the MCR data. Table 17 details the components of the labor-related share for the 2010-based and proposed 2016-based home health market baskets.

TABLE 17—LABOR-RELATED SHARE OF CURRENT AND PROPOSED HOME HEALTH MARKET BASKETS

Cost category	2010-based market basket weight	Proposed 2016-based market basket weight
Wages and Salaries	66.3	65.1
Employee Benefits	12.2	11.0
Total Labor-Related	78.5	76.1
Total Non Labor-Related	21.5	23.9

We propose to implement the proposed revision to the labor-related share of 76.1 percent in a budget neutral manner. This proposal would be consistent with our policy of implementing the annual recalibration of the case-mix weights and update of the home health wage index in a budget neutral manner.

g. Multifactor Productivity

In the CY 2015 HHA PPS final rule (79 FR 38384 through 38384), we finalized our methodology for calculating and applying the MFP adjustment. As we explained in that rule, section 1895(b)(3)(B)(vi) of the Act, requires that, in CY 2015 (and in subsequent calendar years, except CY 2018 (under section 411(c) of the Medicare Access and CHIP

Reauthorization Act of 2015 (MACRA) (Pub. L. 114–10, enacted April 16, 2015)), the market basket percentage under the HHA prospective payment system as described in section 1895(b)(3)(B) of the Act be annually adjusted by changes in economy-wide productivity. Section 1886(b)(3)(B)(xi)(II) of the Act defines the productivity adjustment to be equal to the 10-year moving average of change in annual economy-wide private nonfarm business multifactor productivity (MFP) (as projected by the Secretary for the 10-year period ending with the applicable fiscal year, calendar year, cost reporting period, or other annual period) (the “MFP adjustment”). The Bureau of Labor Statistics (BLS) is the agency that publishes the official measure of private nonfarm business

MFP. Please see <http://www.bls.gov/mfp>, to obtain the BLS historical published MFP data.

Based on IHS Global Inc.’s (IGI’s) first quarter 2018 forecast with history through the fourth quarter of 2017, the projected MFP adjustment (the 10-year moving average of MFP for the period ending December 31, 2019) for CY 2019 is 0.7 percent. IGI is a nationally recognized economic and financial forecasting firm that contracts with CMS to forecast the components of the market baskets. We note that if more recent data are subsequently available (for example, a more recent estimate of the MFP adjustment), we would use such data to determine the MFP adjustment in the final rule.

2. Proposed CY 2019 Market Basket Update for HHAs

Using IGI's first quarter 2018 forecast, the MFP adjustment for CY 2019 is projected to be 0.7 percent. In accordance with section 1895(b)(3)(B)(iii) of the Act, we propose to base the CY 2019 market basket update, which is used to determine the applicable percentage increase for HHA payments, on the most recent estimate of the proposed 2016-based home health market basket. Based on IGI's first quarter 2018 forecast with history through the fourth quarter of 2017, the projected increase of the proposed 2016-based home health market basket for CY 2019 is 2.8 percent. We propose to then reduce this percentage increase by the current estimate of the MFP adjustment for CY 2019 of 0.7 percentage point in accordance with 1895(b)(3)(B)(vi) of the Act. Therefore, the current estimate of the CY 2019 HHA payment update is 2.1 percent (2.8 percent market basket update, less 0.7 percentage point MFP adjustment). Furthermore, we note that if more recent data are subsequently available (for example, a more recent estimate of the market basket and MFP adjustment), we would use such data to determine the CY 2019 market basket update and MFP adjustment in the final rule.

Section 1895(b)(3)(B)(v) of the Act requires that the home health update be decreased by 2 percentage points for those HHAs that do not submit quality data as required by the Secretary. For HHAs that do not submit the required quality data for CY 2019, the home health payment update will be 0.1 percent (2.1 percent minus 2 percentage points).

3. CY 2019 Home Health Wage Index

Sections 1895(b)(4)(A)(ii) and (b)(4)(C) of the Act require the Secretary to provide appropriate adjustments to the proportion of the payment amount under the HH PPS that account for area wage differences, using adjustment factors that reflect the relative level of wages and wage-related costs applicable to the furnishing of HH services. Since the inception of the HH PPS, we have used inpatient hospital wage data in developing a wage index to be applied to HH payments. We propose to continue this practice for CY 2019, as we continue to believe that, in the absence of HH-specific wage data that accounts for area differences, using inpatient hospital wage data is appropriate and reasonable for the HH PPS. Specifically, we propose to continue to use the pre-floor, pre-reclassified hospital wage index as the

wage adjustment to the labor portion of the HH PPS rates. For CY 2019, the updated wage data are for hospital cost reporting periods beginning on or after October 1, 2014, and before October 1, 2015 (FY 2015 cost report data). We apply the appropriate wage index value to the labor portion of the HH PPS rates based on the site of service for the beneficiary (defined by section 1861(m) of the Act as the beneficiary's place of residence).

To address those geographic areas in which there are no inpatient hospitals, and thus, no hospital wage data on which to base the calculation of the CY 2019 HH PPS wage index, we propose to continue to use the same methodology discussed in the CY 2007 HH PPS final rule (71 FR 65884) to address those geographic areas in which there are no inpatient hospitals. For rural areas that do not have inpatient hospitals, we propose to use the average wage index from all contiguous Core Based Statistical Areas (CBSAs) as a reasonable proxy. Currently, the only rural area without a hospital from which hospital wage data could be derived is Puerto Rico. However, for rural Puerto Rico, we do not apply this methodology due to the distinct economic circumstances that exist there (for example, due to the close proximity to one another of almost all of Puerto Rico's various urban and non-urban areas, this methodology would produce a wage index for rural Puerto Rico that is higher than that in half of its urban areas). Instead, we propose to continue to use the most recent wage index previously available for that area. For urban areas without inpatient hospitals, we use the average wage index of all urban areas within the state as a reasonable proxy for the wage index for that CBSA. For CY 2019, the only urban area without inpatient hospital wage data is Hinesville, GA (CBSA 25980).

On February 28, 2013, OMB issued Bulletin No. 13-01, announcing revisions to the delineations of MSAs, Micropolitan Statistical Areas, and CBSAs, and guidance on uses of the delineation of these areas. In the CY 2015 HH PPS final rule (79 FR 66085 through 66087), we adopted the OMB's new area delineations using a 1-year transition.

On August 15, 2017, OMB issued Bulletin No. 17-01 in which it announced that one Micropolitan Statistical Area, Twin Falls, Idaho, now qualifies as a Metropolitan Statistical Area. The new CBSA (46300) comprises the principal city of Twin Falls, Idaho in Jerome County, Idaho and Twin Falls County, Idaho. The CY 2019 HH PPS wage index value for CBSA 46300, Twin

Falls, Idaho, will be 0.8335. Bulletin No. 17-01 is available at <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/bulletins/2017/b-17-01.pdf>.¹¹

The most recent OMB Bulletin (No. 18-03) was published on April 10, 2018 and is available at <https://www.whitehouse.gov/wp-content/uploads/2018/04/OMB-BULLETIN-NO.-18-03-Final.pdf>.¹² The revisions contained in OMB Bulletin No. 18-03 have no impact on the geographic area delineations that are used to wage adjust HH PPS payments.

The CY 2019 wage index is available on the CMS website at <http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/Home-Health-Prospective-Payment-System-Regulations-and-Notices.html>.

4. CY 2019 Annual Payment Update

a. Background

The Medicare HH PPS has been in effect since October 1, 2000. As set forth in the July 3, 2000 final rule (65 FR 41128), the base 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 relative weight and a wage index value based on the site of service for the beneficiary.

To provide appropriate adjustments to the proportion of the payment amount under the HH PPS to account for area wage differences, we apply the appropriate wage index value to the labor portion of the HH PPS rates. As discussed in section III.C.1 of this proposed rule, based on the proposed 2016-based home health market basket, the proposed labor-related share would be 76.1 percent and the proposed non-labor-related share would be 23.9 percent for CY 2019. The CY 2019 HH PPS rates use the same case-mix methodology as set forth in the CY 2008 HH PPS final rule with comment period (72 FR 49762) and will be adjusted as described in section III.B of this proposed rule. The following are the steps we take to compute the case-mix

¹¹ "Revised Delineations of Metropolitan Statistical Areas, Micropolitan Statistical Areas, and Combined Statistical Areas, and Guidance on Uses of the Delineations of These Areas". OMB BULLETIN NO. 17-01. August 15, 2017. <https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/bulletins/2017/b-17-01.pdf>.

¹² "Revised Delineations of Metropolitan Statistical Areas, Micropolitan Statistical Areas, and Combined Statistical Areas, and Guidance on Uses of the Delineations of These Areas". OMB BULLETIN NO. 18-03. April 10, 2018. <https://www.whitehouse.gov/wp-content/uploads/2018/04/OMB-BULLETIN-NO.-18-03-Final.pdf>.

and wage-adjusted 60-day episode rate for CY 2019:

- Multiply the national 60-day episode rate by the patient’s applicable case-mix weight.
- Divide the case-mix adjusted amount into a labor (76.1 percent) and a non-labor portion (23.9 percent).
- Multiply the labor portion by the applicable wage index based on the site of service of the beneficiary.
- Add the wage-adjusted portion to the non-labor portion, yielding the case-mix and wage adjusted 60-day episode rate, subject to any additional applicable adjustments.

In accordance with section 1895(b)(3)(B) of the Act, we propose the annual update of the HH PPS rates. Section 484.225 sets forth the specific annual percentage update methodology. In accordance with § 484.225(i), for a HHA that does not submit HH quality data, as specified by the Secretary, the unadjusted national prospective 60-day episode rate is equal to the rate for the previous calendar year increased by the applicable HH market basket index amount minus 2 percentage points. Any reduction of the percentage change would apply only to the calendar year involved and would not be considered in computing the prospective payment amount for a subsequent calendar year.

Medicare pays the national, standardized 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 (RAP) 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 calendar year 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 low-utilization payment adjustment (LUPA) is provided on a per-visit basis as set forth in §§ 484.205(c) and 484.230.
- A partial episode payment (PEP) adjustment as set forth in §§ 484.205(d) and 484.235.
- An outlier payment as set forth in §§ 484.205(e) and 484.240.

b. CY 2019 National, Standardized 60-Day Episode Payment Rate

Section 1895(b)(3)(A)(i) of the Act requires that the 60-day episode base rate and other applicable amounts be standardized in a manner that eliminates the effects of variations in relative case-mix and area wage adjustments among different home health agencies in a budget neutral manner. To determine the CY 2019 national, standardized 60-day episode payment rate, we apply a wage index budget neutrality factor and a case-mix budget neutrality factor described in section III.B of this proposed rule; and the home health payment update percentage discussed in section III.C.2 of this proposed rule.

To calculate the wage index budget neutrality factor, we simulated total payments for non-LUPA episodes using

the CY 2019 wage index (including the application of the proposed labor-related share of 76.1 percent and the proposed non-labor-related share of 23.9 percent) and compared it to our simulation of total payments for non-LUPA episodes using the CY 2018 wage index and CY 2018 (including the application of the current labor-related share of 78.535 percent and the non-labor-related of 21.465). By dividing the total payments for non-LUPA episodes using the CY 2019 wage index by the total payments for non-LUPA episodes using the CY 2018 wage index, we obtain a wage index budget neutrality factor of 0.9991. We would apply the wage index budget neutrality factor of 0.9991 to the calculation of the CY 2019 national, standardized 60-day episode payment rate.

As discussed in section III.B of this proposed rule, to ensure the changes to the case-mix weights are implemented in a budget neutral manner, we propose to apply a case-mix weight budget neutrality factor to the CY 2019 national, standardized 60-day episode payment rate. The case-mix weight budget neutrality factor is calculated as the ratio of total payments when CY 2019 case-mix weights are applied to CY 2017 utilization (claims) data to total payments when CY 2018 case-mix weights are applied to CY 2017 utilization data. The case-mix budget neutrality factor for CY 2019 is 1.0163 as described in section III.B of this proposed rule.

Next, we would update the payment rates by the CY 2019 home health payment update percentage of 2.1 percent as described in section III.C.2 of this proposed rule. The CY 2019 national, standardized 60-day episode payment rate is calculated in Table 18.

TABLE 18—CY 2019 60-DAY NATIONAL, STANDARDIZED 60-DAY EPISODE PAYMENT AMOUNT

CY 2018 national, standardized 60-day episode payment	Wage index budget neutrality factor	Case-mix weights budget neutrality factor	CY 2019 HH payment update	CY 2019 National, standardized 60-day episode payment
\$3,039.64	× 0.9991	× 1.0163	× 1.021	\$3,151.22

The CY 2019 national, standardized 60-day episode payment rate for an HHA that does not submit the required

quality data is updated by the CY 2019 home health payment update of 2.1

percent minus 2 percentage points and is shown in Table 19.

TABLE 19—CY 2019 NATIONAL, STANDARDIZED 60-DAY EPISODE PAYMENT AMOUNT FOR HHAS THAT DO NOT SUBMIT THE QUALITY DATA

CY 2018 national, standardized 60-day episode payment	Wage index budget neutrality factor	Case-mix weights budget neutrality factor	CY 2019 HH payment update minus 2 percentage points	CY 2019 National, standardized 60-day episode payment
\$3,039.64	× 0.9991	× 1.0163	× 1.001	\$3,089.49

c. CY 2019 National Per-Visit Rates

The national per-visit rates are used to pay LUPAs (episodes with four or fewer visits) and are also used to compute imputed costs in outlier calculations. The per-visit rates are paid by type of visit or HH discipline. The six HH disciplines are as follows:

- Home health aide (HH aide).
- Medical Social Services (MSS).
- Occupational therapy (OT).
- Physical therapy (PT).
- Skilled nursing (SN).
- Speech-language pathology (SLP).

To calculate the CY 2019 national per-visit rates, we started with the CY 2018 national per-visit rates. Then we applied a wage index budget neutrality factor to ensure budget neutrality for LUPA per-

visit payments. We calculated the wage index budget neutrality factor by simulating total payments for LUPA episodes using the CY 2019 wage index and comparing it to simulated total payments for LUPA episodes using the CY 2018 wage index. By dividing the total payments for LUPA episodes using the CY 2019 wage index by the total payments for LUPA episodes using the CY 2018 wage index, we obtained a wage index budget neutrality factor of 1.0000. We apply the wage index budget neutrality factor of 1.0000 in order to calculate the CY 2019 national per-visit rates.

The LUPA per-visit rates are not calculated using case-mix weights. Therefore, no case-mix weights budget

neutrality factor is needed to ensure budget neutrality for LUPA payments. Lastly, the per-visit rates for each discipline are updated by the CY 2019 home health payment update percentage of 2.1 percent. The national per-visit rates are adjusted by the wage index based on the site of service of the beneficiary. The per-visit payments for LUPAs are separate from the LUPA add-on payment amount, which is paid for episodes that occur as the only episode or initial episode in a sequence of adjacent episodes. The CY 2019 national per-visit rates for HHAs that submit the required quality data are updated by the CY 2019 HH payment update percentage of 2.1 percent and are shown in Table 20.

TABLE 20—CY 2019 NATIONAL PER-VISIT PAYMENT AMOUNTS FOR HHAS THAT DO SUBMIT THE REQUIRED QUALITY DATA

HH Discipline	CY 2018 per-visit payment	Wage index budget neutrality factor	CY 2019 HH payment update	CY 2019 per-visit payment
Home Health Aide	\$64.94	× 1.0000	× 1.021	\$66.30
Medical Social Services	229.86	× 1.0000	× 1.021	234.69
Occupational Therapy	157.83	× 1.0000	× 1.021	161.14
Physical Therapy	156.76	× 1.0000	× 1.021	160.05
Skilled Nursing	143.40	× 1.0000	× 1.021	146.41
Speech-Language Pathology	170.38	× 1.0000	× 1.021	173.96

The CY 2019 per-visit payment rates for HHAs that do not submit the

required quality data are updated by the CY 2019 HH payment update percentage

of 2.1 percent minus 2 percentage points and are shown in Table 21.

TABLE 21—CY 2019 NATIONAL PER-VISIT PAYMENT AMOUNTS FOR HHAS THAT DO NOT SUBMIT THE REQUIRED QUALITY DATA

HH Discipline	CY 2018 per-visit rates	Wage index budget neutrality factor	CY 2019 HH payment update minus 2 percentage points	CY 2019 per-visit rates
Home Health Aide	\$64.94	× 1.0000	× 1.001	\$65.00
Medical Social Services	229.86	× 1.0000	× 1.001	230.09
Occupational Therapy	157.83	× 1.0000	× 1.001	157.99
Physical Therapy	156.76	× 1.0000	× 1.001	156.92
Skilled Nursing	143.40	× 1.0000	× 1.001	143.54
Speech-Language Pathology	170.38	× 1.0000	× 1.001	170.55

d. Low-Utilization Payment Adjustment (LUPA) Add-On Factors

LUPA episodes that occur as the only episode or as an initial episode in a sequence of adjacent episodes are adjusted by applying an additional amount to the LUPA payment before adjusting for area wage differences. In the CY 2014 HH PPS final rule (78 FR 72305), we changed the methodology for calculating the LUPA add-on amount by finalizing the use of three LUPA add-on factors: 1.8451 for SN; 1.6700 for PT; and 1.6266 for SLP. We multiply the per-visit payment amount for the first SN, PT, or SLP visit in LUPA episodes that occur as the only episode or an initial episode in a sequence of adjacent

episodes by the appropriate factor to determine the LUPA add-on payment amount. For example, in the case of HHAs that do submit the required quality data, for LUPA episodes that occur as the only episode or an initial episode in a sequence of adjacent episodes, if the first skilled visit is SN, the payment for that visit will be \$270.14 (1.8451 multiplied by \$146.41), subject to area wage adjustment.

e. CY 2019 Non-Routine Medical Supply (NRS) Payment Rates

All medical supplies (routine and nonroutine) must be provided by the HHA while the patient is under a home health plan of care. Examples of supplies that can be considered non-

routine include dressings for wound care, I.V. supplies, ostomy supplies, catheters, and catheter supplies. Payments for NRS are computed by multiplying the relative weight for a particular severity level by the NRS conversion factor. To determine the CY 2019 NRS conversion factor, we updated the CY 2018 NRS conversion factor (\$53.03) by the CY 2019 home health payment update percentage of 2.1 percent. We did not apply a standardization factor as the NRS payment amount calculated from the conversion factor is not wage or case-mix adjusted when the final claim payment amount is computed. The proposed NRS conversion factor for CY 2019 is shown in Table 22.

TABLE 22—CY 2019 NRS CONVERSION FACTOR FOR HHAs THAT DO SUBMIT THE REQUIRED QUALITY DATA

CY 2018 NRS conversion factor	CY 2019 HH payment update	CY 2019 NRS conversion factor
\$53.03	× 1.021	\$54.14

Using the CY 2019 NRS conversion factor, the payment amounts for the six severity levels are shown in Table 23.

TABLE 23—CY 2019 NRS PAYMENT AMOUNTS FOR HHAs THAT DO SUBMIT THE REQUIRED QUALITY DATA

Severity level	Points (scoring)	Relative weight	CY 2019 NRS payment amounts
1	0	0.2698	\$ 14.61
2	1 to 14	0.9742	52.74
3	15 to 27	2.6712	144.62
4	28 to 48	3.9686	214.86
5	49 to 98	6.1198	331.33
6	99+	10.5254	569.85

For HHAs that do not submit the required quality data, we updated the CY 2018 NRS conversion factor (\$53.03)

by the CY 2019 home health payment update percentage of 2.1 percent minus 2 percentage points. The proposed CY

2019 NRS conversion factor for HHAs that do not submit quality data is shown in Table 24.

TABLE 24—CY 2019 NRS CONVERSION FACTOR FOR HHAs THAT DO NOT SUBMIT THE REQUIRED QUALITY DATA

CY 2018 NRS conversion factor	CY 2019 HH payment update percentage minus 2 percentage points	CY 2019 NRS conversion factor
\$53.03	× 1.001	\$53.08

The payment amounts for the various severity levels based on the updated

conversion factor for HHAs that do not

submit quality data are calculated in Table 25.

TABLE 25—CY 2019 NRS PAYMENT AMOUNTS FOR HHAS THAT DO NOT SUBMIT THE REQUIRED QUALITY DATA

Severity level	Points (scoring)	Relative weight	CY 2019 NRS payment amounts
1	0	0.2698	\$ 14.32
2	1 to 14	0.9742	51.71
3	15 to 27	2.6712	141.79
4	28 to 48	3.9686	210.65
5	49 to 98	6.1198	324.84
6	99+	10.5254	558.69

D. Proposed Rural Add-On Payments for CYs 2019 Through 2022

1. Background

Section 421(a) of the MMA required, for HH services furnished in a rural areas (as defined in section 1886(d)(2)(D) of the Act), for episodes or visits ending on or after April 1, 2004, and before April 1, 2005, that the Secretary increase the payment amount that otherwise would have been made under section 1895 of the Act for the services by 5 percent.

Section 5201 of the DRA amended section 421(a) of the MMA. The amended section 421(a) of the MMA required, for HH 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 those services by 5 percent.

Section 3131(c) of the Affordable Care Act amended section 421(a) of the MMA to provide an increase of 3 percent of the payment amount otherwise made under section 1895 of the Act for HH services furnished in a rural area (as defined in section 1886(d)(2)(D) of the Act), for episodes and visits ending on or after April 1, 2010, and before January 1, 2016.

Section 210 of the MACRA amended section 421(a) of the MMA to extend the rural add-on by providing an increase of 3 percent of the payment amount otherwise made under section 1895 of the Act for HH services provided in a rural area (as defined in section 1886(d)(2)(D) of the Act), for episodes and visits ending before January 1, 2018.

Section 50208(a) of the Bipartisan Budget Act of 2018 amended section 421(a) of the MMA to extend the rural add-on by providing an increase of 3 percent of the payment amount otherwise made under section 1895 of the Act for HH services provided in a rural area (as defined in section 1886(d)(2)(D) of the Act), for episodes and visits ending before January 1, 2019. This extension of the rural add-on payments was implemented as

described in CMS Transmittal 2047 published on March 20, 2018.

2. Proposed Rural Add-On Payments for CYs 2019 Through 2022

Section 50208(a)(1)(D) of the BBA of 2018 adds a new subsection (b) to section 421 of the MMA to provide rural add-on payments for episodes and visits ending during CYs 2019 through 2022. It also mandates implementation of a new methodology for applying those payments. Unlike previous rural add-ons, which were applied to all rural areas uniformly, the extension provides varying add-on amounts depending on the rural county (or equivalent area) classification by classifying each rural county (or equivalent area) into one of three distinct categories.

Specifically, section 421(b)(1) of the MMA, as amended by section 50208 of the BBA of 2018, provides that rural counties (or equivalent areas) would be placed into one of three categories for purposes of HH rural add-on payments: (1) Rural counties and equivalent areas in the highest quartile of all counties and equivalent areas based on the number of Medicare home health episodes furnished per 100 individuals who are entitled to, or enrolled for, benefits under part A of Medicare or enrolled for benefits under part B of Medicare only, but not enrolled in a Medicare Advantage plan under part C of Medicare, as provided in section 421(b)(1)(A) of the MMA (the “High utilization” category); (2) rural counties and equivalent areas with a population density of 6 individuals or fewer per square mile of land area and are not included in the category provided in section 421(b)(1)(A) of the MMA, as provided in section 421(b)(1)(B) of the MMA (the “Low population density” category); and (3) rural counties and equivalent areas not in the categories provided in either sections 421(b)(1)(A) or 421(b)(1)(B) of the MMA, as provided in section 421(b)(1)(C) of the MMA (the “All other” category). The list of counties and equivalent areas used in our analysis is based on the CY 2015 HH PPS wage index file, which includes the

names of the constituent counties for each rural and urban area designation. We used the 2015 HH PPS wage index file as the basis for our analysis because the 2015 HH PPS wage index file already included SSA state and county codes not normally included on the HH PPS wage index files, but were included in the 2015 HH PPS wage index file due to the transition to new OMB geographic area delineations that year. The CY 2015 HH PPS wage index file is available for download at: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/Home-Health-Prospective-Payment-System-Regulations-and-Notices-Items/CMS-1611-F.html>. This file includes 3,246 counties and equivalent areas and their urban and rural status and uses the OMB’s geographic area delineations, as described in section III.C.3 of this proposed rule. We updated the information contained in this file to include any revisions to the geographic area delineations as published by the OMB in their publicly available bulletins that would reflect a change in urban and rural status. The states, the District of Columbia, and the U.S. territories of Guam, Puerto Rico, and the U.S. Virgin Islands are included in the analysis file containing 3,246 counties and equivalent areas. Of the 3,246 total counties and equivalent areas that were used in our analysis, 2,006 of these are considered rural for purposes of determining HH rural add-on payments. We identify equivalent areas based on the definition of equivalent entities as defined by the OMB in their most recent bulletin (No. 18–03) available at <https://www.whitehouse.gov/wp-content/uploads/2018/04/OMB-BULLETIN-NO.-18-03-Final.pdf>.¹³ We consider boroughs and a municipality in Alaska, parishes in Louisiana, municipios in Puerto Rico, and independent cities in

¹³ “Revised Delineations of Metropolitan Statistical Areas, Micropolitan Statistical Areas, and Combined Statistical Areas, and Guidance on Uses of the Delineations of These Areas”. OMB BULLETIN NO. 18–03. April 10, 2018. <https://www.whitehouse.gov/wp-content/uploads/2018/04/OMB-BULLETIN-NO.-18-03-Final.pdf>.

Maryland, Missouri, Nevada, and Virginia as equivalent areas.

Under section 421(b)(1)(A) of the MMA, one category of rural counties and equivalent areas for purposes of the HH rural add-on payment is a category comprised of rural counties or equivalent areas that are in the highest quartile of all counties or equivalent areas based on the number of Medicare home health episodes furnished per 100 Medicare beneficiaries. Section 421(b)(2)(B)(i) of the MMA requires the use of data from 2015 to determine which counties or equivalent areas are in the highest quartile of home health utilization for the category described under section 421(b)(1)(A) of the MMA, that is, the “High utilization” category. Section 421(b)(2)(B)(ii) of the MMA requires that data from the territories are to be excluded in determining which counties or equivalent areas are in the highest quartile of home health utilization and requires that the territories be excluded from the category described by section 421(b)(1)(A) of the MMA. Under section 421(b)(2)(B)(iii) of the MMA, the Secretary may exclude data from counties or equivalent areas in rural areas with a low volume of home health episodes in determining which counties or equivalent areas are in the highest quartile of home health utilization. If data is excluded for a county or equivalent area, section 421(b)(2)(B)(iii) of the MMA requires that the county or equivalent area be excluded from the category described by section 421(b)(1)(A) of the MMA (the “High utilization” category).

We used CY 2015 claims data and 2015 data from the Medicare Beneficiary Summary File to classify rural counties and equivalent areas into the “High utilization” category. We propose to classify a rural county or equivalent area into this category if the county or equivalent area is in the highest quartile (top 25th percentile) of all (urban and rural) counties and equivalent areas based on the ratio of Medicare home health episodes furnished per 100 Medicare enrollees. The Medicare Beneficiary Summary File contained information on the Social Security Administration (SSA) state and county code of the beneficiary’s mailing address and information on enrollment in Medicare Part A, B, and C during 2015. The claims data and information from the Medicare Beneficiary Summary File were pulled from the Chronic Condition Warehouse Virtual Research Data Center during December 2017. We used the claims data to determine how many home health episodes (excluding Requests for Anticipated Payments (RAPs) and zero payment episodes)

occurred in each state and county or equivalent area. We assigned each home health episode to the state and county code of the beneficiary’s mailing address. As stipulated by section 421(b)(2)(B)(ii) of the MMA, we excluded any data from the territories of Guam, Puerto Rico, and the U.S. Virgin Islands for determining which rural counties and equivalent areas belong in the “High utilization” category. We note that the territories of American Samoa and the Northern Mariana Islands were not included in the CY 2015 HH PPS wage index file to identify counties or equivalent areas for these territories so no data from these territories were included in determining the “High utilization” category. As we are not aware of any Medicare home health services being furnished in these two territories in recent years, we will address any application of home health rural add-on payments for these territories in the future should Medicare home health services be furnished in them. Therefore, counties and equivalent areas in the territories of American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands are not included in the “High utilization” category, as required by section 421(b)(2)(B)(ii) of the MMA. In addition, under the authority granted to the Secretary (by section 421(b)(2)(B)(iii) of the MMA) to exclude data from counties or equivalent areas in rural areas with a low volume of home health episodes, we excluded data from rural counties and equivalent areas that had 10 or fewer episodes during 2015 for determining which counties and equivalent areas belong in the “High utilization” category. We believe that using a threshold of 10 or fewer episodes is a reasonable threshold for defining low volume, in accordance with section 421(b)(2)(B)(iii) of the MMA. After excluding data from (1) the territories of Guam, Puerto Rico, and the U.S. Virgin Islands and (2) counties and equivalent areas that had 10 or fewer episodes during 2015, we determined the number of home health episodes furnished per 100 enrollees for the remaining counties and equivalent areas. We determined that the counties or equivalent areas in the highest quartile have a ratio of episodes to beneficiaries that is at or above 17.72487. The highest quartile consisted of 778 counties or equivalent areas. Of those 778 counties or equivalent areas, 510 are rural and, therefore, we propose to classify these 510 rural counties or equivalent areas into the “High utilization” category.

Under section 421(b)(1)(B) of the MMA, another category of rural counties and equivalent areas for purposes of the HH rural add-on payment is a category comprised of rural counties or equivalent areas with a population density of 6 individuals or fewer per square mile of land area and that are not included in the “High utilization” category. Section 421(b)(2)(C) of the MMA requires that data from the 2010 decennial Census be used for purposes of determining population density with respect to the category provided under section 421(b)(1)(B) of the MMA, that is, the “Low population density” category.

We used 2010 Census data gathered from the tables provided at: https://factfinder.census.gov/bkmk/table/1.0/en/DEC/10_SF1/GCTPH1.US05PR and <https://www.census.gov/data/tables/time-series/dec/cph-series/cph-t/cph-t-8.html> to determine which counties and equivalent areas have a population density of six individuals or fewer per square mile of land area.^{14 15} In examining the rural counties and equivalent areas that were not already classified into the “High utilization” category, we identified each rural county or equivalent area that had a population density of six individuals or fewer per square mile of land area. As a result of that analysis, we determined there are 334 rural counties or equivalent areas that have a population density of six individuals or fewer per square mile of land area and that are not already classified into the “High utilization” category. We propose to classify 334 rural counties or equivalent areas into the “Low population density” category.

Lastly, section 421(b)(1)(C) of the MMA provides for a category comprised of rural counties or equivalent areas that are not included in either the “High utilization” or the “Low population density” category. After determining which rural counties and equivalent areas should be classified into the “High utilization” and “Low population density” categories, we have determined that there are 1,162 remaining rural counties and equivalent areas that do not meet the criteria for inclusion in the “High utilization” or “Low population density” categories. We propose to classify these 1,162 rural counties and

¹⁴ “Population, Housing Units, Area, and Density: 2010—United States—County by State; and for Puerto Rico 2010 Census Summary File 1”. https://factfinder.census.gov/bkmk/table/1.0/en/DEC/10_SF1/GCTPH1.US05PR.

¹⁵ “Population, Housing Units, Land Area, and Density for U.S. Island Areas: 2010 (CPH-T-8)”. 10/28/2013. <https://www.census.gov/data/tables/time-series/dec/cph-series/cph-t/cph-t-8.html>.

equivalent areas into the “All other” category.

Section 421(b)(1) of the MMA specifies varying rural add-on payment percentages and varying durations of rural add-on payments for home health services furnished in a rural county or equivalent area according to which category described in section 421(b)(1)(A), 421(b)(1)(B), or

421(b)(1)(C) of the MMA that the rural county or equivalent area is classified into. The rural add-on payment percentages and duration of rural add-on payments are shown in Table 26. The national standardized 60-day episode payment rate, the national per-visit rates, and the NRS conversion factor will be increased by the rural add-on

payment percentages as noted in Table 26 when services are provided in rural areas. The HH Pricer module, located within CMS’ claims processing system, will increase the base payment rates provided in Tables 18 through 25 by the appropriate rural add-on percentage prior to applying any case-mix and wage index adjustments.

TABLE 26—HH PPS RURAL ADD-ON PERCENTAGES, CYs 2019–2022

Category	CY 2019 (%)	CY 2020 (%)	CY 2021 (%)	CY 2022 (%)
High utilization	1.5	0.5	.....	.....
Low population density	4.0	3.0	2.0	1.0
All other	3.0	2.0	1.0	.....

Section 421(b)(2)(A) of the MMA provides that the Secretary shall make a determination only for a single time as to which category under sections 421(b)(1)(A), 421(b)(1)(B), or 421(b)(1)(C) of the MMA that a rural county or equivalent area is classified into, and that the determination applies for the entire duration of the period for which rural add-on payments are in place under section 421(b) of the MMA. We propose that our proposed classifications of rural counties and equivalent areas in the “High utilization”, “Low population density”, and “All other” categories would be applicable throughout the period of rural add-on payments established under section 421(b) of the MMA and there would be no changes in classifications. This would mean that a rural county or equivalent area classified into the “High utilization” category would remain in that category through CY 2022 even after rural add-on payments for that category ends after CY 2020. Similarly, a rural county or equivalent area classified into the “All other” category would remain in that category through CY 2022 even after rural add-on payments for that category ends after CY 2021. A rural county or equivalent area classified into the “Low population density” category would remain in that category through CY 2022.

Section 421(b)(3) of the MMA provides that there shall be no administrative or judicial review of the classification determinations made for the rural add-on payments under section 421(b)(1) of the MMA.

Section 50208(a)(2) of the Bipartisan Budget Act of 2018 amended section 1895(c) of the Act by adding a new requirement set out at section 1895(c)(3) of the Act. This requirement states that no claim for home health services may

be paid unless “in the case of home health services furnished on or after January 1, 2019, the claim contains the code for the county (or equivalent area) in which the home health service was furnished.” This information will be necessary in order to calculate the rural add-on payments. We are proposing that HHAs enter the FIPS state and county code, rather than the SSA state and county code, on the claim. Many HHAs are more familiar with using FIPS state and county codes since HHAs in a number of States are already using FIPS state and county codes for State-mandated reporting programs. Our analysis is based entirely on the SSA state and county codes as these are the codes that are included in the Medicare Beneficiary Summary File. We cross-walked the SSA state and county codes used in our analysis to the FIPS state and county codes in order to provide HHAs with the corresponding FIPS state and county codes that should be reported on their claims.

The data used to categorize each county or equivalent area is available in the Downloads section associated with the publication of this proposed rule at <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/Home-Health-Prospective-Payment-System-Regulations-and-Notices-Items/CMS-1689-P.html>. In addition, an Excel file containing the rural county or equivalent area names, their FIPS state and county codes, and their designation into one of the three rural add-on categories is available for download.

We are soliciting comments regarding our application of the methodology specified by section 50208 of the Bipartisan Budget Act of 2018.

E. Proposed Payments for High-Cost Outliers Under the HH PPS

1. Background

Section 1895(b)(5) of the Act allows for the provision of an addition or adjustment to the home health payment amount otherwise made in the case of outliers because of unusual variations in the type or amount of medically necessary care. Under the HH PPS, outlier payments are made for episodes whose estimated costs exceed a threshold amount for each Home Health Resource Group (HHRG). The episode’s estimated cost was established as the sum of the national wage-adjusted per-visit payment amounts delivered during the episode. The outlier threshold for each case-mix group or Partial Episode Payment (PEP) adjustment is defined as the 60-day episode payment or PEP adjustment for that group plus a fixed-dollar loss (FDL) amount. For the purposes of the HH PPS, the FDL amount is calculated by multiplying the HH FDL ratio by a case’s wage-adjusted national, standardized 60-day episode payment rate, which yields an FDL dollar amount for the case. The outlier threshold amount is the sum of the wage and case-mix adjusted PPS episode amount and wage-adjusted FDL amount. The outlier payment is defined to be a proportion of the wage-adjusted estimated cost beyond the wage-adjusted threshold. The proportion of additional costs over the outlier threshold amount paid as outlier payments is referred to as the loss-sharing ratio.

As we noted in the CY 2011 HH PPS final rule (75 FR 70397 through 70399), section 3131(b)(1) of the Affordable Care Act amended section 1895(b)(3)(C) of the Act, and required the Secretary to reduce the HH PPS payment rates such that aggregate HH PPS payments were

reduced by 5 percent. In addition, section 3131(b)(2) of the Affordable Care Act amended section 1895(b)(5) of the Act by redesignating the existing language as section 1895(b)(5)(A) of the Act, and revising the language to state that the total amount of the additional payments or payment adjustments for outlier episodes could not exceed 2.5 percent of the estimated total HH PPS payments for that year. Section 3131(b)(2)(C) of the Affordable Care Act also added section 1895(b)(5)(B) of the Act which capped outlier payments as a percent of total payments for each HHA at 10 percent.

As such, beginning in CY 2011, we reduce payment rates by 5 percent and target up to 2.5 percent of total estimated HH PPS payments to be paid as outliers. To do so, we first returned the 2.5 percent held for the target CY 2010 outlier pool to the national, standardized 60-day episode rates, the national per visit rates, the LUPA add-on payment amount, and the NRS conversion factor for CY 2010. We then reduced the rates by 5 percent as required by section 1895(b)(3)(C) of the Act, as amended by section 3131(b)(1) of the Affordable Care Act. For CY 2011 and subsequent calendar years we target up to 2.5 percent of estimated total payments to be paid as outlier payments, and apply a 10 percent agency-level outlier cap.

In the CY 2017 HH PPS proposed and final rules (81 FR 43737 through 43742 and 81 FR 76702), we described our concerns regarding patterns observed in home health outlier episodes. Specifically, we noted that the methodology for calculating home health outlier payments may have created a financial incentive for providers to increase the number of visits during an episode of care in order to surpass the outlier threshold; and simultaneously created a disincentive for providers to treat medically complex beneficiaries who require fewer but longer visits. Given these concerns, in the CY 2017 HH PPS final rule (81 FR 76702), we finalized changes to the methodology used to calculate outlier payments, using a cost-per-unit approach rather than a cost-per-visit approach. This change in methodology allows for more accurate payment for outlier episodes, accounting for both the number of visits during an episode of care and also the length of the visits provided. Using this approach, we now convert the national per-visit rates into per 15-minute unit rates. These per 15-minute unit rates are used to calculate the estimated cost of an episode to determine whether the claim will receive an outlier payment and the

amount of payment for an episode of care. In conjunction with our finalized policy to change to a cost-per-unit approach to estimate episode costs and determine whether an outlier episode should receive outlier payments, in the CY 2017 HH PPS final rule we also finalized the implementation of a cap on the amount of time per day that would be counted toward the estimation of an episode's costs for outlier calculation purposes (81 FR 76725). Specifically, we limit the amount of time per day (summed across the six disciplines of care) to 8 hours (32 units) per day when estimating the cost of an episode for outlier calculation purposes.

We plan to publish the cost-per-unit amounts for CY 2019 in the rate update change request, which is issued after the publication of the CY 2019 HH PPS final rule. We note that in the CY 2017 HH PPS final rule (81 FR 76724), we stated that we did not plan to re-estimate the average minutes per visit by discipline every year. Additionally, we noted that the per-unit rates used to estimate an episode's cost will be updated by the home health update percentage each year, meaning we would start with the national per-visit amounts for the same calendar year when calculating the cost-per-unit used to determine the cost of an episode of care (81 FR 76727). We note that we will continue to monitor the visit length by discipline as more recent data become available, and we may propose to update the rates as needed in the future.

2. Proposed Fixed Dollar Loss (FDL) Ratio

For a given level of outlier payments, there is a trade-off between the values selected for the FDL ratio and the loss-sharing ratio. A high FDL ratio reduces the number of episodes that can receive outlier payments, but makes it possible to select a higher loss-sharing ratio, and therefore, increase outlier payments for qualifying outlier episodes. Alternatively, a lower FDL ratio means that more episodes can qualify for outlier payments, but outlier payments per episode must then be lower.

The FDL ratio and the loss-sharing ratio must be selected so that the estimated total outlier payments do not exceed the 2.5 percent aggregate level (as required by section 1895(b)(5)(A) of the Act). Historically, we have used a value of 0.80 for the loss-sharing ratio which, we believe, preserves incentives for agencies to attempt to provide care efficiently for outlier cases. With a loss-sharing ratio of 0.80, Medicare pays 80 percent of the additional estimated costs above the outlier threshold amount.

Simulations based on CY 2015 claims data (as of June 30, 2016) completed for the CY 2017 HH PPS final rule showed that outlier payments were estimated to represent approximately 2.84 percent of total HH PPS payments in CY 2017, and as such, we raised the FDL ratio from 0.45 to 0.55. We stated that raising the FDL ratio to 0.55, while maintaining a loss-sharing ratio of 0.80, struck an effective balance of compensating for high-cost episodes while still meeting the statutory requirement to target up to, but no more than, 2.5 percent of total payments as outlier payments (81 FR 76726). The national, standardized 60-day episode payment amount is multiplied by the FDL ratio. That amount is wage-adjusted to derive the wage-adjusted FDL amount, which is added to the case-mix and wage-adjusted 60-day episode payment amount to determine the outlier threshold amount that costs have to exceed before Medicare would pay 80 percent of the additional estimated costs.

For this proposed rule, simulating payments using preliminary CY 2017 claims data (as of March 2, 2018) and the CY 2018 HH PPS payment rates (82 FR 51676), we estimate that outlier payments in CY 2018 would comprise 2.30 percent of total payments. Based on simulations using CY 2017 claims data (as of March 2, 2018) and the proposed CY 2019 payment rates presented in section III.C.4 of this proposed rule, we estimate that outlier payments would constitute approximately 2.32 percent of total HH PPS payments in CY 2019. Our simulations show that the FDL ratio would need to be changed from 0.55 to 0.51 to pay up to, but no more than, 2.5 percent of total payments as outlier payments in CY 2019.

Given the statutory requirement that total outlier payments not exceed 2.5 percent of the total payments estimated to be made based under the HH PPS, we are proposing to lower the FDL ratio for CY 2019 from 0.55 to 0.51 to better approximate the 2.5 percent statutory maximum. However, we note that we are not proposing a change to the loss-sharing ratio (0.80) for the HH PPS to remain consistent with payment for high-cost outliers in other Medicare payment systems (for example, IRF PPS, IPPS, etc.). We note that in the final rule, we will update our estimate of outlier payments as a percent of total HH PPS payments using the most current and complete year of HH PPS data (CY 2017 claims data as of June 30, 2018 or later) and therefore, we may adjust the final FDL ratio accordingly. We invite public comments on the

proposed change to the FDL ratio for CY 2019.

3. Home Health Outlier Payments: Clinical Example

In recent months, concerns regarding the provision of home health care for Medicare patients with chronic, complex conditions have been raised by stakeholders as well as the press.^{16 17 18 19} News stories and anecdotal reports indicate that Medicare patients with chronic conditions may be encountering difficulty in accessing home health care if the goal of home health care is to maintain or prevent further decline of the patient's condition rather than improvement of the patient's condition. While patients must require skilled care to be eligible to receive services under the Medicare home health benefit, as outlined in regulation at 42 CFR 409.42(c), we note that coverage does not turn on the presence or absence of an individual's potential for improvement, but rather on the beneficiary's need for skilled care. Skilled care is covered where such services are necessary to maintain the patient's current condition or prevent or slow further deterioration so long as the beneficiary requires skilled care for the services to be safely and effectively provided. Additionally, there appears to be confusion among the HHA provider community regarding possible Medicare payment through the HH PPS, as it appears that some perceive that payment is somewhat fixed and not able to account for home health stays with higher costs.

The news stories referenced an individual with amyotrophic lateral sclerosis (ALS), also known as Lou Gehrig's disease, and the difficulties encountered in finding Medicare home health care. Below we describe a clinical example of how care for a patient with ALS could qualify for an additional outlier payment, which would serve to offset unusually high costs associated with providing home health to a patient with unusual variations in the amount of medically necessary care. This example, using

payment policies in place for CY 2018, is provided for illustrative purposes only. We hope that in providing the example below, which illustrates how HHAs could be paid by Medicare for providing care to patients with higher resource use in their homes, and by reiterating that the patient's condition does not need to improve for home health services to be covered by Medicare, that there will be a better understanding of Medicare coverage policies and how outlier payments promote access to home health services for such patients under the HH PPS.

a. Clinical Scenario

Amyotrophic Lateral Sclerosis (ALS) is a progressive neuromuscular degenerative disease. The incidence rates of ALS have been increasing over the last few decades, and the peak incidence rate occurs at age 75.²⁰ The prevalence rate of ALS in the United States is 4.3 per 100,000 population.²¹ Half of all people affected with ALS live at least 3 or more years after diagnosis. Twenty percent live 5 years or more; up to 10 percent will live more than 10 years.²² Because of the progressive nature of this disease, care needs change and generally intensify as different body systems are affected. As such, patients with ALS often require a multidisciplinary approach to meet their care needs.

The clinical care of a beneficiary with ALS typically includes the ongoing assessment of and treatment for many impacts to the body systems. As a part of a home health episode, a skilled nurse could assess the patient for shortness of breath, mucus secretions, sialorrhea, pressure sores, and pain. From these assessments, the nurse could speak with the doctor about changes to the care plan. A nurse's aide could provide assistance with bathing, dressing, toileting, and transferring. Physical therapy services could also help the patient with range of motion exercises, adaptive transfer techniques, and assistive devices in order to maintain a level of function.

The following is a description of how the provision of services per the home

health plan of care could emerge for a beneficiary with ALS who qualifies for the Medicare home health benefit. We note that this example is provided for illustrative purposes only and does not constitute a specific Medicare payment scenario.

b. Example One: Home Health Episodes 1 and 2

A beneficiary with ALS may be assessed by a physician in the community and subsequently be deemed to require home health services for skilled nursing, physical therapy, occupational therapy, and a home health aide. The beneficiary could receive skilled nursing twice a week for 45 minutes to assess dyspnea when transferring to a bedside commode, stage two pressure ulcer at the sacrum, and pain status. In addition, a home health aide could provide services for three hours in the morning and three hours in the afternoon on Monday, Wednesday, and Friday and two and a half hours in the morning and 2.5 hours in the afternoon on Tuesday and Thursdays to assist with bathing, dressing, and transferring. Physical therapy services twice a week for 45 minutes could be provided for adaptive transfer techniques, and occupational therapy services could be supplied twice a week for 45 minutes for assessment and teaching of assistive devices for activities of daily living to prevent or slow deterioration of the patient's condition. Given the patient's clinical presentation, for the purpose of this specific example, we will assign the patient payment group 40331 (C3F3S1 with 20+ therapy visits).

For the purposes of this example, we assume that services are rendered per week for a total of 8 weeks per home health episode. For both the first and second home health episodes of care, the calculation to determine outlier payment utilizing payment amounts and case mix weights for CY 2018, as described in the CY 2018 HH PPS final rule (82 FR 51676), would be as follows, per 60-day episode:

TABLE 27—CLINICAL SCENARIO CALCULATION TABLE: EPISODES 1 AND 2

HH outlier—CY 2018 illustrative values	Value	Operation	Adjuster	Equals	Output
National, Standardized 60-day Episode Payment Rate	\$3,039.64	.....	.....	.....	.....

¹⁶ <https://www.npr.org/sections/health-shots/2018/01/17/578423012/home-care-agencies-often-wrongly-deny-medicare-help-to-the-chronically-ill>.

¹⁷ <http://www.alsa.org/als-care/resources/fyi/medicare-and-home-health-care.html>.

¹⁸ <https://patientworthy.com/2018/01/31/chronically-ill-are-being-denied-medicare-coverage-by-home-care-agencies/>.

¹⁹ <https://alsnewstoday.com/2018/05/09/als-medicare-cover-home-healthcare/>.

²⁰ Worms PM, The epidemiology of motor neuron diseases: A review of recent studies. *J Neurol Sci.* 2001;191(1-2):3.

²¹ Mehta P, Prevalence of Amyotrophic Lateral Sclerosis—United States, 2012–2013. *MMWR Surveill Summ.* 2016;65(8):1. Epub 2016 Aug 5.

²² <http://www.alsa.org>.

TABLE 27—CLINICAL SCENARIO CALCULATION TABLE: EPISODES 1 AND 2—Continued

HH outlier—CY 2018 illustrative values	Value	Operation	Adjuster	Equals	Output
Case-Mix Weight for Payment Group 4.0331 (for C3F3S1 for 20+ therapy) ..	2.1359	.....	.....	.....	.....
Case-Mix Adjusted Episode Payment Amount	3,039.64	*	2.1359	=	6,492.37
Labor Portion of the Case-Mix Adjusted Episode Payment Amount	6,492.37	*	0.78535	—	5,098.78
Non-Labor Portion of the Case-Mix Adjusted Episode Payment Amount	6,492.37	*	0.21465	=	1,393.59
Wage Index Value (Beneficiary resides in 31084, Los Angeles-Long Beach-Glendale, CA)	1.2781	.....	.....	.....	.....
Wage-Adjusted Labor Portion of the Case-Mix Adjusted Episode Payment Amount	5,098.78	*	1.2781	=	6,516.75
NRS Payment Amount (Severity Level 2)	51.66	.....	.....	=	51.66
Total Case-Mix and Wage-Adjusted Episode Payment Amount (Wage-Adjusted Labor Portion plus Non-Labor Portion of the Case-Mix Adjusted Episode Payment Amount plus the NRS Amount)				=	7,962.00
Total Wage-Adjusted Fixed Dollar Loss Amount:					
Fixed Dollar Loss Amount (National, Standardized 60-day Episode Payment Rate * FDL Ratio)	3,039.64	*	0.55	=	1,671.80
Labor Portion of the Fixed Dollar Loss Amount	1,671.80	*	0.78535	=	1,312.95
Non-Labor Amount of the Fixed Dollar Loss Amount	1,671.80	*	0.21465	=	358.85
Wage-Adjusted Fixed Dollar Loss Amount	1,312.95	*	1.2781	=	1,678.08
Total Wage-Adjusted Fixed Dollar Loss Amount (Wage-Adjusted Labor Portion plus Non-Labor Portion of the Case-Mix Adjusted Fixed Dollar Loss Amount)	1,678.08	+	358.85	=	2,036.93
Total Wage-Adjusted Imputed Cost Amount:					
National Per-Unit Payment Amount—Skilled Nursing	48.01	.....	.....	.....	.....
Number of 15-minute units (45 minutes = 3 units twice per week for 8 weeks)	48	.....	.....	.....	.....
Imputed Skilled Nursing Visit Costs (National Per-Unit Payment Amount * Number of Units)	48.01	*	48	=	2,304.48
National Per-Unit Payment Amount—Home Health Aide	15.46	.....	.....	.....	.....
Number of 15-minute units (28 hours per week = 112 units per week for 8 weeks)	896	.....	.....	.....	.....
Imputed Home Health Aide Costs (National Per-Unit Payment Amount * Number of Units)	15.46	*	896	=	13,852.16
National Per-Unit Payment Amount—Occupational Therapy (OT)	50.26	.....	.....	.....	.....
Number of 15-minute units (45 minutes = 3 units twice per week for 8 weeks)	48	.....	.....	.....	.....
Imputed OT Visit Costs (National Per-Unit Payment Amount * Number of Units)	50.26	*	48	=	2,412.48
National Per-Unit Payment Amount—Physical Therapy (PT)	50.46	.....	.....	.....	.....
Number of 15-minute units (45 minutes = 3 units twice per week for 8 weeks)	48	.....	.....	.....	.....
Imputed PT Visit Costs (National Per-Unit Payment Amount * Number of Units)	50.46	*	48	=	2,422.08
Total Imputed Cost Amount for all Disciplines				=	20,991.20
Labor Portion of the Imputed Costs for All Disciplines	20,991.20	*	0.78535	=	16,485.44
Non-Labor Portion of Imputed Cost Amount for All Disciplines	20,991.20	*	0.21465	=	4,505.76
CBSA Wage Index (Beneficiary resides in 31084, Los Angeles-Long Beach-Glendale, CA)	1.2781	.....	.....	.....	.....
Wage-Adjusted Labor Portion of the Imputed Cost Amount for All Disciplines	16,485.44	*	1.2781	=	21,070.04
Total Wage-Adjusted Imputed Cost Amount (Wage-Adjusted Labor Portion of the Imputed Cost Amount plus Non-Labor Portion of the Imputed Cost Amount)	21,070.04	+	4,505.76	=	25,575.80
Total Payment Per 60-Day Episode:					
Outlier Threshold Amount (Total Wage-Adjusted Fixed Dollar Loss Amount + Total Case-Mix and Wage-Adjusted Episode Payment Amount)	2,036.93	+	7,962.00	=	9,998.93
Total Wage-Adjusted Imputed Cost Amount—Outlier Threshold Amount (Total Wage-Adjusted Fixed Dollar Loss Amount + Total Case-Mix and Wage-Adjusted Episode Payment Amount)	25,575.80	—	9,998.93	=	15,576.87
Outlier Payment = Imputed Costs Greater Than the Outlier Threshold * Loss-Sharing Ratio (0.80)	15,576.87	*	0.80	=	12,461.50
Total Payment Per 60-Day Episode = Total Case-Mix and Wage-Adjusted Episode Payment Amount + Outlier Payment	7,962.00	+	12,461.50	=	20,423.49

For Episodes 1 and 2 of this clinical scenario, the preceding calculation illustrates how HHAs are paid by Medicare for providing care to patients with higher resource use in their homes.

c. Example Two: Home Health Episodes 3 and 4

ALS is a progressive disease such that the patient would most likely need care beyond a second 60-day HH episode. A beneficiary's condition could become

more complex, such that the patient could require a gastrostomy tube, which could be placed during a hospital stay. The patient could be discharged to home for enteral nutrition to maintain weight and continuing care for his/her stage two pressure ulcer. Given the complexity of the beneficiary's condition in this example, the episode could remain at the highest level of care C3F3S1 and would now fit into equation 4.

For the purposes of this example, we assume that services are rendered per week for a total of 8 weeks per home health episode. For both the third and fourth home health episodes of care, the calculation to determine outlier payment utilizing payment amounts and case mix weights for CY 2018 as described in as described in the CY 2018 HH PPS final rule (82 FR 51676) would be as follows, per 60-day episode:

TABLE 28—CLINICAL SCENARIO CALCULATION: EPISODES 3 AND 4

HH outlier—CY 2018 illustrative values	Value	Operation	Adjuster	Equals	Output
National, Standardized 60-day Episode Payment Rate	\$3,039.64	.....	.....	.....	.....
Case-Mix Weight for Payment Group 4.0331 (for C3F3S1 for 20+ therapy) ...	2.1359	.....	.....	.....	.....
Case-Mix Adjusted Episode Payment Amount	3,039.64	*	2.1359	=	\$6,492.37
Labor Portion of the Case-Mix Adjusted Episode Payment Amount	6,492.37	*	0.78535	=	5,098.78
Non-Labor Portion of the Case-Mix Adjusted Episode Payment Amount	6,492.37	*	0.21465	=	1,393.59
Wage Index Value (Beneficiary resides in 31084, Los Angeles-Long Beach-Glendale, CA)	1.2781	.....	.....	.....	.....
Wage-Adjusted Labor Portion of the Case-Mix Adjusted Episode Payment Amount	5,098.78	*	1.2781	=	6,516.75
NRS Payment Amount (Severity Level 2)	324.53	.....	.....	=	324.53
Total Case-Mix and Wage-Adjusted Episode Payment Amount (Wage-Adjusted Labor Portion plus Non-Labor Portion of the Case-Mix Adjusted Episode Payment Amount plus the NRS Amount) .....	.....	.....	.....	=	8,234.87
Total Wage-Adjusted Fixed Dollar Loss Amount:					
Fixed Dollar Loss Amount (National, Standardized 60-day Episode Payment Rate * FDL Ratio)	3,039.64	*	0.55	=	1,671.80
Labor Portion of the Fixed Dollar Loss Amount	1,671.80	*	0.78535	=	1,312.95
Non-Labor Amount of the Fixed Dollar Loss Amount	1,671.80	*	0.21465	=	358.85
Wage-Adjusted Fixed Dollar Loss Amount	1,312.95	*	1.2781	=	1,678.08
Total Wage-Adjusted Fixed Dollar Loss Amount (Wage-Adjusted Labor Portion plus Non-Labor Portion of the Case-Mix Adjusted Fixed Dollar Loss Amount)	1,678.08	+	358.85	=	2,036.93
Total Wage-Adjusted Imputed Cost Amount:					
National Per-Unit Payment Amount—Skilled Nursing	48.01	.....	.....	.....	.....
Number of 15-minute units (45 minutes = 3 units twice per week for 8 weeks)	48	.....	.....	.....	.....
Imputed Skilled Nursing Visit Costs (National Per-Unit Payment Amount * Number of Units)	48.01	*	48	=	2,304.48
National Per-Unit Payment Amount—Home Health Aide	15.46	.....	.....	.....	.....
Number of 15-minute units (28 hours per week = 112 units per week for 8 weeks)	896	.....	.....	.....	.....
Imputed Home Health Aide Costs (National Per-Unit Payment Amount * Number of Units)	15.46	*	896	=	13,852.16
National Per-Unit Payment Amount—Occupational Therapy (OT)	50.26	.....	.....	.....	.....
Number of 15-minute units (45 minutes = 3 units twice per week for 8 weeks)	48	.....	.....	.....	.....
Imputed OT Visit Costs (National Per-Unit Payment Amount * Number of Units)	50.26	*	48	=	2,412.48
National Per-Unit Payment Amount—Physical Therapy (PT)	50.46	.....	.....	.....	.....
Number of 15-minute units (45 minutes = 3 units twice per week for 8 weeks)	48	.....	.....	.....	.....
Imputed PT Visit Costs (National Per-Unit Payment Amount * Number of Units)	50.46	*	48	=	2,422.08
Total Imputed Cost Amount for all Disciplines .....	.....	.....	.....	=	20,991.20
Labor Portion of the Imputed Costs for All Disciplines	20,991.20	*	0.78535	=	16,485.44
Non-Labor Portion of Imputed Cost Amount for All Disciplines	20,991.20	*	0.21465	=	4,505.76
CBSA Wage Index (Beneficiary resides in 31084, Los Angeles-Long Beach-Glendale, CA)	1.2781	.....	.....	.....	.....
Wage-Adjusted Labor Portion of the Imputed Cost Amount for All Disciplines	16,485.44	*	1.2781	=	21,070.04
Total Wage-Adjusted Imputed Cost Amount (Wage-Adjusted Labor Portion of the Imputed Cost Amount plus Non-Labor Portion of the Imputed Cost Amount)	21,070.04	+	4,505.76	=	25,575.80
Total Payment Per 60-Day Episode:					

TABLE 28—CLINICAL SCENARIO CALCULATION: EPISODES 3 AND 4—Continued

HH outlier—CY 2018 illustrative values	Value	Operation	Adjuster	Equals	Output
Outlier Threshold Amount (Total Wage-Adjusted Fixed Dollar Loss Amount + Total Case-Mix and Wage-Adjusted Episode Payment Amount)	2,036.93	+	8,234.87	=	10,271.80
Total Wage-Adjusted Imputed Cost Amount – Outlier Threshold Amount (Total Wage-Adjusted Fixed Dollar Loss Amount + Total Case-Mix and Wage-Adjusted Episode Payment Amount)	25,575.80	–	10,271.80	=	15,304.00
Outlier Payment = Imputed Costs Greater Than the Outlier Threshold * Loss-Sharing Ratio (0.80)	15,304.00	*	0.80	=	12,243.20
Total Payment Per 60-Day Episode = Total Case-Mix and Wage-Adjusted Episode Payment Amount + Outlier Payment	12,243.20	+	8,234.87	=	20,478.07

For Episodes 3 and 4 of this clinical scenario, the above calculation demonstrates how outlier payments could be made for patients with chronic, complex conditions under the HH PPS. We reiterate that outlier payments could provide payment to HHAs for those patients with higher resource use and that the patient’s condition does not need to improve for home health services to be covered by Medicare. We appreciate the feedback we have received from the public on the outlier policy under the HH PPS and look forward to ongoing collaboration with stakeholders on any further refinements that may be warranted. We note that this example is presented for illustrative purposes only, and is not intended to suggest that all diagnoses of ALS should receive the grouping assignment or number of episodes described here. The CMS Grouper assigns these groups based on information in the OASIS.

F. Implementation of the Patient-Driven Groupings Model (PDGM) for CY 2020

1. Background and Legislation, Overview, Data, and File Construction

a. Background and Legislation

In the CY 2018 HH PPS proposed rule, we proposed an alternative case mix-adjustment methodology (known as the Home Health Groupings Model or HHGM), to be implemented for home health periods of care beginning on or after January 1, 2019. Ultimately this proposed alternative case-mix adjustment methodology, including a proposed change in the unit of payment from 60 days to 30 days, was not finalized in the CY 2018 HH PPS final rule in order to allow us additional time to consider public comments for potential refinements to the methodology (82 FR 51676).

On February 9, 2018, the Bipartisan Budget Act of 2018 (BBA of 2018) (Pub. L. 115–123) was signed into law. Section 51001(a)(1) of the BBA of 2018 amended section 1895(b)(2) of the Act by adding a new subparagraph (B) to

require the Secretary to apply a 30-day unit of service for purposes of implementing the HH PPS, effective January 1, 2020. Section 51001(a)(2)(A) of the BBA of 2018 added a new subclause (iv) under section 1895(b)(3)(A) of the Act, requiring the Secretary to calculate a standard prospective payment amount (or amounts) for 30-day units of service that end during the 12-month period beginning January 1, 2020 in a budget neutral manner such that estimated aggregate expenditures under the HH PPS during CY 2020 are equal to the estimated aggregate expenditures that otherwise would have been made under the HH PPS during CY 2020 in the absence of the change to a 30-day unit of service. Section 1895(b)(3)(A)(iv) of the Act requires that the calculation of the standard prospective payment amount (or amounts) for CY 2020 be made before, and not affect the application of, the provisions of section 1895(b)(3)(B) of the Act. Section 1895(b)(3)(A)(iv) of the Act additionally requires that in calculating the standard prospective payment amount (or amounts), the Secretary must make assumptions about behavioral changes that could occur as a result of the implementation of the 30-day unit of service under section 1895(b)(2)(B) of the Act and case-mix adjustment factors established under section 1895(b)(4)(B) of the Act. Section 1895(b)(3)(A)(iv) of the Act further requires the Secretary to provide a description of the behavioral assumptions made in notice and comment rulemaking.

Section 51001(a)(2)(B) of the BBA of 2018 also added a new subparagraph (D) to section 1895(b)(3) of the Act. Section 1895(b)(3)(D)(i) of the Act requires the Secretary to annually determine the impact of differences between assumed behavior changes as described in section 1895(b)(3)(A)(iv) of the Act, and actual behavior changes on estimated aggregate expenditures under the HH PPS with respect to years beginning with 2020

and ending with 2026. Section 1895(b)(3)(D)(ii) of the Act requires the Secretary, at a time and in a manner determined appropriate, through notice and comment rulemaking, provide for one or more permanent increases or decreases to the standard prospective payment amount (or amounts) for applicable years, on a prospective basis, to offset for such increases or decreases in estimated aggregate expenditures, as determined under section 1895(b)(3)(D)(i) of the Act. Additionally, 1895(b)(3)(D)(iii) of the Act requires the Secretary, at a time and in a manner determined appropriate, through notice and comment rulemaking, to provide for one or more temporary increases or decreases to the payment amount for a unit of home health services for applicable years, on a prospective basis, to offset for such increases or decreases in estimated aggregate expenditures, as determined under section 1895(b)(3)(D)(i) of the Act. Such a temporary increase or decrease shall apply only with respect to the year for which such temporary increase or decrease is made, and the Secretary shall not take into account such a temporary increase or decrease in computing the payment amount for a unit of home health services for a subsequent year.

Section 51001(a)(3) of the BBA of 2018 amends section 1895(b)(4)(B) of the Act by adding a new clause (ii) to require the Secretary to eliminate the use of therapy thresholds in the case-mix system for 2020 and subsequent years. Lastly, section 51001(b)(4) of the BBA of 2018 requires the Secretary to pursue notice and comment rulemaking no later than December 31, 2019 on a revised case-mix system for payment of home health services under the HH PPS

b. Overview

To meet the requirement under section 51001(b)(4) of the BBA of 2018 to engage in notice and comment rulemaking on a HH PPS case-mix system and to better align payment with

patient care needs and better ensure that clinically complex and ill beneficiaries have adequate access to home health care, we are proposing case-mix methodology refinements through the implementation of the Patient-Driven Groupings Model (PDGM). The proposed PDGM shares many of the features included in the alternative case mix-adjustment methodology proposed in the CY 2018 HH PPS proposed rule. We propose to implement the PDGM for home health periods of care beginning on or after January 1, 2020. The implementation of the PDGM will require provider education and training, updating and revising relevant manuals, and changing claims processing systems. Implementation starting in CY 2020 would provide opportunity for CMS, its contractors, and the agencies themselves to prepare. This patient-centered model groups periods of care in a manner consistent with how clinicians differentiate between patients and the primary reason for needing home health care. As required by section 1895(b)(2)(B) of the Act, we propose to use 30-day periods rather than the 60-day episode used in the current payment system. In addition, section 1895(b)(4)(B)(ii) of the Act eliminates the use of therapy thresholds in the case-mix adjustment for determining payment. The proposed PDGM does not use the number of therapy visits in determining payment. The change from the current case-mix adjustment methodology for the HH PPS, which relies heavily on therapy thresholds as a major determinant for payment and thus provides a higher payment for a higher volume of therapy provided, to the PDGM would remove the financial incentive to overprovide therapy in order to receive a higher payment. The PDGM would base case-mix adjustment for home health payment solely on patient characteristics, a more patient-focused approach to payment. Finally, the PDGM relies more heavily on clinical characteristics and other patient information (for example, diagnosis, functional level, comorbid conditions, admission source) to place patients into clinically meaningful payment categories. In total, there are 216 different payment groups in the PDGM.

Costs during an episode/period of care are estimated based on the concept of resource use, which measures the costs associated with visits performed during a home health episode/period. For the current HH PPS case-mix weights, we use Wage Weighted Minutes of Care (WWMC), which uses data from the Bureau of Labor Statistics

(BLS) reflecting the Home Health Care Service Industry. For the PDGM, we propose shifting to a Cost-Per-Minute plus Non-Routine Supplies (CPM + NRS) approach, which uses information from the Medicare Cost Report. The CPM + NRS approach incorporates a wider variety of costs (such as transportation) compared to the BLS estimates and the costs are available for individual HHA providers while the BLS costs are aggregated for the Home Health Care Service industry.

Similar to the current payment system, 30-day periods under the PDGM would be classified as “early” or “late” depending on when they occur within a sequence of 30-day periods. Under the current HH PPS, the first two 60-day episodes of a sequence of adjacent 60-day episodes are considered early, while the third 60-day episode of that sequence and any subsequent episodes are considered late. Under the PDGM, the first 30-day period is classified as early. All subsequent 30-day periods in the sequence (second or later) are classified as late. We propose to adopt this timing classification for 30-day periods with the implementation of the PDGM for CY 2020. Similar to the current payment system, we propose that a 30-day period could not be considered early unless there was a gap of more than 60 days between the end of one period and the start of another. The comprehensive assessment would still be completed within 5 days of the start of care date and completed no less frequently than during the last 5 days of every 60 days beginning with the start of care date, as currently required by § 484.55, Condition of participation: Comprehensive assessment of patients. In addition, the plan of care would still be reviewed and revised by the HHA and the physician responsible for the home health plan of care no less frequently than once every 60 days, beginning with the start of care date, as currently required by § 484.60(c), Condition of participation: Care planning, coordination of services, and quality of care.

Under the PDGM, we propose that each period would be classified into one of two admission source categories—community or institutional—depending on what healthcare setting was utilized in the 14 days prior to home health. The 30-day period would be categorized as institutional if an acute or post-acute care stay occurred in the 14 days prior to the start of the 30-day period of care. The 30-day period would be categorized as community if there was no acute or post-acute care stay in the 14 days prior to the start of the 30-day period of care.

The PDGM would group 30-day periods into categories based on a variety of patient characteristics. We propose grouping periods into one of six clinical groups based on the principal diagnosis. The principal diagnosis reported would provide information to describe the primary reason for which patients are receiving home health services under the Medicare home health benefit. The proposed six clinical groups, are as follows:

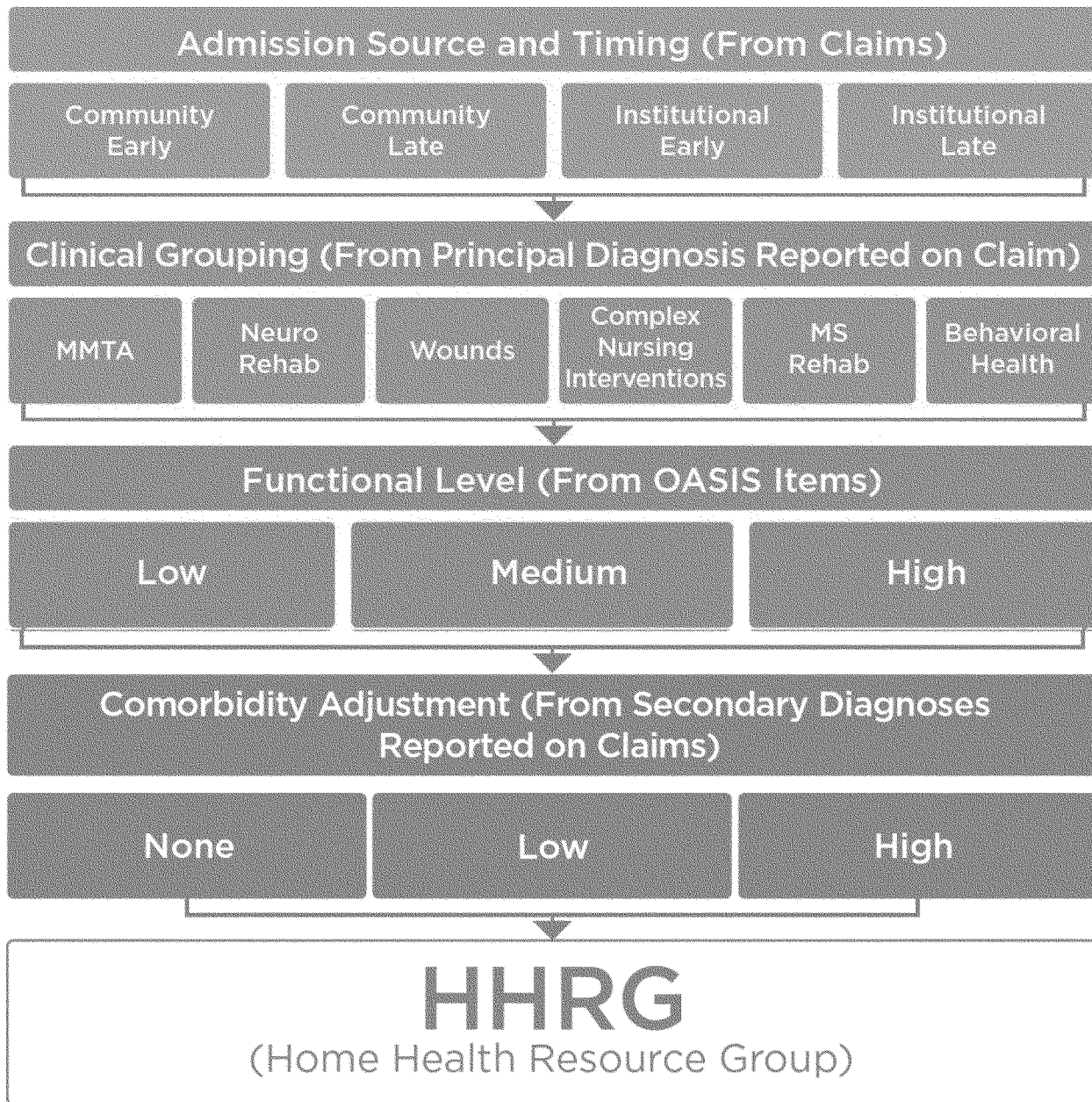
- Musculoskeletal Rehabilitation.
- Neuro/Stroke Rehabilitation.
- Wounds—Post-Op Wound Aftercare and Skin/Non-Surgical Wound Care.
- Complex Nursing Interventions.
- Behavioral Health Care (including Substance Use Disorders).
- Medication Management, Teaching and Assessment (MMTA).

Under the PDGM, we propose that each 30-day period would be placed into one of three functional levels. The level would indicate if, on average, given its responses on certain functional OASIS items, a 30-day period is predicted to have higher costs or lower costs. We are proposing to assign roughly 33 percent of periods within each clinical group to each functional level. The criteria for assignment to each of the three functional levels may differ across each clinical group. The proposed functional level assignment under the PDGM is very similar to the functional level assignment in the current payment system. Finally, the PDGM includes a comorbidity adjustment category based on the presence of secondary diagnoses. We propose that, depending on a patient’s secondary diagnoses, a 30-day period may receive “no” comorbidity adjustment, a “low” comorbidity adjustment, or a “high” comorbidity adjustment. For low-utilization payment adjustments (LUPAs) under the PDGM, we propose that the LUPA threshold would vary for a 30-day period under the PDGM depending on the PDGM payment group to which it is assigned. For each payment group, we propose to use the 10th percentile value of visits to create a payment group specific LUPA threshold with a minimum threshold of at least 2 for each group.

Figure BBB1 represents how each 30-day period of care would be placed into one of the 216 home health resource groups (HHRGs) under the proposed PDGM for CY 2020.

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FIGURE 4: STRUCTURE OF THE PDGM



Under the Patient Driven Groupings Model, a 30-day period is grouped into one (and only one) subcategory under each larger colored category. A 30-day period's combination of subcategories places the 30-day period into one of 216 different payment groups.

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c. Data and File Construction

To create the PDGM proposed model and related analyses, a data file based on home health episodes of care as reported in Medicare home health claims was utilized. The claims data provide episode-level data (for example, episode From and Through Dates, total number of visits, HHRG, diagnoses), as

well as visit-level data (visit date, visit length in 15-minute units, discipline of the staff, etc.). The claims also provide data on whether NRS was provided during the episode and total charges for NRS.

The core file for most of the analyses for this proposed rule includes 100 percent of home health episode claims with Through Dates in Calendar Year (CY) 2017, processed by March 2, 2018,

accessed via the Chronic Conditions Data Warehouse (CCW). Original or adjustment claims processed after March 2, 2018, would not be reflected in the core file. The claims-based file was supplemented with additional variables that were obtained from the CCW, such as information regarding other Part A and Part B utilization.

The data were cleaned by processing any remaining adjustments and by

excluding duplicates and claims that were Requests for Anticipated Payment (RAP). In addition, visit-level variables needed for the analysis were extracted from the revenue center trailers (that is, the line items that describe the visits) and downloaded as a separate visit-level file, with selected episode-level variables merged onto the records for visits during those episodes. To account for potential data entry errors, the visit-level variables for visit length were top-censored at 8 hours.²³

A set of data cleaning exclusions were applied to the episode-level file, which resulted in the exclusion of the following:

- Episodes that were RAPs.
- Episodes with no covered visits.
- Episodes with any missing units or visit data.
- Episodes with zero payments.
- Episodes with no charges.
- Non-LUPA episodes missing an HHRG.

The analysis file also includes data on patient characteristics obtained from the OASIS assessments conducted by home health agency (HHA) staff at the start of each episode. The assessment data are electronically submitted by HHAs to a central CMS repository. In constructing the core data file, 100 percent of the OASIS assessments submitted October 2016 through December 2017 from the CMS repository were uploaded by CMS to the CCW. A CCW-derived linking key

(Bene ID) was used to match the OASIS data with CY 2017 episodes of care. Episodes that could not be linked with an OASIS assessment were excluded from the analysis file, as they included insufficient patient-level data to create the PDGM.

To construct measures of resource use, a variety of data sources were used (see section III.F.2 of this proposed rule for the proposed methodology used to calculate the cost of care under the PDGM). First, BLS data on average wages and fringe benefits were used to produce wage-weighted minutes of care (WWMC), the approach used in the current system to calculate the cost of care. The wage data are for North American Industry Classification System (NAICS) 621600—Home Health Care Services (see Table 29).

TABLE 29—BLS STANDARD OCCUPATION CLASSIFICATION (SOC) CODES FOR HOME HEALTH PROVIDERS

Standard Occupation Code (SOC) No.	Occupation title
29-1141	Registered Nurses.
29-2061	Licensed Practical and Licensed Vocational Nurses.
29-1123	Physical Therapists.
31-2021	Physical Therapist Assistants.
31-2022	Physical Therapist Aides.
29-1122	Occupational Therapists.
31-2011	Occupational Therapist Assistants.
31-2012	Occupational Therapist Aides.

TABLE 29—BLS STANDARD OCCUPATION CLASSIFICATION (SOC) CODES FOR HOME HEALTH PROVIDERS—Continued

Standard Occupation Code (SOC) No.	Occupation title
29-1127	Speech-Language Pathologists.
21-1022	Medical and Public Health Social Workers.
21-1023	Mental Health and Substance Abuse Social Workers.
31-1011	Home Health Aides.

The WWMC approach determines resource use for each episode by multiplying utilization (in terms of the number of minutes of direct patient care provided by each discipline) by the corresponding opportunity cost of that care (represented by wage and fringe benefit rates from the BLS).²⁴ Table 30 shows the occupational titles and corresponding mean hourly wage rates from the BLS. The employer cost per hour worked shown in the fifth column is calculated by adding together the mean hourly wage rates and the fringe benefit rates from the BLS. For home health disciplines that include multiple occupations (such as skilled nursing), the opportunity cost is generated by weighting the employer cost by the proportions of the labor mix.²⁵ Otherwise, the opportunity cost is the same as the employer cost per hour.

TABLE 30—OCCUPATIONAL EMPLOYMENT AND WAGES PROVIDED BY THE FEDERAL BUREAU OF LABOR STATISTICS

Occupation title	National employment counts	Mean hourly wage	Estimate of benefits as a % of wages	Estimated employer cost per hour worked	Labor mix	Home health discipline	Opportunity cost
Registered Nurses	179,280	\$33.34	43.85	\$47.96	0.66	Skilled Nursing	\$42.42
Licensed Practical and Licensed Vocational Nurses.	85,410	22.03	43.85	31.69	0.34		
Physical Therapists	24,810	47.23	40.92	66.55	0.66	Physical Therapy	58.55
Physical Therapist Assistants.	7,330	31.43	35.79	42.68	0.34		
Occupational Therapists	10,760	45.27	40.92	63.79	0.79	Occupational Therapy	59.97
Occupational Therapist Assistants.	2,270	33.83	35.79	45.94	0.21		
Speech-Language Pathologists.	5,360	47.08	40.92	66.34	.....	Speech Therapy	66.34
Medical and Public Health Social Workers.	18,930	28.76	40.92	40.53	0.97	Medical Social Service	40.42
Mental Health and Substance Abuse Social Workers.	500	25.85	40.92	36.43	0.03		
Home Health Aides	408,920	11.25	35.79	15.28	.....	Home Health Aide	15.28

Source: May 2016 National Industry-Specific Occupational Employment and Wage Estimates—NAICS 621600—Home Health Care Services.

²³ Less than 0.1 percent of all visits were recorded as having greater than 8 hours of service.

²⁴ Opportunity costs represent the foregone resources from providing each minute of care versus using the resources for another purpose (the next best alternative). Generally, opportunity costs

represent more than the monetary costs, but in these analyses, they are proxied using hourly wage rates.

²⁵ Labor mix represents the percentage of employees with a particular occupational title (as obtained from claims) within a home health

discipline. Physical therapist aides and occupational therapist aides were not included in the labor mix.

Home Health Agency Medicare Cost Report (MCR) data for FY 2016 were also used to construct a measure of resource use after trimming out HHAs whose costs were outliers (see section III.F.2 of this proposed rule). These data are used to provide a representation of the average costs of visits provided by HHAs in the six Medicare home health disciplines: Skilled nursing; physical therapy; occupational therapy; speech-language pathology; medical social services; and home health aide services. Cost report data are publicly available at: <https://www.cms.gov/Research-Statistics-Data-and-Systems/Downloadable-Public-Use-Files/Cost-Reports/>. More details regarding how HHA MCR data were used in constructing the CPM+NRS measure of resource use can be found in section III.F.2 of this proposed rule.

A comment submitted in response to the CY 2018 HH PPS proposed rule questioned the trimming process for the Medicare cost report data used to calculate the cost-per-minute plus non-routine supplies (CPM+NRS) methodology used to estimate resource use (outlined in section III.F.2 of this rule). The commenter stated that for rebasing, CMS audited 100 cost reports and the findings of such audits found that costs were overstated by 8 percent and that finding was attributed to the entire population of HHA Medicare cost reports. The commenter questioned if CMS applied the 8 percent “adjustment factor” in last year’s proposed rule, requested CMS provide the number of cost reports used for the proposed rule, asked if only cost reports of freestanding HHAs were used, and requested that CMS describe what percentage of cost reports did not list any costs for NRS, yet listed NRS charges.

For the calculations in the CY 2018 HH PPS proposed rule, CMS applied the trimming methodology described in detail in the “Analyses in Support of Rebasing & Updating Medicare Home Health Payment Rates” Report available at: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/Downloads/Analyses-in-Support-of-Rebasing-and-Updating-the-Medicare-Home-Health-Payment-Rates-Technical-Report.pdf>. This is also the trimming methodology outlined in the CY 2014 HH PPS proposed rule (78 FR 40284). Of note, for each discipline and for NRS, we also followed the methodology laid out in the “Rebasing Report” by trimming out values that fell in the top or bottom 1 percent of the distribution across all HHAs. This included the cost-per-visit values for each discipline and NRS cost-to-charge ratios that fell in the top or bottom 1

percent of the distribution across all HHAs. For this proposed rule, we applied the same trimming methodology.

We included both freestanding and facility-based HHA Medicare cost report data in our rebasing calculations as outlined in the CY 2014 HH PPS proposed and final rules and in our analysis of FY 2015 HHA Medicare cost report data for the CY 2018 HH PPS proposed rule. We similarly included both freestanding and facility-based HHA Medicare cost report data in our analysis of FY 2016 cost report data for this proposed rule. We note that although we found an 8 percent overstatement of costs from the Medicare cost reports audits performed to support the rebasing adjustments, we did not apply an 8 percent adjustment to HHA costs in the CY 2014 HH PPS proposed or final rules. We also did not apply an 8 percent adjustment to the costs in the CY 2018 HH PPS proposed rule or in this proposed rule. The 8 percent overstatement was determined using a small sample size of HHA Medicare cost reports and the CY 2014 HH PPS proposed rule included this information as illustrative only. The information was not used in any cost calculations past or present.

Before trimming, there were 10,394 cost reports for FY 2016. In this proposed rule, we used 7,458 cost reports. Of the 7,458 cost reports, 5,447 (73.4 percent) had both NRS charges and costs, 1,672 (22.4 percent) had neither NRS charges or costs, and 339 (4.5 percent) had NRS charges but no NRS costs. There were no cost reports with NRS costs, but no NRS charges.

The initial 2017 analytic file included 6,771,059 episodes. Of these, 959,410 (14.2 percent) were excluded because they could not be linked to OASIS assessments or because of the claims data cleaning process reasons listed above. This yielded a final analytic file that included 5,811,649 episodes. Those episodes are 60-day episodes under the current payment system, but for the PDGM those 60-day episodes were converted into two 30-day periods. This yielded a final PDGM analytic file that included 10,160,226, 30-day periods. Certain 30-day periods were excluded for the following reasons:

- Inability to merge to certain OASIS items to create the episode’s functional level that is used for risk adjustment. For all the periods in the analytic file, there was a look-back through CY 2016 for a period with a Start of Care or Resumption of Care assessment that preceded the period being analyzed and was in the same sequence of periods. If such an assessment was found, it was

used to impute responses for OASIS items that were not included in the follow-up assessment. Periods that were linked to a follow-up assessment which did not link to a Start of Care or Resumption of Care assessment using the process described above were dropped (after exclusions, n = 9,471,529).

- No nursing visits or therapy visits (after exclusions, n = 9,287,622).

- LUPAs were excluded from the analysis. Periods that are identified as LUPAs in the current payment system were excluded in the creation of the functional score. Following the creation of the score (and the corresponding levels), case-mix group specific LUPA thresholds were created and episodes/periods were excluded that were below the new LUPA threshold when computing the case-mix weights.²⁶ Therefore, the final analytic sample included 8,624,776 30-day periods that were used for the analyses in the PDGM.

In response to the CY 2018 HH PPS proposed rule, we received many comments stating there was limited involvement with the industry in the development of the alternative case-mix adjustment methodology. Commenters also stated that they were unable to obtain the necessary data in order to replicate and model the effects on their business. We note that, through notice and comment rulemaking and other processes, stakeholders always have the opportunity to reach out to CMS and provide suggestions for improvement in the payment methodology under the HH PPS. In the CY 2014 HH PPS final rule, we noted that we were continuing to work on improvements to our case-mix adjustment methodology and welcomed suggestions for improving the case-mix adjustment methodology as we continued in our case-mix research (78 FR 72287). The analyses and the ultimate development of an alternative case-mix adjustment methodology was shared with stakeholders via technical expert panels, clinical workgroups, and special open door forums. We also provided high-level summaries on our case-mix methodology refinement work in the HH PPS proposed rules for CYs 2016 and 2017 (80 FR 39839, and 81 FR 76702). A detailed technical report was posted on the CMS website in December of 2016, additional technical expert panel and clinical workgroup webinars were held after the posting of the technical report, and a National Provider call occurred in January 2017

²⁶ The case-mix group specific LUPA thresholds were determined using episodes that were considered LUPAs under the current payment system.

to further solicit feedback from stakeholders and the general public.^{27 28} As noted above, the CY 2018 HH PPS proposed rule further solicited comments on an alternative case-mix adjustment methodology. Ultimately the proposed alternative case-mix adjustment methodology, including a proposed change in the unit of payment from 60 days to 30 days, was not finalized in the CY 2018 HH PPS final rule in order to allow CMS additional time to consider public comments for potential refinements to the model (82 FR 51676).

On February 1, 2018, CMS convened another TEP, to gather perspectives and identify and prioritize recommendations from industry leaders, clinicians, patient representatives, and researchers with experience with home health care and/or experience in home health agency management regarding the case-mix adjustment methodology refinements described in the CY 2018 HH PPS proposed rule (82 FR 35270), and alternative case-mix models submitted during 2017 as comments to the CY 2018 HH PPS proposed rule. During the TEP, there was a description and solicitation of feedback on the components of the proposed case-mix methodology refinement, such as resource use, 30-day periods, clinical groups, functional levels, comorbidity groups, and other variables used to group periods into respective case-mix groups. Also discussed were the comments received from the CY 2018 HH PPS proposed rule, the creation of case-mix weights, and an open discussion to solicit feedback and recommendations for next steps. This TEP satisfied the requirement set forth in section 51001(b)(1) of the BBA of 2018, which requires that at least one session of such a TEP be held between January 1, 2018 and December 31, 2018. Lastly, section 51001(b)(3) of the BBA of 2018 requires the Secretary to issue a report to the Committee on Ways and Means and Committee on Energy and Commerce of the House of Representatives and the Committee on

Finance of the Senate on the recommendations from the TEP members, no later than April 1, 2019. This report is available on the CMS HHA Center web page at: <https://www.cms.gov/center/provider-Type/home-Health-Agency-HHA-Center.html> and satisfies the requirement of section 51001(b)(3) of the BBA of 2018.

Finally, with respect to comments regarding the availability of data to replicate and model the effects of the PDGM on HHAs, we note that generally the data needed to replicate and model the effects of the proposed PDGM are available by request through the CMS Data Request Center.²⁹ Although claims data for home health are available on a quarterly and annual basis as Limited Data Set (LDS) files and Research Identifiable Files (RIFs); we note that assessment data (OASIS) are not available as LDS files through the CMS Data Request Center. While CMS is able to provide LDS files in a more expedited manner, it may take several months for CMS to provide RIFs. Therefore, we will provide upon request a Home Health Claims-OASIS LDS file to accompany the CY 2019 HH PPS proposed and final rules. We believe that in making a Home Health Claims-OASIS LDS file available upon request in conjunction with the CY 2019 HH PPS proposed and final rules, this would address concerns from stakeholders regarding data access and transparency in annual ratesetting.

The Home Health Claims-OASIS LDS file can be requested by following the instructions on the following CMS website: https://www.cms.gov/Research-Statistics-Data-and-Systems/Files-for-Order/Data-Disclosures/Data-Agreements/DUA_-_NewLDS.html and a file layout will be available. This file will contain information from claims data matched with assessment data for CY 2017, both obtained from the Chronic Conditions Data Warehouse (CCW), and each observation in the file will represent a 30-day period of care with variables created that provide information corresponding to both the 30-day period of care and the 60-day episode of care. The file will also contain variables that show the case-mix group that a particular claim would be grouped into under both the new PDGM case-mix methodology and the current case-mix adjustment methodology as well as variables for all the assessment items used for grouping the claim into its appropriate case-mix group under the PDGM and variables used for calculating resource use. Because this Home Health Claims-OASIS LDS file

includes variables used for calculating resource use, this file will also include publically available data from home health cost reports and the BLS. Some of the cost data in this file is trimmed and imputed before being used as outlined above. We note that much of the content of the Home Health Claims-OASIS LDS file will be derived from CMS data sources. That is, many elements of claims or elements of OASIS will not be copied to the LDS file as is. For example, we will have variables in the data files that will record the aggregated number of visits and minutes of service by discipline type. We will need to create those aggregates from the line item data available on the claims data. Because we will be taking data from different sources (claims, OASIS, and cost reports/BLS), we will match the data across those sources. Information from claims and costs reports will be linked using the CCN. OASIS assessment data will be linked to those sources using information available both on the claim and OASIS. As noted earlier in this section, any episodes that could not be linked with an OASIS assessment were excluded from the analysis file, as they included insufficient patient-level data to re-group such episodes into one of the 216 case-mix groups under the PDGM.

In addition, similar to the CY 2018 HH PPS proposed rule, we will again provide a PDGM Grouper Tool in conjunction with this proposed rule on CMS' HHA Center web page to allow HHAs to replicate the PDGM methodology using their own internal data.³⁰ In addition, in conjunction with this proposed rule, we will post a file on the HHA Center web page that contains estimated Home Health Agency-level impacts as a result of the proposed PDGM.

2. Methodology Used To Calculate the Cost of Care

To construct the case-mix weights for the PDGM proposal, the costs of providing care needed to be determined. A Wage-Weighted Minutes of Care (WWMC) approach is used in the current payment system based on data from the BLS. However, we are proposing to adopt a Cost-per-Minute plus Non-Routine Supplies (CPM + NRS) approach, which uses information from HHA Medicare Cost Reports and Home Health Claims.

- *Home Health Medicare Cost Report Data:* All Medicare-certified HHAs must report their own costs through publicly-

²⁷ Abt Associates. "Overview of the Home Health Groupings Model." *Medicare Home Health Prospective Payment System: Case-Mix Methodology Refinements*. Cambridge, MA, November 18, 2016. Available at <https://downloads.cms.gov/files/hhgm%20technical%20report%20120516%20sxf.pdf>.

²⁸ Centers for Medicare & Medicaid Services (CMS). "Certifying Patients for the Medicare Home Health Benefit." MLN Connects™ National Provider Call. Baltimore, MD, December 16, 2016. Slides, examples, audio recording and transcript available at <https://www.cms.gov/Outreach-and-Education/Outreach/NPC/National-Provider-Calls-and-Events-Items/2017-01-18-Home-Health.html?DLPage=2&DLEntries=10&DLSort=0&DLSortDir=descending>.

²⁹ <https://www.resdac.org/cms-data/request/cms-data-request-center>.

³⁰ <https://www.cms.gov/center/provider-Type/home-Health-Agency-HHA-Center.html>.

available home health cost reports maintained by the Healthcare Cost Report Information System (HCRIS). Freestanding HHAs report using a HHA-specific cost report while HHAs that are hospital-based report using the HHA component of the hospital cost reports. These cost reports enable estimation of the cost per visit by provider and the estimated NRS cost to charge ratios. To obtain a more robust estimate of cost, a trimming process was applied to remove cost reports with missing or questionable data and extreme values.³¹

• *Home Health Claims Data:*

Medicare home health claims data are used in both the previous WWMC approach and in the CPM+NRS method to obtain minutes of care by discipline of care.

Under the proposed PDGM, we group 30-day periods of care into their case-mix groups taking into account admission source, timing, clinical group, functional level, and comorbidity adjustment. From there, the average resource use for each case-mix group dictates the group's case-mix weight. We propose that resource use be estimated with the cost of visits recorded on the home health claim plus the cost of NRS recorded on the claims. The cost of NRS is generated by taking NRS charges on claims and converting them to costs using a NRS cost to charge ratio that is specific to each HHA. NRS costs are then added to the resource use estimates. That overall resource use estimate is then used to establish the case-mix weights. Similar to the current system, NRS would still be paid prospectively under the PDGM, but the PDGM eliminates the separate case-mix adjustment model for NRS.

Under the proposed alternative case-mix methodology discussed in the CY 2018 HH PPS proposed rule, we proposed to calculate resource use using the CPM+NRS approach (82 FR 35270). In response to the CY 2018 HH PPS proposed rule, several commenters expressed support for the proposed change to the CPM+NRS methodology used to measure resource use, noting that such an approach incorporates a wider variety of costs (such as transportation) compared to the current WWMC approach. Alternatively, other commenters responding to last year's proposed rule objected to using

Medicare cost report data rather than Wage-Weighted Minutes of Care (WWMC) to calculate resource use. The commenters indicated that the strength and utility of period-specific cost depends on the accuracy and consistency of agencies' reported charges, cost-to-charge ratios, and period minutes and indicated that they believe there are no incentives for ensuring the accuracy of HHA cost reports, which they believe may result in erroneous data. Several commenters also indicated that the use of cost report data in lieu of WWMC favors facility-based agencies because they believe that facility-based agencies have the ability to allocate indirect overhead costs from their parent facilities to their service cost and argued that the proposed alternative case-mix methodology would reward inefficient HHAs with historically high costs. A few commenters stated that Non-Routine Supplies (NRS) should not be incorporated into the base rate and then wage-index adjusted (as would be the case if CMS were to use the CPM+NRS approach to estimate resource use). The commenters stated that HHAs' supply costs are approximately the same nationally, regardless of rural or urban locations and regardless of the wage-index, and including NRS in the base rate will penalize rural providers and unnecessarily overpay for NRS in high wage-index areas. We note that in accordance with the requirement of section 51001 of the BBA of 2018, a Technical Expert Panel (TEP) convened in February 2018 to solicit feedback and identify and prioritize recommendations from a wide variety of industry experts and patient representatives regarding the public comments received on the proposed alternative case-mix adjustment methodology. We received similar comments on the approach to calculating resource use using the CPM+NRS approach, versus the WWMC approach, both in response to the CY 2018 HH PPS proposed rule and those provided by the TEP participants.

We believe that using HHA Medicare cost report data, through the CPM+NRS approach, to calculate the costs of providing care better reflects changes in utilization, provider payments, and supply amongst Medicare-certified HHAs. Using the BLS average hourly wage rates for the entire home health care service industry does not reflect changes in Medicare home health utilization that impact costs, such as the allocation of overhead costs when Medicare home health visit patterns change. Utilizing data from HHA Medicare cost reports better represents

the total costs incurred during a 30-day period (including, but not limited to, direct patient care contract labor, overhead, and transportation costs), while the WWMC method provides an estimate of only the labor costs (wage and fringe benefit costs) related to direct patient care from patient visits that are incurred during a 30-day period. With regards to accuracy, we note that each HHA Medicare cost report is required to be certified by the Officer or Director of the home health agency as being true, correct, and complete with potential penalties should any information in the cost report be a misrepresentation or falsification of information.

As noted above, and in the CY 2018 HH PPS proposed rule, we applied the trimming methodology described in detail in the "Analyses in Support of Rebasing & Updating Medicare Home Health Payment Rates" Report. This is also the trimming methodology outlined in the CY 2014 HH PPS proposed rule (78 FR 40284) in determining the rebased national, standardized 60-day episode payment amount. For each discipline and for NRS used in calculating resource use using the CPM+NRS approach, we also followed the methodology laid out in the "Rebasing Report" by trimming out values that fall in the top or bottom 1 percent of the distribution across all HHAs. This included the cost per visit values for each discipline and NRS cost-to-charge ratios that fall in the top or bottom 1 percent of the distribution across all HHAs. Normalizing data by trimming out missing or extreme values is a widely accepted methodology both within CMS and amongst the health research community and provides a more robust measure of average costs per visit that is reliable for the purposes of establishing base payment amounts and case-mix weights under the HH PPS. Using HHA Medicare cost report data to establish the case-mix weight aligns with the use of this data in determining the national, standardized 60-day episode payment amount under the HH PPS.

In response to commenters' concerns regarding the allocation of overhead costs by facility-based HHAs, we note that a single HHA's costs impact only a portion of the calculation of the weights and costs are blended together across all HHAs. The payment regression was estimated using 8,624,776 30-day periods from 10,480 providers. On average, each provider contributed 823 30-day periods to the payment regression, which is only 0.010 percent of all 30-day periods. Therefore, including or excluding any single HHA, on average, would not dramatically

³¹ The trimming methodology is described in the report "Analyses in Support of Rebasing & Updating Medicare Home Health Payment Rates" (Morefield, Christian, and Goldberg 2013). See <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/Downloads/Analyses-in-Support-of-Rebasing-and-Updating-the-Medicare-Home-Health-Payment-Rates-Technical-Report.pdf>.

impact the results of the payment regression. Further, facility-based HHAs are only 8 percent of HHAs whereas 92 percent of HHAs are freestanding, and coincidentally the percentage of 30-day periods furnished by facility-based versus freestanding HHAs is also 8 and 92 percent, respectively. Additionally, in the PDGM, we estimate the payment regression using provider-level fixed effects; therefore we are looking at the within provider variation in resource use.

In the CY 2008 HH PPS final rule, CMS noted that use of non-routine medical supplies is unevenly distributed across episodes of care in home health. In addition, the majority of episodes do not incur any NRS costs and, at that time, the current payment system overcompensated for episodes with no NRS costs. In the CY 2008 HH PPS proposed rule, we stated that patients with certain conditions, many of them related to skin conditions, were more likely to require high non-routine medical supply utilization (72 FR 49850), and that we would continue to look for ways to improve our approach to account for NRS costs and payments in the future (72 FR 25428). We believe that the proposed PDGM offers an alternative method for accounting for NRS costs and payments by grouping patients more likely to require high NRS utilization. For example, while the Wound group and Complex Nursing Interventions groups comprise about 9 percent and 4 percent of all 30-day periods of care, respectively; roughly 27 percent of periods where NRS was supplied were assigned to the Wound and Complex Nursing Interventions groups and 44 percent of NRS costs fall into the Wound and Complex Nursing groups. We note that CY 2017 claims data indicates that about 60 percent of 60-day episodes did not provide any NRS.

In using the CPM + NRS approach to calculate the cost of providing care (resource use), NRS costs are reflected in the average resource use that drives

the case-mix weights. If there is a high amount of NRS cost for all periods in a particular group (holding all else equal), the resource use for those periods will be higher relative to the overall average and the case-mix weight will correspondingly be higher. Similar to the current system, NRS would still be paid prospectively under the PDGM, but the PDGM eliminates the separate case-mix adjustment model for NRS. Incorporating the NRS cost into the measure of overall resource use (that is, the dependent variable of the payment model) requires adjusting the NRS charges submitted on claims based on the NRS cost-to-charge ratio from cost report data.

The following steps would be used to generate the measure of resource use under this CPM + NRS approach:

- (1) From the cost reports, obtain total costs for each of the six home health disciplines for each HHA.
- (2) From the cost reports, obtain the number of visits by each of the six home health disciplines for each HHA.
- (3) Calculate discipline-specific cost per visit values by dividing total costs [1] by number of visits [2] for each discipline for each HHA. For HHAs that did not have a cost report available (or a cost report that was trimmed from the sample), imputed values were used as follows:

- A state-level mean was used if the HHA was not hospital-based. The state-level mean was computed using all non-hospital based HHAs in each state.
- An urban nationwide mean was used for all hospital-based HHAs located in a Core-based Statistical Area (CBSA). The urban nation-wide mean was computed using all hospital-based HHAs located in any CBSA.
- A rural nationwide mean was used for all hospital-based HHAs not in a CBSA. The rural nation-wide mean was computed using all hospital-based HHAs not in a CBSA.

(4) From the home health claims data, obtain the average number of minutes of care provided by each discipline across all episodes for a HHA.

(5) From the home health claims data, obtain the average number of visits provided by each discipline across all episodes for each HHA.

(6) Calculate a ratio of average visits to average minutes by discipline by dividing average visits provided [5] by average minutes of care [4] by discipline for each HHA.

(7) Calculate costs per minute by multiplying the HHA's cost per visit [3] by the ratio of average visits to average minutes [6] by discipline for each HHA.

(8) Obtain 30-day period costs by multiplying costs per minute [7] by the total number of minutes of care provided during a 30-day period by discipline. Then, sum these costs across the disciplines for each period.

This approach accounts for variation in the length of a visit by discipline. NRS costs are added to the resource use calculated in [8] in the following way:

(9) From the cost reports, determine the NRS cost-to-charge ratio for each HHA. The NRS ratio is trimmed if the value falls in the top or bottom 1 percent of the distribution across all HHAs from the trimmed sample. Imputation for missing or trimmed values is done in the same manner as it was done for cost per visit (see [3] above).

(10) From the home health claims data, obtain NRS charges for each period.

(11) Obtain NRS costs for each period by multiplying charges from the home health claims data [10] by the cost-to-charge ratio from the cost reports [9] for each HHA.

Resource use is then obtained by:

(12) Summing costs from [8] with NRS costs from [11] for each 30-day period.

Table 31 shows these costs for 30-day periods in CY 2017 (n = 8,624,776). On average, total 30-day period costs as measured by resource use are \$1,570.68. The distribution ranges from a 5th percentile value of \$296.66 to a 95th percentile value of \$3,839.91.

TABLE 31—DISTRIBUTION OF AVERAGE RESOURCE USE USING CPM + NRS APPROACH
[30 Day periods]

Statistics	Mean	N	5th Percentile	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile	95th Percentile
Average Resource Use (CPM + NRS)	\$1,570.68	8,624,776	\$296.66	\$394.31	\$679.12	\$1,272.18	\$2,117.47	\$3,107.93	\$3,839.91

The distributions and magnitude of the estimates of costs for the CPM + NRS method versus the WWMC method are very different. The differences arise because the CPM + NRS method

incorporates HHA-specific costs that represent the total costs incurred during a 30-day period (including overhead costs), while the WWMC method provides an estimate of only the labor

costs (wage + fringe) related to direct patient care from patient visits that are incurred during a 30-day period. Those costs are not HHA-specific and do not account for any non-labor costs (such as

transportation costs) or the non-direct patient care labor costs (such as, administration and general labor costs). Because the costs estimated using the two approaches are measuring different items, they cannot be directly compared. However, if the total cost of a 30-day period is correlated with the labor that is provided during visits, the two approaches should be highly correlated. The correlation coefficient

(estimated by comparing a 30-day period's CPM + NRS resource use to the same period's WWMC resource use) between the two approaches to calculating resource use is equal to 0.8512 (n = 8,624,776). Therefore, the relationship in relative costs is similar between the two methods.

Using cost report data to develop case-mix weights more evenly weights skilled nursing services and therapy

services than the BLS data. Table 32 shows the ratios between the estimated costs per hour for each of the home health disciplines compared with skilled nursing resulting from the CPM + NRS versus WWMC methods. Under the CPM + NRS methodology, the ratio for physical therapy costs per hour to skilled nursing is 1.14 compared with 1.36 using the WWMC method.

TABLE 32—RELATIVE VALUES IN COSTS PER HOUR BY DISCIPLINE
[Skilled nursing is base]

Estimated cost per hour	Skilled nursing	Physical therapy	Occupational therapy	Speech therapy	Medical social service	Home health aide
CPM + NRS	1.00	1.14	1.15	1.25	1.39	0.40
WWMC	1.00	1.36	1.38	1.56	0.94	0.35

In response to the CY 2018 HH PPS proposed rule (82 FR 35270), a few commenters, stated that based on their operational experiences with clinical staffing labor costs, HHA cost report data suggests more parity exists between skilled nursing (“SN”) versus physical therapist (“PT”) costs than in fact exists. Commenters stated that BLS data showing a 40 percent difference between SN and PT costs are more reflective of the human resources experiences in the markets where they operate. As such, commenters believe the use of cost report data would cause the proposed alternative case-mix methodology to overpay for nursing services and underpay for therapy services, although it was not clear from the comments why the relative relationship in cost between disciplines would necessarily mean that nursing would be overpaid or underpaid relative to therapy.

We note that the HHA Medicare cost report data reflects all labor costs, including contract labor costs. The BLS data only reflects employed staff. This may partially explain why a 40 percent variation between SN and PT costs is not evident in the cost report data. However, the comparison is somewhat inappropriate because the BLS data only reflects labor costs whereas the HHA Medicare cost report data includes labor and non-labor costs. As noted earlier in Table 32, there is only a 14 percent variation using the CPM + NRS methodology. Moreover, in aggregate, about 15 percent of compensation costs are contract labor costs and this varies among the disciplines with contract labor costs accounting for a much higher proportion of therapy visit costs compared to skilled nursing visit costs. Utilization also varies among freestanding providers with smaller

providers having a higher proportion of contract labor costs, particularly for therapy services compared to larger providers. The decision of whether to/ or what proportion of contract labor to use is at the provider’s discretion. Finally, we note that in order to be eligible for Medicare HH PPS payments, providers must complete the HHA Medicare cost report and certify the report by the Officer or Director of the home health agency as being true, correct, and complete; therefore, such data can and should be used to calculate the cost of care.

We have determined that using cost report data to calculate the cost of home health care better aligns the case-mix weights with the total relative cost for treating various patients. In addition, using cost report data allows us to incorporate NRS into the case-mix system, rather than maintaining a separate payment system. Therefore, we are re-proposing to calculate the cost of a 30-day period of home health care under the proposed PDGM using the cost per minute plus non-routine supplies (CPM + NRS) approach outlined above, as also outlined in the CY 2018 proposed rule. We invite comments on the proposed methodology for calculating the cost of a 30-day period of care under the PDGM.

3. Change From a 60-Day to a 30-Day Unit of Payment

a. Background

Currently, HHAs are paid for each 60-day episode of home health care provided. In the CY 2018 HH PPS proposed rule, CMS proposed a change from making payment based on 60-day episodes to making payment based on 30-day periods, effective for January 1,

2019. Examination of the resources used within a 60-day episode of care identified differences in resources used between the first 30-day period within a 60-day episode and the second 30-day period within a 60-day episode. Episodes have more visits, on average, during the first 30 days compared to the last 30 days and costs are much higher earlier in the episode and lesser later on; therefore, dividing a single 60-day episode into two 30-day periods more accurately apportioned payments. In addition, with the proposed removal of therapy thresholds from the case-mix adjustment methodology under the HH PPS, a shorter period of care reduced the variation and improved the accuracy of the case-mix weights generated under the PDGM. CMS did not finalize the implementation of a 30-day unit of payment in the CY 2018 HH PPS final rule (82 FR 51676).

Section 1895(b)(2)(B) of the Act, as added by section 51001(a)(1) of the BBA of 2018, requires the Secretary to apply a 30-day unit of service for purposes of implementing the HH PPS, effective January 1, 2020. We note that we interpret the term “unit of service” to be synonymous with “unit of payment” and will henceforth refer to “unit of payment” in this proposed rule with regards to payment under the HH PPS. We propose to make HH payments based on a 30-day unit of payment effective January 1, 2020. While we are proposing to change to a 30-day unit of payment, we note that the comprehensive assessment would still be completed within 5 days of the start of care date and completed no less frequently than during the last 5 days of every 60 days beginning with the start of care date, as currently required by § 484.55, Condition of participation: Comprehensive assessment of patients.

In addition, the plan of care would still be reviewed and revised by the HHA and the physician responsible for the home health plan of care no less frequently than once every 60 days, beginning with the start of care date, as currently required by § 484.60(c), Condition of participation: Care planning, coordination of services, and quality of care.

b. 30-Day Unit of Payment

Under section 1895(b)(3)(A)(iv) of the Act, we are required to calculate a 30-day payment amount for CY 2020 in a budget neutral manner such that estimated aggregate expenditures under the HH PPS during CY 2020 are equal to the estimated aggregate expenditures that otherwise would have been made under the HH PPS during CY 2020 in the absence of the change to a 30-day unit of payment. Furthermore, as also required by section 1895(b)(3)(A)(iv) of the Act, to calculate a 30-day payment amount in a budget-neutral manner, we are required to make assumptions about behavior changes that could occur as a result of the implementation of the 30-day unit of payment. In addition, in calculating a 30-day payment amount in a budget-neutral manner, we must take into account behavior changes that could occur as a result of the case-mix adjustment factors that are implemented in CY 2020. We are also required to calculate a budget-neutral 30-day payment amount before the provisions of section 1895(b)(3)(B) of the Act are applied, that is, the home health applicable percentage increase, the adjustment for case-mix changes, the adjustment if quality data is not reported, and the productivity adjustment.

In calculating the budget-neutral 30-day payment amount, we propose to make three assumptions about behavior change that could occur in CY 2020 as a result of the implementation of the 30-day unit of payment and the implementation of the PDGM case-mix adjustment methodology outlined in this proposed rule:

- **Clinical Group Coding:** A key component of determining payment under the PDGM is the 30-day period's clinical group assignment, which is based on the principal diagnosis code for the patient as reported by the HHA on the home health claim. Therefore, we assume that HHAs will change their documentation and coding practices and would put the highest paying diagnosis code as the principal diagnosis code in order to have a 30-day period be placed into a higher-paying clinical group. While we do not support or condone coding practices or the

provision of services solely to maximize payment, we often take into account expected behavioral effects of policy changes related to the implementation of the proposed rule.

- **Comorbidity Coding:** The PDGM further adjusts payments based on patients' secondary diagnoses as reported by the HHA on the home health claim. While the OASIS only allows HHAs to designate 1 primary diagnosis and 5 secondary diagnoses, the home health claim allows HHAs to designate 1 principal diagnosis and 24 secondary diagnoses. Therefore, we assume that by taking into account additional ICD-10-CM diagnosis codes listed on the home health claim (beyond the 6 allowed on the OASIS), more 30-day periods of care will receive a comorbidity adjustment than periods otherwise would have received if we only used the OASIS diagnosis codes for payment. The comorbidity adjustment in the PDGM can increase payment by up to 20 percent.

- **LUPA Threshold:** Rather than being paid the per-visit amounts for a 30-day period of care subject to the low-utilization payment adjustment (LUPA) under the proposed PDGM, we assume that for one-third of LUPAs that are 1 to 2 visits away from the LUPA threshold HHAs will provide 1 to 2 extra visits to receive a full 30-day payment.³² LUPAs are paid when there are a low number of visits furnished in a 30-day period of care. Under the PDGM, the LUPA threshold ranges from 2–6 visits depending on the case-mix group assignment for a particular period of care (see section F.9 of this proposed rule for the LUPA thresholds that correspond to the 216 case-mix groups under the PDGM).

Table 33 includes estimates of what the 30-day payment amount would be for CY 2019 (using CY 2017 home health utilization data) in order to achieve budget neutrality both with and without behavioral assumptions and including the application of the proposed home health payment update percentage of 2.1 percent outlined in section C.2 of this proposed rule. We note that these are only estimates to illustrate the 30-day payment amount if we had proposed to implement the 30-day unit of payment and the proposed PDGM for CY 2019. However, because we are proposing to implement the 30-day unit of payment and proposed

³² Current data suggest that what would be about 1/3 of the LUPA episodes with visits near the LUPA threshold move up to become non-LUPA episodes. We assume this experience will continue under the PDGM, with about 1/3 of those episodes 1 or 2 visits below the thresholds moving up to become non-LUPA episodes.

PDGM for CY 2020, we would propose the actual 30-day payment amount in the CY 2020 HH PPS proposed rule calculated using CY 2018 home health utilization data, and we would calculate this amount before application of the proposed home health update percentage required for CY 2020 (as required by section 1895(b)(3)(iv) of the Act). In order to calculate the budget neutral 30-day payment amounts in this proposed rule, both with and without behavioral assumptions, we first calculated the total, aggregate amount of expenditures that would occur under the current case-mix adjustment methodology (as described in section III.B. of this rule) and the 60-day episode unit of payment using the proposed CY 2019 payment parameters (e.g., proposed 2019 payment rates, proposed 2019 case-mix weights, and outlier fixed-dollar loss ratio). That resulted in a total aggregate expenditures target amount of \$16.1 billion.³³ We then calculated what the 30-day payment amount would need to be set at in CY 2019, with and without behavior assumptions, while taking into account needed changes to the outlier fixed-dollar loss ratio under the PDGM in order to pay out no more than 2.5 percent of total HH PPS payments as outlier payments (refer to section III.F.12 of this proposed rule) and in order for Medicare to pay out \$16.1 billion in total expenditures in CY 2019 with the application of a 30-day unit of payment under the PDGM.

³³ The initial 2017 analytic file included 6,771,059 60-day episodes (\$18.2 billion in total expenditures). Of these, 959,410 (14.2 percent) were excluded because they could not be linked to OASIS assessments or because of the claims data cleaning process reasons listed in section III.F.1 of this proposed rule. We note that of the 959,410 claims excluded, 620,336 were excluded because they were RAPs without a final claim or they were claims with zero payment amounts, resulting in \$17.4 billion in total expenditures. After removing all 959,410 excluded claims, the 2017 analytic file consisted of 5,811,649 60-day episodes (\$16.4 billion in total expenditures). 60-day episodes of duration longer than 30 days were divided into two 30-day periods in order to calculate the 30-day payment amounts. As noted in section III.F.1 of this proposed rule, there were instances where 30-day periods were excluded from the 2017 analytic file (for example, we could not match the period to a start of care or resumption of care OASIS to determine the functional level under the PDGM, the 30-day period did not have any skilled visits, or because information necessary to calculate payment was missing from claim record). The final 2017 analytic file used to calculate budget neutrality consisted of 9,285,210 30-day periods (\$16.1 billion in total expenditures) drawn from 5,456,216 60-day episodes.

TABLE 33—ESTIMATES OF 30-DAY BUDGET-NEUTRAL PAYMENT AMOUNTS

Behavioral assumption	30-day budget neutral (BN) standard amount	Percent change from no behavioral assumptions
No Behavioral Assumptions	\$1,873.91	.....
LUPA Threshold (1/3 of LUPAs 1–2 visits away from threshold get extra visits and become case-mix adjusted)	1,841.05	– 1.75
Clinical Group Coding (among available diagnoses, one leading to highest payment clinical grouping classification designated as principal)	1,793.69	– 4.28
Comorbidity Coding (assigns comorbidity level based on comorbidities appearing on HHA claims and not just OASIS)	1,866.76	– 0.38
Clinical Group Coding + Comorbidity Coding	1,786.54	– 4.66
Clinical Group Coding + Comorbidity Coding + LUPA Threshold	1,753.68	– 6.42

If no behavioral assumptions were made, we estimate that the 30-day payment amount needed to achieve budget neutrality would be \$1,873.91. The clinical group and comorbidity coding assumptions would result in the need to decrease the budget-neutral 30-day payment amount to \$1,786.54 (a 4.66 percent decrease from \$1,873.91). Adding the LUPA assumption would require us to further decrease that amount to \$1,753.68 (a 6.42 percent decrease from \$1,873.91).

We note that we are also required under section 1895(b)(3)(D)(i) of the Act, as added by section 51001(a)(2)(B) of the BBA of 2018, to analyze data for CYs 2020 through 2026, after implementation of the 30-day unit of payment and new case-mix adjustment methodology, to annually determine the impact of differences between assumed behavior changes and actual behavior changes on estimated aggregate expenditures. We interpret actual behavior change to encompass both behavior changes that were outlined above, as assumed by CMS when determining the budget-neutral 30-day payment amount for CY 2020, and other behavior changes not identified at the time the 30-day payment amount for CY 2020 is determined. The data from CYs 2020 through 2026 will be available to determine whether a prospective adjustment (increase or decrease) is needed no earlier than in years 2022 through 2028 rulemaking. As noted previously, under section 1895(b)(3)(D)(ii) of the Act, we are required to provide one or more permanent adjustments to the 30-day payment amount on a prospective basis, if needed, to offset increases or decreases in estimated aggregate expenditures as calculated under section 1895(b)(3)(D)(i) of the Act. Clause (iii) of section 1895(b)(3)(D) of the Act requires the Secretary to make temporary adjustments to the 30-day payment amount, on a prospective basis, in order to offset increases or decreases in estimated aggregate

expenditures, as determined under clause (i) of such section. The temporary adjustments allow us to recover excess spending or give back the difference between actual and estimated spending (if actual is less than estimated) not addressed by permanent adjustments. For instance, if expenditures are estimated to be \$18 billion in CY 2020, but expenditures are actually \$18.25 billion in CY 2020, then we can reduce payments (temporarily) in the future to recover the \$250 million.

As noted above, section 1895(b)(3)(A)(iv) of the Act requires the Secretary to calculate a budget-neutral 30-day payment amount to be paid for home health units of service that are furnished and end during the 12-month period beginning January 1, 2020. For implementation purposes, we propose that the 30-day payment amount would be paid for home health services that start on or after January 1, 2020. More specifically, for 60-day episodes that begin on or before December 31, 2019 and end on or after January 1, 2020 (episodes that would span the January 1, 2020 implementation date), payment made under the Medicare HH PPS would be the CY 2020 national, standardized 60-day episode payment amount. For home health units of service that begin on or after January 1, 2020, the unit of service would now be a 30-day period and payment made under the Medicare HH PPS would be the CY 2020 national, standardized prospective 30-day payment amount. For home health units of service that begin on or after December 2, 2020 through December 31, 2020 and end on or after January 1, 2021, the HHA would be paid the CY 2021 national, standardized prospective 30-day payment amount.

We are soliciting comments on our proposals, including the proposed behavior change assumptions outlined above to be used in determining the 30-day payment amount for CY 2020 and the corresponding regulation text

changes outlined in section III.F.13 and IX. of this proposed rule.

c. Split Percentage Payment Approach for a 30-Day Unit of Payment

In the current HH PPS, there is a split percentage payment approach to the 60-day episode. The first bill, a Request for Anticipated Payment (RAP), is submitted at the beginning of the initial episode for 60 percent of the anticipated final claim payment amount. The second, final bill is submitted at the end of the 60-day episode for the remaining 40 percent. For all subsequent episodes for beneficiaries who receive continuous home health care, the episodes are paid at a 50/50 percentage payment split.

In the CY 2018 HH PPS proposed rule (82 FR 35270), we solicited comments as to whether the split payment approach would still be needed for HHAs to maintain adequate cash flow if the unit of payment changes from 60-day episodes to 30-day periods of care. In addition, we solicited comments on ways to phase-out the split percentage payment approach in the future. Specifically, we solicited comments on reducing the percentage of the upfront payment over a period of time and if in the future the split percentage approach was eliminated, we solicited comments on the need for HHAs to submit a notice of admission (NOA) within 5 days of the start of care to assure being established as the primary HHA for the beneficiary and so that the claims processing system is alerted that a beneficiary is under a HH period of care to enforce the consolidating billing edits as required by law. Commenters generally expressed support for continuing the split percentage payment approach in the future under the proposed alternative case-mix model. While we solicited comments on the possibility of phasing-out the split percentage payment approach in the future and the need for a NOA, commenters did not provide suggestions for a phase-out approach, but stated that they did not agree with requiring a NOA given the

experience with such a process under the Medicare hospice benefit.

While CMS did not finalize the implementation of a 30-day unit of payment in the CY 2018 HH PPS final rule (82 FR 51676), the BBA of 2018 now requires a change to the unit of payment from a 60-day episode to a 30-day period of care, as outlined in section F.3.b above, effective January 1, 2020. We continue to believe that as a result of the reduced timeframe for the unit of payment, that a split percentage approach to payment may not be needed for HHAs to maintain adequate cash flow. Currently, about 5 percent of requests for anticipated payment are not submitted until the end of a 60-day episode of care and the median length of days for RAP submission is 12 days from the start of the 60-day episode. As such, we are reevaluating the necessity of RAPs for existing and newly-certified HHAs versus the risks they pose to the Medicare program.

RAP payments can result in program integrity vulnerabilities. For example, a final claim was never submitted for \$321 million worth of RAP payments between July 1, 2015 and July 31, 2016. While CMS typically can recoup RAP overpayments from providers that continue to submit final claims to the Medicare program, some fraud schemes have involved collecting these RAP payments, never submitting final claims, and closing the HHA before Medicare can take action. Below are two examples of HHAs that were identified for billing large amounts of RAPs with no final claim:

- Provider 1 is a Home Health Agency located in Michigan. It was identified for submitting home health claims for beneficiaries located in California and Florida. Further analysis found that the HHA was submitting RAPs with no final claims. CMS discovered that the address on record for the HHA was vacant for an extended period of time. In addition, CMS determined that although Provider 1 had continued billing and receiving payments for RAP claims, it had not submitted a final claim in 10 months. Ultimately, the HHA submitted a total of \$50,234,430.36 in RAP payments and received \$37,204,558.80 in RAP payments. In addition to the large amount of money paid to the HHA, Medicare beneficiaries were also impacted by the HHA's billing behavior. For example, a Florida beneficiary who needed home health services was unable to receive the care required due to the RAP submission by this Provider.

- Provider 2 is a Home Health Agency that is also located in Michigan that submitted a significant number of RAPs with no final claim. While the majority

of these beneficiaries were located in Michigan, data analysis identified beneficiaries who were not likely homebound or qualified for home health services. CMS discovered that the address on record for the HHA was vacant. Provider 2 had not submitted any final claims in more than one year and was no longer billing the Medicare program. However, the HHA was paid a total of \$5,765,261.04 in RAP payments that had no final claim.

Given the program integrity concerns outlined above and the reduced timeframe for the unit of payment (30-days rather than 60-days), we are proposing not to allow newly-enrolled HHAs, that is HHAs certified for participation in Medicare effective on or after January 1, 2019, to receive RAP payments beginning in CY 2020. This would allow newly-enrolled HHAs to structure their operations without becoming dependent on a partial, advanced payment and take advantage of receiving full payments for every 30-day period of care. We are proposing that HHAs, that are certified for participation in Medicare effective on or after January 1, 2019, would still be required to submit a "no pay" RAP at the beginning of care in order to establish the home health episode, as well as every 30-days thereafter. RAP submissions are currently operationally significant as the RAP establishes the HHA as the primary HHA for the beneficiary during that timeframe and alerts the claims processing system that a beneficiary is under the care of an HHA to enforce the consolidating billing edits required by law under section 1842(b)(6)(F) of the Act. Without such notification, there would be an increase in denials of claims subject to the home health consolidated billing edits that are prevented when an episode/period is established in the common working file (CWF) by the RAP, potentially resulting in increases in appeals, and increases in situations where other providers, including other HHAs, would not have easy information on whether a patient was already being served by an HHA. CMS invites comments on whether the burden of submitting a "no-pay" RAP by newly-enrolled HHAs outweighs the risks to the Medicare program and providers associated with not submitting them.

We propose that existing HHAs, that is HHAs certified for participation in Medicare with effective dates prior to January 1, 2019, would continue to receive RAP payments upon implementation of the 30-day unit of payment and the proposed PDGM case-mix adjustment methodology in CY 2020. However, we are again soliciting

comments on ways to phase-out the split percentage payment approach in the future given that CMS is required to implement a 30-day unit of payment beginning on January 1, 2020 as outlined above. Specifically, we are soliciting comments on reducing the percentage of the upfront payment incrementally over a period of time. If in the future the split percentage approach was eliminated, we are also soliciting comments on the need for HHAs to submit a NOA within 5 days of the start of care to assure being established as the primary HHA for the beneficiary during that timeframe and so that the claims processing system is alerted that a beneficiary is under a HH period of care to enforce the consolidating billing edits as required by law. As outlined above, there are significant drawbacks to both Medicare and providers of not establishing a NOA process upon elimination of RAPs.

In summary, we invite comments on the change in the unit of payment from a 60-day episode of care to a 30-day period of care; the proposed calculation of the 30-day payment amount in a budget-neutral manner and behavior change assumptions for CY 2020; the proposed interpretation of the statutory language regarding actual behavior change; the proposal not to allow newly-enrolled HHAs (HHAs certified for participation in Medicare effective on or after January 1, 2019) to receive RAP payments upon implementation of the 30-day unit of payment in CY 2020, yet still require the submission of a "no pay" RAP at the beginning of care; the proposal to maintain the split percentage payment approach for existing HHAs and applying such policy to 30-day periods of care; and the associated regulations text changes outlined in section III.F.13 and IX of this proposed rule. We are also soliciting comments on ways the split percentage payment approach could be phased-out and whether to implement a NOA process if the split percentage payment approach is eliminated in the future.

4. Timing Categories

In the CY 2018 HH PPS proposed rule, we described analysis showing the impact of timing on home health resource use and proposed to classify the 30-day periods under the proposed alternative case-mix adjustment methodology as "early" or "late" depending on when they occur within a sequence of 30-day periods (82 FR 35307). Under the current HH PPS, the first two 60-day episodes of a sequence of adjacent 60-day episodes are considered early, while the third 60-day

episode of that sequence and any subsequent episodes are considered late. Under the alternative case-mix adjustment methodology, we proposed that the first 30-day period would be classified as early and all subsequent 30-day periods in the sequence (second or later) would be classified as late. Similar to the current payment system, we proposed that a 30-day period could not be considered early unless there was a gap of more than 60 days between the end of one period and the start of another, or it was the first period in a sequence of periods in which there was no more than 60 days between the end of that period and the start of the next period.

In response to the CY 2018 HH PPS proposed rule, several commenters were supportive of the inclusion of the timing category in the alternative case-mix adjustment methodology, stating that this differentiation would reflect that HHA costs are typically highest during the first 30 days of care. However, other commenters expressed concerns regarding timing, stating that HHAs may modify the ways in which they provide

care, that the change would cause a decrease in overall payment to HHAs and an increase in hospital readmissions, and that the categories would not account for increased costs in the later periods of care. Several commenters described concerns regarding the potential for problematic provider behavior due to financial incentives as well as the potential for problems with operational aspects of the timing element of the alternative case-mix adjustment methodology. Additionally, some commenters suggested that we modify the definition of an “early” 30-day period to either the first two 30-day periods or the first four 30-days of care, stating that those definitions would more closely mirror the current payment system’s definition of “early” and that HHAs would otherwise experience a payment decrease when compared to the current 60-day episode payment amount.

As described in detail in the CY 2018 HH PPS proposed rule, our proposal regarding the timing element of the alternative case-mix adjustment methodology was intended to refine and

to better fit costs incurred by agencies for patients with differing characteristics and needs under the HH PPS (82 FR 35270). Analysis of home health data demonstrates that under the current payment system, when analyzed by 30-day periods, HHAs provide more resources in the first 30-day period of home health (“early”) than in later periods of care. The differences in the average resource use during early and late home health episodes when divided into 30-day periods are presented in Table 34, and shows the first 30-day periods in a home health sequence have significantly higher average resource use at \$2,113.66 as compared with subsequent 30-day periods. Specifically, the later 30-day periods showed an average resource use of \$1,311.73, a difference of more than \$800 or a 38 percent decrease. Table 34 also shows a significant difference between the early and late median values of resource use. The median for the first 30-day period is \$1,866.79, while the median for subsequent 30-day periods is \$987.94, a difference of more than \$878 or an approximately 47 percent decrease.

TABLE 34—AVERAGE RESOURCE USE BY TIMING
[30-Day periods]

Timing	Average resource use	Frequency of periods	Percent of periods	Standard deviation of resource use	25th percentile of resource use	Median resource use	75th percentile of resource use
Early 30-Day Periods	\$2,113.66	2,785,039	32.3	\$1,236.30	\$1,232.23	\$1,866.79	\$2,707.04
Late 30-Day Periods	1,311.73	5,839,737	67.7	1,125.44	534.82	987.94	1,735.69
Total	1,570.68	8,624,776	100.0	1,221.38	679.12	1,272.18	2,117.47

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 (as of March 2, 2018).

There is significant difference in the resource utilization between early and late 30-day periods as demonstrated in Table 34. Moreover, the predictive power of the proposed PDGM in terms of estimating resource utilization improved when separating episodes into 30-day periods rather than 60-day periods (that is, the first and second 30-day periods). We believe that a PDGM that accounts for the demonstrated increase in resource utilization in the first 30-day period better captures the variations in resource utilization and further promotes the goal of payment accuracy within the HH PPS.

Moreover, we note that the resource cost estimates are derived from a very large, representative dataset. Therefore, we expect that the proposal reflects agencies’ average costs for all home health service delivered in the period examined. We have constructed the revised case-mix adjustment model based upon the actual resources expended by home health agencies for

Medicare beneficiaries, which show that typically HHAs provide more visits during the first 30 days of care and utilize less resources thereafter. We reiterate that the timing categories are reflective of the utilization patterns observed in the data analyzed for the purposes of constructing the PDGM. The weights of the two timing categories are driven by the mix of services provided, the costs of services provided as determined by cost report data, the length of the visits, and the number of visits provided. The categorization of 30-day periods as “early” and “late” serves to better align payments with already existing resource use patterns. This alignment of payment with resource use is not to be interpreted as placing a value judgment on particular care patterns or patient populations. Our goal in developing the PDGM is to provide an appropriate payment based on the identified resource use of different patient groups, not to

encourage, discourage, value, or devalue one type of skilled care over another.

For the reasons described above, we are proposing to classify the 30-day periods under the proposed PDGM as “early” or “late” depending on when they occur within a sequence of 30-day periods. For the purposes of defining “early” and “late” periods for the proposed PDGM, we are proposing that only the first 30-day period in a sequence of periods be defined as “early” and all other subsequent 30-day periods would be considered “late”. Additionally, we are proposing that the definition of a “home health sequence” (as currently described in § 484.230) will remain unchanged relative to the current system, that is, 30-day periods are considered to be in the same sequence as long as no more than 60 days pass between the end of one period and the start of the next, which is consistent with the definition of a “home health spell of illness” described at section 1861(tt)(2) of the Act. We note

that because section 1861(tt)(2) of the Act is a definition related to eligibility for home health services as described at section 1812(a)(3) of the Act, it does not affect or restrict our ability to implement a 30-day unit of payment.

At this time, the data do not support the notion that the first two 30-day periods should be defined as early, as only the first 30-day period presents marked increase in resource use. We believe the PDGM's definition of "early" as the first 30-day period most accurately reflects agencies' average costs for patients with characteristics measured on the OASIS and used in defining payment groups and supports the shift from the current "early" category as defined by two 60-day episodes. We continue to believe that a PDGM that accounts for the actual, demonstrated increase in resource utilization in the first 30-day period better captures the variations in resource utilization.

Additionally, in our CY 2008 HH PPS final rule, we implemented an "early" and "late" distinction in the HH PPS in which the late episode groupings were weighted more heavily than those episodes designated as early due to heavier resource use during later episodes (72 FR 49770). At that time, commenters expressed concerns that this heavier weighting for later episodes could lead to gaming by providers, with patients on service longer than would be appropriate, and providers not discharging patients when merited. During our analysis in support of subsequent refinements to the HH PPS in 2015, we analyzed the utilization patterns observed in the CY 2013 claims data and observed that the resource use for later episodes had indeed shifted such that later episodes had less resource use than earlier periods, which was the opposite of the pattern observed prior to CY 2008. Furthermore, in its 2016 Report to Congress, MedPAC noted that, between 2002 and 2014, a pattern in home health emerged where the number of episodes of care provided to home health beneficiaries trended upwards, with the average number of episodes per user increasing by 18 percent, rising from 1.6 to 1.9 episodes per user.³⁴ MedPAC noted that this upward trajectory coincided with, among other changes, higher payments for the third and later episodes in a consecutive spell of home health episodes. Given the longitudinal variation in terms of resource provision during home health episodes, we

believe that restricting the "early" definition to the first 30-day period is most appropriate for this facet of the PDGM. Our analysis of home health resource use as well as comments from the public that confirm that more resources are provided in the first 30 days provide compelling evidence to limit the definition of early to the first 30-day period.

Moreover, the public comments we received in response to the CY 2018 HH PPS proposed rule presented conflicting predictions regarding anticipated provider behavior in response to the implementation of the alternative case-mix adjustment methodology. Several commenters stated that they expected providers to discharge patients after the first 30-days of care, given that the case-mix weights are, on average, higher for the first 30-days of care. Other commenters expressed concern that providers may attempt to keep home health beneficiaries on service for as long as possible. Additionally, meeting the requirement of section 51001 of the BBA of 2018, a Technical Expert Panel (TEP) was convened in February 2018 to solicit feedback and identify and prioritize recommendations from a wide variety of industry experts and patient representatives regarding the public comments received on the proposed alternative case-mix adjustment methodology. Comments on the timing categories and suggestions for refinement to this adjustment were very similar between those received on the CY 2018 HH PPS proposed rule and those made by the TEP participants. We note the PDGM case-mix weights reflect existing patterns of resource use observed in our analyses of CY 2016 home health claims data. Since we propose to recalibrate the PDGM case-mix weights on an annual basis to ensure that the case-mix weights reflect the most recent utilization data available at the time of rulemaking, future recalibrations of the PDGM case-mix weights may result in changes to the case-mix weights for early versus late 30-day periods of care as a result of changes in utilization patterns.

Several commenters responding to the CY 2018 HH PPS proposed rule suggested that we revise the model such that a readmission to home health within the 60-day gap period results in an "early" instead of a "late" 30-day period. However, we note that the PDGM also includes a category determined specifically by source of admission, which would account for any readmission to home health. Under the PDGM we already account for whether the patient was admitted to home health care from the community

or following an institutional stay, including inpatient stays that occur after the commencement of a home health care. For example, if the original home health stay was categorized as community and subsequently the patient experienced an inpatient stay, the subsequent home health stay would reset to institutional upon discharge from the inpatient setting. Similarly, we note that for the purposes of the timing component of the PDGM, an intervening hospital stay would not trigger re-categorization to an "early" period unless there were a 60-day gap in home health care. Therefore, we do not believe that the timing element of the PDGM would create a financial incentive to inappropriately encourage the admission of home health patients to an acute care setting in order to receive a subsequent home health referral in the higher-paid "early" category. 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. Therefore, we expect that the addition of both the source of admission, as well as the timing categories do reflect agencies' average costs for home health patients and used in defining payment groups. We believe that crafting a multi-pronged case-mix adjustment model, which includes adjustments based both on timing within a home health sequence as well as the source of the beneficiary admission, will serve to more accurately account for resources required for Medicare beneficiaries and similarly provide a differentiated payment amount for care.

Several commenters responding to the CY 2018 HH PPS proposed rule expressed concern regarding the operational aspects of the timing element of the alternative case-mix adjustment methodology. As we described in the CY 2018 HH PPS proposed rule, and as we are proposing in this rule, we would use Medicare claims data and not the OASIS assessment in order to determine if a 30-day period is considered "early" or "late" (82 FR 35309). We have developed claims processing procedures to reduce the amount of administrative burden associated with the implementation of the PDGM. Providers would not have to determine whether a 30-day period is early (the first 30-day period) or later (all adjacent 30-day periods beyond the first 30-day period) if they choose not to. Information from Medicare systems would be used during claims processing to automatically assign the appropriate timing category.

³⁴ <http://www.medpac.gov/docs/default-source/reports/chapter-8-home-health-care-services-march-2016-report-.pdf>.

To identify the first 30-day period within a sequence, the Medicare claims processing system would verify that the claim "From date" and "Admission date" match. If this condition were to be met, our systems would send the "early" indicator to the HH Grouper for the 30-day period of care. When the claim was received by CMS's Common Working File (CWF), the system would look back 60 days to ensure there was not a prior, related 30-day period. If not, the claim would continue to be paid as "early." If another related 30-day period were to be identified, that is an earlier 30-day period in the sequence, the claim would be flagged as "late" and returned to the shared systems for subsequent regrouping and re-pricing. Those periods that are not the first 30-day period in a sequence of adjacent periods, separated by no more than a 60 day gap, would be categorized as "late" periods and placed in corresponding PDGM categories.

Early 30-day periods are defined as the initial 30-day period in a sequence of adjacent 30-day periods. Late 30-day periods are defined as all subsequent adjacent periods beyond the first 30-day period. Periods are considered to be adjacent if they are contiguous, meaning that they are separated by no more than a 60-day period between 30-day periods of care. In determining a gap, we only consider whether the beneficiary was receiving home health care from traditional fee-for-service Medicare.

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 30-day period. If that 30-day period receives a PEP adjustment and agency B recertifies the beneficiary for a second 30-day period, that second 30-day period is now considered a late 30-day period. 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 late would depend upon how many adjacent periods of care were received prior to coming to agency A. The CWF will examine claims upon receipt in comparison to all previously processed 30-day period to verify that the period is correctly designated as early or later.

The 60-day period to determine a gap that will begin a new sequence of 30-day periods will be counted in most instances from the calculated end date of the 30-day period. That is, in most cases CWF will count from "day 30" of a 30-day period without regard to an earlier discharge date. The exception to this is for 30-day periods 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. Under the current HH PPS, the partial episode payment (PEP) adjustment is a proportion of the episode payment that is based on the span of days, including the start-of-care date or first billable service date, through and including the last billable service date under the original plan of care, before the intervening event in a home health beneficiary's care, which is defined as: A beneficiary elected transfer, or a discharge and return to home health that would warrant, for purposes of payment, a new OASIS assessment, physician certification of eligibility, and a new plan of care. Because PEPs are paid based upon the last billable service date and not necessarily based on the last day of a 60-day episode, we would consider the end of the PEP HH episode as the last billable home health visit provided and begin the count of gap days from the date of the last billable home health visit and not "day 30" of a 30-day period.

Regarding PEP adjustments, consider the following example: A 30-day period is opened on January 1, 2020 which would normally span until January 30, 2020. If this 30-day period were not subject to a PEP adjustment, any 30-day period beginning within 60 days following January 30, 2020 would be considered an adjacent 30-day period. In the case of a PEP adjustment, the determination of an adjacent 30-day period would no longer be based on day 60, but would instead be based on the latest billable visit in the 30-day period. Assume in the example, the patient is transferred to another HHA (triggering the PEP adjustment) on January 15, 2020 but the last billable visit is provided on January 13, 2020. In this case, any 30-day period beginning within 60 days following the January 13, 2020 visit would be considered an adjacent 30-day period.

Intervening stays in inpatient facilities will not create any special considerations in counting the 60-day gap. If an inpatient stay occurred within a period, 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 time after the end of the HH period 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 periods are received after a particular claim is paid that change the sequence initially assigned to the paid period (for example, by service dates

falling earlier than those of the paid period, or by falling within a gap between paid periods), Medicare systems will initiate automatic adjustments to correct the payment of any necessary periods.

Upon receipt of a HH period coded to represent the early 30-day period in a sequence, Medicare systems will search the period history records that are maintained for each beneficiary. If an existing 30-day period is found on that history, the claim for the new period will be recoded to represent its sequence correctly and paid according to the changed code. In addition, when any new 30-day period is added to those history records for each beneficiary, the coding representing period sequence on previously paid periods will be checked to see if the presence of the newly added period causes the need for changes to those periods. If the need for changes is found, Medicare systems will initiate automatic adjustments to those previously paid periods.

For example, a given 30-day period is initially determined to be and paid as the early period in a sequence of periods. After some amount of time, a claim is submitted by another HHA that occurs before the previously designated first period in the sequence of adjacent periods and is less than 60 days before the beginning of that previously designated first period. In such a case, the 30-day period corresponding to the newly submitted claim becomes the first 30-day period of this sequence of adjacent 30-day periods and thus is considered to be an early period. The 30-day period previously designated as the first 30-day period in the sequence of periods now becomes the second 30-day period in the sequence of adjacent periods, thus changing its status from that of an early period to that of a late period.

We plan to develop materials regarding timing categories, including such topics as claims adjustments and resolution of claims processing issues. We will also update guidance in the Medicare Claims Processing Manual, as well as the Medicare Benefit Manual as appropriate with detailed procedures. We will also work with our Medicare Administrative Contractors (MACs) to address any concerns regarding the processing of home health claims as well as develop training materials to facilitate all aspects of the transition the PDGM, including the unique aspects of the timing categories.

Several commenters responding to the CY 2018 HH PPS proposed rule had concerns regarding the potential for problematic provider behavior due to financial incentives. We note that we

fully intend to monitor provider behavior in response to the new PDGM. As we receive and evaluate new data related to the provision of Medicare home health care under the PDGM, we will reassess the appropriateness of the payment levels for “early” and “late” periods in a sequence of periods. Additionally, we will share any concerning behavior or patterns with the Medicare Administrative Contracts (MACs) as well as our Center for Program Integrity. We plan to monitor for and identify any variations in the patterns of care provided to home health patients, including both increased and decreased provision of care to Medicare beneficiaries. We note that an increase in the volume of Medicare beneficiaries receiving home health care may, in fact, represent a positive outcome of the PDGM, signaling increased access to care for the Medicare population, so long as said increase in volume of beneficiaries is appropriate and in keeping with eligibility guidelines for the Medicare home health benefit.

We invite public comments on the timing categories in the proposed PDGM and the associated regulations text changes outlined in section III.F.13. of this proposed rule.

5. Admission Source Category

In the CY 2018 HH PPS proposed rule, we described analysis showing the impact of the source of admission on home health resource use and proposed to classify periods into one of two admission source categories—community or institutional—depending on what healthcare setting was utilized in the 14 days prior to home health (82 FR 35309). We proposed that a 30-day period would be categorized as institutional if an acute or post-acute care (PAC) stay occurred in the 14 days prior to the start of the 30-day period of care. We also proposed that a 30-day period would be categorized as community if there was no acute or PAC stay in the 14 days prior to the start of the 30-day period of care. We proposed

to adopt this categorization by admission source with the implementation of alternative case-mix adjustment methodology refinements.

The proposed admission source category was discussed in detail in the CY 2018 HH PPS proposed rule and we solicited public comments on the admission source component of the proposed alternative case-mix adjustment methodology. Several commenters expressed their support for the admission categories within the framework of the alternative case-mix adjustment methodology refinements, as they believe that these groups would be meaningful and would more appropriately align the cost of Medicare home health care with payments, thereby improving the accuracy of the HH payment system under the alternative case-mix adjustment methodology refinements. Commenters also expressed a variety of concerns regarding admission source, stating that the source of a home health admission may not always correspond with home health beneficiary needs and associated provider costs, that the categories would discourage the admission of community entrants due to lower reimbursement, that the differentiation may encourage HHAs to favor hospitalization during an episode of home health care, that agencies’ ability to provide the care for beneficiaries in the community would be reduced, and that small HHAs with no hospital affiliation would be negatively impacted. Several commenters recommended that CMS consider incorporating other clinical settings into the definition of the institutional category, including hospices and outpatient facilities. Several commenters also expressed concern regarding the operational aspects of the admission source category, requesting guidance for retroactive adjustments, plans for the claims readjustment process due to institutional claim issues, definitions for timely filing, and guidance regarding

when occurrence codes may be utilized. Moreover, in accordance with the requirement of section 51001 of the BBA of 2018, a Technical Expert Panel (TEP) convened in February 2018 to solicit feedback and identify and prioritize recommendations from a wide variety of industry experts and patient representatives regarding the public comments received on the proposed alternative case-mix adjustment methodology. Comments on the admission source categories and suggestions for refinement to this element of the alternative case-mix system were very similar between those received in response to the CY 2018 HH PPS proposed rule and those provided by the TEP participants.

We appreciate commenters’ feedback regarding the admission source element of the alternative case-mix adjustment methodology. The intention of the proposal included in the CY 2018 HH PPS proposed rule, including the admission source component, was to refine and to better fit costs incurred by agencies for patients with differing characteristics and needs under the HH prospective payment system, and we believe that the differing weights for source of admission will serve to promote appropriate alignment between costs and payment within the HH PPS.

As described in the CY 2018 HH PPS proposed rule, our analytic findings demonstrate that institutional admissions have higher average resource use when compared with community admissions, which ultimately led to the inclusion of the admission source category within the framework of the alternative case-mix adjustment methodology refinements (82 FR 35309). The differences in care needs during home health based on admission source are illustrated in the resource utilization figures presented in Table 35, which shows the distribution of admission sources as well as average resource use for 30-day periods by admission source.

TABLE 35—AVERAGE RESOURCE USE BY ADMISSION SOURCE (14 DAY LOOK-BACK; 30 DAY PERIODS) ADMISSION SOURCE, COMMUNITY AND INSTITUTIONAL ONLY

	Average resource use	Frequency of periods	Percent of periods	Standard deviation of resource use	25th percentile of resource use	Median resource use	75th percentile of resource use
Community	\$1,363.11	6,408,805	74.3	\$1,119.20	\$570.26	\$1,062.05	\$1,817.75
Institutional	2,171.00	2,215,971	25.7	1,303.24	1,246.05	1,920.06	2,791.91
Total	1,570.68	8,624,776	100.0	1,221.38	679.12	1,272.18	2,117.47

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 (as of March 2, 2018).

Institutional admissions have significantly higher average resource use

at \$2,171.00 compared with community admissions at \$1,363.11, a difference of

\$807.89. Median values of resource use also show a significant difference

between sources of admission, with institutional resource use at \$1,920.06 while community resource use is at \$1,062.05, a difference of \$858.01. The pattern of higher resource use for institutional admissions as compared to community admissions remains consistent for the 25th and 75th percentiles, with a difference of approximately \$675 and \$974, respectively.

Additionally, we note that we do not show preference to any particular patient profile, but rather aim to better align home health payment with the costs associated with providing care. As discussed in our CY 2018 HH PPS proposed rule, current research around those patients who are discharged from acute and PAC settings shows that these beneficiaries tend to be sicker upon admission, are being discharged rapidly back to the community, and are more likely to be re-hospitalized after discharge due to the acute nature of their illness.³⁵ Additionally, as further described in the CY 2018 HH PPS proposed rule, research studies indicate that patients admitted to home health from institutional settings are vulnerable to adverse effects and injury because of the functional decline that occurs due to their institutional stay, indicating that the patient population referred from an institutional setting requires more concentrated resources and supports to account for and mitigate this functional decline.³⁶ Moreover, as described in the CY 2018 HH PPS proposed rule, research suggests that the reduction in monitoring from the level typically experienced in an inpatient facility to that in the home environment can potentially cause gaps in care and consequently increased risk for adverse events for the newly-admitted home health beneficiary, and any negative impacts of the transition to the home setting can be reduced by an appropriate increase in care for the beneficiary, particularly through more frequent assessment of their condition and ongoing monitoring once transferred to the home environment.³⁷ Furthermore, research discussed in our CY 2018 HH PPS proposed rule shows that

beneficiaries discharged from institutional settings are more vulnerable because of, among other factors, the need to manage new health care issues, major modifications to medication interventions, and the coordination of follow-up appointments, which could lead to the risk for adverse drug events, for errors in a beneficiary's medication regimen, and for the need to readmit to the hospital due to deterioration of the patient's condition.³⁸ Additionally, we note that the goal of the admission source variable is not to identify or evaluate for increases in re-hospitalization in the home health beneficiary population but rather to align payment with the costs of providing home health care. Other CMS initiatives such as the HH QRP as well as the HH VBP demonstration take into account readmissions, among other measures of quality. However, because this population is at higher risk for possible readmission to an institutional setting, we believe that more intensive supports, partnered with differentiated payment weights, are appropriate in crafting a payment system that better reflects the costs incurred by HHAs while also promoting the delivery of quality care to the Medicare population. In summary, clinical research continues to indicate that the needs of the institutional population are intensive. Likewise, our analysis of home health data shows that costs sustained by home health agencies for those beneficiaries admitted from institutional settings are higher than community entrants. Therefore, we believe that accounting for these material differences in the care needs of the beneficiary population admitted from institutional settings and their resultant, differentiated resource use, will serve to better align payments with actual costs incurred by HHAs when caring for Medicare beneficiaries.

We expect that HHAs will continue to provide the most appropriate care to Medicare home health beneficiaries, regardless of admission source or any other category related to home health payment. As we noted in the CY 2018 HH PPS proposed rule, the primary goal of home health care is to provide restorative care when improvement is expected, maintain function and health status if improvement is not expected, slow the rate of functional decline to avoid institutionalization in an acute or

post-acute care setting, and/or facilitate transition to end-of-life care as appropriate (82 FR 35348). The primary goal of the HH PPS is to align payment with the costs of providing home health care. Furthermore, in our CY 2000 HH PPS final rule, commenters asserted that patients admitted to home health from the hospital were often more acutely ill and resource-intensive than other patients, particularly when compared with beneficiaries who had no institutional care prior to admission (64 FR 41147). We appreciate the concerns expressed in response to the CY 2018 HH PPS proposed rule regarding possible behavioral changes by providers given the perceived incentives created by the admission source categories within the alternative case-mix adjustment methodology. However, we continue to expect that HHAs will provide the appropriate care needed by all beneficiaries who are eligible for the home health benefit, including those beneficiaries with medically-complex conditions who are admitted from the community. We will carefully monitor the outcomes of the proposed change, including any impacts to community entrants, and make further refinements as necessary.

Regarding the incorporation of other clinical settings into the definition of the institutional category under the alternative case-mix adjustment methodology that some commenters raised in response to the CY 2018 HH PPS proposed rule, such as emergency department (ED) use and observational stays, we propose to only include those stays that are considered institutional stays in other Medicare settings. For example, observational stays do not count towards the 3-day window for an admission to a SNF because they are not categorized as inpatient. Additionally, in our analysis of 2017 HH claims data, we identified those HH stays that, within the 14 days prior to admission to HH, had been preceded by ED visits or outpatient observational stays and isolated these stays from stays that would otherwise be grouped into the community admission source category. As demonstrated in Table 36, 30-day periods of care for beneficiaries with a preceding ED visit (which would otherwise be grouped into the community admission source category) do not show higher resource use when compared to those beneficiaries entering from acute or PAC settings, with an average resource use at \$1,660.64 per home health period as compared to \$2,171.00 for institutional admits. When compared with those patients admitted from the community, admissions from

³⁵ O'Connor, M. (2012, February). Hospitalization Among Medicare-Reimbursed Skilled Home Health Recipients. Retrieved March 02, 2017, from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4690459>.

³⁶ Rosati, R. J., Huang, L., Navaie-Waliser, M., & Feldman, P. H. (2003). Risk Factors for Repeated Hospitalizations Among Home Healthcare Recipients. *Journal For Healthcare Quality*, 25(2), 4–11. doi:10.1111/j.1945–1474.2003.tb01038.x.

³⁷ Forster, A. J. (2003). The Incidence and Severity of Adverse Events Affecting Patients after Discharge from the Hospital. *Annals of Internal Medicine*, 138(3), 161. doi:10.7326/0003–4819–138–3–200302040–00007.

³⁸ Meyers, A. G., Salanitro, A., Wallston, K. A., Cawthon, C., Vasilevskis, E. E., Goggins, K. M., . . . Kripalani, S. (2014). Determinants of health after hospital discharge: Rationale and design of the Vanderbilt Inpatient Cohort Study (VICS). *BMC Health Services Research*, 14(1). doi:10.1186/1472–6963–14–10.

the ED show somewhat higher resource use at \$1,660.64 per home health period as compared to \$1,337.73 for

community admits. We note that the volume of patients with preceding ED

visits is relatively low, at about 5.8 percent of total home health periods.

TABLE 36—AVERAGE RESOURCE USE BY ADMISSION SOURCE (14 DAY LOOK-BACK, 30 DAY PERIODS) ADMISSION SOURCE: COMMUNITY, INSTITUTIONAL, AND EMERGENCY DEPARTMENT

	Average resource use	Number of 30-day periods	Percent of 30-day periods	Standard deviation of resource use	25th percentile of resource use	Median resource use	75th percentile of resource use
Community	\$1,337.73	5,905,217	68.5	\$1,108.57	\$558.54	\$1,035.34	\$1,779.73
Institutional	2,171.00	2,215,971	25.7	1,303.24	1,246.05	1,920.06	2,791.91
Emergency Department	1,660.64	503,588	5.8	1,197.60	782.63	1,396.50	2,225.38
Total	1,570.68	8,624,776	100.0	1,221.38	679.12	1,272.18	2,117.47

Similarly, 30-day periods for beneficiaries with preceding observational stays (which would otherwise be grouped into the

community admission source category) also do not show higher resource use when compared to those beneficiaries entering from acute or PAC settings, as

described in Table 37, with average resource use at \$1,820.06 per home health period as compared to \$2,171.00 for institutional admits.

TABLE 37—AVERAGE RESOURCE USE BY ADMISSION SOURCE (14 DAY LOOK-BACK; 30 DAY PERIODS) ADMISSION SOURCE: COMMUNITY, INSTITUTIONAL, AND OBSERVATIONAL STAYS

	Average resource use	Number of 30-day periods	Percent of 30-day periods	Standard deviation of resource use	25th percentile of resource use	Median resource use	75th percentile of resource use
Community	\$1,350.90	6,242,043	72.4%	\$1,114.94	\$564.31	\$1,048.86	\$1,799.27
Institutional	2,171.00	2,215,971	25.7%	1,303.24	1,246.05	1,920.06	2,791.91
Observational Stays	1,820.06	166,762	1.9%	1,180.96	960.15	1,589.08	2,399.68
Total	1,570.68	8,624,776	100.0%	1,221.38	679.12	1,272.18	2,117.47

When compared with those patients admitted from the community, admissions from observational stays show higher resource use at \$1,820.06 per home health period as compared to \$1,350.90 for community admits. However, the volume of patients with preceding observational stays is very low, at about 2 percent of total home health periods.

In summary, home health stays with preceding observational stays and ED visits show resource use that falls between that of the institutional and community categories. However, the resource use is not equivalent to that of the institutional settings; therefore, we do not believe it appropriate to include observational stays and ED visits in the institutional category for the purposes of the PDGM. Additionally, including these stays in the institutional category would lead to a small reduction in the overall average resource use and related case mix weights for groups admitted from acute and PAC settings. Moreover, including ED or observational stays with discharges from acute care hospitals, LTCHs, IRFs and SNFs would be inconsistent with section 1861(tt)(1) of the Act, which defines the term “post-institutional home health services” as discharges from hospitals (which include IRFs and LTCHs) and SNFs

within 14 days of when home health care is initiated.

We explored the option of creating a third admission source category specifically for observational stays/ED visits. In order to more fully understand the potential impact of a third category, we analyzed the overall impact of the creation of such a category. For the purposes of this analysis, in the event that a home health stay was preceded by both an institutional stay and an observation stay or ED visit, the case would be grouped into the institutional category. Our findings indicate for those HH stays with a preceding outpatient observational stay/ED visit, the overall payment weight for associated groups for “early” 30-day periods (as defined in section III.F.4 of this rule) would be approximately 6 percent higher than the community admission counterparts, whereas institutional stays would see weights that are approximately 19 percent higher than community admissions. When examining the overall payment weights for “late” 30-day periods (as defined in section III.F.4 of this rule), HH stays with a preceding outpatient admission would observe weights that are approximately 10 percent higher than the community admission counterparts, whereas institutional stays would see weights

that are approximately 43 percent higher than community admissions. However, we are concerned that a third admission source category for observational stays and ED visits could create an incentive for providers to encourage outpatient encounters both prior to a 30-day period of care or within a 30-day period of care within 14 days of the start of the next 30-day period, thereby potentially inappropriately increasing costs to the Medicare program overall. The clinical threshold for an observational stay or an ED visit is not as high as that required for an institutional admission, and we are concerned that home health agencies may encourage beneficiaries to engage with emergency departments before initiating a home health stay.

For example, in the FY 2014 IPPS/LTCH PPS final rule and also the Medicare Benefit Policy Manual Chapter 1—Inpatient Hospital Services Covered Under Part A, CMS clarified and specified in the regulations that an individual becomes an inpatient of a hospital, including a long term care hospital or a Critical Access Hospital, when formally admitted as such pursuant to an order for inpatient admission by a physician or other qualified practitioner described in the final regulations (78 FR 50495). The

order is required for payment of hospital inpatient services under Medicare Part A. CMS also specified that for those hospital stays in which the physician expects the beneficiary to require care that crosses two midnights and admits the beneficiary based upon that expectation, Medicare Part A payment is generally appropriate. Additionally, for the purposes of admissions to skilled nursing facilities, the Medicare Benefit Policy Manual Chapter 8—Coverage of Extended Care (SNF) Services Under Hospital Insurance states that in order to qualify for post-hospital extended care services, the individual must have been an inpatient of a hospital for a medically necessary stay of at least three consecutive calendar days and that time spent in observation or in the emergency room prior to (or in lieu of) an inpatient admission to the hospital does not count toward the 3-day qualifying inpatient hospital stay, as a person who appears at a hospital's emergency room seeking examination or treatment or is placed on observation has not been admitted to the hospital as an inpatient; instead, the person receives outpatient services. Furthermore, admission to an inpatient rehabilitation facility (IRF) requires that for IRF care to be considered reasonable and necessary, the documentation in the patient's IRF medical record must demonstrate a reasonable expectation that the patient must require active and ongoing intervention of multiple therapy disciplines, at least one of which must be PT or OT; require an intensive rehabilitation therapy program, generally consisting of 3 hours of therapy per day at least 5 days per week; or in certain well-documented cases, at least 15 hours of intensive rehabilitation therapy within a 7-consecutive day period, beginning with the date of admission; reasonably be expected to actively participate in, and benefit significantly from the intensive rehabilitation therapy program; require physician supervision by a rehabilitation physician, with face-to-face visits at least 3 days per week to assess the patient both medically and functionally and to modify the course of treatment as needed; and require an intensive and coordinated interdisciplinary team approach to the delivery of rehabilitative care, as described in detail in Medicare Benefit Policy Manual, Chapter 1—Inpatient Hospital Services Covered Under Part A 110.2—Inpatient Rehabilitation Facility Medical Necessity Criteria.

Conversely, CMS specified that for hospital stays in which the physician expects the patient to require care less

than two midnights, payment under Medicare Part A is generally inappropriate. (However, we note that in the CY 2016 Outpatient Prospective Payment System final rule, CMS adopted a policy such that for stays for which the physician expects the patient to need less than two midnights of hospital care (and the procedure is not on the inpatient-only list or otherwise listed as a national exception), an inpatient admission may be payable under Medicare Part A on a case-by-case basis based on the judgment of the admitting physician (80 FR 70297).)

Regarding emergency department visits by Medicare beneficiaries, services are generally covered by Medicare Part B in instances where a beneficiary experiences an injury, a sudden illness, or an illness that quickly worsens. In the case of observational stays, as described in the Medicare Claims Processing Manual, Chapter 12, observation care is a well-defined set of specific, clinically appropriate services, which include ongoing short term treatment, assessment, and reassessment before a decision can be made regarding whether patients will require further treatment as hospital inpatients or if they are able to be discharged from the hospital. As described in the Medicare Benefit Policy Manual, Chapter 6—Hospital Services Covered Under Part B 20.6—Outpatient Observation Services, observation services are commonly ordered for patients who present to the emergency department and who then require a significant period of treatment or monitoring in order to make a decision concerning their admission or discharge. Moreover, the Medicare Claims Processing Manual in Chapter 4—Part B Hospital, 290—Outpatient Observation Services states that observation services are covered by Medicare only when provided by the order of a physician or another individual authorized by state licensure law and hospital staff bylaws to admit patients to the hospital or to order outpatient tests. In the majority of cases, the decision whether to discharge a patient from the hospital following resolution of the reason for the observation care or to admit the patient as an inpatient can be made in less than 48 hours, usually in less than 24 hours. In only rare and exceptional cases do reasonable and necessary outpatient observation services span more than 48 hours. In summary, the clinical thresholds for coverage and payment for an admission to institutional settings are higher when compared with ED visits and observational stays. Finally, we note that the proportion of home health

periods with admissions from ED visits and observational stays is low relative to community and institutional counterparts. Creating a third community admission source category for observational stays and ED visits would potentially introduce added complexity into the payment system for a small portion of home health stays, which could lead to the creation of payment groups that contain very few stays with very little difference in case-mix weights across the landscape of groups.

For all of these reasons, we believe that incorporating HH stays with preceding observational stays and ED visits into the community admission category is most appropriate at this time. However, we note that as we receive and evaluate new data related to the provision of Medicare home health care under the PDGM, we will continue to assess the appropriateness of the payment levels for admission source within a home health period and give consideration to any cost differentiation evidenced by the resources required by those home health patients with a preceding outpatient event.

Regarding the operational aspects of the admission source category, as described in the CY 2018 HH PPS proposed rule, we have developed automated claims processing procedures with the goal of reducing the amount of administrative burden associated with the admission source category of the alternative case-mix adjustment methodology (82 FR 35309). For example, Medicare systems will automatically determine whether a beneficiary has been discharged from an institutional setting for which Medicare paid the claim, using information used during claims processing to systematically identify admission source and address this issue. When the Medicare claims processing system receives a Medicare home health claim, the systems will check for the presence of a Medicare acute or PAC claim for an institutional stay. If such an institutional claim is found, and the institutional stay occurred within 14 days of the home health admission, our systems will trigger an automatic adjustment of the corresponding HH claim to the appropriate institutional category. Similarly, when the Medicare claims processing system receives a Medicare acute or PAC claim for an institutional stay, the systems will check for the presence of a subsequent HH claim with a community payment group. If such a HH claim is found, and the institutional stay occurred within 14 days of the home health admission, our systems will trigger an automatic

adjustment of the HH claim to the appropriate institutional category. This process may occur any time within the 12-month timely filing period for the acute or PAC claim. The OASIS assessment will not be utilized in evaluating for admission source information.

Moreover, as we also proposed in the CY 2018 HH PPS proposed rule, we propose in this rule that newly-created occurrence codes would also be established, allowing HHAs to manually indicate on Medicare home health claims that an institutional admission had occurred prior to the processing of an acute or PAC Medicare claim, if any, in order to receive the higher payment associated with the institutional admission source sooner (82 FR 35312). However, the usage of the occurrence codes is limited to situations in which the HHA has information about the acute or PAC stay. We also noted that the use of these occurrence codes would not be limited to home health beneficiaries for whom the acute or PAC claims were paid by Medicare. HHAs would also use the occurrence codes for beneficiaries with acute or PAC stays paid by other payers, such as the Veterans Administration (VA).

If a HHA does not include on the HH claim the occurrence code indicating that a home health patient had a previous institutional stay, processed either by Medicare or other institutions such as the VA, such an admission will be categorized as “community” and paid accordingly. However, if later a Medicare acute or PAC claim for an institutional stay occurring within 14 days of the home health admission is submitted within the timely filing deadline and processed by the Medicare systems, the HH claim would be automatically adjusted and re-categorized as an institutional admission and appropriate payment modifications would be made. If there was a non-Medicare institutional stay occurring within 14 days of the home health admission but the HHA was not aware of such a stay, upon learning of such a stay, the HHA would be able to resubmit the HH claim that included an occurrence code, subject to the timely filing deadline, and payment adjustments would be made accordingly.

We note that the Medicare claims processing system will check for the presence of an acute or PAC Medicare claim for an institutional stay occurring within 14 days of the home health admission on an ongoing basis and automatically assign the home health claim as “community” or “institutional” appropriately. As a

result, with respect to a HH claim with a Medicare institutional stay occurring within 14 days of home health admission, we will not require the submission of an occurrence code in order to appropriately categorize the HH claim to the applicable admission source. With respect to a HH claim with a non-Medicare institutional stay occurring with 14 days of home health admission, a HHA would need to submit an occurrence code on the HH claim in order to have the HH claim categorized as “institutional” and paid the associated higher amount. Additionally, we plan to provide education and training regarding all aspects of the admission source process and to develop materials for guidance on claims adjustments, for resolution of claims processing issues, for defining timely filing windows, and for appropriate usage of occurrence codes through such resources as the Medicare Learning Network. We will also update guidance in the Medicare Claims Processing Manual as well as the Medicare Benefit Policy Manual as appropriate with detailed procedures. We will also work with our Medicare Administrative Contractors (MACs) to address any concerns regarding the processing of home health claims as well as develop training materials to facilitate all aspects of the transition to the PDGM, including the unique aspects of the admission source categories.

With regards to the length of time for resubmission of home health claims that reflect a non-Medicare institutional claim, all appropriate Medicare rules regarding timely filing of claims will still apply. Procedures required for the resubmission of home health claims will apply uniformly for those claims that require editing due to the need to add or remove occurrence codes. Details regarding the timely filing guidelines for the Medicare program are available in the Medicare Claims Processing Manual, Chapter 1—General Billing Requirements, which is available at the following website: <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/clm104c01.pdf>. Additionally, adjustments to any re-submitted home health claims will be processed in the same manner as other edited Medicare home health claims. Additionally, we plan to perform robust testing within the Medicare claims processing system to optimize and streamline the payment process.

Regarding the process by which HHAs should verify a non-Medicare institutional stay, as we noted in the CY 2018 HH PPS proposed rule, we expect home health agencies would

utilize discharge summaries from all varieties of institutional providers (that is, Medicare and non-Medicare) to inform the usage of these occurrence codes, and these discharge documents should already be part of the beneficiary’s home health medical record used to support the certification of patient eligibility as outlined in § 424.22(c) (82 FR 35309). Providers should utilize existing strategies and techniques for verification of such stays and incorporate relevant clinical information into the plan of care, as is already required by our Conditions of Participation.

Our evaluation process within the Medicare claims processing system will check for the presence of an acute or PAC Medicare claim for an institutional stay occurring within 14 days of the home health admission on an ongoing basis. Under this approach, the Medicare systems would only evaluate for whether an acute or PAC Medicare claim for an institutional stay occurring within 14 days of the home health admission was processed by Medicare, not whether it was paid. Therefore, we do not expect that a home health claim will be denied due to unpaid Medicare claims for preceding acute or PAC admissions. Moreover, as previously stated above, we note that providers would have the option to submit the occurrence code indicating a preceding institutional stay in order to categorize the home health admission as “institutional.” In the case of a HHA submitting an occurrence code because of a preceding Medicare institutional stay, if upon medical review after finding no Medicare acute or PAC claims in the National Claims History, and there is documentation of a Medicare acute or PAC stay within the 14 days prior to the home health admission, but the institutional setting did not submit its claim in a timely fashion, or at all, we would permit the institutional categorization for the payment of the home health claim through appropriate administrative action. Similarly, in the case of a HHA submitting an occurrence code because of a preceding non-Medicare institutional stay, if documentation of a non-Medicare acute or PAC stay within the 14 days prior to the home health admission, is found, we would permit the categorization of the home health claim as “institutional”.

However, if upon medical review after finding no acute or PAC Medicare claims in the National Claims History, and there is no documentation of an acute or PAC stay, either a Medicare or non-Medicare stay, within 14 days of the home health admission, we would

correct the overpayment. If upon medical review after finding no Medicare acute or PAC claims in the National Claims History and we find that an HHA is systematically including occurrence codes that indicate the patient's admission source was "institutional," but no documentation exists in the medical record of Medicare or non-Medicare stays, we would refer the HHA to the zone program integrity contractor (ZPIC) for further review. Moreover, we intend to consider targeted approaches for medical review after the implementation of the admission source element of the PDGM, including potentially identifying HHAs that have claims that are consistently associated with acute or PAC denials, whose utilization pattern of acute or PAC occurrence codes is aberrant when compared with their peers, or other such metrics that would facilitate any targeted reviews.

For all of the reasons described above, we are proposing to establish two admission source categories for grouping 30-day periods of care under the PDGM—institutional and community—as determined by the healthcare setting utilized in the 14 days prior to home health admission. We are proposing that 30-day periods for beneficiaries with any inpatient acute care hospitalizations, skilled nursing facility (SNF) stays, inpatient rehabilitation facility (IRF) stays, or long term care hospital (LTCH) stays within the 14 days prior to a home health admission would be designated as institutional admissions. We are proposing that the institutional admission source category would also include patients that had an acute care hospital stay during a previous 30-day period of care and within 14 days prior to the subsequent, contiguous 30-day period of care and for which the patient was not discharged from home health and readmitted (that is, the admission date and from date for the subsequent 30-day period of care do not match) as we acknowledge that HHAs have discretion as to whether they discharge the patient due to a hospitalization and then readmit the patient after hospital discharge. However, we are proposing that we would not categorize PAC stays (SNF, IRF, LTCH stays) that occur during a previous 30-day period and within 14 days of a subsequent, contiguous 30-day period of care (that is, the admission date and from date for the subsequent 30-day period of care do not match) as institutional, as we would expect the HHA to discharge the patient if the patient required PAC in a different setting and then readmitted the patient,

if necessary, after discharge from such setting. If the patient was discharged and then readmitted to home health, the admission date and "from" date on the 30-day claim would match and the claims processing system will look for an acute or a PAC stay within 14 days of the home health admission date. This admission source designation process would be applicable to institutional stays paid by Medicare or any other payer. All other 30-day periods would be designated as community admissions.

For the purposes of a RAP, we would only adjust the final home health claim submitted for source of admission. For example, if a RAP for a community admission was submitted and paid, and then an acute or PAC Medicare claim was submitted for that patient before the final home health claim was submitted, we would not adjust the RAP and would only adjust the final home health claim so that it reflected an institutional admission. Additionally, HHAs would only indicate admission source occurrence codes on the final claim and not on any RAPs submitted.

We invite public comments on the admission source component of the proposed PDGM payment system.

6. Clinical Groupings

In the CY 2018 HH PPS proposed rule (82 FR 35307), we discussed the findings of the Home Health Study Report to Congress, which indicates that the current payment system may encourage HHAs to select certain types of patients over others.³⁹ Patients with a higher severity of illness, including those receiving a greater level of skilled nursing care; for example, patients with wounds, with ostomies, or who are receiving total parenteral nutrition or mechanical ventilation were associated with higher resource use and lower margins. This may have produced a disincentive for providing care for patients with higher clinical acuity, and thereby may have limited access of home health services to these vulnerable patient populations.⁴⁰ We noted that payment should be predicated on resource use and proposed that adjusting payment based on identified

clinical characteristics and associated services would better align payment with resource use.

For these reasons, we propose grouping 30-day periods of care into six clinical groups: Musculoskeletal Rehabilitation, Neuro/Stroke Rehabilitation, Wounds—Post-Op Wound Aftercare and Skin/Non-Surgical Wound Care, Behavioral Health Care (including Substance Use Disorder), Complex Nursing Interventions, Medication Management, Teaching and Assessment (MMTA). These clinical groups are designed to capture the most common types of care that HHAs provide. We propose placement of each 30-day period of care into a specific clinical group based on the primary reason the patient is receiving home health care as determined by the principal diagnosis reported on the claim. Although the principal diagnosis code is the basis for the clinical grouping, secondary diagnosis codes and patient characteristics would then be used to case-mix adjust the period further through the comorbidity adjustment and functional level. A complete list of ICD-10-CM codes and their assigned clinical groupings is posted on the CMS HHA Center web page (<https://www.cms.gov/center/provider-Type/home-Health-Agency-HHA-Center.html>). More information on the analysis and development of the groupings can be found in the CY 2018 HH PPS proposed rule as well as the HHGM technical report from December 2016, also available on the HHA Center webpage.

In the CY 2018 HH PPS proposed rule, we solicited comments on the clinical groups and the assigned clinical groupings of the ICD-10-CM codes. Additionally, in February 2018, a Technical Expert Panel (TEP) was held in order to gain insight from industry leaders, clinicians, patient representatives, and researchers with experience in home health care and/or experience in home health agency management. Many commenters and TEP members supported the patient-centered approach to grouping patients by clinical characteristics, and several commenters felt that the clinical groupings did capture the majority of characteristics of the home health population. Specifically, commenters generally approved of the higher-weighted complex nursing and wound groups, and agreed with the "importance the HHGM places on these complex patients through its proposed payment rate." One commenter stated that "the most complex and costly beneficiaries for a HHA are those that require intensive nursing care, while

³⁹ Report to Congress. Medicare Home Health Study: An Investigation on Access to Care and Payment for Vulnerable Patient Populations. Available at <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/Downloads/HH-Report-to-Congress.pdf>.

⁴⁰ Report to the Congress: Medicare Payment Policy. (2015) Home health care services: Assessing payment adequacy and updating payments. Ch.9 <http://www.medpac.gov/docs/default-source/reports/chapter-9-home-health-care-services-march-2015-report.pdf?sfvrsn=0>.

those that require intensive therapy produce a significant margin with less cost." Additional comments on the clinical groups generally included the following: Concern that some diagnosis codes are not used to group claims into the six clinical groups; concern about reduced therapy use in the clinical groups that aren't specifically for musculoskeletal or neurological rehabilitation; concern that the groups do not capture clinically complex patients that require multiple home health disciplines; suggestions that the clinical groups should be based on impairments rather than diagnoses; and concern that the MMTA clinical group encompasses too many diagnosis codes. Several commenters expressed concern that certain ICD 10-CM diagnosis codes were not used for payment (for example, codes that were not used to group claims into the six clinical groupings), which could possibly restrict access to the benefit or force beneficiaries to seek care in institutional settings. Others had concerns regarding specific diagnosis codes they felt should be reassigned to different clinical groups.

As outlined in the HHGM technical report from December 2016 and in the CY 2018 HH PPS proposed rule (82 FR 35314), there were several reasons why a diagnosis code was not assigned to one of the six clinical groups. These included if the diagnosis code was too vague, meaning the code does not provide adequate information to support the need for skilled home health services (for example H57.9, Unspecified disorder of eye and adnexa); the code, based on ICD 10-CM, American Hospital Association (AHA) Coding Clinic, or Medicare Code Edits (MCE) would indicate a non-home health service (for example, dental codes); the code is a manifestation code subject to a manifestation/etiology convention, meaning that the etiology code must be reported as the principal diagnosis, or the code is subject to a code first sequencing convention (for example, G99.2 myelopathy in diseases classified elsewhere); the code identifies a condition which would be unlikely to require home health services (for example, L81.2, Freckles); the code is restricted to the acute care setting per ICD 10-CM/AHA Coding Clinic, or the diagnosis indicates death as the outcome (for example S06.1X7A, Traumatic cerebral edema with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness). We did, however, review and re-group certain codes based on commenter feedback. For example, with regard to the

classification of N39.0, Urinary tract infection, site not specified as an invalid code to group the home health period of care, we do agree that absent definitive information provided by the referring physician, a home health clinician would not know the exact site of a urinary tract infection (UTI). As such, Urinary tract infection, site not specified (N39.0) will be grouped under MMTA, as the home health services required would most likely involve teaching about the treatment for the UTI, as well as evaluating the effectiveness of the medication regimen. We encourage HHAs to review the list of diagnosis codes in the PDGM Grouping Tool posted on the HHA Center web page at: <https://www.cms.gov/center/provider-Type/home-Health-Agency-HHA-Center.html>. Additionally, the ICD-10-CM code set exceeds the ICD-9-CM in the number of diagnoses and conditions and contains codes that are much more granular. Therefore, we disagree that excluding certain codes from payment will restrict access, considering the increase in diagnoses potentially requiring home health.

With regard to commenter concern that the HHGM clinical groups did not account for the need for therapy in home health periods that are not specifically grouped into musculoskeletal or neurological rehabilitation, we continue to expect the ordering physician, in conjunction with the therapist to develop and follow a plan of care for any home health patient, regardless of clinical group, as outlined in the skilled service requirements at § 409.44, when therapy is deemed reasonable and necessary. Although the principal diagnosis is a contributing factor in the PDGM and determines the clinical group, it is not the only consideration in determining what home health services are needed in a patient's plan of care. It is the responsibility of the patient's treating physician to determine if and what type of therapy the patient needs regardless of clinical grouping. In accordance with § 409.44(c)(1)(i), the therapy goals must be established by a qualified therapist in conjunction with the physician when determining the plan of care. As such, therapy may likely be included in the plan of care for a patient in any of the six clinical groupings. Any therapy indicated in the plan of care is expected to meet the requirements outlined in § 409.44, which states that all therapy services must relate directly and specifically to a treatment regimen (established by the physician, after any needed consultation with the qualified therapist). Additional requirements

dictate that the amount, frequency, and duration of the services must be reasonable and necessary, as determined by a qualified therapist and/or physician, using accepted standards of clinical practice. One goal in developing the PDGM is to provide an appropriate payment based on the identified resource use of different patient groups, not to encourage, discourage, value, or devalue one type of skilled care over another.

Likewise, for patients requiring two or three home health disciplines, the PDGM takes into account the functional level and comorbidities of the patient after the primary reason for the period is captured by the clinical grouping. Decreasing functional status, as indicated by a specific set of OASIS items, and the presence of certain comorbid conditions, is associated with increased resource use. Here is where, when combined with the clinical grouping, any multi-disciplinary therapy patients would be captured. For instance, a patient grouped into the Neuro-Rehabilitation clinical grouping with a high Functional Level (meaning high functional impairment) indicates increased therapy needs, potentially utilizing all skilled therapy disciplines. Additionally, the comorbidity adjustment further case mixes the period and increases payment to capture the additional resource use for a patient regardless of whether the services are skilled nursing or therapy based. Therefore, a patient with complex needs, including multiple therapy disciplines and medical management, is captured by the combination of the different levels of the PDGM. Furthermore, the current case-mix adjustment methodology does not differentiate between utilization of therapy disciplines and whether or not all three are utilized for the same patient. We have determined that the PDGM's functional level when combined with the clinical grouping and comorbidity adjustment actually provides a much clearer picture of the patient's needs, particularly in relation to therapy services.

Comments on the CY 2018 HH PPS proposed rule and at the 2018 TEP indicated that diagnosis does not always correlate with need and that impairments and functional limitations are better predictors of therapy services. Additionally, some commenters stated that clinicians are more likely to focus on impairments and functional limitations when conceptualizing overall patient care, and suggested using them as the basis for the clinical groups rather than diagnosis codes. We do agree that diagnosis alone does not

provide the entire clinical picture of the home health patient; however, in the same way the clinical group is one aspect of the PDGM, therapy services are only one aspect of home health. In fact, the multidisciplinary nature of the benefit is precisely the reason that diagnosis should be an important aspect of the clinical groupings model. The various home health disciplines have different but overlapping roles in treating the patient; however, a diagnosis is used across disciplines and has important implications for patient care. A patient’s diagnosis consists of a known set of signs and symptoms agreed upon by the medical community. Each different healthcare discipline uses these identifiable signs and symptoms to apply its own approach and skill set to treat the patient. However, it remains a patient centered approach.

Several commenters and TEP participants alike, stated that the MMTA clinical group is too broad and should be divided into more clinical groups or subgroups. One commenter questioned whether it made sense to assign patients to different clinical groupings if roughly 60 percent of 30-day periods will fall into the MMTA category. Others considered it an “other” category that was counter to the goal of clarifying the need for home health.

A significant goal of the PDGM is to clearly define what types of services are provided in home health and accurately ascribe payment to resource use. Our analysis showed that there are four very

broad categories of interventions frequently provided in the home that are not attributable to one specific intervention or diagnosis: Health teaching; guidance and counseling; case management; treatments and procedures; and surveillance. These categories cross the spectrum of diagnoses, medications, and interventions, which understandably is why this clinical grouping represents the majority of home health episodes. We believe that these four broad categories of interventions in MMTA cannot be underestimated in importance. We stated in the CY 2018 HH PPS proposed rule that many home health patients have multi-morbidity and polypharmacy, making education and surveillance crucial in the management of the home health patient in order to prevent medication errors and adverse effects. However, the principal diagnosis necessitating home care for these patients may not involve a complex nursing intervention, behavioral health, rehabilitation, or wound care. This group represents a broader, but no less important reason for home care. We believe MMTA is not so much an “other” category as much as it appears to represent the foundation of home health. Many commenters highlighted the complexity of home health patients; pointing to multi-morbidity, “quicker and sicker” discharges, and polypharmacy as important factors in maintaining home

health access. CMS agrees that these issues alone are important reasons for ordering home health services and necessitate their own clinical grouping.

When initially developing the model, we looked at breaking MMTA into subgroups in order to account for differences amongst diagnoses within the broader category of this group. We found that the variation in resource use was similar across those subgroups and determined separating diagnoses further would only serve to make the model more complex and without significant variations in case-mix. However, in response to public comments and the discussion at the 2018 TEP,²⁰ we performed further analysis on the division of MMTA into subgroups in order to estimate the payment regression if these groups were separated from MMTA. We conducted a thorough review of all the diagnosis codes grouped into MMTA. We then grouped the codes into subgroups based on feedback from public comments, which mainly focused on cardiac, oncology, infectious, and respiratory diagnoses. We created the additional subgroups (Surgical/Procedural Aftercare, Cardiac/Circulatory, Endocrine, GI/GU, Infectious Diseases/Neoplasms, Respiratory, and Other) based on data that showed above-average resource use for the codes in those groups, and then combined certain groups that had a minimal number of codes. Those results are shown in Table 38.

TABLE 38—DISTRIBUTION OF RESOURCE USE BY 30-DAY PERIODS [MMTA subgroups]

Subgroup	N	Mean	Median
Aftercare	304,871	\$1,605.43	\$1,326.03
Cardiac/Circulatory	1,594,149	1,433.02	1,121.27
Endocrine	425,077	1,524.45	1,062.41
GI/GU	402,322	1,414.44	1,115.29
Infectious Diseases/Neoplasms/Blood-forming Diseases	347,755	1,400.65	1,077.58
Respiratory	724,722	1,411.61	1,122.23
Other	1,226,750	1,366.56	1,035.76
Total	5,025,646	1,428.17	1,105.20

Table 39 shows the impact each MMTA variable has on case-mix weight. The impact is calculated by taking the regression coefficient for each variable (unreported here) and dividing by the average resource use of the 30-day periods in the model. Model 1 shows the result when MMTA clinical group is not separated into subgroups. Model 1 shows that all else equal, being in

MMTA—Low Functional impairment causes no increase in case-mix weight (for example, a 30-day period’s case-mix weight would be calculated with the coefficients from the constant of the model plus the admission source/timing of the period plus the comorbidity adjustment). A 30-day period in MMTA—Medium Functional would increase the case-mix weight by 0.1560.

A 30-day period in MMTA—High Functional would increase the case-mix weight by 0.2731. Model 2 shows the same information but now includes the MMTA subgroups. In any given functional level, many of the MMTA subgroups have an impact on the case-mix weight that is similar to what is found in Model 1. For example, a period in MMTA (Other)—Medium Functional

²⁰ <https://www.cms.gov/center/provider-Type/home-Health-Agency-HHA-Center.html>.

has an increase in case-mix of 0.1568 (which is very similar to the 0.1560 value found in Model 1). There are some groups like Aftercare, Endocrine, and GI/GU which show different impacts than Model 1. Also, to a lesser extent

these differences also exist for the “Infectious Diseases/Neoplasms/Blood forming Diseases” and “Respiratory” subgroups. Some of these differences are driven by periods which are paid using an outlier adjustment. Model 3 removes

outliers and the corresponding results for the Endocrine subgroup are very similar to Model 1. Some differences (for example in Aftercare) persist; however, the change in case-mix weight remains similar to Model 1.

TABLE 39—CHANGE IN CASE-MIX WEIGHT ASSOCIATED WITH MMTA VARIABLES

Variable	Model 1	Model 2	Model 3 (outliers excluded)
	Change in case-mix weight	Change in case-mix weight	Change in case-mix weight
MMTA—Low Functional	0.000	.....	.....
MMTA—Medium Functional	0.1560	.....	.....
MMTA—High Functional	0.2731	.....	.....
MMTA (Other)—Low Functional	0.000	0.000
MMTA (Other)—Medium Functional	0.1568	0.1523
MMTA (Other)—High Functional	0.2896	0.2748
MMTA (Aftercare)—Low Functional	-0.1082	-0.1196
MMTA (Aftercare)—Medium Functional	0.0798	0.0701
MMTA (Aftercare)—High Functional	0.2588	0.2491
MMTA (Cardiac/Circulatory)—Low Functional	-0.0239	-0.0050
MMTA (Cardiac/Circulatory)—Medium Functional	0.1371	0.1652
MMTA (Cardiac/Circulatory)—High Functional	0.2737	0.2952
MMTA (Endocrine)—Low Functional	0.1105	0.0282
MMTA (Endocrine)—Medium Functional	0.2859	0.1833
MMTA (Endocrine)—High Functional	0.4071	0.3086
MMTA (GI/GU)—Low Functional	-0.0751	-0.0639
MMTA (GI/GU)—Medium Functional	0.0997	0.1256
MMTA (GI/GU)—High Functional	0.1992	0.2231
MMTA (Infectious Diseases/Neoplasms/Blood forming Diseases)—Low Functional	-0.0452	-0.0472
MMTA (Infectious Diseases/Neoplasms/Blood forming Diseases)—Medium Functional	0.1068	0.1128
MMTA (Infectious Diseases/Neoplasms/Blood forming Diseases)—High Functional	0.2281	0.2379
MMTA (Respiratory)—Low Functional	-0.0501	-0.0488
MMTA (Respiratory)—Medium Functional	0.1027	0.1163
MMTA (Respiratory)—High Functional	0.2241	0.2400

The results show that the change in case-mix weight was minimal for the 30-day periods assigned to these subgroups compared to the case-mix weights without the subgroups. Additionally, the impact of other variables in the model (admission source/timing, comorbidity adjustment) on the final case-mix weights were similar whether or not MMTA subgroups were used.

Overall, using the MMTA subgroup model would result in more payment groups but not dramatic differences in case-mix weights across those groups. For this reason, we are not proposing to divide the MMTA clinical group into subgroups and to leave them as is shown in Table 40. However, we are soliciting comments from the public on whether there may be other compelling reasons why MMTA should be broken

out into subgroups as shown in Table 38, even if the additional subgroups do not result in significant differences in case-mix weights across those subgroups. We note that we also plan continue to examine trends in reporting and resource utilization to determine if future changes to the clinical groupings are needed after implementation of the PDGM.

TABLE 40—PROPOSED CLINICAL GROUPS USED IN THE PDGM

Clinical groups	The primary reason for the home health encounter is to provide:
Musculoskeletal Rehabilitation	Therapy (physical, occupational or speech) for a musculoskeletal condition.
Neuro/Stroke Rehabilitation	Therapy (physical, occupational or speech) for a neurological condition or stroke.
Wounds—Post-Op Wound Aftercare and Skin/Non-Surgical Wound Care.	Assessment, treatment & evaluation of a surgical wound(s); assessment, treatment & evaluation of non-surgical wounds, ulcers, burns, and other lesions.
Behavioral Health Care	Assessment, treatment & evaluation of psychiatric conditions, including substance use disorders.
Complex Nursing Interventions	Assessment, treatment & evaluation of complex medical & surgical conditions including IV, TPN, enteral nutrition, ventilator, and ostomies.
Medication Management, Teaching and Assessment (MMTA).	Assessment, evaluation, teaching, and medication management for a variety of medical and surgical conditions not classified in one of the above listed groups.

7. Functional Levels and Corresponding OASIS Items

As part of the overall payment adjustment under an alternative case-mix adjustment methodology, in the CY 2018 Home Health Prospective Payment System proposed rule (82 FR 35317), we proposed including a functional level adjustment to account for the resource costs associated with providing home health care to those patients with functional impairments. Research has shown a relationship exists between functional status, rates of hospital readmission, and the overall costs of health care services.⁴² Functional status is defined in a number of ways, but generally, functional status reflects an individual's ability to carry out activities of daily living (ADLs) and to participate in various life situations and in society.⁴³ CMS currently requires the collection of data on functional status in home health through a standardized assessment instrument: The Outcome and Assessment Information Set (OASIS). Under the current HH PPS, a functional status score is derived from the responses to those items and this score contributes to the overall case-mix adjustment for a home health episode payment.

Including functional status in the case-mix adjustment methodology allows for higher payment for those patients with higher service needs. As functional status is commonly used for risk adjustment in various payment systems, including in the current HH PPS, we proposed that the alternative case-mix adjustment methodology would also adjust payments based on responses to selected functional OASIS items that have demonstrated higher resource use. Therefore, we examined every OASIS item for potential inclusion in the alternative case-mix adjustment methodology including those items associated with functional status.

Generally, worsening functional status is associated with higher resource use, indicating that the responses to functional OASIS items may be useful as adjusters to construct case-mix weights for an alternative case-mix adjustment methodology. However, due

to the lack of variation in resource use across certain responses and because certain responses were infrequently chosen, we combined some responses into larger response categories to better capture the relationship between worsening functional status and resource use. The resulting combinations of responses for these OASIS items are found at Exhibit 7–2 in the HHGM technical report, “Overview of the Home Health Groupings Model,” on the HHA Center web page.⁴⁴

Each OASIS item included in the final model has a positive relationship with resource use, meaning as functional status declines (as measured by a higher response category), periods have more resource use, on average. As such, in the CY 2018 HH PPS proposed rule, we proposed that the following OASIS items would be included as part of the functional level adjustment under an alternative case-mix adjustment methodology:

- M1800: Grooming.
- M1810: Current Ability to Dress Upper Body.
- M1820: Current Ability to Dress Lower Body.
- M1830: Bathing.
- M1840: Toilet Transferring.
- M1850: Transferring.
- M1860: Ambulation/Locomotion.
- M1033 Risk of Hospitalization (at least four responses checked, excluding responses #8, #9, and #10).⁴⁵

In the CY 2018 HH PPS proposed rule, we discussed how under the HHGM a home health period of care receives points based on each of the responses associated with the proposed functional OASIS items which are then converted into a table of points corresponding to increased resource use. That is, the higher the points, the higher the functional impairment. The sum of all of these points' results in a functional impairment score which is used to group home health periods into a functional level with similar resource use. We proposed three functional impairment levels of low, medium, and high with approximately one third of home health periods from each of the clinical groups within each level. This means home health periods in the low impairment level have responses for the proposed functional OASIS items that are associated with the lowest resource use on average. Home health periods in the high impairment level have

responses for the proposed functional OASIS items that are associated with the highest resource use on average. We also proposed that the functional impairment level thresholds would vary between the clinical groups to account for the patient characteristics within each clinical group associated with increased resource costs affected by functional impairment. We provided a detailed analysis of the development of the functional points and the functional impairment level thresholds by clinical group in the HHGM technical report⁴⁶ and in Tables 36 and 37 in the CY 2018 HH PPS proposed rule (82 FR 35321).

In the CY 2018 HH PPS proposed rule, we solicited comments on the proposed functional OASIS items, the associated points, and the thresholds by clinical group used to group patients into three functional impairment levels under the HHGM, as outlined above. The majority of comments received were from physical therapists, physical therapy assistants, occupational therapists, and national physical, occupational, and speech-language pathology associations. Likewise, a Technical Expert Panel (TEP) was convened in February 2018 to collect perspectives, feedback, and identify and prioritize recommendations from a wide variety of industry experts and patient representatives regarding the public comments received on the proposed HHGM. Comments were very similar between those received on the CY 2018 HH PPS proposed rule and those made by the TEP participants.

Most commenters agreed that the level of functional impairment should be included as part of the overall case-mix adjustment in a revised case-mix model. Likewise, commenters were generally supportive of the OASIS items selected to be used in the functional level payment adjustment. Commenters noted that the role of patient characteristics and functional status as an indicator of resource use is a well-established principle in rehabilitation care. Some commenters stated that adopting a similar component in the home health payment system will help to remove the incentive to provide unnecessary therapy services to reach higher classifications for payment but will also move the HH PPS toward greater consistency with other post-acute care prospective payment systems. Other comments received on the functional impairment level adjustment

⁴² Burke, R. MD, MS, Whitfield, E. Ph.D., Hittle, D. Ph.D., Min, S. Ph.D., Levy, C. MD, Ph.D., Prochazka, A. MD, MS, Coleman, E. MD, MPH, Schwartz, R. MD, Ginde, A. (2016). “Hospital Readmission From Post-Acute Care Facilities: Risk Factors, Timing, and Outcomes”. *The Journal of Post-Acute Care and Long Term Care Medicine*. (17), 249–255.

⁴³ Clauser, S. Ph.D., and Arlene S. Bierman, M.D., M.S. (2003). “Significance of Functional Status Data for Payment and Quality”. *Health Care Financing Review*. 24(3), 1–12.

⁴⁴ <https://downloads.cms.gov/files/hhgm%20technical%20report%20120516%20sxf.pdf>.

⁴⁵ Exclusions of the OASIS C–1 Item M1033 include, response #8: “currently reports exhaustion”; response #9: “other risk(s) not listed in 1–8; response #10: None of the above.

⁴⁶ “Medicare Home Health Prospective Payment System: Case-Mix Methodology Refinements Overview of the Home Health Groupings Model” located at <https://downloads.cms.gov/files/hhgm%20technical%20report%20120516%20sxf.pdf>.

encompassed several common themes: The effect of the IMPACT Act provisions on the HHGM; adequacy of the functional impairment thresholds and corresponding payment adjustments; potential HHA behavioral changes to the provision of home health services; the impact of the removal of therapy thresholds on HHAs; and recommendations for the inclusion of other OASIS items into the functional impairment level adjustment.

We note that the analysis presented in the CY 2018 HH PPS proposed rule was based on CY 2016 home health episodes using version OASIS-C1/ICD-10 data set, which did not include the aforementioned IMPACT Act functional items. To accommodate new data being collected for the Home Health Quality Reporting Program in support of the IMPACT Act, CMS has proposed to add the functional items, Section GG, "Functional Abilities and Goals", to the OASIS data set effective January 1, 2019. Because these GG functional items are not required to be collected on the OASIS until January 1, 2019, we do not have the data to determine the effect, if any, of these newly added items on resource costs during a home health period of care. However, if the alternative case-mix adjustment methodology, is implemented in CY 2020, we would continue to examine the effects of all OASIS items, including the "GG" functional items, on resource use to determine if any refinements are warranted.

Addressing those comments regarding the use and adequacy of the functional impairment thresholds to adjust payment, we remind commenters that the structure of categorizing functional impairment into Low, Medium, and High levels has been part of the home health payment structure since the implementation of the HH PPS. The current HH PPS groups' scores are based on functional OASIS items with similar average resource use within the same functional level, with approximately a third of episodes classified as low functional score, a third of episodes are classified as medium functional score, and a third of episodes are classified as high functional score. Likewise, the PDGM groups' scores would be based on functional OASIS items with similar resource use and would have three levels of functional impairment severity: Low, medium and high. However, the three functional impairment thresholds vary between the clinical groups to account for the patient characteristics within that clinical group associated with increased resource costs affected by functional impairment. This is to further ensure that payment is more

accurately aligned with actual patient resource needs. As such, we believe the more granular structure of these functional levels provides the information needed on functional impairment and allows greater flexibility for clinicians to tailor a more patient-centered home health plan of care to meet the individualized needs of their patients. As HHA-reported OASIS information determines the functional impairment levels, accurate reporting on the OASIS will help to ensure that the case-mix adjustment is in alignment with the actual level of functional impairment.

Concerns regarding HHAs changing the way they provide services to eligible beneficiaries, specifically therapy services, should be mitigated by the more granular functional impairment level adjustment (for example, functional thresholds which vary between each of the clinical groups). The functional impairment level case-mix payment adjustment is reflective of the resource costs associated with these reported OASIS items and therefore ensures greater payment accuracy based on patient characteristics. We believe that this approach will help to maintain and could potentially increase access to needed therapy services. We remind HHAs that the provision of home health services should be based on patient characteristics and identified care needs. This could include those patients with complex and/or chronic care needs, or those patients requiring home health services over a longer period of time or for which there is no measureable or expected improvement.

While the majority of commenters agreed that the elimination of therapy thresholds is appropriate because of the financial incentive to overprovide therapy services, some commenters indicated that the reductions in payment for therapy visits could result in a decrease in HHA viability and could force some HHAs to go out of business, such as those HHAs that provide more therapy services than nursing. We note that section 51001(a)(3) of the BBA of 2018 amended section 1894(b)(4)(B) of the Act to prohibit the use of therapy thresholds as part of the overall case-mix adjustment for CY 2020 and subsequent years. Consequently, we have no regulatory discretion in this matter.

Several commenters provided recommendations for additional OASIS items for inclusion to account for functional impairment. Most notably, commenters suggested adding OASIS items associated with cognition, instrumental activities of daily living (IADLs), and caregiver support. The

current HH PPS does not use OASIS items associated with cognition, IADLs, or caregiver support to case-mix adjust for payment. Nonetheless, the relationship between cognition and functional status is important and well-documented in health care literature so we included them in our analysis because they generally have clinical significance based on research and standards of practice. As described in the CY 2018 HH PPS proposed rule and the technical report, we examined every single OASIS item and its effect on costs. These included those OASIS items associated with cognition, IADLs, and caregiver support. Only those OASIS items associated with higher resource costs were considered for inclusion in the functional level adjustment in the HHGM. Despite commenters' recommendations, the variables suggested were only minimally helpful in explaining or predicting resource use and most reduced the amount of actual payment. As such, we excluded variables associated with cognition, IADLs, and caregiver support because they would decrease payment for a home health period of care which is counter to the purpose of a case-mix adjustment under the HHGM. The complete analysis of all of the OASIS items can be found in the HHGM technical report on the HHA Center web page.⁴⁷

After careful consideration of all comments received on the functional level adjustment as part of an alternative case-mix adjustment methodology, we believe that the three PDGM functional impairment levels in each of the six clinical groups are designed to capture the level of functional impairment. We believe that the more granular nature of the levels of functional impairment by clinical group would encourage therapists to determine the appropriate services for their patients in accordance with identified needs rather than an arbitrary threshold of visits. While the functional level adjustment is not meant to be a direct proxy for the therapy thresholds, the PDGM has other case-mix variables to adjust payment for those patients requiring multiple therapy disciplines or those chronically ill patients with significant functional impairment. We believe that also accounting for timing, source of admission, clinical group (meaning the primary reason the patient requires home health services), and the presence of comorbidities will provide the necessary adjustments to payment to ensure that care needs are met based on

⁴⁷ <https://downloads.cms.gov/files/hhgm%20technical%20report%20120516%20sxf.pdf>.

actual patient characteristics. Therefore, we continue to uphold that the functional impairment level adjustment is sufficient and along with the other case-mix adjustments, payment will better align with the costs of providing services.

In summary, we are proposing that the OASIS items identified in the CY 2018 HH PPS proposed rule would be included as part of the functional impairment level payment adjustment under the proposed PDGM. These items are:

- M1800: Grooming.

- M1810: Current Ability to Dress Upper Body.
- M1820: Current Ability to Dress Lower Body.
- M1830: Bathing.
- M1840: Toilet Transferring.
- M1850: Transferring.
- M1860: Ambulation/Locomotion.
- M1033: Risk of Hospitalization.⁴⁸

We are proposing that a home health period of care receives points based on each of the responses associated with the proposed functional OASIS items which are then converted into a table of points corresponding to increased resource use (See Table 41). The sum of all of these points results in a functional

score which is used to group home health periods into a functional level with similar resource use. We are proposing three functional levels of low impairment, medium impairment, and high impairment with approximately one third of home health periods from each of the clinical groups within each functional impairment level (See Table 42). The CY 2018 HH PPS Proposed rule (82 FR 35320) and the technical report posted on the HHA Center web page provide a more detailed explanation as to the construction of these functional impairment levels using the proposed OASIS items.

TABLE 41—OASIS POINTS TABLE FOR THOSE ITEMS ASSOCIATED WITH INCREASED RESOURCE USE USING A REDUCED SET OF OASIS ITEMS, CY 2017

	Response category	Points (2017)	Percent of periods in 2017 with this response category
M1800: Grooming	1	4	56.9
M1810: Current Ability to Dress Upper Body	1	6	60.0
M1820: Current Ability to Dress Lower Body	1	5	59.3
2	11	20.9	
M1830: Bathing	1	3	18.0
	2	13	53.1
	3	21	23.6
M1840: Toilet Transferring	1	4	32.1
M1850: Transferring	1	4	37.8
	2	8	59.2
M1860: Ambulation/Locomotion	1	11	25.2
	2	13	52.8
	3	25	14.8
M1033: Risk of Hospitalization	4 or more items checked	11	17.8

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017(as of March 2, 2018).

TABLE 42—THRESHOLDS FOR FUNCTIONAL LEVELS BY CLINICAL GROUP, CY 2017

Clinical group	Level of impairment	Points (2017 data)
MMTA	Low	0–37
	Medium	38–53
	High	54+
Behavioral Health	Low	0–38
	Medium	39–53
	High	54+
Complex Nursing Interventions	Low	0–36
	Medium	37–57
	High	58+
Musculoskeletal Rehabilitation	Low	0–39
	Medium	40–53
	High	54+
Neuro Rehabilitation	Low	0–45
	Medium	46–61
	High	62+
Wound	Low	0–43
	Medium	44–63
	High	64+

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 (as of March 2, 2018).

⁴⁸ In Version OASIS C–2 (effective 1/1/2018), three responses are excluded: #8: “currently reports

exhaustion”, #9: “other risks not listed in 1–8”, and #10: “None of the above”.

Table 43 shows the average resource use by clinical group and functional level for CY 2017:

TABLE 43—AVERAGE RESOURCE USE BY CLINICAL GROUP AND FUNCTIONAL LEVEL, CY 2017

	Mean resource use	Frequency of periods	Percent of periods	Standard deviation of resource use	25th Percentile of resource use	Median resource use	75th Percentile of resource use
MMTA—Low	\$1,236.05	1,650,146	19.1	\$1,076.20	\$511.06	\$907.38	\$1,632.74
MMTA—Medium	1,487.24	1,709,484	19.8	1,162.37	628.29	1,202.12	2,020.73
MMTA—High	1,667.38	1,402,299	16.3	1,274.53	719.29	1,371.99	2,265.39
Behavioral Health—Low	971.26	98,193	1.1	845.25	397.45	686.39	1,285.36
Behavioral Health—Medium	1,309.40	93,145	1.1	990.34	557.57	1,064.55	1,784.48
Behavioral Health—High	1,485.06	96,899	1.1	1,092.42	653.44	1,233.97	2,027.14
Complex—Low	1,313.78	104,504	1.2	1,194.16	553.50	953.84	1,669.45
Complex—Medium	1,668.06	104,717	1.2	1,415.99	694.35	1,275.32	2,202.65
Complex—High	1,771.05	97,779	1.1	1,527.71	704.28	1,336.79	2,361.61
MS Rehab—Low	1,545.07	587,873	6.8	1,048.07	779.96	1,323.12	2,055.60
MS Rehab—Medium	1,731.15	536,444	6.2	1,111.26	931.97	1,527.46	2,293.96
MS Rehab—High	1,900.89	469,117	5.4	1,243.84	1,009.66	1,672.76	2,520.57
Neuro—Low	1,591.74	308,011	3.6	1,163.69	744.21	1,323.86	2,127.18
Neuro—Medium	1,833.25	287,788	3.3	1,271.31	900.27	1,568.22	2,467.92
Neuro—High	1,945.49	303,787	3.5	1,420.56	899.47	1,618.16	2,629.54
Wound—Low	1,663.25	275,383	3.2	1,271.45	790.83	1,328.52	2,152.26
Wound—Medium	1,893.35	238,063	2.8	1,370.79	927.26	1,550.78	2,475.29
Wound—High	2,044.09	261,144	3.0	1,520.35	975.19	1,644.10	2,669.06
Total	1,570.68	8,624,776	100.0	1,221.38	679.12	1,272.18	2,117.47

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 (as of March 2, 2018).

Like the annual recalibration of the case-mix weights under the current HH PPS, we expect that annual recalibrations would also be made to the PDGM case-mix weights. If the PDGM is finalized for CY 2020, we will update the functional points and thresholds using the most current claims data available. Likewise, we would continue to analyze all of the components of the case-mix adjustment, including adjustment for functional status, and would make refinements as necessary to ensure that payment for home health periods are in alignment with the costs of providing care. We invite comments on the proposed OASIS items and the associated points and thresholds used to group patients into three functional impairment levels under the PDGM, as outlined above.

8. Comorbidity Adjustment

The alternative case-mix adjustment methodology proposed in the CY 2018 HH PPS proposed rule, groups home health periods based on the primary reason for home health care (principal diagnosis), functional level, admission source, and timing. To further account for differences in resource use based on patient characteristics, in the CY 2018 HH PPS proposed rule, we proposed to use the presence of comorbidities as part of the overall case-mix adjustment under the alternative case-mix adjustment methodology. Specifically,

we proposed a home health specific list of comorbidities further refined into broader, body system-based categories and more granular subcategories to capture those conditions that affect resource costs during a home health period of care. The proposed comorbidities included those conditions that represent more than 0.1 percent of periods and had at least as high as the median resource use as they indicate a direct relationship between the comorbidity and resource utilization.

Specifically, we proposed a list based on the principles of patient assessment by body systems and their associated diseases, conditions, and injuries to develop larger categories of conditions that identified clinically relevant relationships associated with increased resource use. The broad, body system-based categories we proposed to use to group comorbidities within the HHGM included the following:

- Heart Disease
- Respiratory Disease
- Circulatory Disease and Blood Disorders
- Cerebral Vascular Disease
- Gastrointestinal Disease
- Neurological Disease and Associated Conditions
- Endocrine Disease
- Neoplasms
- Genitourinary and Renal Disease
- Skin Disease
- Musculoskeletal Disease or Injury

- Behavioral Health (including Substance Use Disorders)
- Infectious Disease

These broad categories used to group comorbidities within the alternative case-mix adjustment methodology were further refined by grouping similar diagnoses within the broad categories into statistically and clinically significant subcategories which would receive the comorbidity adjustment in the alternative case-mix adjustment methodology (for example, Heart Disease 1; Cerebral Vascular Disease 4). All of the comorbidity diagnoses grouped into the aforementioned categories and subcategories are posted on the Home Health Agency web page and listed in the HHGM technical report at the following link: <https://www.cms.gov/Center/Provider-Type/Home-Health-Agency-HHA-Center.html>.

We originally proposed that if a 30-day period of care had at least one secondary diagnosis reported on the home health claim that fell into one of the subcategories, that 30-day period of care would receive a comorbidity adjustment to account for higher costs associated with the comorbidity. Therefore, the payment adjustment for comorbidities would be predicated on the presence of one of the identified diagnoses within the subcategories associated with increased resource use at or above the median. The comorbidity adjustment amount would be the same

across all of the subcategories. A 30-day period of care would receive only one comorbidity adjustment regardless of the number of secondary diagnoses reported on the home health claim that fell into one of the subcategories associated with higher resource use. If there is no reported diagnosis that meets the comorbidity adjustment criteria, the 30-day period of care would not qualify for the payment adjustment.

We solicited comments on the proposed comorbidity adjustment in the CY 2018 HH PPS proposed rule, including the proposed comorbidity diagnoses and their associated subcategories, as part of the overall alternative case-mix adjustment methodology. While all commenters supported the inclusion of a comorbidity adjustment, most commenters said that a single comorbidity payment amount as part of the overall case-mix adjustment is insufficient to fully capture the home health needs and resource costs associated with the presence of comorbidities. Meeting the requirement of section 51001 of the BBA of 2018, a Technical Expert Panel (TEP) was convened in February 2018 to collect perspectives, feedback, and identify and prioritize recommendations from a wide variety of industry experts and patient representatives regarding the public comments received on the proposed alternative case-mix adjustment methodology. Comments on the comorbidity adjustment and suggestions for refinement to this adjustment were very similar between those received on the CY 2018 HH PPS proposed rule and those made by the TEP participants. Specifically, the majority of commenters stated that the presence of multiple comorbidities has more of an effect on home health resource use than a single comorbidity and that any case-mix adjustment should account for multiple comorbidities. There was general agreement that most home health patients have multiple conditions which increase the complexity of their care and affects the ability to care for one's self at home. Several suggested that CMS should let the data help determine how many comorbidity adjustment levels there should be and what percentage of 30-day periods should be in each level. Some commenters stated they preferred specificity and complexity over simplicity if the complexity improved accuracy. Others suggested including interactions between comorbidities in the model, specifically interactions of comorbid conditions with the principal diagnosis and with other comorbidities.

Commenters and TEP members alike focused on those conditions they saw as most impactful on the provision of care to home health beneficiaries. These conditions included chronic respiratory and cardiac conditions, as well as psychological and diabetes-related conditions. Most encouraged CMS to continue to develop a system to allow for appropriate changes to be made over time to the list of comorbidity subcategories that would assign a comorbidity adjustment to a 30-day period of care.

We agree with commenters that the relationship between comorbidities and resource use can be complex and that a single adjustment, regardless of the type or number of comorbidities, may be insufficient to fully capture the resource use of a varied population of home health beneficiaries. However, we also recognize that adjusting payment based on the number of reported comorbidities may encourage HHAs to inappropriately report comorbid conditions in order to increase payment, regardless of any true impact on the home health plan of care. Currently, OASIS instructions state that clinicians must list each diagnosis for which the patient is receiving home care and to enter the level of highest specificity as required by ICD-10 CM coding guidelines. These instructions state that clinicians should list diagnoses in the order that best reflects the seriousness of each condition and supports the disciplines and services provided.⁴⁹ We also note that CMS currently uses interaction items as part of the HH PPS case-mix adjustments. In the CY 2008 HH PPS final rule (72 FR 49772), we added secondary diagnoses and their interactions with the principal diagnosis as part of the clinical dimension in the overall case-mix adjustment. However, analysis since then has shown that nominal case-mix growth became an ongoing issue resulting from the incentive in the current HH PPS to code only those conditions associated with clinical points even though the data did not show an associated increase in resource utilization. Likewise, when we looked at a multi-morbidity approach to the overall case-mix adjustment to a home health period of care, for the CY 2018 HH PPS proposed rule our analysis showed that the reporting of secondary diagnoses on home health claims was not robust enough to support a payment adjustment based on the presence of

multiple comorbidities. This means that the data did not show significant variations in resource use with an increase in reported comorbidities.

In spite of concerns of potential manipulation of coding patterns to increase payment due to the comorbidity adjustment, the results of our most recent analyses for this proposed rule show compelling evidence that patients with certain comorbidities and interactions of certain comorbid conditions (as described later in this section) have home health episodes with higher resource use than home health episodes without those comorbidities or interactions. The goal of our analyses was to identify those clinically and statistically significant comorbidities and interactions that could be used to further case-mix adjust a 30-day home health period of care. As a result of these analyses, we identified that there were certain individual comorbidity subgroups and interactions of the comorbidity subgroups (for example, having diagnoses associated with two of the comorbidity subgroups) which could be used as part of the comorbidity case-mix adjustment in the PDGM.

To identify these relationships with resource utilization, we looked at all diagnoses reported on the OASIS (M1021, M1023, and M1025) for each 30-day period of care. These fields represent 18 different diagnoses which could be reported on the OASIS. In the PDGM, the principal diagnosis assigns each 30-day period of care into a clinical group which identifies the primary reason the patient requires home health services. During our analysis, this usually was the reported principal diagnosis, but in cases where the diagnosis did not link to a clinical group (for example, the diagnosis could not be reported as a principal diagnosis in accordance with ICD-10 CM coding guidelines), we used a secondary diagnosis to assign the 30-day period of care into a clinical group. Any other diagnoses, except the one used to link the 30-day period of care into a clinical group, were considered comorbidities. However, if one of those comorbid diagnoses was in the same ICD-10 CM block of codes as the diagnosis used to place the 30-day period of care into a clinical group, then that comorbid diagnosis was excluded (for example, if the reported principal diagnosis was I63.432, Cerebral infarction due to embolism of left post cerebral artery, and the reported secondary diagnosis was I65.01, Occlusion and stenosis of right vertebral artery, I65.01 would be excluded as a comorbidity as both codes are in the same block of ICD-10

⁴⁹ "Outcome and Assessment I OASIS Information Set C2 Guidance Manual Effective January 1, 2018 accessed at https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Downloads/OASIS-C2-Guidance-Manual-Effective_1_1_18.pdf.

diagnosis codes, Cerebrovascular Diseases, and both would group into the Neuro clinical group if reported as the principal diagnosis). Then, we checked those reported comorbid diagnoses against the home health-specific comorbidity subgroup list to see if any reported secondary diagnoses are listed in a subgroup (for example, if a reported secondary diagnosis was I50.9, Heart Failure, unspecified, this diagnosis is found in the Heart 11 subgroup).

We went through the following steps to determine which individual comorbidity subgroups would be used as part of the comorbidity adjustment:

- After dropping the comorbidity subgroups with a small number of 30-

day periods of care (for example, those that made up fewer than 0.1 percent of 30-day periods of care), this left 59 different comorbidity subgroups.

- Of those, there are 56 comorbidity subgroups with a p-value less than or equal to 0.05.
- Of those 56 subgroups, there are 22 comorbidity subgroups that have a positive coefficient when regressing resource use on the comorbidity subgroups (and the interactions as described below) and indicators for the clinical group, functional level, admission source, and timing. We determine the median coefficient of those 22 comorbidity subgroups to be \$60.67.

• There are 11 comorbidity subgroups with coefficients that are at or above the median (for example, \$60.67 or above). This is a decrease from the 15 subgroups presented in the CY 2018 HH PPS proposed rule. Potential reasons for this decrease include the use of CY 2017 data in this analysis, whereas the 2018 HH PPS proposed rule used CY 2016 data; the combination and/or addition of comorbidity groups; and the inclusion of the interactions between the comorbidities.

Those 11 individual comorbidity subgroups that are statistically and clinically significant for potential inclusion in the comorbidity case-mix adjustment are listed below in Table 44:

TABLE 44—INDIVIDUAL SUBGROUPS FOR COMORBIDITY ADJUSTMENT

Comorbidity subgroup	Description	Coefficient
Neuro 11	Includes diabetic retinopathy and other blindness	\$61.23
Neuro 10	Includes diabetic neuropathies	67.98
Circulatory 9	Includes acute and chronic embolisms and thrombosis	86.62
Heart 11	Includes heart failure	101.57
Cerebral 4	Includes sequelae of cerebrovascular diseases	128.78
Neuro 5	Includes Parkinson's Disease	144.99
Skin 1	Includes cutaneous abscess, cellulitis, and lymphangitis	174.93
Neuro 7	Includes hemiplegia, paraplegia, and quadriplegia	204.42
Circulatory 10	Includes varicose veins with ulceration	215.67
Skin 3	Include diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers	365.78
Skin 4	Includes stages Two-Four and unstageable pressure ulcers by site	484.83

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 (as of March 2, 2018).

Next, we examined the impact of interactions between the various comorbidity subgroups on resource use. The following steps show how we identified which interactions (for example, diagnoses from two different comorbidity subgroups) had a clinically and statistically significant relationship with increased resource utilization and could be used for the comorbidity adjustment:

- After dropping the combinations of comorbidity subgroups and interactions with a small number of 30-day periods of care (that is, those that made up fewer than 0.1 percent of 30-day periods of

care), there are 343 different comorbidity subgroup interactions (for example, comorbidity subgroup interaction Skin 1 plus Skin 3). As mentioned previously, we regressed resource use on the comorbidity subgroups, the interactions, and indicators for the clinical group, functional level, admission source, and timing.

- From that regression, we found 187 comorbidity subgroup interactions with a p-value less than or equal to 0.05.
- Of those 187 comorbidity subgroup interactions, there are 27 comorbidity subgroup interactions where the

coefficient on the comorbidity subgroup interaction term plus the coefficients on both single comorbidity variables equals a value that exceeds \$150. We used \$150 as the inclusion threshold as this amount is approximately three times that of the median value for the individual comorbidity subgroups and we believe is appropriate to reflect the increased resource use associated with comorbidity interactions. The 27 comorbidity subgroup interactions that are statistically and clinically significant for potential inclusion in the comorbidity adjustment are listed in Table 45.

TABLE 45—COMORBIDITY SUBGROUP INTERACTIONS FOR COMORBIDITY ADJUSTMENT

Comorbidity subgroup interaction	Comorbidity subgroup	Description	Comorbidity subgroup	Description	Sum of interaction term plus single comorbidity coefficients
1	Circulatory 4	Hypertensive Chronic Kidney Disease	Neuro 11	Includes diabetic retinopathy and other blindness	\$151.98
2	Endocrine 3	Diabetes with Complications	Neuro 7	Includes hemiplegia, paraplegia, and quadriplegia ...	162.35
3	Neuro 3	Dementia in diseases classified elsewhere	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	190.30
4	Circulatory 4	Hypertensive Chronic Kidney Disease	Skin 1	Cutaneous abscess, cellulitis, and lymphangitis	193.33
5	Cerebral 4	Sequelae of Cerebrovascular Diseases	Heart 11	Heart Failure	195.55
6	Neuro 7	Includes hemiplegia, paraplegia, and quadriplegia.	Renal 3	Nephrogenic Diabetes Insipidus	202.44
7	Circulatory 10 ..	Includes varicose veins with ulceration	Endocrine 3	Diabetes with Complications	205.52
8	Heart 11	Heart Failure	Neuro 5	Parkinson's Disease	212.88

TABLE 45—COMORBIDITY SUBGROUP INTERACTIONS FOR COMORBIDITY ADJUSTMENT—Continued

Comorbidity subgroup interaction	Comorbidity subgroup	Description	Comorbidity subgroup	Description	Sum of interaction term plus single comorbidity coefficients
9	Heart 12	Other Heart Diseases	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	260.83
10	Neuro 3	Dementia in diseases classified elsewhere	Skin 4	Stages Two-Four and unstageable pressure ulcers by site.	274.16
11	Behavioral 2	Mood Disorders	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	287.42
12	Circulatory 10	Includes varicose veins with ulceration	Heart 11	Heart Failure	292.39
13	Circulatory 4	Hypertensive Chronic Kidney Disease	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	296.70
14	Renal 1	Chronic kidney disease and ESRD	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	300.31
15	Respiratory 5	COPD and Asthma	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	306.63
16	Skin 1	Cutaneous abscess, cellulitis, and lymphangitis.	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	390.47
17	Renal 3	Nephrogenic Diabetes Insipidus	Skin 4	Stages Two-Four and unstageable pressure ulcers by site.	422.34
18	Heart 11	Heart Failure	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	422.20
19	Heart 12	Other Heart Diseases	Skin 4	Stages Two-Four and unstageable pressure ulcers by site.	423.08
20	Respiratory 5	COPD and Asthma	Skin 4	Stages Two-Four and unstageable pressure ulcers by site.	428.02
21	Circulatory 7	Atherosclerosis	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	432.46
22	Renal 1	Chronic kidney disease and ESRD	Skin 4	Stages Two-Four and unstageable pressure ulcers by site.	436.39
23	Endocrine 3	Diabetes with Complications	Skin 4	Stages Two-Four and unstageable pressure ulcers by site.	487.96
24	Endocrine 3	Diabetes with Complications	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	504.54
25	Circulatory 4	Hypertensive Chronic Kidney Disease	Skin 4	Stages Two-Four and unstageable pressure ulcers by site.	509.63
26	Heart 11	Heart Failure	Skin 4	Stages Two-Four and unstageable pressure ulcers by site.	529.47
27	Skin 3	Diseases of arteries, arterioles and capillaries with ulceration and non-pressure chronic ulcers.	Skin 4	Stages Two-Four and unstageable pressure ulcers by site.	750.85

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 (as of March 2, 2018).

In order to be considered a comorbidity subgroup interaction, at least two reported diagnoses, must occur in the above corresponding combinations, as shown in Table 45. For example, one diagnosis from Heart 11 must be reported along with at least one diagnosis from Neuro 5 in order to qualify for comorbidity subgroup interaction 8. In other words, the comorbidity subgroups are not interchangeable between the interaction groups (for example, reported conditions from the Renal 1 and Respiratory 5 subgroups would not be considered an interaction for purposes of the comorbidity adjustment).

For illustrative purposes, this would mean that if a 30-day period of care had the following secondary diagnoses reported, I50.22, chronic systolic (congestive) heart failure and G20, Parkinson’s Disease (these diagnoses fall under comorbidity subgroups Heart 11 and Neuro 5 respectively and are in the same comorbidity subgroup interaction), this interaction of comorbid conditions results in a higher level of resource use

than just having a comorbid diagnosis classified in Heart 11 or in Neuro 5. There will be an updated PDGM Grouper Tool posted on the HHA Center web page that HHAs can access to simulate the HIPPS code and case-mix weight under the PDGM.⁵⁰ This Grouper Tool allows providers to fill in information, including the comorbidities, to determine whether a home health period of care would receive a comorbidity adjustment under the PDGM.

The comorbidity interactions identify subgroup combinations of comorbidities that are associated with higher levels of resource use. As such, we believe that the comorbidity adjustment payment should be dependent on whether the 30-day period of care has an individual comorbidity subgroup associated with higher resource use or there is a comorbidity subgroup interaction resulting in higher resource use. Therefore, we propose to have three

⁵⁰ <https://www.cms.gov/Center/Provider-Type/Home-Health-Agency-HHA-Center.html>.

levels in the PDGM comorbidity case-mix adjustment: No Comorbidity Adjustment, Low Comorbidity Adjustment, and High Comorbidity Adjustment. This means that depending on if and which secondary diagnoses are reported, a 30-day period of care may receive no comorbidity adjustment (meaning, no secondary diagnoses exist or do not meet the criteria for a comorbidity adjustment), a “low” comorbidity adjustment, or a “high” comorbidity adjustment. We propose that home health 30-day periods of care can receive a comorbidity payment adjustment under the following circumstances:

- *Low comorbidity adjustment:* There is a reported secondary diagnosis that falls within one of the home-health specific individual comorbidity subgroups, as listed in Table 44, (for example, Heart Disease 11, Cerebral Vascular Disease 4, etc.) associated with higher resource use, or;
- *High comorbidity adjustment:* There are two or more secondary diagnoses reported that fall within the

same comorbidity subgroup interaction, as listed in Table 45, (for example, Heart 11 plus Neuro 5) that are associated with higher resource use.

Under the PDGM, a 30-day period of care can receive payment for a low comorbidity adjustment or a high comorbidity adjustment, but not both. A 30-day period of care can receive only one low comorbidity adjustment regardless of the number of secondary diagnoses reported on the home health claim that fell into one of the individual

comorbidity subgroups or one high comorbidity adjustment regardless of the number of comorbidity group interactions, as applicable. The low comorbidity adjustment amount would be the same across all 11 individual comorbidity subgroups. Similarly, the high comorbidity adjustment amount would be the same across all 27 comorbidity subgroup interactions. See Table 48 in section III.F.10 of this proposed rule for the coefficient amounts associated with both the low

and high comorbidity adjustment, as well as for all of the case-mix variables in the PDGM. If a 30-day home health period of care does not have any reported comorbidities that fall into one of the payment adjustments described above, there would be no comorbidity adjustment applied. Table 46 illustrates the average resource use for each of the comorbidity levels as described in this section.

TABLE 46—AVERAGE RESOURCE USE BY COMORBIDITY ADJUSTMENT, CY 2017

	Mean resource use	Frequency of periods	Percent of periods	Standard deviation of resource use	25th percentile of resource use	Median resource use	75th percentile of resource use
No Comorbidity Adjustment	\$1,539.92	5,402,694	62.6	\$1,183.86	\$673.27	\$1,253.95	\$2,078.68
Comorbidity Adjustment—Has at least one comorbidity from comorbidity list, no interaction from interaction list	1,575.12	2,721,969	31.6	1,248.71	658.77	1,262.47	2,131.92
Comorbidity Adjustment—Has at least one interaction from interaction list	1,878.84	500,113	5.8	1,412.06	880.07	1,523.87	2,469.93
Total	1,570.68	8,624,776	100.0	1,221.38	679.12	1,272.18	2,117.47

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 (as of March 2, 2018).

Changing to three comorbidity levels results in 216 possible case-mix groups for the purposes of adjusting payment in the PDGM. While this is more case-mix groups than the 144 case-mix groups proposed in the CY 2018 HH PPS proposed rule, this change is responsive to the comments received regarding refinements to the comorbidity adjustment without being unduly complex. We believe that this method for adjusting payment for the presence of comorbidities is more robust, reflective of patient characteristics, better aligns payment with actual resource use, and addresses comments received from the CY 2018 HH PPS proposed rule and recommendations from TEP members. The comorbidity payment adjustment takes into account the presence of individual comorbid conditions, as well as the interactions between multiple comorbid conditions, and reflects the types of conditions most commonly seen in home health patients. Similar to monitoring of nominal case-mix growth under the current HH PPS, upon implementation of the PDGM, CMS will monitor the reporting of secondary diagnoses to determine whether adjustments to payment based on the number of reported comorbidities is resulting in HHAs inappropriately

reporting comorbid conditions solely for the purpose of increased payment and appropriate program integrity actions will be taken.

As mentioned previously in this section, there will be an updated PDGM Grouper Tool posted on the HHA Center web page which will be key to understanding whether a 30-day home health period of care would receive a no, low, or high comorbidity adjustment under the PDGM. If implemented, we would continue to examine the relationship of reported comorbidities on resource utilization and make the appropriate payment refinements to help ensure that payment is in alignment with the actual costs of providing care. We invite comments on the change to the comorbidity case-mix adjustment in the PDGM including the three comorbidity levels: No Comorbidity, Low Comorbidity, and High Comorbidity Adjustment. We also invite comments on the payment associated with the Low Comorbidity and High Comorbidity Adjustment to account for increased resource utilization resulting from the presence of certain comorbidities and comorbidity interactions.

9. Change in the Low-Utilization Payment Adjustment (LUPA) Threshold

Currently, a 60-day episode with four or fewer visits is paid the national per visit amount by discipline, adjusted by the appropriate wage index based on the site of service of the beneficiary, instead of the full 60-day episode payment amount. Such payment adjustments are called Low Utilization Payment Adjustments (LUPAs). While the alternative case-mix model proposed in the CY 2018 HH PPS proposed rule still included LUPAs, the approach to calculating the LUPA thresholds needed to change due to the proposed change in the unit of payment to 30-day periods of care from 60-day episodes. The 30-day periods of care have substantially more episodes with four or fewer visits than 60-day episodes. To create LUPA thresholds we proposed in the CY 2018 HH PPS proposed rule to set the LUPA threshold at the 10th percentile value of visits or 2, whichever is higher, for each payment group. (82 FR 35324).

We received comments in response to the CY 2018 HH PPS proposed rule on maintaining the use of a single LUPA threshold instead of varying the thresholds at the subgroup level. Other commenters expressed concern that the variable LUPA thresholds will add

additional administrative burden and create additional opportunity for error. After analyzing the data to evaluate the potential impact, we believe that the change to a 30-day period of care under the proposed PDGM from the current 60-day episode warrants variable LUPA thresholds depending on the payment group to which it is assigned. We believe that the proposed LUPA thresholds that vary based on the case-mix assignment for the 30-day period of care in the proposed PDGM is an improvement over the current 5 visit threshold that does not vary by case-mix assignment. This is the same approach proposed in the CY 2018 proposed rule where LUPA thresholds would vary by case-mix group. LUPA thresholds that vary by case-mix group take into account different resource use patterns based on beneficiaries' clinical

characteristics. Additionally, we do not believe that the case-mix-specific LUPA thresholds would result in additional administrative burden as LUPA visits are billed the same as non-LUPA periods. Likewise, the PDGM will not be implemented until January 1, 2020, giving HHAs and vendors sufficient time to make necessary changes to their systems and to ensure that appropriate quality checks are in place to minimize any claims errors. Therefore, we propose to vary the LUPA threshold for a 30-day period of care under the PDGM depending on the PDGM payment group to which it is assigned.

We note that in the current payment system, approximately 8 percent of episodes are LUPAs. Under the PDGM, consistent with the CY 2018 HH PPS proposed rule, we propose the 10th percentile value of visits or 2 visits,

whichever is higher, in order to target approximately the same percentage of LUPAs (approximately 7.1 percent of 30-day periods would be LUPAs (assuming no behavior change)). For example, for episodes in the payment group corresponding to “MMTA—Functional Level Medium—Early Timing—Institutional Admission—No Comorbidity” (HIPPS code 2AB1 in Table 47), the threshold is four visits. If a home health 30-day period of care is assigned to that particular payment group had three or fewer visits the HHA would be paid using the national per-visit rates in section III.C.4 of this proposed rule instead of the case-mix adjusted 30-day period of care payment amount. The LUPA thresholds for the PDGM payment group with the corresponding HIPPS code is listed in Table 47.

TABLE 47—PROPOSED LUPA THRESHOLDS FOR THE PROPOSED PDGM PAYMENT GROUPS

HIPPS	Clinical group and functional level	Timing and admission source	Comorbidity adjustment (0 = none, 1 = single comorbidity, 2 = interaction)	Visit threshold (10th percentile or 2—whichever is higher)
1AA11	MMTA—Low	Early—Community	0	4
1AA21	MMTA—Low	Early—Community	1	4
1AA31	MMTA—Low	Early—Community	2	4
1AB11	MMTA—Medium	Early—Community	0	4
1AB21	MMTA—Medium	Early—Community	1	4
1AB31	MMTA—Medium	Early—Community	2	5
1AC11	MMTA—High	Early—Community	0	4
1AC21	MMTA—High	Early—Community	1	4
1AC31	MMTA—High	Early—Community	2	4
1BA11	Neuro—Low	Early—Community	0	4
1BA21	Neuro—Low	Early—Community	1	5
1BA31	Neuro—Low	Early—Community	2	5
1BB11	Neuro—Medium	Early—Community	0	5
1BB21	Neuro—Medium	Early—Community	1	5
1BB31	Neuro—Medium	Early—Community	2	5
1BC11	Neuro—High	Early—Community	0	4
1BC21	Neuro—High	Early—Community	1	5
1BC31	Neuro—High	Early—Community	2	5
1CA11	Wound—Low	Early—Community	0	4
1CA21	Wound—Low	Early—Community	1	4
1CA31	Wound—Low	Early—Community	2	4
1CB11	Wound—Medium	Early—Community	0	5
1CB21	Wound—Medium	Early—Community	1	5
1CB31	Wound—Medium	Early—Community	2	5
1CC11	Wound—High	Early—Community	0	4
1CC21	Wound—High	Early—Community	1	5
1CC31	Wound—High	Early—Community	2	4
1DA11	Complex—Low	Early—Community	0	3
1DA21	Complex—Low	Early—Community	1	2
1DA31	Complex—Low	Early—Community	2	4
1DB11	Complex—Medium	Early—Community	0	3
1DB21	Complex—Medium	Early—Community	1	3
1DB31	Complex—Medium	Early—Community	2	4
1DC11	Complex—High	Early—Community	0	3
1DC21	Complex—High	Early—Community	1	3
1DC31	Complex—High	Early—Community	2	3
1EA11	MS Rehab—Low	Early—Community	0	5
1EA21	MS Rehab—Low	Early—Community	1	5
1EA31	MS Rehab—Low	Early—Community	2	5
1EB11	MS Rehab—Medium	Early—Community	0	5
1EB21	MS Rehab—Medium	Early—Community	1	5
1EB31	MS Rehab—Medium	Early—Community	2	5

TABLE 47—PROPOSED LUPA THRESHOLDS FOR THE PROPOSED PDGM PAYMENT GROUPS—Continued

HIPPS	Clinical group and functional level	Timing and admission source	Comorbidity adjustment (0 = none, 1 = single comorbidity, 2 = interaction)	Visit threshold (10th percentile or 2—whichever is higher)
1EC11	MS Rehab—High	Early—Community	0	5
1EC21	MS Rehab—High	Early—Community	1	5
1EC31	MS Rehab—High	Early—Community	2	5
1FA11	Behavioral Health—Low	Early—Community	0	3
1FA21	Behavioral Health—Low	Early—Community	1	3
1FA31	Behavioral Health—Low	Early—Community	2	3
1FB11	Behavioral Health—Medium	Early—Community	0	4
1FB21	Behavioral Health—Medium	Early—Community	1	4
1FB31	Behavioral Health—Medium	Early—Community	2	4
1FC11	Behavioral Health—High	Early—Community	0	4
1FC21	Behavioral Health—High	Early—Community	1	4
1FC31	Behavioral Health—High	Early—Community	2	4
2AA11	MMTA—Low	Early—Institutional	0	3
2AA21	MMTA—Low	Early—Institutional	1	4
2AA31	MMTA—Low	Early—Institutional	2	4
2AB11	MMTA—Medium	Early—Institutional	0	4
2AB21	MMTA—Medium	Early—Institutional	1	5
2AB31	MMTA—Medium	Early—Institutional	2	5
2AC11	MMTA—High	Early—Institutional	0	4
2AC21	MMTA—High	Early—Institutional	1	4
2AC31	MMTA—High	Early—Institutional	2	4
2BA11	Neuro—Low	Early—Institutional	0	5
2BA21	Neuro—Low	Early—Institutional	1	5
2BA31	Neuro—Low	Early—Institutional	2	5
2BB11	Neuro—Medium	Early—Institutional	0	6
2BB21	Neuro—Medium	Early—Institutional	1	6
2BB31	Neuro—Medium	Early—Institutional	2	6
2BC11	Neuro—High	Early—Institutional	0	5
2BC21	Neuro—High	Early—Institutional	1	5
2BC31	Neuro—High	Early—Institutional	2	5
2CA11	Wound—Low	Early—Institutional	0	4
2CA21	Wound—Low	Early—Institutional	1	4
2CA31	Wound—Low	Early—Institutional	2	4
2CB11	Wound—Medium	Early—Institutional	0	5
2CB21	Wound—Medium	Early—Institutional	1	5
2CB31	Wound—Medium	Early—Institutional	2	5
2CC11	Wound—High	Early—Institutional	0	4
2CC21	Wound—High	Early—Institutional	1	5
2CC31	Wound—High	Early—Institutional	2	4
2DA11	Complex—Low	Early—Institutional	0	3
2DA21	Complex—Low	Early—Institutional	1	3
2DA31	Complex—Low	Early—Institutional	2	4
2DB11	Complex—Medium	Early—Institutional	0	4
2DB21	Complex—Medium	Early—Institutional	1	4
2DB31	Complex—Medium	Early—Institutional	2	5
2DC11	Complex—High	Early—Institutional	0	4
2DC21	Complex—High	Early—Institutional	1	4
2DC31	Complex—High	Early—Institutional	2	4
2EA11	MS Rehab—Low	Early—Institutional	0	5
2EA21	MS Rehab—Low	Early—Institutional	1	5
2EA31	MS Rehab—Low	Early—Institutional	2	5
2EB11	MS Rehab—Medium	Early—Institutional	0	6
2EB21	MS Rehab—Medium	Early—Institutional	1	6
2EB31	MS Rehab—Medium	Early—Institutional	2	6
2EC11	MS Rehab—High	Early—Institutional	0	6
2EC21	MS Rehab—High	Early—Institutional	1	6
2EC31	MS Rehab—High	Early—Institutional	2	6
2FA11	Behavioral Health—Low	Early—Institutional	0	3
2FA21	Behavioral Health—Low	Early—Institutional	1	3
2FA31	Behavioral Health—Low	Early—Institutional	2	4
2FB11	Behavioral Health—Medium	Early—Institutional	0	4
2FB21	Behavioral Health—Medium	Early—Institutional	1	4
2FB31	Behavioral Health—Medium	Early—Institutional	2	5
2FC11	Behavioral Health—High	Early—Institutional	0	4
2FC21	Behavioral Health—High	Early—Institutional	1	4
2FC31	Behavioral Health—High	Early—Institutional	2	5
3AA11	MMTA—Low	Late—Community	0	2
3AA21	MMTA—Low	Late—Community	1	2

TABLE 47—PROPOSED LUPA THRESHOLDS FOR THE PROPOSED PDGM PAYMENT GROUPS—Continued

HIPPS	Clinical group and functional level	Timing and admission source	Comorbidity adjustment (0 = none, 1 = single comorbidity, 2 = interaction)	Visit threshold (10th percentile or 2—whichever is higher)
3AA31	MMTA—Low	Late—Community	2	3
3AB11	MMTA—Medium	Late—Community	0	2
3AB21	MMTA—Medium	Late—Community	1	2
3AB31	MMTA—Medium	Late—Community	2	3
3AC11	MMTA—High	Late—Community	0	2
3AC21	MMTA—High	Late—Community	1	2
3AC31	MMTA—High	Late—Community	2	3
3BA11	Neuro—Low	Late—Community	0	2
3BA21	Neuro—Low	Late—Community	1	2
3BA31	Neuro—Low	Late—Community	2	2
3BB11	Neuro—Medium	Late—Community	0	2
3BB21	Neuro—Medium	Late—Community	1	2
3BB31	Neuro—Medium	Late—Community	2	3
3BC11	Neuro—High	Late—Community	0	2
3BC21	Neuro—High	Late—Community	1	2
3BC31	Neuro—High	Late—Community	2	2
3CA11	Wound—Low	Late—Community	0	2
3CA21	Wound—Low	Late—Community	1	3
3CA31	Wound—Low	Late—Community	2	3
3CB11	Wound—Medium	Late—Community	0	3
3CB21	Wound—Medium	Late—Community	1	3
3CB31	Wound—Medium	Late—Community	2	3
3CC11	Wound—High	Late—Community	0	3
3CC21	Wound—High	Late—Community	1	3
3CC31	Wound—High	Late—Community	2	3
3DA11	Complex—Low	Late—Community	0	2
3DA21	Complex—Low	Late—Community	1	2
3DA31	Complex—Low	Late—Community	2	2
3DB11	Complex—Medium	Late—Community	0	2
3DB21	Complex—Medium	Late—Community	1	2
3DB31	Complex—Medium	Late—Community	2	2
3DC11	Complex—High	Late—Community	0	2
3DC21	Complex—High	Late—Community	1	2
3DC31	Complex—High	Late—Community	2	2
3EA11	MS Rehab—Low	Late—Community	0	2
3EA21	MS Rehab—Low	Late—Community	1	2
3EA31	MS Rehab—Low	Late—Community	2	2
3EB11	MS Rehab—Medium	Late—Community	0	2
3EB21	MS Rehab—Medium	Late—Community	1	2
3EB31	MS Rehab—Medium	Late—Community	2	3
3EC11	MS Rehab—High	Late—Community	0	2
3EC21	MS Rehab—High	Late—Community	1	2
3EC31	MS Rehab—High	Late—Community	2	3
3FA11	Behavioral Health—Low	Late—Community	0	2
3FA21	Behavioral Health—Low	Late—Community	1	2
3FA31	Behavioral Health—Low	Late—Community	2	2
3FB11	Behavioral Health—Medium	Late—Community	0	2
3FB21	Behavioral Health—Medium	Late—Community	1	2
3FB31	Behavioral Health—Medium	Late—Community	2	2
3FC11	Behavioral Health—High	Late—Community	0	2
3FC21	Behavioral Health—High	Late—Community	1	2
3FC31	Behavioral Health—High	Late—Community	2	2
4AA11	MMTA—Low	Late—Institutional	0	3
4AA21	MMTA—Low	Late—Institutional	1	3
4AA31	MMTA—Low	Late—Institutional	2	3
4AB11	MMTA—Medium	Late—Institutional	0	3
4AB21	MMTA—Medium	Late—Institutional	1	3
4AB31	MMTA—Medium	Late—Institutional	2	4
4AC11	MMTA—High	Late—Institutional	0	3
4AC21	MMTA—High	Late—Institutional	1	3
4AC31	MMTA—High	Late—Institutional	2	4
4BA11	Neuro—Low	Late—Institutional	0	3
4BA21	Neuro—Low	Late—Institutional	1	4
4BA31	Neuro—Low	Late—Institutional	2	3
4BB11	Neuro—Medium	Late—Institutional	0	4
4BB21	Neuro—Medium	Late—Institutional	1	4
4BB31	Neuro—Medium	Late—Institutional	2	5
4BC11	Neuro—High	Late—Institutional	0	4

TABLE 47—PROPOSED LUPA THRESHOLDS FOR THE PROPOSED PDGM PAYMENT GROUPS—Continued

HIPPS	Clinical group and functional level	Timing and admission source	Comorbidity adjustment (0 = none, 1 = single comorbidity, 2 = interaction)	Visit threshold (10th percentile or 2—whichever is higher)
4BC21	Neuro—High	Late—Institutional	1	4
4BC31	Neuro—High	Late—Institutional	2	4
4CA11	Wound—Low	Late—Institutional	0	3
4CA21	Wound—Low	Late—Institutional	1	3
4CA31	Wound—Low	Late—Institutional	2	3
4CB11	Wound—Medium	Late—Institutional	0	4
4CB21	Wound—Medium	Late—Institutional	1	4
4CB31	Wound—Medium	Late—Institutional	2	4
4CC11	Wound—High	Late—Institutional	0	3
4CC21	Wound—High	Late—Institutional	1	4
4CC31	Wound—High	Late—Institutional	2	4
4DA11	Complex—Low	Late—Institutional	0	2
4DA21	Complex—Low	Late—Institutional	1	3
4DA31	Complex—Low	Late—Institutional	2	3
4DB11	Complex—Medium	Late—Institutional	0	3
4DB21	Complex—Medium	Late—Institutional	1	3
4DB31	Complex—Medium	Late—Institutional	2	4
4DC11	Complex—High	Late—Institutional	0	3
4DC21	Complex—High	Late—Institutional	1	3
4DC31	Complex—High	Late—Institutional	2	3
4EA11	MS Rehab—Low	Late—Institutional	0	3
4EA21	MS Rehab—Low	Late—Institutional	1	3
4EA31	MS Rehab—Low	Late—Institutional	2	3
4EB11	MS Rehab—Medium	Late—Institutional	0	4
4EB21	MS Rehab—Medium	Late—Institutional	1	4
4EB31	MS Rehab—Medium	Late—Institutional	2	4
4EC11	MS Rehab—High	Late—Institutional	0	4
4EC21	MS Rehab—High	Late—Institutional	1	4
4EC31	MS Rehab—High	Late—Institutional	2	4
4FA11	Behavioral Health—Low	Late—Institutional	0	2
4FA21	Behavioral Health—Low	Late—Institutional	1	2
4FA31	Behavioral Health—Low	Late—Institutional	2	2
4FB11	Behavioral Health—Medium	Late—Institutional	0	3
4FB21	Behavioral Health—Medium	Late—Institutional	1	3
4FB31	Behavioral Health—Medium	Late—Institutional	2	3
4FC11	Behavioral Health—High	Late—Institutional	0	3
4FC21	Behavioral Health—High	Late—Institutional	1	3
4FC31	Behavioral Health—High	Late—Institutional	2	4

In summary, we propose to vary the LUPA threshold for a 30-day period of care under the PDGM depending on the PDGM payment group to which it is assigned. We also propose that the LUPA thresholds for each PDGM payment group would be re-evaluated every year based on the most current utilization data available. We invite public comments on the LUPA threshold methodology proposed for the PDGM and the associated regulations text changes in section III.F.13 of this proposed rule.

10. HH PPS Case-Mix Weights Under the PDGM

Section 1895(b)(4)(B) requires the Secretary to establish appropriate case mix adjustment factors for home health services in a manner that explains a significant amount of the variation in cost among different units of services. In the CY 2018 HH PPS proposed rule (82

FR 35270), we proposed an alternative case-mix adjustment methodology to better align payment with patient care needs. The proposed alternative case-mix adjustment methodology places patients into meaningful payment categories based on patient characteristics (principal diagnosis, functional level, comorbid conditions, referral source and timing). We did not finalize the alternative case-mix adjustment methodology in the CY 2018 final rule in order to consider comments and feedback for any potential refinements to the model. Refinements were made to the comorbidity case-mix adjustment while all other variables remain as proposed in the CY 2018 HH PPS proposed rule (for example, clinical group, functional level, admission source, and episode timing). As outlined in previous sections of this proposed rule, we are again proposing an alternative case-mix adjustment

methodology, called the PDGM, but this methodology now results in 216 unique case-mix groups. These 216 unique case-mix payment groups are called Home Health Resource Groups (HHRGs). In accordance with the BBA of 2018, the proposed PDGM will be implemented in a budget neutral manner.

To generate PDGM case-mix weights, we utilized a data file based on home health episodes of care, as reported in Medicare home health claims. The claims data provide episode-level data as well as visit-level data. The claims also provide data on whether non-routine supplies (NRS) was provided during the episode and the total charges for NRS. We used CY 2017 home health claims data with linked OASIS assessment data to obtain patient characteristics. We determined the case-mix weight for each of the different PDGM payment groups by regressing

resource use on a series of indicator variables for each of the categories using a fixed effects model. The regression measures resource use with the Cost per Minute (CPM) + NRS approach outlined in section III.F.2 of this proposed rule. The model used in the PDGM payment regression generates outcomes that are statistically significant and consistent with findings.

We received comments in response to the proposed alternative case-mix adjustment methodology in the CY 2018 HH PPS proposed rule on the standards for subsequent case-mix weight recalibration (nature and timing). Similar to the annual recalibration of the case-mix weights under the current HH PPS, annual recalibration will be made to the PDGM case-mix weights. We will make refinements as necessary to ensure that payment for home health periods are in alignment with costs. We note that this includes a re-calculation of the proposed PDGM case-mix weights for CY 2020 in the CY 2020 HH PPS proposed rule using CY 2018 home health claims data linked with OASIS assessment data. In other words, the table below represents the PDGM case-mix weights if we were to implement the PDGM in CY 2019. However, since we are proposing to implement the PDGM on January 1, 2020, the actual PDGM case-mix weights for CY 2020 will be updated in the CY 2020 HH PPS

proposed rule. We also received a comment from MedPAC about the development of alternative case-mix adjustment methodology using the regression approach, which is a statistical estimate of the cost associated with a payment group instead of the actual cost. MedPAC stated that this approach results in estimated payments that may not equal the actual costs experienced by HHAs. As noted, CMS has used a regression approach since the inception of the HH PPS in 2000. The regression smoothens weights compared to a system where each payment group receives a weight that is based solely on the average resource use of all 30-day periods in a payment group compared to the overall average resource use across all 30 day periods. Smoothing the weights helps to see relationships between variables and foresee trends. In addition, using a regression approach to calculate case-mix weights allows CMS to use a fixed effects model, which will estimate the variation observed within individual HHAs and opposed to estimating the variation across HHAs. With the fixed effects, the coefficients should better estimate the relationship the regression variables have with resource use compared to not accounting for fixed effects. We continue to believe that using a regression approach for the calculation

of the HH PPS case-mix weights is most appropriate.

After best fitting the model on home health episodes from 2017 data, we used the estimated coefficients of the model to predict the expected average resource use of each episode based on the five PDGM categories. In order to normalize the results, we have divided the regression predicted resource use of each episode by the overall average resource use of all episodes used to estimate the model in order to calculate the case mix weight of all episodes within a particular payment group, where each payment group is defined as the unique combination of the subgroups within the five PDGM categories (admission source, timing of the 30-day period, clinical grouping, functional level, and comorbidity adjustment). The case-mix weight is then used to adjust the base payment rate to determine each period's payment. Table 48 shows the coefficients of the payment regression used to generate the weights, and the coefficients divided by average resource use. Information can be found in section III.F.6 of this rule for the clinical groups, section III.F.7 of this rule for the functional levels, section III.F.5 for admission source, section III.F.4 for timing, and section III.F.8 for the comorbidity adjustment.

TABLE 48—COEFFICIENT OF PAYMENT REGRESSION AND COEFFICIENT DIVIDED BY AVERAGE RESOURCE USE FOR PDGM PAYMENT GROUP

Variable	Coefficient	Coefficient divided by average resource use
Clinical Group and Functional Level (MMTA—Low is excluded)		
MMTA—Medium Functional	\$237.83	0.1514
MMTA—High Functional	416.75	0.2653
Behavioral Health—Low Functional	– 116.39	– 0.0741
Behavioral Health—Medium Functional	169.86	0.1081
Behavioral Health—High Functional	309.97	0.1974
Complex—Low Functional	– 27.39	– 0.0174
Complex—Medium Functional	331.88	0.2113
Complex—High Functional	476.69	0.3035
MS Rehab—Low Functional	141.37	0.0900
MS Rehab—Medium Functional	338.96	0.2158
MS Rehab—High Functional	558.95	0.3559
Neuro—Low Functional	329.19	0.2096
Neuro—Medium Functional	593.98	0.3782
Neuro—High Functional	711.48	0.4530
Wound—Low Functional	368.43	0.2346
Wound—Medium Functional	628.37	0.4001
Wound—High Functional	822.84	0.5239
Referral Source With Timing (Community Early excluded)		
Community—Late	– 646.84	– 0.4118
Institutional—Early	278.85	0.1775
Institutional—Late	45.71	0.0291

TABLE 48—COEFFICIENT OF PAYMENT REGRESSION AND COEFFICIENT DIVIDED BY AVERAGE RESOURCE USE FOR PDGM PAYMENT GROUP—Continued

Variable	Coefficient	Coefficient divided by average resource use
Comorbidity Adjustment (No Comorbidity Adjustment Group is excluded)		
Comorbidity Adjustment—Has at least one comorbidity from comorbidity list, no interaction from interaction list	92.44	0.0589
Comorbidity Adjustment—Has at least one interaction from interaction list	345.20	0.2198
Constant	\$1,560.37	0.9934
Average Resource Use	\$1,570.68	.....
N	8,624,776	.....
Adj. R-Squared	0.2925	.....

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 (as of March 2, 2018) for which we had a linked OASIS assessment. LUPA episodes, outlier episodes, and episodes with PEP adjustments were excluded.

Table 49 presents the case-mix weight for each HHRG in the regression model (Table 48). LUPA episodes, outlier episodes, and episodes with PEP adjustments were excluded. Please find LUPA information in section III.F.9 of this rule. Weights are determined by first calculating the predicted resource use for episodes with a particular combination of admission source, episode timing, clinical grouping, functional level, and comorbidity adjustment. This combination specific calculation is then divided by the average resource use of all the episodes that were used to estimate the standard

30-day payment rate, which is \$1,570.68. The resulting ratio represents the case-mix weight for that particular combination of a HHRG payment group. The adjusted R-squared value for this model is 0.2925 which is slightly higher than the adjusted R-squared value of 0.2704 that we proposed in CY 2018 by using the CY 2016 claims data. The adjusted R-squared value provides a measure of how well observed outcomes are replicated by the model, based on the proportion of total variation of outcomes explained by the model.

As noted above, there are 216 different HHRG payment groups under

the PDGM. There are 15 HHRG payment groups that represent roughly 50.2 percent of the total episodes. There are 61 HHRG payment groups that represent roughly 1.0 percent of total episodes. The HHRG payment group with the smallest weight has a weight of 0.5075 (community admitted, late, behavioral health, low functional impairment level, with no comorbidity adjustment). The HHRG payment group with the largest weight has a weight of 1.9146 (institutional admitted, early, wound, high functional impairment level, with interactive comorbidity adjustment).

TABLE 49—CASE MIX WEIGHTS FOR EACH HHRG PAYMENT GROUP

HIPPS	Clinical group and functional level	Timing and admission source	Comorbidity adjustment	Proposed CY 2019 weight
1AA11	MMTA—Low	Early—Community	0	0.9934
1AA21	MMTA—Low	Early—Community	1	1.0523
1AA31	MMTA—Low	Early—Community	2	1.2132
1AB11	MMTA—Medium	Early—Community	0	1.1449
1AB21	MMTA—Medium	Early—Community	1	1.2037
1AB31	MMTA—Medium	Early—Community	2	1.3646
1AC11	MMTA—High	Early—Community	0	1.2588
1AC21	MMTA—High	Early—Community	1	1.3176
1AC31	MMTA—High	Early—Community	2	1.4785
1BA11	Neuro—Low	Early—Community	0	1.2030
1BA21	Neuro—Low	Early—Community	1	1.2619
1BA31	Neuro—Low	Early—Community	2	1.4228
1BB11	Neuro—Medium	Early—Community	0	1.3716
1BB21	Neuro—Medium	Early—Community	1	1.4305
1BB31	Neuro—Medium	Early—Community	2	1.5914
1BC11	Neuro—High	Early—Community	0	1.4464
1BC21	Neuro—High	Early—Community	1	1.5053
1BC31	Neuro—High	Early—Community	2	1.6662
1CA11	Wound—Low	Early—Community	0	1.2280
1CA21	Wound—Low	Early—Community	1	1.2869
1CA31	Wound—Low	Early—Community	2	1.4478
1CB11	Wound—Medium	Early—Community	0	1.3935
1CB21	Wound—Medium	Early—Community	1	1.4523
1CB31	Wound—Medium	Early—Community	2	1.6133
1CC11	Wound—High	Early—Community	0	1.5173
1CC21	Wound—High	Early—Community	1	1.5762
1CC31	Wound—High	Early—Community	2	1.7371
1DA11	Complex—Low	Early—Community	0	0.9760

TABLE 49—CASE MIX WEIGHTS FOR EACH HHRG PAYMENT GROUP—Continued

HIPPS	Clinical group and functional level	Timing and admission source	Comorbidity adjustment	Proposed CY 2019 weight
1DA21	Complex—Low	Early—Community	1	1.0348
1DA31	Complex—Low	Early—Community	2	1.1958
1DB11	Complex—Medium	Early—Community	0	1.2047
1DB21	Complex—Medium	Early—Community	1	1.2636
1DB31	Complex—Medium	Early—Community	2	1.4245
1DC11	Complex—High	Early—Community	0	1.2969
1DC21	Complex—High	Early—Community	1	1.3558
1DC31	Complex—High	Early—Community	2	1.5167
1EA11	MS Rehab—Low	Early—Community	0	1.0834
1EA21	MS Rehab—Low	Early—Community	1	1.1423
1EA31	MS Rehab—Low	Early—Community	2	1.3032
1EB11	MS Rehab—Medium	Early—Community	0	1.2092
1EB21	MS Rehab—Medium	Early—Community	1	1.2681
1EB31	MS Rehab—Medium	Early—Community	2	1.4290
1EC11	MS Rehab—High	Early—Community	0	1.3493
1EC21	MS Rehab—High	Early—Community	1	1.4082
1EC31	MS Rehab—High	Early—Community	2	1.5691
1FA11	Behavioral Health—Low	Early—Community	0	0.9193
1FA21	Behavioral Health—Low	Early—Community	1	0.9782
1FA31	Behavioral Health—Low	Early—Community	2	1.1391
1FB11	Behavioral Health—Medium	Early—Community	0	1.1016
1FB21	Behavioral Health—Medium	Early—Community	1	1.1604
1FB31	Behavioral Health—Medium	Early—Community	2	1.3214
1FC11	Behavioral Health—High	Early—Community	0	1.1908
1FC21	Behavioral Health—High	Early—Community	1	1.2496
1FC31	Behavioral Health—High	Early—Community	2	1.4106
2AA11	MMTA—Low	Early—Institutional	0	1.1710
2AA21	MMTA—Low	Early—Institutional	1	1.2298
2AA31	MMTA—Low	Early—Institutional	2	1.3907
2AB11	MMTA—Medium	Early—Institutional	0	1.3224
2AB21	MMTA—Medium	Early—Institutional	1	1.3812
2AB31	MMTA—Medium	Early—Institutional	2	1.5422
2AC11	MMTA—High	Early—Institutional	0	1.4363
2AC21	MMTA—High	Early—Institutional	1	1.4951
2AC31	MMTA—High	Early—Institutional	2	1.6561
2BA11	Neuro—Low	Early—Institutional	0	1.3805
2BA21	Neuro—Low	Early—Institutional	1	1.4394
2BA31	Neuro—Low	Early—Institutional	2	1.6003
2BB11	Neuro—Medium	Early—Institutional	0	1.5491
2BB21	Neuro—Medium	Early—Institutional	1	1.6080
2BB31	Neuro—Medium	Early—Institutional	2	1.7689
2BC11	Neuro—High	Early—Institutional	0	1.6239
2BC21	Neuro—High	Early—Institutional	1	1.6828
2BC31	Neuro—High	Early—Institutional	2	1.8437
2CA11	Wound—Low	Early—Institutional	0	1.4055
2CA21	Wound—Low	Early—Institutional	1	1.4644
2CA31	Wound—Low	Early—Institutional	2	1.6253
2CB11	Wound—Medium	Early—Institutional	0	1.5710
2CB21	Wound—Medium	Early—Institutional	1	1.6299
2CB31	Wound—Medium	Early—Institutional	2	1.7908
2CC11	Wound—High	Early—Institutional	0	1.6948
2CC21	Wound—High	Early—Institutional	1	1.7537
2CC31	Wound—High	Early—Institutional	2	1.9146
2DA11	Complex—Low	Early—Institutional	0	1.1535
2DA21	Complex—Low	Early—Institutional	1	1.2124
2DA31	Complex—Low	Early—Institutional	2	1.3733
2DB11	Complex—Medium	Early—Institutional	0	1.3823
2DB21	Complex—Medium	Early—Institutional	1	1.4411
2DB31	Complex—Medium	Early—Institutional	2	1.6020
2DC11	Complex—High	Early—Institutional	0	1.4745
2DC21	Complex—High	Early—Institutional	1	1.5333
2DC31	Complex—High	Early—Institutional	2	1.6942
2EA11	MS Rehab—Low	Early—Institutional	0	1.2610
2EA21	MS Rehab—Low	Early—Institutional	1	1.3198
2EA31	MS Rehab—Low	Early—Institutional	2	1.4807
2EB11	MS Rehab—Medium	Early—Institutional	0	1.3868
2EB21	MS Rehab—Medium	Early—Institutional	1	1.4456
2EB31	MS Rehab—Medium	Early—Institutional	2	1.6065
2EC11	MS Rehab—High	Early—Institutional	0	1.5268
2EC21	MS Rehab—High	Early—Institutional	1	1.5857

TABLE 49—CASE MIX WEIGHTS FOR EACH HHRG PAYMENT GROUP—Continued

HIPPS	Clinical group and functional level	Timing and admission source	Comorbidity adjustment	Proposed CY 2019 weight
2EC31	MS Rehab—High	Early—Institutional	2	1.7466
2FA11	Behavioral Health—Low	Early—Institutional	0	1.0969
2FA21	Behavioral Health—Low	Early—Institutional	1	1.1557
2FA31	Behavioral Health—Low	Early—Institutional	2	1.3166
2FB11	Behavioral Health—Medium	Early—Institutional	0	1.2791
2FB21	Behavioral Health—Medium	Early—Institutional	1	1.3380
2FB31	Behavioral Health—Medium	Early—Institutional	2	1.4989
2FC11	Behavioral Health—High	Early—Institutional	0	1.3683
2FC21	Behavioral Health—High	Early—Institutional	1	1.4272
2FC31	Behavioral Health—High	Early—Institutional	2	1.5881
3AA11	MMTA—Low	Late—Community	0	0.5816
3AA21	MMTA—Low	Late—Community	1	0.6405
3AA31	MMTA—Low	Late—Community	2	0.8014
3AB11	MMTA—Medium	Late—Community	0	0.7330
3AB21	MMTA—Medium	Late—Community	1	0.7919
3AB31	MMTA—Medium	Late—Community	2	0.9528
3AC11	MMTA—High	Late—Community	0	0.8469
3AC21	MMTA—High	Late—Community	1	0.9058
3AC31	MMTA—High	Late—Community	2	1.0667
3BA11	Neuro—Low	Late—Community	0	0.7912
3BA21	Neuro—Low	Late—Community	1	0.8500
3BA31	Neuro—Low	Late—Community	2	1.0110
3BB11	Neuro—Medium	Late—Community	0	0.9598
3BB21	Neuro—Medium	Late—Community	1	1.0186
3BB31	Neuro—Medium	Late—Community	2	1.1796
3BC11	Neuro—High	Late—Community	0	1.0346
3BC21	Neuro—High	Late—Community	1	1.0934
3BC31	Neuro—High	Late—Community	2	1.2544
3CA11	Wound—Low	Late—Community	0	0.8162
3CA21	Wound—Low	Late—Community	1	0.8750
3CA31	Wound—Low	Late—Community	2	1.0360
3CB11	Wound—Medium	Late—Community	0	0.9817
3CB21	Wound—Medium	Late—Community	1	1.0405
3CB31	Wound—Medium	Late—Community	2	1.2015
3CC11	Wound—High	Late—Community	0	1.1055
3CC21	Wound—High	Late—Community	1	1.1643
3CC31	Wound—High	Late—Community	2	1.3253
3DA11	Complex—Low	Late—Community	0	0.5642
3DA21	Complex—Low	Late—Community	1	0.6230
3DA31	Complex—Low	Late—Community	2	0.7840
3DB11	Complex—Medium	Late—Community	0	0.7929
3DB21	Complex—Medium	Late—Community	1	0.8518
3DB31	Complex—Medium	Late—Community	2	1.0127
3DC11	Complex—High	Late—Community	0	0.8851
3DC21	Complex—High	Late—Community	1	0.9440
3DC31	Complex—High	Late—Community	2	1.1049
3EA11	MS Rehab—Low	Late—Community	0	0.6716
3EA21	MS Rehab—Low	Late—Community	1	0.7305
3EA31	MS Rehab—Low	Late—Community	2	0.8914
3EB11	MS Rehab—Medium	Late—Community	0	0.7974
3EB21	MS Rehab—Medium	Late—Community	1	0.8563
3EB31	MS Rehab—Medium	Late—Community	2	1.0172
3EC11	MS Rehab—High	Late—Community	0	0.9375
3EC21	MS Rehab—High	Late—Community	1	0.9963
3EC31	MS Rehab—High	Late—Community	2	1.1573
3FA11	Behavioral Health—Low	Late—Community	0	0.5075
3FA21	Behavioral Health—Low	Late—Community	1	0.5664
3FA31	Behavioral Health—Low	Late—Community	2	0.7273
3FB11	Behavioral Health—Medium	Late—Community	0	0.6898
3FB21	Behavioral Health—Medium	Late—Community	1	0.7486
3FB31	Behavioral Health—Medium	Late—Community	2	0.9095
3FC11	Behavioral Health—High	Late—Community	0	0.7790
3FC21	Behavioral Health—High	Late—Community	1	0.8378
3FC31	Behavioral Health—High	Late—Community	2	0.9987
4AA11	MMTA—Low	Late—Institutional	0	1.0225
4AA21	MMTA—Low	Late—Institutional	1	1.0814
4AA31	MMTA—Low	Late—Institutional	2	1.2423
4AB11	MMTA—Medium	Late—Institutional	0	1.1740
4AB21	MMTA—Medium	Late—Institutional	1	1.2328
4AB31	MMTA—Medium	Late—Institutional	2	1.3937

TABLE 49—CASE MIX WEIGHTS FOR EACH HHRG PAYMENT GROUP—Continued

HIPPS	Clinical group and functional level	Timing and admission source	Comorbidity adjustment	Proposed CY 2019 weight
4AC11	MMTA—High	Late—Institutional	0	1.2879
4AC21	MMTA—High	Late—Institutional	1	1.3467
4AC31	MMTA—High	Late—Institutional	2	1.5076
4BA11	Neuro—Low	Late—Institutional	0	1.2321
4BA21	Neuro—Low	Late—Institutional	1	1.2910
4BA31	Neuro—Low	Late—Institutional	2	1.4519
4BB11	Neuro—Medium	Late—Institutional	0	1.4007
4BB21	Neuro—Medium	Late—Institutional	1	1.4595
4BB31	Neuro—Medium	Late—Institutional	2	1.6205
4BC11	Neuro—High	Late—Institutional	0	1.4755
4BC21	Neuro—High	Late—Institutional	1	1.5344
4BC31	Neuro—High	Late—Institutional	2	1.6953
4CA11	Wound—Low	Late—Institutional	0	1.2571
4CA21	Wound—Low	Late—Institutional	1	1.3160
4CA31	Wound—Low	Late—Institutional	2	1.4769
4CB11	Wound—Medium	Late—Institutional	0	1.4226
4CB21	Wound—Medium	Late—Institutional	1	1.4814
4CB31	Wound—Medium	Late—Institutional	2	1.6424
4CC11	Wound—High	Late—Institutional	0	1.5464
4CC21	Wound—High	Late—Institutional	1	1.6053
4CC31	Wound—High	Late—Institutional	2	1.7662
4DA11	Complex—Low	Late—Institutional	0	1.0051
4DA21	Complex—Low	Late—Institutional	1	1.0639
4DA31	Complex—Low	Late—Institutional	2	1.2249
4DB11	Complex—Medium	Late—Institutional	0	1.2338
4DB21	Complex—Medium	Late—Institutional	1	1.2927
4DB31	Complex—Medium	Late—Institutional	2	1.4536
4DC11	Complex—High	Late—Institutional	0	1.3260
4DC21	Complex—High	Late—Institutional	1	1.3849
4DC31	Complex—High	Late—Institutional	2	1.5458
4EA11	MS Rehab—Low	Late—Institutional	0	1.1125
4EA21	MS Rehab—Low	Late—Institutional	1	1.1714
4EA31	MS Rehab—Low	Late—Institutional	2	1.3323
4EB11	MS Rehab—Medium	Late—Institutional	0	1.2383
4EB21	MS Rehab—Medium	Late—Institutional	1	1.2972
4EB31	MS Rehab—Medium	Late—Institutional	2	1.4581
4EC11	MS Rehab—High	Late—Institutional	0	1.3784
4EC21	MS Rehab—High	Late—Institutional	1	1.4373
4EC31	MS Rehab—High	Late—Institutional	2	1.5982
4FA11	Behavioral Health—Low	Late—Institutional	0	0.9484
4FA21	Behavioral Health—Low	Late—Institutional	1	1.0073
4FA31	Behavioral Health—Low	Late—Institutional	2	1.1682
4FB11	Behavioral Health—Medium	Late—Institutional	0	1.1307
4FB21	Behavioral Health—Medium	Late—Institutional	1	1.1895
4FB31	Behavioral Health—Medium	Late—Institutional	2	1.3505
4FC11	Behavioral Health—High	Late—Institutional	0	1.2199
4FC21	Behavioral Health—High	Late—Institutional	1	1.2787
4FC31	Behavioral Health—High	Late—Institutional	2	1.4397

Source: CY 2017 Medicare claims data for episodes ending on or before December 31, 2017 for which we had a linked OASIS assessment. LUPA episodes, outlier episodes, and episodes with PEP adjustments were excluded.

In conjunction with the implementation of the PDGM, we are proposing to revise the frequency with which we update the HH PPS Grouper software used to assign the appropriate HIPPS code used for case-mix adjustment onto the claim. Since CY 2004 when the HH PPS moved from a fiscal year to a calendar year basis, we have updated the Grouper software twice a year. We provide an updated version of the Grouper software effective every October 1 in order to address ICD coding revisions, which are effective on October 1. We also provide an updated

version of the HH PPS Grouper software effective on January 1 in order to capture the new or revised HH PPS policies that become effective on January 1. In an effort to reduce provider burden associated with testing and installing two software releases, we propose to discontinue the October release of the HH PPS Grouper software and provide a single HH PPS Grouper software release effective January 1 of each calendar year. We propose that the January release of the HH PPS Grouper software would include the most recent revisions to the ICD coding system as

well as the payment policy updates contained in the HH PPS final rule. Therefore, under this proposal, during the last quarter of each calendar year, HHAs would continue to use the ICD–10–CM codes and reporting guidelines that they would have used for the first three calendar quarters. HHAs would begin using the most recent ICD–10–CM codes and reporting guidelines on home health claims beginning on January 1 of each calendar year. We are soliciting comments on this proposal.

We invite comments on the proposed PDGM case-mix weights, case-mix

weight methodology and proposed annual recalibration of the case-mix weights, updates to the HH PPS Grouper software, and the associated regulations text changes in section III.F.13 of this proposed rule.

11. Low-Utilization Payment Adjustment (LUPA) Add-On Payments and Partial Payment Adjustments Under PDGM

LUPA episodes qualify for an add-on payment in the case that the established episode is the first or only episode in a sequence of adjacent episodes. As stated in the CY 2008 HH PPS final rule, LUPA add-on payments are made because the national per-visit payment rates do not adequately account for the front-loading of costs for the first episode of care as the average visit lengths in these initial LUPAs are 16 to 18 percent higher than the average visit lengths in initial non-LUPA episodes (72 FR 49848). LUPA episodes that occur as the only episode or as an initial episode in a sequence of adjacent episodes are adjusted by applying an additional amount to the LUPA payment before adjusting for area wage differences. Under the PDGM, we propose that the LUPA add-on factors will remain the same as the current payment system, described in section III.C.4 of this proposed rule. We multiply the per-visit payment amount for the first SN, PT, or SLP visit in LUPA episodes that occur as the only episode or an initial episode in a sequence of adjacent episodes by the appropriate factor (1.8451 for SN, 1.6700 for PT, and 1.6266 for SLP) to determine the LUPA add-on payment amount.

The current partial episode payment (PEP) adjustment is a proportion of the episode payment and is based on the span of days including the start-of-care date (for example, the date of the first billable service) through and including the last billable service date under the original plan of care before the intervening event in a home health beneficiary's care defined as:

- A beneficiary elected transfer, or
- A discharge and return to home health that would warrant, for purposes of payment, a new OASIS assessment, physician certification of eligibility, and a new plan of care.

We received comments on eliminating PEPs in response to the CY 2018 HH PPS proposed rule. We note that the change in the unit of payment from 60 days to 30 days will reduce the number of instances where a PEP adjustment occurs. However, we believe maintaining a PEP adjustment policy is appropriate to ensure that Medicare is not paying twice for the same period of

care, as the PEP is involved with patient transfers there is a risk of a duplicate payment error. For example, if a patient chooses to transfer to a different HHA during the course of a home health period of care, the payment is proportionally adjusted to reflect the length of time the beneficiary remained under the agency's care prior to the intervening event and ensures that Medicare is not paying two HHAs for the same 30-day period of care.

In summary for 30-day periods of care, we propose that the process for partial payment adjustments would remain the same as the existing policies pertaining to partial episode payments. When a new 30-day period begins due to the intervening event of the beneficiary elected transfer or discharge and return to home health during the 30-day episode, the original 30-day period would be proportionally adjusted to reflect the length of time the beneficiary remained under the agency's care prior to the intervening event. The proportional payment is the partial payment adjustment. The partial payment adjustment is calculated by using the span of days (first billable service date through and including the last billable service date) under the original plan of care as a proportion of 30. The proportion is multiplied by the original case-mix and wage index 30-day payment.

12. Payments for High-Cost Outliers Under the PDGM

As described in section III.E of this proposed rule, section 1895(b)(5) of the Act allows for the provision of an addition or adjustment to the home health payment amount in the case of outliers because of unusual variations in the type or amount of medically necessary care. The history of and current methodology for payment of high-cost outliers under the HH PPS is described in detail in section III.E of this proposed rule. In the CY 2018 HH PPS proposed rule (82 FR 35270), we proposed that we would maintain the current methodology for payment of high-cost outliers upon implementation of a 30-day unit of payment and that we would calculate payment for high-cost outliers based upon 30-day periods of care.

Commenters expressed concerns regarding the outlier policy proposed in the CY 2018 HH PPS proposed rule and the potential for more providers to exceed the 10 percent outlier cap under a 30-day period of care. Commenters also suggested modification to the 8-hour cap on the amount of time per day that is permitted to be counted toward

the estimation of an episode's costs for outlier calculation purposes.

While we appreciate commenters' feedback regarding the proposed outlier payment policy described in the CY 2018 HH PPS proposed rule, we are proposing to maintain the existing outlier policy under the proposed PDGM, except that outlier payments would be determined on a 30-day basis to align with the 30-day unit of payment under the proposed PDGM. We believe that maintaining the existing outlier policy and applying such policy to 30-day periods of care would ensure a smooth transition within the framework of the proposed PDGM. We plan to closely evaluate and model projected outlier payments within the framework of the PDGM and consider modifications to the outlier policy as appropriate. The requirement that the total amount of outlier payments not exceed 2.5 percent of total home health payments as well as the 10 percent cap on outlier payments at the home health agency level are statutory requirements, as described in section 1895(b)(5) of the Act. Therefore, we do not have the authority to adjust or eliminate the 10-percent cap or increase the 2.5 percent maximum outlier payment amount.

Regarding the 8-hour limit on the amount of time per day counted toward the estimation of an episode's costs, as noted in the CY2017 HH PPS final rule (81 FR 76729), where a patient is eligible for coverage of home health services, Medicare statute limits the amount of part-time or intermittent home health aide services and skilled nursing services covered during a home health episode. Section 1861(m)(7)(B) of the Act states that the term "'part-time or intermittent services' means skilled nursing and home health aide services furnished any number of days per week as long as they are furnished (combined) less than 8 hours each day and 28 or fewer hours each week (or, subject to review on a case-by-case basis as to the need for care, less than 8 hours each day and 35 or fewer hours per week)." Therefore, the daily and weekly cap on the amount of skilled nursing and home health aide services combined is a limit defined within the statute. As we further noted in the CY 2018 HH PPS final rule (81 FR 76729), because outlier payments are predominately driven by the provision of skilled nursing services, the 8-hour daily cap on services aligns with the statute, which requires that skilled nursing and home health aide services combined be furnished less than 8 hours each day. Therefore, we believe that maintaining the 8-hour per day cap is appropriate under the proposed PDGM.

Simulating payments using preliminary CY 2017 claims data and the CY 2019 payment rates, we estimate that outlier payments under the proposed PDGM with 30-day periods of care would comprise approximately 4.77 percent of total HH PPS payments in CY 2019. Given the statutory requirement to target up to, but no more than, 2.5 percent of total payments as outlier payments, we currently estimate that the FDL ratio under the proposed PDGM would need to change from 0.55 to 0.71. However, given the proposed implementation of the PDGM for 30-day periods of care beginning on or after January 1, 2020, we will update our estimate of outlier payments as a percent of total HH PPS payments using the most current and complete utilization data available at the time of CY 2020 rate-setting.

We invite public comments on maintaining the current outlier payment methodology outlined in section III.E of this proposed rule for the proposed PDGM and the associated changes in the regulations text as described in section III.F.13 of this proposed rule.

13. Conforming Regulations Text Revisions for the Implementation of the PDGM in CY 2020

We are proposing to make a number of revisions to the regulations to implement the PDGM for episodes beginning on or after January 1, 2020, as outlined in sections III.F.1 through III.F.12 of this proposed rule. We propose to make conforming changes in § 409.43 and part 484 Subpart E to revise the unit of service from a 60-day episode to a 30-day period. In addition, we are proposing to restructure § 484.205. These revisions would be effective on January 1, 2020. Specifically, we propose to:

- Revise § 409.43, which outlines plan of care requirements. We propose to revise several paragraphs to phase out the unit of service from a 60-day episode for claims beginning on or before December 31, 2019, and to implement a 30-day period as the new unit of service for claims beginning on or after January 1, 2020 under the PDGM. We propose to move and revise paragraph (c)(2) to § 484.205 as paragraph (c)(2) aligns more closely with the regulations addressing the basis of payment.
 - Revise the definitions of rural area and urban area in § 484.202 to remove “with respect to home health episodes ending on or after January 1, 2006” from each definition as this verbiage is no longer necessary.
 - Restructure § 484.205 to provide more logical organization and revise to

account for the change in the unit of payment under the HH PPS for CY 2020. The PDGM uses 30-day periods rather than the 60-day episode used in the current payment system. Therefore, we propose to revise § 484.205 to remove references to “60-day episode” and to refer more generally to the “national, standardized prospective payment”. We are also proposing revisions to § 484.205 as follows:

- ++ Add paragraphs to paragraph (b) to define the unit of payment.
- ++ Move language which addresses the requirement for OASIS submission from § 484.210 and insert it into § 484.205 as new paragraph (c).
- ++ Move paragraph (c)(2) from § 409.43 to § 484.205 as new paragraph (g) in order to better align with the regulations detailing the basis of payment.
- ++ Add paragraph (h) to discuss split percentage payments under the current model and the proposed PDGM.

We are not proposing to change the requirements or policies relating to durable medical equipment or furnishing negative pressure wound therapy using a disposable device.

- Remove § 484.210 which discusses data used for the calculation of the national prospective 60-day episode payment as we believe that this information is duplicative and already incorporated in other sections of part 484, subpart E.
 - Revise the section heading of § 484.215 from “Initial establishment of the calculation of the national 60-day episode payment” to “Initial establishment of the calculation of the national, standardized prospective 60-day episode payment and 30-day payment rates.” Also, we propose to add paragraph (f) to this section to describe how the national, standardized prospective 60-day episode payment rate is converted into a national, standardized prospective 30-day period payment and when it applies.
 - Revise the section heading of § 484.220 from “Calculation of the adjusted national prospective 60-day episode payment rate for case-mix and area wage levels” to “Calculation of the case-mix and wage area adjusted prospective payment rates.” We propose to remove the reference to “national 60-day episode payment rate” and replace it with “national, standardized prospective payment”.
 - Revise the section heading in § 484.225 from “Annual update of the unadjusted national prospective 60-day episode payment rate” to “Annual update of the unadjusted national, standardized prospective 60-day episode and 30-day payment rates”.

Also, we propose to revise § 484.225 to remove references to “60-day episode” and to refer more generally to the “national, standardized prospective payment”. In addition, we propose to add paragraph (d) to describe the annual update for CY 2020 and subsequent calendar years.

- Revise the section heading of § 484.230 from “Methodology used for the calculation of low-utilization payment adjustment” to “Low utilization payment adjustment”. Also, we propose to designate the current text to paragraph (a) and insert language such that proposed paragraph (a) applies to claims beginning on or before December 31, 2019, using the current payment system. We propose to add paragraph (b) to describe how low utilization payment adjustments are determined for claims beginning on or after January 1, 2020, using the proposed PDGM.
 - Revise the section heading of § 484.235 from “Methodology used for the calculation of partial episode payment adjustments” to “Partial payment adjustments”. We propose to remove paragraphs (a), (b), and (c). We propose to remove paragraphs (1), (2), and (3) which describe partial payment adjustments from paragraph (d) in § 484.205 and incorporate them into § 484.235. We propose to add paragraph (a) to describe partial payment adjustments under the current system, that is, for claims beginning on or before December 31, 2019, and paragraph (b) to describe partial payment adjustments under the proposed PDGM, that is, for claims beginning on or after January 1, 2020.

- Revise the section heading for § 484.240 from “Methodology used for the calculation of the outlier payment” to “Outlier payments.” In addition, we propose to remove language at paragraph (b) and append it to paragraph (a). We propose to add language to proposed revised paragraph (a) such that paragraph (a) will apply to payments under the current system, that is, for claims beginning on or before December 31, 2019. We propose to revise paragraph (b) to describe payments under the proposed PDGM, that is, for claims beginning on or after January 1, 2020. In paragraph (c), we propose to replace the “estimated” cost with “imputed” cost. Lastly, we propose to revise paragraph (d) to reflect the per-15 minute unit approach to imputing the cost for each claim.

We are soliciting comments on the proposed PDGM as outlined in sections III.F.1 through III.F.12 and the associated regulations text changes

described above and in section IX of this proposed rule.

G. Proposed Changes Regarding Certifying and Recertifying Patient Eligibility for Medicare Home Health Services

1. Background

Sections 1814(a) and 1835(a) of the Act require that a physician certify patient eligibility for home health services (and recertify, where such services are furnished over a period of time). The certifying physician is responsible for determining whether the patient meets the eligibility criteria (that is, homebound status and need for skilled services) and for understanding the current clinical needs of the patient such that the physician can establish an effective plan of care. In addition, as a condition for payment, section 6407 of the Affordable Care Act amended sections 1814(a)(2)(C) and 1835(a)(2)(A) of the Act requiring, as part of the certification for home health services, that prior to certifying a patient's eligibility for the Medicare home health benefit the certifying physician must document that the physician himself or herself or an allowed non-physician practitioner had a face-to-face encounter with the patient. The regulations at 42 CFR 424.22(a) and (b) set forth the requirements for certification and recertification of eligibility for home health services. The regulations at § 424.22(c) provide the supporting documentation requirements used as the basis for determining patient eligibility for Medicare home health services.

2. Current Supporting Documentation Requirements

In determining whether the patient is or was eligible to receive services under the Medicare home health benefit at the start of care, as of January 1, 2015, we require documentation in the certifying physician's medical records and/or the acute/post-acute care facility's medical records (if the patient was directly admitted to home health) to be used as the basis for certification of home health eligibility as described at § 424.22(c). Specifically, the certifying physician and/or the acute/post-acute care facility medical record (if the patient was directly admitted to home health) for the patient must contain information that justifies the referral for Medicare home health services. This includes documentation that substantiates the patient's:

- Need for the skilled services; and
- Homebound status;

Likewise, the certifying physician and/or the acute/post-acute care facility

medical record (if the patient was directly admitted to home health) for the patient must contain the actual clinical note for the face-to-face encounter visit that demonstrates that the encounter:

- Occurred within the required timeframe,
- Was related to the primary reason the patient requires home health services; and
- Was performed by an allowed provider type.

This information can be found most often in clinical and progress notes and discharge summaries. While the face-to-face encounter must be related to the primary reason for home health services, the patient's skilled need and homebound status can be substantiated through an examination of all submitted medical record documentation from the certifying physician, acute/post-acute care facility, and/or HHA (if certain requirements are met). The synthesis of progress notes, diagnostic findings, medications, and nursing notes, help to create a longitudinal clinical picture of the patient's health status to make the determination that the patient is eligible for home health services. HHAs must obtain as much documentation from the certifying physician's medical records and/or the acute/post-acute care facility's medical records (if the patient was directly admitted to home health) as they deem necessary to assure themselves that the Medicare home health patient eligibility criteria have been met. HHAs must be able to provide it to CMS and its review entities upon request. If the documentation used as the basis for the certification of eligibility (that is, the certifying physician's and/or the acute/post-acute care facility's medical record documentation) is not sufficient to demonstrate that the patient is or was eligible to receive services under the Medicare home health benefit, payment will not be rendered for home health services provided.

3. Proposed Regulations Text Changes Regarding Information Used to Satisfy Documentation of Medicare Eligibility for Home Health Services

Section 51002 of the BBA of 2018 amended sections 1814(a) and 1835(a) of the Act to provide that, effective for physician certifications and recertifications made on or after January 1, 2019, in addition to using the documentation in the medical record of the certifying physician or of the acute or post-acute care facility (where home health services were furnished to an individual who was directly admitted to the HHA from such facility), the

Secretary may use documentation in the medical record of the HHA as supporting material, as appropriate to the case involved. We believe the BBA of 2018 provisions are consistent with our existing policy in this area, which is currently reflected in sub-regulatory guidance in the Medicare Benefit Policy Manual (Pub.100–02, chapter 7, section 30.5.1.2) and the Medicare Program Integrity Manual (Pub. 100–08, chapter 6, section 6.2.3).⁵¹ The sub-regulatory guidance describes the circumstances in which HHA documentation can be used along with the certifying physician and/or acute/post-acute care facility medical record to support the patient's homebound status and skilled need. Specifically, we state that information from the HHA, such as the plan of care required in accordance with 42 CFR 409.43 and the initial and/or comprehensive assessment of the patient required in accordance with 42 CFR 484.55, can be incorporated into the certifying physician's medical record for the patient and used to support the patient's homebound status and need for skilled care. However, this information must be corroborated by other medical record entries in the certifying physician's and/or the acute/post-acute care facility's medical record for the patient. This means that the appropriately incorporated HHA information, along with the certifying physician's and/or the acute/post-acute care facility's medical record, creates a clinically consistent picture that the patient is eligible for Medicare home health services. The certifying physician officially incorporates the HHA information into his/her medical record for the patient by signing and dating the material. Once incorporated, the documentation from the HHA, in conjunction with the certifying physician and/or acute/post-acute care facility documentation, must substantiate the patient's eligibility for home health services.

While we believe the provisions in section 51002 of the BBA of 2018 do not require a change to the current regulations because the provisions are consistent with existing CMS policy, we are discretionarily proposing to amend the regulations text at 42 CFR 424.22(c) to align the regulations text with current sub-regulatory guidance to allow medical record documentation from the HHA to be used to support the basis for certification and/or recertification of

⁵¹ <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/bp102c07.pdf> and <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/pim83c06.pdf>.

home health eligibility, if the following requirements are met:

- The documentation from the HHA can be corroborated by other medical record entries in the certifying physician's and/or the acute/post-acute care facility's medical record for the patient, thereby creating a clinically consistent picture that the patient is eligible for Medicare home health services as specified in § 424.22 (a)(1) and (b).

- The certifying physician signs and dates the HHA documentation demonstrating that the documentation from the HHA was considered when certifying patient eligibility for Medicare home health services. HHA documentation can include, but is not limited to, the patient's plan of care required in accordance with 42 CFR 409.43 and the initial and/or comprehensive assessment of the patient required in accordance with 42 CFR 484.55.

We believe that this proposal incorporates existing sub-regulatory flexibilities into the regulations text that allow HHA medical record documentation to support the basis of home health eligibility. By incorporating the existing sub-regulatory guidance into regulation, HHAs are assured that HHA-generated documentation can be used as supporting material for the basis of home health eligibility, as long as all conditions are met, as described previously. HHAs have the discretion to determine the type and format of any documentation used to support home health eligibility. The expectation is that the HHA-generated supporting medical record documentation would be used to support the existing medical record of the certifying physician or the acute/post-acute care facility to create a clinically consistent picture that the individual is confined to the home and requires skilled services. Anecdotally, we have received reports from HHAs that they typically include this supporting information on the plan of care. Generally, the certifying physician is also the physician who establishes the plan of care and the plan of care must be signed by the physician. Consequently, no additional burden is incurred by either the HHA or the certifying physician. As existing sub-regulatory guidance allows HHA-generated documentation to be used as supporting material for the physician's determination of eligibility for home health services, we expect that most HHAs already have a process in place to provide this information to the certifying physician or the acute/post-

acute care facility. We welcome comments on this assumption.

We invite comments on this proposal to amend the regulations text at § 424.22(c), which would codify subregulatory guidance allowing HHA-generated medical record documentation to be used as supporting material to the certifying physician's or the acute and/or post-acute care facility's medical record documentation as part of the certification and/or recertification of eligibility for home health services, under certain circumstances. The corresponding proposed regulations text changes can be found in section VIII. of this proposed rule.

4. Proposed Elimination of Recertification Requirement To Estimate How Much Longer Home Health Services Will Be Required

In the CY 2018 HH PPS proposed rule (82 FR 35378), we invited public comments about improvements that can be made to the health care delivery system that reduce unnecessary burdens for clinicians, other providers, and patients and their families. Specifically, we asked the public to submit their ideas for regulatory, sub-regulatory, policy, practice, and procedural changes to reduce burdens for hospitals, physicians, and patients, improve the quality of care, decrease costs, and ensure that patients and their providers and physicians are making the best health care choices possible. We specifically stated that CMS would not respond to the comment submissions in the final rule. Instead, we would review the comments submitted in response to the requests for information and actively consider them as we develop future regulatory proposals or future sub-regulatory policy guidance.

Several commenters requested that CMS consider eliminating the requirement that the certifying physician include an estimate of how much longer skilled services will be required at each home health recertification, as set forth at § 424.22(b)(2) and in sub-regulatory guidance in the Medicare Benefit Policy Manual (Chapter 7, Section 30.5.2). Commenters stated that this estimate is duplicative of the Home Health Conditions of Participation (CoP) requirements for the content of the home health plan of care, set out at 42 CFR 484.60(a)(2).

The Home Health CoP at § 484.60(a)(2) sets forth the requirements for the content of the home health plan of care, which includes the types of services, supplies, and equipment required, as well as, the

frequency and duration of visits to be made. Commenters stated that the plan of care requirement already includes the frequency and duration of visits to be made and is an estimate of how much longer home health services are expected to be required by the patient. They observed that including this information as part of the recertification statement is duplicative and unnecessary. Commenters went on to say that because the certifying physician must review, sign and date the plan of care at least every 60-days, he/she is attesting to how much longer he/she thinks the patient will require home health services. Commenters also stated that this estimate appears to have no value to the patient, the physician, the HHA, or to CMS, but failure to include the physician's estimate of how much longer skilled care will be required can result in claim denials.

We have determined that the estimate of how much longer skilled care will be required at each recertification is not currently used for quality, payment, or program integrity purposes. Given this consideration and the Home Health CoP requirements for the content of the home health plan of care, and to mitigate any potential denials of home health claims that otherwise would meet all other Medicare requirements, we are proposing to eliminate the regulatory requirement as set forth at 42 CFR 424.22(b)(2), that the certifying physician, as part of the recertification process, provide an estimate of how much longer skilled services will be required. All other recertification content requirements under § 424.22(b)(2) would remain unchanged. We believe the elimination of this recertification requirement would result in a reduction of burden for certifying physicians by reducing the amount of time physicians spend on the recertification process and would result in an overall cost savings of \$14.2 million. We provided a more detailed description of this burden reduction in section VIII.C.1.c. of this proposed rule.

We invite comments regarding the proposed elimination of the requirement that the certifying physician include an estimate of how much longer skilled services will be required at each home health recertification, as well as the corresponding regulations text changes at § 424.22(b)(2).

While we are not proposing any additional changes to the home health payment regulations in this proposed rule as suggested by commenters in the RFI, we will continue to consider whether future regulatory or sub-regulatory changes are warranted to reduce unnecessary burden. We thank

the commenters for taking the time to convey their thoughts and suggestions on this initiative.

H. Proposed Change Regarding Remote Patient Monitoring Under the Medicare Home Health Benefit

Section 4012 of the 21st Century Cures Act directed the Centers for Medicare & Medicaid Services (CMS) to provide information on the current use of and/or barriers to telehealth services. This directive, along with advancements in technology, prompted us to examine ways in which HHAs can integrate telehealth and/or remote patient monitoring into the care planning process. Telehealth services, under section 1834(m)(4) of the Act, include services such as professional consultations, office visits, pharmacologic management, and office psychiatry services furnished via a telecommunications system by a distant site physician or practitioner to a patient located at a designated “originating site.” Originating sites, as defined under section 1834(m)(4)(C) of the Act, generally must be certain kinds of healthcare settings located in certain geographic areas. This definition generally does not include the beneficiary’s home. As a Medicare condition for payment, an *interactive* telecommunications system generally is required when furnishing telehealth services. Medicare defines “interactive telecommunication systems” as audio and video equipment permitting two-way, real-time interactive communication between the patient and distant site physician or practitioner (42 CFR 410.78). Telehealth services are used to substitute for professional in-person visits when certain eligibility criteria are met. For patients receiving care under the Medicare home health benefit, section 1895(e)(1)(A) of the Act prohibits payment for services furnished via a telecommunications system if such services substitute for in-person home health services ordered as part of a plan of care certified by a physician. However, the statute does not define the term “telecommunications system” as it relates to the provision of home health care and explicitly notes that an HHA is not prevented from providing services via a telecommunications system, assuming the service is not considered a home health visit for purposes of eligibility or payment.

Remote patient monitoring, while a service using a form of telecommunications, is not considered a Medicare telehealth service as defined under section 1834(m) of the Act, but rather uses “digital technologies to collect medical and other forms of

health data from individuals in one location and electronically transmit that information securely to health care providers in a different location for assessment and recommendations.”⁵² For example, remote patient monitoring allows the patient to collect and transmit his or her own clinical data, such as weight, blood pressure, and heart rate for monitoring and analysis. The clinical data is monitored without a direct interaction between the practitioner and beneficiary, and then reviewed by the HHA for potential consultation with the certifying physician for changes in the plan of care. Additionally, because remote patient monitoring is not statutorily considered a telehealth service, it would not be subject to the restrictions on originating site and interactive telecommunications systems technology.

We believe remote patient monitoring could be beneficial in augmenting the home health services outlined in the patient’s plan of care, without replicating or replacing home health visits. The plan of care, in accordance with the home health conditions of participation (CoPs), must identify patient-specific measurable outcomes and goals, and be established, periodically reviewed, and signed by a physician (42 CFR 484.60(a)). The HHA must also promptly alert the relevant physician(s) to any changes in the patient’s condition or needs that suggest that outcomes are not being achieved, or that the plan of care must be altered (42 CFR 484.60(c)). Remote patient monitoring could enable the HHA to more quickly identify any changes in the patient’s clinical condition, as well as monitor patient compliance, prompting physician review of, and potential changes to, the plan of care, as required per the CoPs. Particularly in cases where the home health patient is admitted for skilled observation and assessment of the patient’s condition due to a reasonable potential for complications or an acute episode, remote patient monitoring could augment home health visits until the patient’s clinical condition stabilized. Fluctuating or abnormal vital signs could be monitored between visits, potentially leading to quicker interventions and updates to the treatment plan.

A review of the literature shows that utilizing remote patient monitoring in chronic disease management has the potential to “significantly improve an individual’s quality of life, allowing

⁵² <http://www.cchpca.org/remote-patient-monitoring>.

patients to maintain independence, prevent complications, and minimize costs.”⁵³ Specifically for patients with chronic obstructive pulmonary disease (COPD) and congestive heart failure (CHF), research indicates that remote patient monitoring has been successful in reducing readmissions and long-term acute care utilization.⁵⁴ Likewise, a systematic review of evidence collected by the Agency for Healthcare Research and Quality (AHRQ) revealed that remote patient monitoring of chronic cardiac and respiratory conditions resulted in lower mortality, improved quality of life, and reductions in hospital admissions.⁵⁵ If changes in condition are identified early through careful monitoring, serious complications may be avoided, potentially preventing emergency department visits and hospital admissions. Surveillance and case management are frequently occurring interventions in home health, and remote patient monitoring leverages technology to encourage patient involvement and accountability in order to improve care coordination.

Anecdotally, we have heard from various home health agencies regarding integration of remote patient monitoring into the care planning process. For example, on a recent site visit to a home health agency, CMS participated in a care coordination meeting, which included a discussion of the agency’s experience implementing remote patient monitoring in home health episodes. Certain patients with chronic conditions received tablets pre-loaded with software enabling patients to take and transmit their vital signs on a daily basis. The transmitted health data was then monitored and analyzed by an outside service, which contacted the HHA with any changes or abnormalities. This example highlights how remote patient monitoring could be integrated into the home health episode of care.

Additionally, we believe that the growth of technology and new software development could be used in the

⁵³ Rojhan, K., Laplante, S., Sloand, J., Main, C., Ibrahim, A., Wild, J., Sturt, N. Remote Monitoring of Chronic Diseases: A Landscape Assessment of Policies in Four European Countries (2016) PLOS One. V11 (5) <https://dx.doi.org/10.1371/journal.pone.0155738>.

⁵⁴ Broad, J., Davis, C., Bender, M., Smith, T. (2014) Feasibility and Acute Care Utilization Outcomes of a Post-Acute Transitional Telemonitoring Program for Underserved Chronic Disease Patients. Journal of Cardiac Failure. Vol 20 (8S) S116. <http://dx.doi.org/10.1016/j.cardfail.2014.06.328>.

⁵⁵ Department of Health and Human Services, Agency for Healthcare Research and Quality, Telehealth: Mapping the Evidence for Patient Outcomes from Systematic Reviews, Technical Brief Number 26 (Washington, DC: June 2016).

provision of care and care coordination in the home, as well as empower patients to be active participants in their disease management. Other than the statutory requirement that services furnished via a telecommunications system may not substitute for in-person home health services ordered as part of a plan of care certified by a physician, we do not have specific policies surrounding the use of remote patient monitoring by HHAs. We anticipate that HHAs would follow clinical and manufacturer guidelines when implementing the technology into clinical practice, while still meeting all statutory requirements, conditions for payment, and the home health conditions of participation.

Medicare began making separate payment in CY 2018 for CPT code 99091 that allows physicians and other healthcare professionals to bill for the collection and interpretation of physiologic data digitally stored and/or transmitted by the patient and/or caregiver to the physician or other qualified health care professional (82 CFR 53013). CPT code 99091 is paid under the Medicare physician fee schedule, and thus cannot be billed by HHAs. Additionally, it includes the *interpretation* of the physiologic data, whereas the HHA would only be responsible for the collection of the data. However, with this distinction, we feel the code's description accurately describes remote monitoring services. Therefore, we propose to define remote patient monitoring under the Medicare home health benefit as "the collection of physiologic data (for example, ECG, blood pressure, glucose monitoring) digitally stored and/or transmitted by the patient and/or caregiver to the HHA."

Although the cost of remote patient monitoring is not separately billable under the HH PPS and may not be used as a substitute for in-person home health services, there is nothing to preclude HHAs from using remote patient monitoring to augment the care planning process as appropriate. As such, we believe the expenses of remote patient monitoring, if used by the HHA to augment the care planning process, must be reported on the cost report as allowable administrative costs (that is, operating expenses) that are factored into the costs per visit. Currently, costs associated with remote patient monitoring are reported on line 23.20 on Worksheet A, as direct costs associated with telemedicine. For 2016, approximately 3 percent of HHAs reported telemedicine costs that accounted for roughly 1 percent of their total agency costs on the HHA cost

report. However, these costs are not allocated to the costs per visit. We propose to amend the regulations at 42 CFR 409.46 to include the costs of remote patient monitoring as an allowable administrative cost (that is, operating expense), if remote patient monitoring is used by the HHA to augment the care planning process. This would allow HHAs to report the costs of remote patient monitoring on the HHA cost report as part of their operating expenses. These costs would then be factored into the costs per visit. Factoring the costs associated with remote patient monitoring into the costs per visit has important implications for assessing home health costs relevant to payment, including HHA Medicare margin calculations. We are soliciting comments on the proposed definition of remote patient monitoring under the HH PPS to describe telecommunication services used to augment the plan of care during a home health episode. Additionally, we welcome comments regarding additional utilization of telecommunications technologies for consideration in future rulemaking. We are also soliciting comments on the proposed changes to the regulations at 42 CFR 409.46, to include the costs of remote patient monitoring as allowable administrative costs (that is, operating expenses), as detailed in section IX. of this proposed rule.

IV. Home Health Value-Based Purchasing (HHVBP) Model

A. Background

As authorized by section 1115A of the Act and finalized in the CY 2016 HH PPS final rule (80 FR 68624), we began testing the HHVBP Model on January 1, 2016. The HHVBP Model has an overall purpose of improving the quality and delivery of home health care services to Medicare beneficiaries. The specific goals of the Model are to: (1) Provide incentives for better quality care with greater efficiency; (2) study new potential quality and efficiency measures for appropriateness in the home health setting; and (3) enhance the current public reporting process.

Using the randomized selection methodology finalized in the CY 2016 HH PPS final rule, we selected nine states for inclusion in the HHVBP Model, representing each geographic area across the nation. All Medicare-certified Home Health Agencies (HHAs) providing services in Arizona, Florida, Iowa, Maryland, Massachusetts, Nebraska, North Carolina, Tennessee, and Washington (competing HHAs) are required to compete in the Model. Requiring all Medicare-certified HHAs

providing services in the selected states to participate in the Model ensures that: (1) There is no selection bias; (2) participating HHAs are representative of HHAs nationally; and, (3) there is sufficient participation to generate meaningful results.

As finalized in the CY 2016 HH PPS final rule, the HHVBP Model uses the waiver authority under section 1115A(d)(1) of the Act to adjust Medicare payment rates under section 1895(b) of the Act beginning in CY 2018 based on the competing HHAs' performance on applicable measures. Payment adjustments will be increased incrementally over the course of the HHVBP Model in the following manner: (1) A maximum payment adjustment of 3 percent (upward or downward) in CY 2018; (2) a maximum payment adjustment of 5 percent (upward or downward) in CY 2019; (3) a maximum payment adjustment of 6 percent (upward or downward) in CY 2020; (4) a maximum payment adjustment of 7 percent (upward or downward) in CY 2021; and (5) a maximum payment adjustment of 8 percent (upward or downward) in CY 2022. Payment adjustments are based on each HHA's Total Performance Score (TPS) in a given performance year (PY) comprised of: (1) A set of measures already reported via the Outcome and Assessment Information Set (OASIS) and completed Home Health Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys for all patients serviced by the HHA and select claims data elements; and (2) three New Measures for which points are achieved for reporting data.

For CY 2019, we are proposing to remove five measures and add two new proposed composite measures to the applicable measure set for the HHVBP model, revise our weighting methodology for the measures, and rescore the maximum number of improvement points.

B. Quality Measures

1. Proposal To Remove Two OASIS-Based Measures Beginning With Performance Year 4 (CY 2019)

In the CY 2016 HH PPS final rule, we finalized a set of quality measures in Figure 4a: Final PY1 Measures and Figure 4b: Final PY1 New Measures (80 FR 68671 through 68673) for the HHVBP Model used in PY1, referred to as the starter set. We also stated that this set of measures will be subject to change or retirement during subsequent model years and revised through the rulemaking process (80 FR 68669).

The measures were selected for the Model using the following guiding principles: (1) Use a broad measure set that captures the complexity of the services HHAs provide; (2) incorporate flexibility for future inclusion of the Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT) measures that cut across post-acute care settings; (3) develop 'second generation' (of the HHVBP Model) measures of patient outcomes, health and functional status, shared decision making, and patient activation; (4) include a balance of process, outcome and patient experience measures; (5) advance the ability to measure cost and value; (6) add measures for appropriateness or overuse; and (7) promote infrastructure investments. This set of quality measures encompasses the multiple National Quality Strategy (NQS) domains⁵⁶ (80 FR 68668). The NQS domains include six priority areas identified in the CY 2016 HH PPS final rule (80 FR 68668) as the CMS Framework for Quality Measurement Mapping. These areas are: (1) Clinical quality of care; (2) Care coordination; (3) Population & community health; (4) Person- and Caregiver-centered experience and outcomes; (5) Safety; and (6) Efficiency and cost reduction. Figures 4a and 4b of the CY 2016 HH PPS final rule identified 15 outcome measures (five from the HHCAHPS, eight from OASIS, and two claims-based measures), and nine process measures (six from OASIS, and three New Measures, which were not previously reported in the home health setting) for use in the Model.

In the CY 2017 HH PPS final rule, we removed four measures from the measure set for PY1 and subsequent performance years: (1) Care Management: Types and Sources of Assistance; (2) Prior Functioning ADL/IADL; (3) Influenza Vaccine Data Collection Period: Does this episode of care include any dates on or between October 1 and March 31?; and (4) Reason Pneumococcal Vaccine Not Received, for the reasons discussed in that final rule (81 FR 76743 through 76747).

In the CY 2018 HH PPS final rule, we removed the Drug Education on All Medications Provided to Patient/Caregiver during All Episodes of Care from the set of applicable measures beginning with PY3 for the reasons discussed in that final rule (82 FR 51703 through 51704).

For PY4 and subsequent performance years, we propose to remove two OASIS-based process measures, Influenza Immunization Received for Current Flu Season and Pneumococcal Polysaccharide Vaccine Ever Received, from the set of applicable measures. We adopted the Influenza Immunization Received for Current Flu Season measure beginning PY1 of the model. Since that time, we have received input from both stakeholders and a Technical Expert Panel (TEP) convened by our contractor in 2017 that because the measure does not exclude HHA patients who were offered the vaccine but declined it and patients who were ineligible to receive it due to contraindications, the measure may not fully capture HHA performance in the administration of the influenza vaccine. In response to these concerns, we are proposing to remove the measure from the applicable measure set beginning PY4.

We also adopted the Pneumococcal Polysaccharide Vaccine Ever Received measure beginning PY1 of the model. This process measure reports the percentage of HH episodes during which patients were determined to have ever received the Pneumococcal Polysaccharide Vaccine. The measure is based on guidelines previously issued by the Advisory Committee on Immunization Practices (ACIP),⁵⁷ which recommended use of a single dose of the 23-valent pneumococcal polysaccharide vaccine (PPSV23) among all adults aged 65 years and older and those adults aged 19–64 years with underlying medical conditions that put them at greater risk for serious pneumococcal infection.⁵⁸ In 2014, the ACIP updated its guidelines to recommend that both PCV13 and PPSV23 be given to all immunocompetent adults aged ≥65 years.⁵⁹ The recommended intervals for

⁵⁷ The Advisory Committee on Immunization Practices was established under Section 222 of the Public Health Service Act (42 U.S.C. 217a), as amended, to assist states and their political subdivisions in the prevention and control of communicable diseases; to advise the states on matters relating to the preservation and improvement of the public's health; and to make grants to states and, in consultation with the state health authorities, to agencies and political subdivisions of states to assist in meeting the costs of communicable disease control programs. (Charter of the Advisory Committee on Immunization Practices, filed April 1, 2018. <https://www.cdc.gov/vaccines/acip/committee/ACIP-Charter-2018.pdf>).

⁵⁸ Prevention of Pneumococcal Disease: Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR 1997;46:1–24.

⁵⁹ Tomczyk S, Bennett NM, Stoecker C, et al. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine among adults aged ≥65 years: Recommendations of

sequential administration of PCV13 and PPSV23 depend on several patient factors including: The current age of the adult, whether the adult had previously received PPSV23, and the age of the adult at the time of prior PPSV23 vaccination (if applicable). Because the Pneumococcal Polysaccharide Vaccine Ever Received measure does not fully reflect the current ACIP guidelines, we are proposing to remove this measure from the model beginning PY4.

2. Proposal To Replace Three OASIS-Based Measures With Two Composite Measures Beginning With Performance Year 4

As previously noted, one of the goals of the HHVBP Model is to study new potential quality and efficiency measures for appropriateness in the home health setting. In the CY 2018 HH PPS Final Rule, we solicited comment on additional quality measures for future consideration in the HHVBP model, specifically a Total Change in ADL/IADL Performance by HHA Patients Measure, a Composite Functional Decline Measure, and behavioral health measures (82 FR 51706 through 51711). For the reasons discussed, we are proposing to replace three individual OASIS measures (Improvement in Bathing, Improvement in Bed Transferring, and Improvement in Ambulation-Locomotion) with two composite measures: Total Normalized Composite Change in Self-Care and Total Normalized Composite Change in Mobility. These proposed measures use several of the same ADLs as the composite measures discussed in the CY 2018 HH PPS Final Rule (82 FR 51707). Our contractor convened a TEP in November 2017, which supported the use of two proposed composite measures in place of the three individual measures because HHA performance on the three individual measures would be combined with HHA performance on six additional ADL measures to create a more comprehensive assessment of HHA performance across a broader range of patient ADL outcomes. The TEP also noted that HHA performance is currently measured based on any change in improvement in patient status, while the composite measures would report the magnitude of patient change (either improvement or decline) across six self-care and three mobility patient outcomes.

There are currently three ADL improvement measures in the HHVBP Model (Improvement in Bathing,

the Advisory Committee on Immunization Practices (ACIP). MMWR 2014; 63: 822–5.

⁵⁶ 2015 Annual Report to Congress, <http://www.ahrq.gov/workingforquality/reports/annual-reports/nqs2015annrpt.htm>.

Improvement in Bed Transferring, and Improvement in Ambulation- Locomotion). The maximum cumulative score across all three measures is 30. Because we are proposing to replace these three measures with the two composite measures, we are also proposing that each of the two composite measures would have a maximum score of 15 points, to ensure that the relative weighting of ADL-based measures would stay the same if the proposal to replace the three ADL improvement measures with the two composite measures is adopted. That is, there would still be a maximum of 30 points available for ADL related measures.

The proposed Total Normalized Composite Change in Self-Care and Total Normalized Composite Change in Mobility measures would represent a new direction in how quality of patient care is measured in home health. Both of these proposed composite measures combine several existing and endorsed Home Health Quality Reporting Program (HH QRP) outcome measures into focused composite measures to enhance quality reporting. These proposed composite measures fit within the *Patient and Family Engagement*⁶⁰ domain as functional status and functional decline are important to assess for residents in home health settings. Patients who receive care from an HHA may have functional limitations and may be at risk for further decline in function because of limited mobility and ambulation.

The proposed Total Normalized Composite Change in Self-Care measure computes the magnitude of change, either positive or negative, based on a normalized amount of possible change on each of six OASIS-based quality outcomes. These six outcomes are as follows:

- Improvement in Grooming (M1800)
- Improvement in Upper Body Dressing (M1810)
- Improvement in Lower Body Dressing (M1820)
- Improvement in Bathing (M1830)

- Improvement in Toileting Hygiene (M1845)
- Improvement in Eating (M1870)

The proposed Total Normalized Composite Change in Mobility measure computes the magnitude of change, either positive or negative, based on the normalized amount of possible change on each of three OASIS-based quality outcomes. These three outcomes are as follows:

- Improvement in Toilet Transferring (M1840)
- Improvement in Bed Transferring (M1850)
- Improvement in Ambulation/ Locomotion (M1860)

The magnitude of possible change for these OASIS items varies based on the number of response options. For example, M1800 (grooming) has four behaviorally-benchmarked response options (0 = most independent; 3 = least independent) while M1830 (bathing) has seven behaviorally-benchmarked response options (0 = most independent; 6 = least independent). The maximum possible change for a patient on item M1800 is 3, while the maximum possible change for a patient on item M1830 is 6. Both proposed composite measures would be computed and normalized at the episode level, then aggregated to the HHA level using the following steps:

- Step 1: Calculate absolute change score for each OASIS item (based on change between Start of Care(SOC)/ Resumption of Care (ROC) and discharge) used to compute the Total Normalized Composite Change in Self-Care (6 items) or Total Normalized Composite Change in Mobility (3 items) measures.
- Step 2: Normalize scores based on maximum change possible for each OASIS item (which varies across different items). The normalized scores result in a maximum possible change for any single item equal to "1"; this score is provided when a patient achieves the maximum possible change for the OASIS item.
- Step 3: Total score for Total Normalized Composite Change in Self-

Care or Total Normalized Composite Change in Mobility is calculated by summing the normalized scores for the items in the measure. Hence, the maximum possible range of normalized scores at the patient level for Total Normalized Composite Change in Self-Care is -6 to +6, and for Total Normalized Composite Change in Mobility is -3 to +3.

We created two prediction models for the proposed Total Normalized Composite Change in Self-Care (TNC_SC) and Total Normalized Composite Change in Mobility (TNC_MOB) measures using information from OASIS items and patient clinical condition categories (see Table 50 for details on the number of OASIS items and OASIS clinical categories used in the prediction models). We computed multiple ordinary least squares (OLS) analyses beginning with risk factors that were available from OASIS D items and patient condition groupings. Any single OASIS D item might have more than one risk factor because we create dichotomous risk factors for each response option on scaled (from dependence to independence) OASIS items. Those risk factors that were statistically significant at p <0.0001 level were kept in the prediction model. These two versions (CY 2014 and CY 2015) of the prediction models were done as "proof of concept." We are proposing that the actual prediction models that would be used if the proposed composite measures are finalized would use episodes of care that ended in CY 2017, which would be the baseline year for the quality outcome measures used to compute the two proposed composite measures, as listed previously. The baseline year for these two composite measures would be calendar year 2017.

The following Table 50 provides an overview of results from the CY 2014 and CY 2015 prediction models for each proposed measure with estimated R-squared values comparing observed vs. predicted episode-level performance.

TABLE 50—OBSERVED VERSUS PREDICTED EPISODE-LEVEL PERFORMANCE FOR THE PROPOSED TOTAL NORMALIZED COMPOSITE CHANGE MEASURES

Prediction model for	Number of OASIS items used	Number of clinical categories	R-squared value
2014 TNC_SC	42	14	0.299
2015 TNC_SC	41	13	0.311
2014 TNC_MOB	42	16	0.289

⁶⁰ 2017 Measures under Consideration List. <https://www.cms.gov/Medicare/Quality-Initiatives->

Patient-Assessment-Instruments/QualityMeasures/

Downloads/2017-CMS-Measurement-Priorities-and-Needs.pdf.

TABLE 50—OBSERVED VERSUS PREDICTED EPISODE-LEVEL PERFORMANCE FOR THE PROPOSED TOTAL NORMALIZED COMPOSITE CHANGE MEASURES—Continued

Prediction model for	Number of OASIS items used	Number of clinical categories	R-squared value
2015 TNC_MOB	41	18	0.288

Table 50 presents the following summary information for the prediction models for the two proposed composite measures.

- **Prediction Model for:** This column identifies the measure and year of data used for the two “proof of concept” prediction models created for each of the two proposed composite measures, Total Normalized Composite Change in Self-Care (TNC_SC) and Total Normalized Composite Change in Mobility (TNC_MOB). The development of the prediction models was identical in terms of the list of potential risk factors and clinical categories. The only difference was one set of prediction models used episodes of care that ended in CY 2014, while the other set of prediction models used episodes of care that ended in CY 2015.

- **Number of OASIS Items Used:** This column indicates the number of OASIS items used as risk factors in the prediction model. For each prediction model, the number of OASIS items used is based on the number of risk factors that were statistically significant at $p < 0.0001$ level in the prediction model.

- **Number of Clinical Categories:** This column indicates the number of patient clinical categories (for example, diagnoses related to infections or neoplasms or endocrine disorders) that are used as risk factors in the prediction model.

- **R-squared Value:** The R-squared values are a measure of the proportion of the variation in outcomes that is accounted for by the prediction model. The results show that the methodology that was used to create the prediction

models produced very consistent models that predict at least 29 percent of the variability in the proposed composite measures.

The prediction models are applied at the episode level to create a specific predicted value for the composite measure for each episode of care. These episode level predicted values are averaged to compute a national predicted value and an HHA predicted value. The episode level observed values are averaged to compute the HHA observed value. The HHA TNC_SC and TNC_MOB observed scores are risk adjusted based on the following formula:

$$HHA\ Risk\ Adjusted = HHA\ Observed + National\ Predicted - HHA\ Predicted$$

HHAs are not allowed to skip any of the OASIS items that are used to compute these proposed composite measures or the risk factors that comprise the prediction models for the two proposed composite measures. The OASIS items typically do not include “not available (NA)” or “unknown (UK)” response options, and per HHQR requirements,⁶¹ HHAs must provide responses to all OASIS items for the OASIS assessment to be accepted into the CMS data repository. Therefore, while we believe the likelihood that a value for one of these items would be missing is extremely small, we are proposing to impute a value of “0” if a value is “missing.” Specifically, if for some reason the information on one or more OASIS items that are used to compute TNC_SC or TNC_MOB is missing, we impute the value of “0” (no

change) for the missing value. Similarly, if for some reason the information on one or more OASIS items that are used as a risk factor is missing, we impute the value of “0” (no effect) for missing values that comprise the prediction models for the two proposed composite measures. Table 51 contains summary information for these two proposed composite measures. Because the proposed TNC_SC and TNC_MOB are composite measures rather than simple outcome measures, the terms “Numerator” and “Denominator” do not apply to how these measures are calculated. Therefore, for these proposed composite measures, the “Numerator” and “Denominator” columns in Table 51 are replaced with columns describing “Measure Computation” and “Risk Adjustment”.

Table 51 contains the set of applicable measures under the HHVBP model, if we finalize our proposals to remove the OASIS-based measures, Influenza Immunization Received for Current Flu Season, Pneumococcal Polysaccharide Vaccine Ever Received, Improvement in Ambulation-Locomotion, Improvement in Bed Transferring, and Improvement in Bathing, and add the two proposed OASIS-based outcome composite measures, Total Change in Self-Care and Total Change in Mobility. This measure set, if our proposals are finalized, would be applicable to PY4 and each subsequent performance year until such time that another set of applicable measures, or changes to this measure set, are proposed and finalized in future rulemaking.

TABLE 51—MEASURE SET FOR THE HHVBP MODEL BEGINNING PY 4*

NQS domains	Measure title	Measure type	Identifier	Data source	Numerator	Denominator
Clinical Quality of Care.	Improvement in Dyspnea.	Outcome	NA	OASIS (M1400).	Number of home health episodes of care where the discharge assessment indicates less dyspnea at discharge than at start (or resumption) of care.	Number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.
Communication & Care Coordination.	Discharged to Community.	Outcome	NA	OASIS (M2420).	Number of home health episodes where the assessment completed at the discharge indicates the patient remained in the community after discharge.	Number of home health episodes of care ending with discharge or transfer to inpatient facility during the reporting period, other than those covered by generic or measure-specific exclusions.

⁶¹ Data Specifications—<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/OASIS/DataSpecifications.html>.

TABLE 51—MEASURE SET FOR THE HHVBP MODEL BEGINNING PY 4 *—Continued

NQS domains	Measure title	Measure type	Identifier	Data source	Numerator	Denominator
Efficiency & Cost Reduction.	Acute Care Hospitalization: Unplanned Hospitalization during first 60 days of Home Health.	Outcome	NQF0171	CCW (Claims).	Number of home health stays for patients who have a Medicare claim for an unplanned admission to an acute care hospital in the 60 days following the start of the home health stay.	Number of home health stays that begin during the 12-month observation period. A home health stay is a sequence of home health payment episodes separated from other home health payment episodes by at least 60 days.
Efficiency & Cost Reduction.	Emergency Department Use without Hospitalization.	Outcome	NQF0173	CCW (Claims).	Number of home health stays for patients who have a Medicare claim for outpatient emergency department use and no claims for acute care hospitalization in the 60 days following the start of the home health stay.	Number of home health stays that begin during the 12-month observation period. A home health stay is a sequence of home health payment episodes separated from other home health payment episodes by at least 60 days.
Patient Safety	Improvement in Pain Interfering with Activity.	Outcome	NQF0177	OASIS (M1242).	Number of home health episodes of care where the value recorded on the discharge assessment indicates less frequent pain at discharge than at the start (or resumption) of care.	Number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.
Patient Safety	Improvement in Management of Oral Medications.	Outcome	NQF0176	OASIS (M2020).	Number of home health episodes of care where the value recorded on the discharge assessment indicates less impairment in taking oral medications correctly at discharge than at start (or resumption) of care.	Number of home health episodes of care ending with a discharge during the reporting period, other than those covered by generic or measure-specific exclusions.
Patient & Caregiver-Centered Experience.	Care of Patients ...	Outcome .....	.....	CAHPS	NA	NA.
Patient & Caregiver-Centered Experience.	Communications between Providers and Patients.	Outcome .....	.....	CAHPS	NA	NA.
Patient & Caregiver-Centered Experience.	Specific Care Issues.	Outcome .....	.....	CAHPS	NA	NA.
Patient & Caregiver-Centered Experience.	Overall rating of home health care.	Outcome .....	.....	CAHPS	NA	NA.
Patient & Caregiver-Centered Experience.	Willingness to recommend the agency.	Outcome .....	.....	CAHPS	NA	NA.
Population/Community Health.	Influenza Vaccination Coverage for Home Health Care Personnel.	Process	NQF0431 (Used in other care settings, not Home Health).	Reported by HHAs through Web Portal.	Healthcare personnel in the denominator population who during the time from October 1 (or when the vaccine became available) through March 31 of the following year: (a) Received an influenza vaccination administered at the healthcare facility, or reported in writing or provided documentation that influenza vaccination was received elsewhere; Or (b) were determined to have a medical contraindication/condition of severe allergic reaction to eggs or to other components of the vaccine or history of Guillain-Barre Syndrome within 6 weeks after a previous influenza vaccination; or (c) declined influenza vaccination; or (d) persons with unknown vaccination status or who do not otherwise meet any of the definitions of the previously mentioned numerator categories.	Number of healthcare personnel who are working in the healthcare facility for at least 1 working day between October 1 and March 31 of the following year, regardless of clinical responsibility or patient contact.
Population/Community Health.	Herpes zoster (Shingles) vaccination: Has the patient ever received the shingles vaccination?	Process	NA	Reported by HHAs through Web Portal.	Total number of Medicare beneficiaries aged 60 years and over who report having ever received zoster vaccine (shingles vaccine).	Total number of Medicare beneficiaries aged 60 years and over receiving services from the HHA.

TABLE 51—MEASURE SET FOR THE HHVBP MODEL BEGINNING PY 4 *—Continued

NQS domains	Measure title	Measure type	Identifier	Data source	Numerator	Denominator
Communication & Care Coordination.	Advance Care Plan.	Process	NQF0326	Reported by HHAs through Web Portal.	Patients who have an advance care plan or surrogate decision maker documented in the medical record or documentation in the medical record that an advanced care plan was discussed but the patient did not wish or was not able to name a surrogate decision maker or provide an advance care plan.	All patients aged 65 years and older.
NQS domains	Measure title	Measure type	Identifier	Data source	Measure computation**	Risk adjustment**
Patient and Family Engagement.	Total Normalized Composite Change in Self-Care.	Composite Outcome.	NA	OASIS (M1800) (M1810) (M1820) (M1830) (M1845) (M1870).	The total normalized change in self-care functioning across six OASIS items (grooming, bathing, upper & lower body dressing, toilet hygiene, and eating).	A prediction model is computed at the episode level. The predicted value for the HHA and the national value of the predicted values are calculated and are used to calculate the risk-adjusted rate for the HHA, which is calculated using this formula: HHA Risk Adjusted = HHA Observed + National Predicted - HHA Predicted.
Patient and Family Engagement.	Total Normalized Composite Change in Mobility.	Composite Outcome.	NA	OASIS (M1840) (M1850) (M1860).	The total normalized change in mobility functioning across three OASIS items (toilet transferring, bed transferring, and ambulation/locomotion).	A prediction model is computed at the episode level. The predicted value for the HHA and the national value of the predicted values are calculated and are used to calculate the risk-adjusted rate for the HHA, which is calculated using this formula: HHA Risk Adjusted = HHA Observed + National Predicted - HHA Predicted.

*Notes: For more detailed information on the measures using OASIS refer to the OASIS-C2 Guidance Manual effective January 1, 2017 available at <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Downloads/OASIS-C2-Guidance-Manual-6-29-16.pdf>. For NQF endorsed measures see The NQF Quality Positioning System available at <http://www.qualityforum.org/QPS>. For non-NQF measures using OASIS see links for data tables related to OASIS measures at <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/index.html>. For information on HHCAHPS measures see <https://homehealthcahps.org/SurveyandProtocols/SurveyMaterials.aspx>. ** Because the proposed Total Normalized Composite Change in Self-Care and Mobility measures are composite measures rather than simply outcome measures, the terms "Numerator" and "Denominator" do not apply.

We invite public comment on the proposals to remove two OASIS-based measures, Influenza Immunization Received for Current Flu Season and Pneumococcal Polysaccharide Vaccine Ever Received, from the set of applicable measures for PY4 and subsequent performance years. We also invite public comment on the proposals to replace three OASIS-based measures, Improvement in Ambulation-Loocomotion, Improvement in Bed Transferring, and Improvement in Bathing, with two proposed composite measures, Total Normalized Composite Change in Self-Care and Total Normalized Composite Change in Mobility, for PY4 and subsequent performance years.

3. Proposal To Reweight the OASIS-Based, Claims-Based, and HHCAHPS Measures

In the CY 2016 HH PPS final rule, we finalized weighting measures within each of the HHVBP Model's four classifications (Clinical Quality of Care, Care Coordination and Efficiency, Person and Caregiver-Centered Experience, and New Measures) the

same for the purposes of payment adjustment. We finalized weighting each individual measure equally because we did not want any one measure within a classification to be more important than another measure, to encourage HHAs to approach quality improvement initiatives more broadly, and to address concerns where HHAs may be providing services to beneficiaries with different needs. Under this approach, a measure's weight remains the same even if some of the measures within a classification group have no available data. We stated that in subsequent years of the Model, we would monitor the impact of equally weighting the individual measures and may consider changes to the weighting methodology after analysis and in rulemaking (80 FR 68679).

For PY4 and subsequent performance years, we are proposing to revise how we weight the individual measures and to amend § 484.320(c) accordingly. Specifically, we are proposing to change our methodology for calculating the Total Performance Score (TPS) by weighting the measure categories so that

the OASIS-based measure category and the claims-based measure category would each count for 35 percent and the HHCAHPS measure category would count for 30 percent of the 90 percent of the TPS that is based on performance of the Clinical Quality of Care, Care Coordination and Efficiency, and Person and Caregiver-Centered Experience measures. Note that these measures and their proposed revised weights would continue to account for the 90 percent of the TPS that is based on the Clinical Quality of Care, Care Coordination and Efficiency, and Person and Caregiver-Centered Experience measures. Data reporting for each New Measure would continue to have equal weight and account for the 10 percent of the TPS that is based on the New Measures collected as part of the Model. As discussed further below, we believe that this proposed reweighting, to allow for more weight for the claims-based measures, would better support improvement in those measures.

Weights would also be adjusted under this proposal for HHAs that are missing entire measure categories. For example,

if an HHA is missing all HHCAHPS measures, the OASIS and claims-based measure categories would both have the same weight (50 percent each). We believe that this approach would also increase the weight given to the claims-based measures, and as a result give HHAs more incentive to focus on improving them. Additionally, if measures within a category are missing, the weights of the remaining measures within that measure category would be adjusted proportionally, while the weight of the category as a whole would remain consistent. We are also proposing that the weight of the Acute Care Hospitalization: Unplanned Hospitalization during first 60 days of Home Health claims-based measure would be increased so that it has three times the weight of the Emergency Department Use without Hospitalization claims-based measure, based on our understanding that HHAs may have more control over the Acute Care

Hospitalization: Unplanned Hospitalization during first 60 days of Home Health claims-based measure. In addition, because inpatient hospitalizations generally cost more than ED visits, we believe improvement in the Acute Care Hospitalization: Unplanned Hospitalization during first 60 days of Home Health claims-based measure may have a greater impact on Medicare expenditures.

We are proposing to reweight the measures based on our ongoing monitoring and analysis of claims and OASIS-based measures, which shows that there has been a steady improvement in OASIS-based measures, while improvement in claims-based measures has been relatively flat. For example, Figures 5 and 6 show the change in average performance for the claims-based and OASIS-based performance measures used in the Model. For both figures, we report the trends observed in Model and non-

Model states. In both Model and non-Model states, there has been a slight increase (indicating worse performance) in the Acute Care Hospitalization: Unplanned Hospitalization during first 60 days of Home Health measure. For all OASIS-based measures, except the Improvement in Management of Oral Medications measure and the Discharge to Community measure, there has been substantial improvement in both Model and non-Model states. Given these results, we believe that increasing the weight given to the claims-based measures, and the Acute Care Hospitalization: Unplanned Hospitalization during first 60 days of Home Health measure in particular, may give HHAs greater incentive to focus on quality improvement in the claims-based measures. Increasing the weight of the claims-based measures was also supported by the contractor's TEP.

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Figure 5

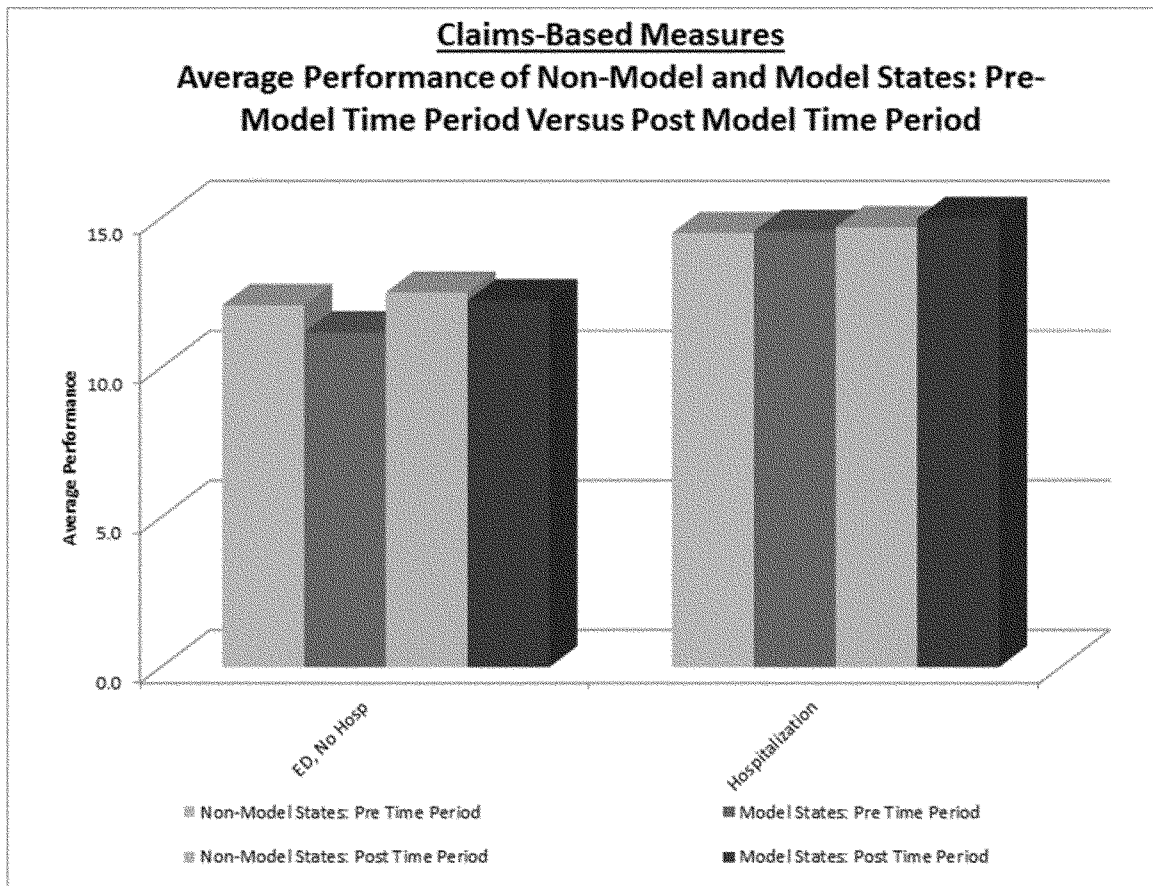


Figure 6

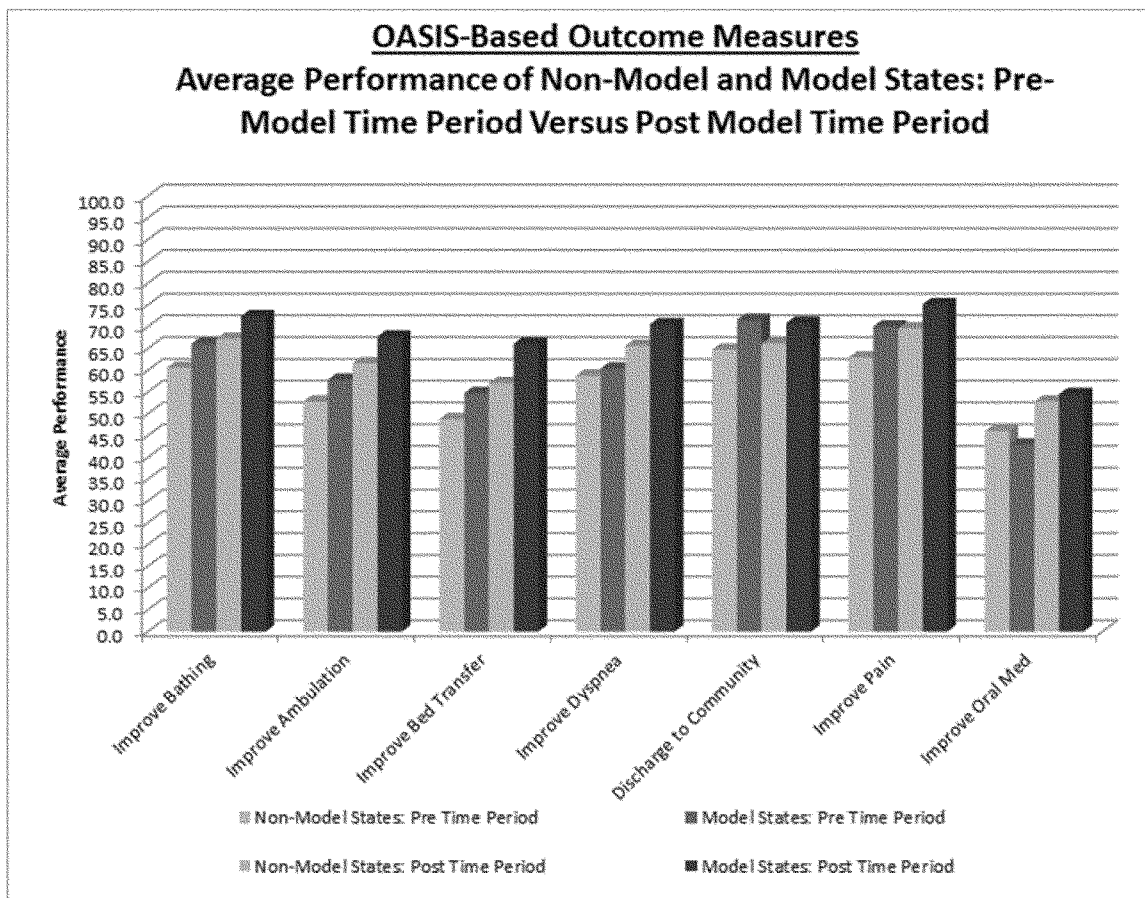


Table 52 shows the current and proposed weights for each measure based on this proposal to change the weighting methodology from weighting each individual measure equally to weighting the OASIS, claims-based, and HHCAHPS measure categories at 35-percent, 35-percent and 30-percent, respectively. Table 52 also shows the proposed weighting methodology based on various scoring scenarios. For example, for HHAs that are exempt from their beneficiaries completing HHCAHPS surveys, the total weight given to OASIS-based measures scores would be 50 percent, with all OASIS-based measures (other than the two

proposed composite measures) accounting for an equal proportion of that 50 percent, and the total weight given to the claims-based measures scores would be 50 percent, with the Acute Care Hospitalization: Unplanned Hospitalizations measure accounting for 37.50 percent and the ED Use without Hospitalization measure accounting for 12.50 percent. Finally, Table 52 shows the change in the number of HHAs, by size, that would qualify for a TPS and payment adjustment under the current and proposed weighting methodologies, using CY 2016 data. We note that Table 52 reflects only the proposed changes to the weighting methodology and not the

other proposed changes to the HHVBP model for CY 2019 which, if finalized, would change the proposed weights as set forth in Table 52. We refer readers to Table 65 in section X. of this proposed rule, which reflects the weighting that would apply if all of our proposed changes, including the proposed changes to the applicable measure set, are adopted for CY 2019. As reflected in that table, the two proposed composite measures, if finalized, would have weights of 7.5 percent when all three measure categories are reported.

TABLE 52: CURRENT AND PROPOSED WEIGHTS FOR INDIVIDUAL PERFORMANCE MEASURES

	Current Weights (equal weighting)				Proposed Weights (OASIS 35%; Claims 35%; HHCAPHS 30%)			
	All Measures (n=1,026)	No HHCAPHS (n=465)	No claims (n=20)	No claims or HHCAPHS (n=99)	All Measures (n=1,026)	No HHCAPHS (n=460)	No claims (n=20)	No claims or HHCAPHS (n=73)
<i>Large HHAs</i>	1023	382	20	49	1023	380	20	39
<i>Small HHAs</i>	3	83	0	50	3	80	0	34
OASIS								
Flu vaccine ever received*	6.25%	9.09%	7.14%	11.11%	3.89%	5.56%	5.98%	11.11%
Pneumococcal vaccine*	6.25%	9.09%	7.14%	11.11%	3.89%	5.56%	5.98%	11.11%
Improve Bathing**	6.25%	9.09%	7.14%	11.11%	3.89%	5.56%	5.98%	11.11%
Improve Bed Transfer**	6.25%	9.09%	7.14%	11.11%	3.89%	5.56%	5.98%	11.11%
Improve Ambulation**	6.25%	9.09%	7.14%	11.11%	3.89%	5.56%	5.98%	11.11%
Improve Oral Meds	6.25%	9.09%	7.14%	11.11%	3.89%	5.56%	5.98%	11.11%
Improve Dyspnea	6.25%	9.09%	7.14%	11.11%	3.89%	5.56%	5.98%	11.11%
Improve Pain	6.25%	9.09%	7.14%	11.11%	3.89%	5.56%	5.98%	11.11%
Discharge to Community	6.25%	9.09%	7.14%	11.11%	3.89%	5.56%	5.98%	11.11%
<i>Total weight for OASIS measures</i>	<i>56.25%</i>	<i>81.82%</i>	<i>64.26%</i>	<i>100.00%</i>	<i>35.00%</i>	<i>50.00%</i>	<i>53.85%</i>	<i>100.00%</i>
Claims								
Hospitalizations	6.25%	9.09%	0.00%	0.00%	26.25%	37.50%	0.00%	0.00%
Outpatient ED	6.25%	9.09%	0.00%	0.00%	8.75%	12.50%	0.00%	0.00%
<i>Total weight for claims measures</i>	<i>12.50%</i>	<i>18.18%</i>	<i>0.00%</i>	<i>0.00%</i>	<i>35.00%</i>	<i>50.00%</i>	<i>0.00%</i>	<i>0.00%</i>
HHCAPHS								
Care of patients	6.25%	0.00%	7.14%	0.00%	6.00%	0.00%	9.23%	0.00%
Communication between provider and patient	6.25%	0.00%	7.14%	0.00%	6.00%	0.00%	9.23%	0.00%
Discussion of specific care issues	6.25%	0.00%	7.14%	0.00%	6.00%	0.00%	9.23%	0.00%
Overall rating of care	6.25%	0.00%	7.14%	0.00%	6.00%	0.00%	9.23%	0.00%
Willingness to recommend HHA to family or friends	6.25%	0.00%	7.14%	0.00%	6.00%	0.00%	9.23%	0.00%
<i>Total weight for HHCAPHS measures</i>	<i>31.25%</i>	<i>0.00%</i>	<i>35.70%</i>	<i>0.00%</i>	<i>30.00%</i>	<i>0.00%</i>	<i>46.15%</i>	<i>0.00%</i>

Notes: *Measures are proposed to be removed from the applicable measure set beginning CY 2019/PY 4.

**Measures are proposed to be removed if proposed composite measures are added to the applicable measure set beginning CY 2019/PY 4.

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 We invite public comment on the proposal to reweight the measures within the Clinical Quality of Care, Care Coordination and Efficiency, and Person and Caregiver-Centered Experience and Caregiver-Centered Experience classifications so that the OASIS-based measures account for 35-percent, the claims-based measures account for 35-percent, and the HHCAPHS account for 30-percent of the 90 percent of the TPS that is based on performance on these

measures, for PY4 and subsequent performance years. We are also proposing to amend § 484.320 to reflect these proposed changes. Specifically, we are proposing to amend § 484.320 to state that for performance years 4 and 5, CMS will sum all points awarded for each applicable measure within each

category of measures (OASIS-based, claims-based, and HHCAHPS) excluding the New Measures, weighted at 35-percent for the OASIS-based measure category, 35-percent for the claims-based measure category, and 30-percent for the HHCAHPS measure category, to calculate a value worth 90-percent of

the Total Performance Score. Table 53 is a sample calculation to show how this proposal, in connection with the proposed changes to the measure set, would affect scoring under the model as set forth in prior rulemaking (80 FR 68679 through 68686) when all three measure categories are reported.

TABLE 53—SAMPLE HHVBP TOTAL PERFORMANCE SCORE CALCULATION UNDER CURRENT AND PROPOSED WEIGHTS FOR INDIVIDUAL PERFORMANCE MEASURES

	Points for current measures	Current weight (%)	Points for proposed measures	Proposed weight (%)	Weighted points
OASIS:					
Composite self-care	N/A	0.00	7.661	7.50	9.19
Composite mobility	N/A	0.00	5.299	7.50	6.36
Flu vaccine ever received	7.662	6.25	N/A	0.00	N/A
Pneumococcal vaccine	8.162	6.25	N/A	0.00	N/A
Improvement in bathing	5.064	6.25	N/A	0.00	N/A
Improvement in bed transfer	4.171	6.25	N/A	0.00	N/A
Improvement in ambulation	3.725	6.25	N/A	0.00	N/A
Improve oral meds	3.302	6.25	3.302	5.00	2.64
Improve Dyspnea	4.633	6.25	4.633	5.00	3.71
Improve Pain	4.279	6.25	4.279	5.00	3.42
Discharge to community	0.618	6.25	0.618	5.00	0.49
Claims:					
Outpatient ED	0	6.25	0	8.75	0.00
Hospitalizations	1.18	6.25	1.18	26.25	4.96
HHCAHPS:					
Care of patients	10	6.25	10	6.00	9.60
Communication between provider and patient	10	6.25	10	6.00	9.60
Discussion of special care issues	10	6.25	10	6.00	9.60
Overall rating of care	5.921	6.25	5.921	6.00	5.68
Willingness to recommend HHA to family and friends	8.406	6.25	8.406	6.00	8.07
Total	87.123	100.00	.....	100.00	57.776
Total performance score calculation				Current	Proposed
Raw score				87.123	57.776
Scaled score (adjusted for # of measures present)				58.082	57.776
Weighted score (90% of scaled score)				52.274	51.998
New measure score				100.000	100.000
Weighted new measure score (10% of new measure score)				10	10
TPS (sum of weighted score and weighted new measure score)				62.274	61.998

C. Performance Scoring Methodology

1. Proposal To Rescore the Maximum Amount of Improvement Points

In the CY 2016 HH PPS final rule, we finalized that an HHA could earn 0–10 points based on how much its performance in the performance period improved from its performance on each measure in the Clinical Quality of Care, Care Coordination and Efficiency, and Person and Caregiver-Centered Experience classifications during the baseline period. We noted, in response to public comment about our scoring methodology for improvement points, that we would monitor and evaluate the impact of awarding an equal amount of points for both achievement and improvement and may consider changes to the weight of the improvement score relative to the achievement score in

future years through rulemaking (80 FR 68682).

We are proposing to reduce the maximum amount of improvement points, from 10 points to 9 points, for PY4 and subsequent performance years for all measures except for, if finalized, the Total Normalized Composite Change in Self-Care and Total Normalized Composite Change in Mobility measures, for which the maximum improvement points would be 13.5. The maximum score of 13.5 represents 90-percent of the maximum 15 points that could be earned for each of the two proposed composite measures. The HHVBP Model focuses on having all HHAs provide high quality care and we believe that awarding more points for achievement than for improvement beginning with PY4 of the model would support this goal. We expect that at this

point several years into participation in the Model, participating HHAs have had enough time to make the necessary investments in quality improvement efforts to support a higher level of care, warranting a slightly stronger focus on achievement over improvement on measure performance.

We believe that reducing the maximum improvement points to 9 would encourage HHAs to focus on achieving higher performance levels and incentivizing in this manner would encourage HHAs to rely less on their improvement and more on their achievement.

This proposal would also be consistent with public comments, and suggestions provided by our contractor’s TEP. As summarized in the CY 2016 HH PPS final rule, we received comments encouraging us to focus on rewarding

the achievement of specified quality scores, and reduce the emphasis on improvement scores after the initial 3 years of the HHVBP Model. Some commenters suggested measuring performance primarily based on achievement of specified quality scores with a declining emphasis over time on improvement versus achievement (80 FR 68682).

The TEP also agreed with reducing the maximum number of improvement points, which they believed would better encourage HHAs to pursue improved health outcomes for beneficiaries. We note that for the Hospital Value-Based Purchasing (HVBP) Program, CMS finalized a scoring methodology where hospitals could earn a maximum of 9 improvement points if their improvement score falls between the improvement threshold and the benchmark (76 FR 26515). Similarly,

HHVBP is now proposing a scoring methodology where HHAs could earn a maximum of 9 improvement points.

We propose that an HHA would earn 0–9 points based on how much its performance during the performance period improved from its performance on each measure in the Clinical Quality of Care, Care Coordination and Efficiency, and Person and Caregiver-Centered Experience classifications during the baseline period. A unique improvement range for each measure would be established for each HHA that defines the difference between the HHA's baseline period score and the same state level benchmark for the measure used in the achievement scoring calculation, according to the proposed improvement formula. If an HHA's performance on the measure during the performance period was—

- Equal to or higher than the benchmark score, the HHA could

receive an improvement score of 9 points (an HHA with performance equal to or higher than the benchmark score could still receive the maximum of 10 points for achievement);

- Greater than its baseline period score but below the benchmark (within the improvement range), the HHA could receive an improvement score of 0–9 (except for, if finalized, the Total Normalized Composite Change in Self-Care and Total Normalized Composite Change in Mobility measures, for which the maximum improvement score would be 15) for each of the two proposed composite measures) based on the formula and as illustrated in the examples below; or,

- Equal to or lower than its baseline period score on the measure, the HHA could receive zero points for improvement.

$$9 \times \left(\frac{\text{HHA Performance Period Score} - \text{HHA Baseline Period Score}}{\text{Benchmark} - \text{HHA Baseline Period Score}} \right) - 0.5$$

2. Examples of Calculating Achievement and Improvement Scores

For illustrative purposes we present the following examples of how the proposed changes to the performance scoring methodology would be applied in the context of the measures in the Clinical Quality of Care, Care Coordination and Efficiency, and Person and Caregiver Centered Experience classifications. These HHA examples are based on data from 2015 (for the baseline period) and 2016 (for the performance year). Figure 7 shows the scoring for HHA 'A' as an example. The benchmark calculated for the improvement in pain measure is 97.676 for HHA A (note that the benchmark is calculated as the mean of the top decile in the baseline period for the state). The achievement threshold was 75.358 (this is defined as the performance of the median or the 50th percentile among HHAs in the baseline period for the state). HHA A's Year 1 performance rate for the measure was 98.348, which

exceeds the benchmark so the HHA earned the maximum 10 points based on its achievement score. Its improvement score is irrelevant in the calculation because measure performance exceeded the benchmark.

Figure 7 also shows the scoring for HHA 'B.' As referenced below, HHA B's performance on this measure went from 52.168 (which was below the achievement threshold) in the baseline period to 76.765 (which is above the achievement threshold) in the performance period. Applying the achievement scale, HHA B' would earn 1.067 points for achievement, calculated as follows: $9 * (76.765 - 75.358) / (97.676 - 75.358) + 0.5 = 1.067$.⁶² Calculating HHA B's improvement score yields the following result: based on HHA B's period-to-period improvement, from 52.168 in the baseline year to

⁶² Achievement points are calculated as $9 * (\text{HHA Performance Year Score} - \text{Achievement Threshold}) / (\text{Benchmark} - \text{Achievement threshold}) + 0.5$.

76.765 in the performance year, HHA B would earn 4.364 points, calculated as follows: $9 * (76.765 - 52.168) / (97.676 - 75.358) - 0.5 = 4.364$.⁶³ Because the higher of the achievement and improvement scores is used, HHA B would receive 4.364 points for this measure.

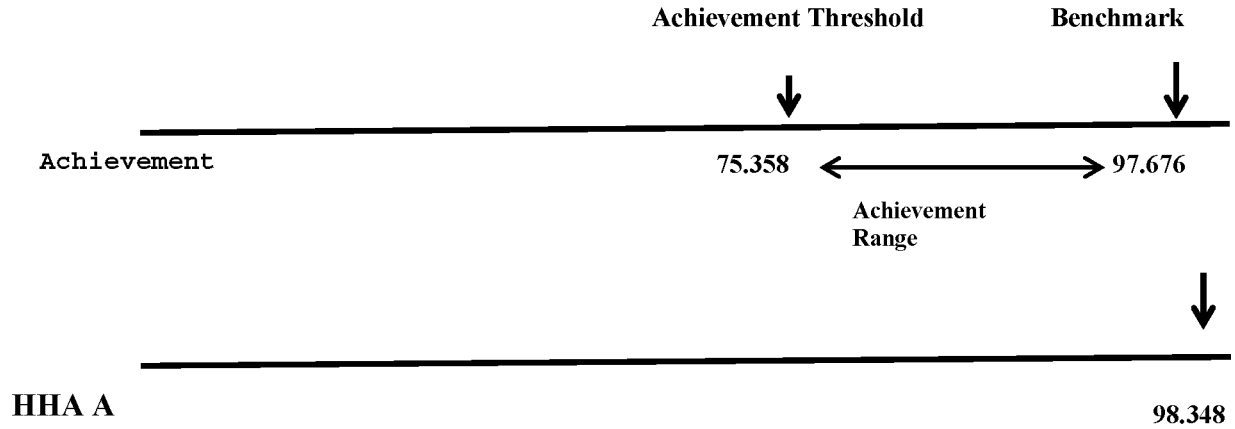
In Figure 8, HHA 'C' yielded a decline in performance on the improvement in pain measure, falling from 70.266 to 58.487. HHA C's performance during the performance period was lower than the achievement threshold of 75.358 and, as a result, the HHA would receive 0 points based on achievement. It would also receive 0 points for improvement, because its performance during the performance period was lower than its performance during the baseline period.

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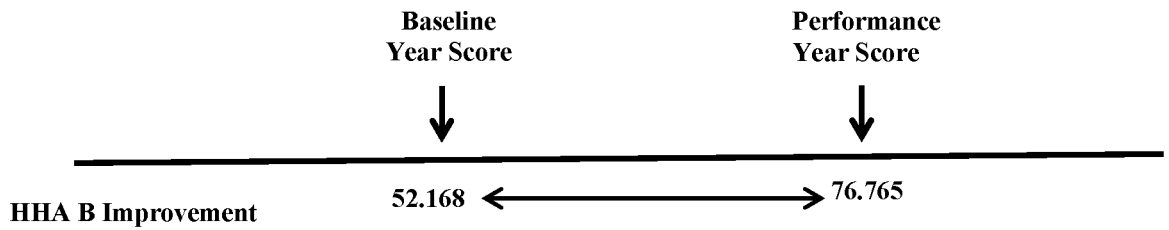
⁶³ The formula for calculating improvement points is $9 * (\text{HHA Performance Year Score} - \text{HHA Baseline Period Score}) / (\text{HHA Benchmark} - \text{HHA Baseline Period Score}) - 0.5$.

FIGURE 7: EXAMPLE OF AN HHA EARNING POINTS BY ACHIEVEMENT OR IMPROVEMENT SCORING

Measure: Improvement in Pain



HHA A Score: 10 maximum points for achievement



HHA B Score: The greater of 1.067 points for achievement and 4.364 points for improvement.

consider proposing for public reporting in future rulemaking.

V. Proposed Updates to the Home Health Quality Reporting Program (HH QRP)

A. Background and Statutory Authority

Section 1895(b)(3)(B)(v)(II) of the Social Security Act (the Act) requires that for 2007 and subsequent years, each HHA submit to the Secretary in a form and manner, and at a time, specified by the Secretary, such data that the Secretary determines are appropriate for the measurement of health care quality. To the extent that an HHA does not submit data with respect to a year in accordance with this clause, the Secretary is directed to reduce the HH market basket percentage increase applicable to the HHA for such year by 2 percentage points. As provided at section 1895(b)(3)(B)(vi) of the Act, depending on the market basket percentage increase applicable for a particular year, for 2015 and each subsequent year (except 2018), the reduction of that increase by 2 percentage points for failure to comply with the requirements of the HH QRP and further reduction of the increase by the productivity adjustment described in section 1886(b)(3)(B)(xi)(II) of the Act may result in the home health market basket percentage increase being less than 0.0 percent for a year, and may result in payment rates under the Home Health PPS for a year being less than payment rates for the preceding year.

For more information on the policies we have adopted for the HH QRP, we refer readers to the CY 2007 HH PPS final rule (71 FR 65888 through 65891), the CY 2008 HH PPS final rule (72 FR 49861 through 49864), the CY 2009 HH PPS update notice (73 FR 65356), the CY 2010 HH PPS final rule (74 FR 58096 through 58098), the CY 2011 HH PPS final rule (75 FR 70400 through 70407), the CY 2012 HH PPS final rule (76 FR 68574), the CY 2013 HH PPS final rule (77 FR 67092), the CY 2014 HH PPS final rule (78 FR 72297), the CY 2015 HH PPS final rule (79 FR 66073 through 66074), the CY 2016 HH PPS final rule (80 FR 68690 through 68695), the CY 2017 HH PPS final rule (81 FR 76752), and the CY 2018 HH PPS final rule (82 FR 51711 through 51712).

Although we have historically used the preamble to the HH PPS proposed and final rules each year to remind stakeholders of all previously finalized program requirements, we have concluded that repeating the same discussion each year is not necessary for every requirement, especially if we have codified it in our regulations.

Accordingly, the following discussion is limited as much as possible to a discussion of our proposals for future years of the HH QRP, and represents the approach we intend to use in our rulemakings for this program going forward.

B. General Considerations Used for the Selection of Quality Measures for the HH QRP

1. Background

For a detailed discussion of the considerations we historically used for measure selection for the HH QRP quality, resource use, and others measures, we refer readers to the CY 2016 HH PPS final rule (80 FR 68695 through 68696).

2. Accounting for Social Risk Factors in the HH QRP Program

In the CY 2018 HH PPS final rule (82 FR 51713 through 51714) we discussed the importance of improving beneficiary outcomes including reducing health disparities. We also discussed our commitment to ensuring that medically complex patients, as well as those with social risk factors, receive excellent care. We discussed how studies show that social risk factors, such as being near or below the poverty level as determined by HHS, belonging to a racial or ethnic minority group, or living with a disability, can be associated with poor health outcomes and how some of this disparity is related to the quality of health care.⁶⁴ Among our core objectives, we aim to improve health outcomes, attain health equity for all beneficiaries, and ensure that complex patients as well as those with social risk factors receive excellent care. Within this context, reports by the Office of the Assistant Secretary for Planning and Evaluation (ASPE) and the National Academy of Medicine have examined the influence of social risk factors in our value-based purchasing programs.⁶⁵ As we noted in the CY 2018 HH PPS final rule (82 FR 51713 through 51714),

⁶⁴ See, for example United States Department of Health and Human Services. "Healthy People 2020: Disparities. 2014." Available at: <http://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities>; or National Academies of Sciences, Engineering, and Medicine. Accounting for Social Risk Factors in Medicare Payment: Identifying Social Risk Factors. Washington, DC: National Academies of Sciences, Engineering, and Medicine 2016.

⁶⁵ Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation (ASPE), "Report to Congress: Social Risk Factors and Performance under Medicare's Value-Based Purchasing Programs." December 2016. Available at: <https://aspe.hhs.gov/pdf-report/report-congress-social-risk-factors-and-performance-under-medicare-value-based-purchasing-programs>.

ASPE's report to Congress, which was required by the IMPACT Act, found that, in the context of value based purchasing programs, dual eligibility was the most powerful predictor of poor health care outcomes among those social risk factors that they examined and tested. ASPE is continuing to examine this issue in its second report required by the IMPACT Act, which is due to Congress in the fall of 2019. In addition, as we noted in the FY 2018 IPPS/LTCH PPS final rule (82 FR 38428 through 38429), the National Quality Forum (NQF) undertook a 2-year trial period in which certain new measures and measures undergoing maintenance review have been assessed to determine if risk adjustment for social risk factors is appropriate for these measures.⁶⁶ The trial period ended in April 2017 and a final report is available at: http://www.qualityforum.org/SES_Trial_Period.aspx. The trial concluded that "measures with a conceptual basis for adjustment generally did not demonstrate an empirical relationship" between social risk factors and the outcomes measured. This discrepancy may be explained in part by the methods used for adjustment and the limited availability of robust data on social risk factors. NQF has extended the socioeconomic status (SES) trial,⁶⁷ allowing further examination of social risk factors in outcome measures.

In the CY 2018/FY 2018 proposed rules for our quality reporting and value-based purchasing programs, we solicited feedback on which social risk factors provide the most valuable information to stakeholders and the methodology for illuminating differences in outcomes rates among patient groups within a provider that would also allow for a comparison of those differences, or disparities, across providers. Feedback we received across our quality reporting programs included encouraging CMS to explore whether factors could be used to stratify or risk adjust the measures (beyond dual eligibility), to consider the full range of differences in patient backgrounds that might affect outcomes, to explore risk adjustment approaches, and to offer careful consideration of what type of information display would be most useful to the public.

We also sought public comment on confidential reporting and future public reporting of some of our measures stratified by patient dual eligibility. In

⁶⁶ Available at http://www.qualityforum.org/SES_Trial_Period.aspx.

⁶⁷ Available at: <http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdIdentifier=id&ItemID=86357>.

general, commenters noted that stratified measures could serve as tools for hospitals to identify gaps in outcomes for different groups of patients, improve the quality of health care for all patients, and empower consumers to make informed decisions about health care. Commenters encouraged us to stratify measures by other social risk factors such as age, income, and educational attainment. With regard to value-based purchasing programs, commenters also cautioned CMS to balance fair and equitable payment while avoiding payment penalties that mask health disparities or discouraging the provision of care to more medically complex patients. Commenters also noted that value-based payment program measure selection, domain weighting, performance scoring, and payment methodology must account for social risk.

As a next step, we are considering options to improve health disparities among patient groups within and across hospitals by increasing the transparency of disparities as shown by quality measures. We also are considering how this work applies to other CMS quality programs in the future. We refer readers to the FY 2018 IPPS/LTCH PPS final rule (82 FR 38403 through 38409) for more details, where we discuss the potential stratification of certain Hospital IQR Program outcome measures. Furthermore, we continue to consider options to address equity and disparities in our value-based purchasing programs.

We plan to continue working with ASPE, the public, and other key stakeholders on this important issue to identify policy solutions that achieve the goals of attaining health equity for all beneficiaries and minimizing unintended consequences.

C. Proposed Removal Factors for Previously Adopted HH QRP Measures

As a part of our Meaningful Measures Initiative, discussed in section I.D.1 of this proposed rule, we strive to put patients first, ensuring that they, along with their clinicians, are empowered to make decisions about their own healthcare using data-driven information that is increasingly aligned with a parsimonious set of meaningful quality measures. We began reviewing the HH QRP measure set in accordance with the Meaningful Measures Initiative discussed in section I.D.1 of this proposed rule, and we are working to identify how to move the HH QRP forward in the least burdensome manner possible, while continuing to prioritize and incentivize improvement in the quality of care provided to patients.

Specifically, we believe the goals of the HH QRP and the measures used in the program overlap with the Meaningful Measures Initiative priorities, including making care safer, strengthening person and family engagement, promoting coordination of care, promoting effective prevention and treatment, and making care affordable.

We also evaluated the appropriateness and completeness of the HH QRP's current measure removal factors. In the CY 2017 HH PPS final rule (81 FR 76754 through 76755), we adopted a process for retaining, removing, and replacing previously adopted HH QRP measures. To be consistent with other established quality reporting programs, we are proposing to replace the six criteria used when considering a quality measure for removal, finalized in the CY 2017 HH PPS final rule (81 FR 76754 through 76755), with the following seven measure removal factors, finalized for the LTCH QRP in the FY 2013 IPPS/LTCH PPS final rule (77 FR 53614 through 53615), for the SNF QRP in the FY 2016 SNF PPS final rule (80 FR 46431 through 46432), and for the IRF QRP in the CY 2013 OPPTS/ASC final rule (77 FR 68502 through 68503), for use in the HH QRP:

- Factor 1. Measure performance among HHAs is so high and unvarying that meaningful distinctions in improvements in performance can no longer be made.
- Factor 2. Performance or improvement on a measure does not result in better patient outcomes.
- Factor 3. A measure does not align with current clinical guidelines or practice.
- Factor 4. A more broadly applicable measure (across settings, populations, or conditions) for the particular topic is available.
- Factor 5. A measure that is more proximal in time to desired patient outcomes for the particular topic is available.
- Factor 6. A measure that is more strongly associated with desired patient outcomes for the particular topic is available.
- Factor 7. Collection or public reporting of a measure leads to negative unintended consequences other than patient harm.

We believe these measure removal factors are substantively consistent with the criteria we previously adopted (only we are changing the terminology to call them "factors") and appropriate for use in the HH QRP. However, even if one or more of the measure removal factors applies, we might nonetheless choose to retain the measure for certain specified reasons. Examples of such instances

could include when a particular measure addresses a gap in quality that is so significant that removing the measure could result in poor quality, or in the event that a given measure is statutorily required. Furthermore, we note that consistent with other quality reporting programs, we apply these factors on a case-by-case basis.

We finalized in the CY 2017 HH PPS final rule (81 FR 76755) that removal of a HH QRP measure would take place through notice and comment rulemaking, unless we determined that a measure was causing concern for patient safety. Specifically, in the case of a HH QRP measure for which there was a reason to believe that the continued collection raised possible safety concerns, we would promptly remove the measure and publish the justification for the removal in the **Federal Register** during the next rulemaking cycle. In addition, we would immediately notify HHAs and the public through the usual communication channels, including listening sessions, memos, email notification, and Web postings. If we removed a measure from the HH QRP under these circumstances but also collected data on that measure under different statutory authority for a different purpose, we would notify stakeholders that we would also cease collecting the data under that alternative statutory authority.

In this proposed rule, we are proposing to adopt an additional factor to consider when evaluating potential measures for removal from the HH QRP measure set:

- Factor 8. The costs associated with a measure outweigh the benefit of its continued use in the program.

As we discussed in section I.D.1 of this proposed rule, with respect to our new Meaningful Measures Initiative, we are engaging in efforts to ensure that the HH QRP measure set continues to promote improved health outcomes for beneficiaries while minimizing the overall costs associated with the program. We believe these costs are multifaceted and include not only the burden associated with reporting, but also the costs associated with implementing and maintaining the program. We have identified several different types of costs, including, but not limited to the following:

- Provider and clinician information collection burden and burden associated with the submitting/reporting of quality measures to CMS.
- The provider and clinician cost associated with complying with other HH programmatic requirements.