Acute Inpatient Perspective Payment System (IPPS)

1. Obtained IPPS wage indices for 2009 thru 2015 from http://cms.gov
2. Obtained provider county from the Provider of Service (POS)
3. Convert prior CBSA wage indices to state/county by merging with County crosswalk files
4. NCH records
    a. Keep only inpatient claims - claim type 60
    b. Includes acute care hospitals - range 0001 thru 0879
    c. Determine provider state and county per POS
    d. Determine wage index based on provider state and county
    e. AND CLM_TOT_CHRG_AMT > 0 AND CLM_MCO_PD_SW NE '1' AND SUBSTR(PROVIDER_NUMBER,3,1) EQ '0'
    f. AND SUBSTR(PROVIDER_NUMBER,5,1) NE 'V'
    g. AND SUBSTR(PROVIDER_NUMBER,6,1) NOT IN ('E','F')
    h. AND SUBSTR(PROVIDER_NUMBER,3,3) NOT IN ('897','898','899','998','999')
    i. AND PROVIDER_NUMBER NOT IN ('050146','050660','220162','330154','330354','360242', '390196','450076','100079','100271','500138')
    j. AND PROVIDER_NUMBER NOT IN (SOLE_COMM_HOSP);

Table 1: IPPS Labor Percentage

Fiscal Year	Greater than 1		Less than 1	
	Labor	Non-Labor	Labor	Non-Labor
2009	0.697	0.303	0.62	0.38
2010	0.688	0.312	0.62	0.38
2011	0.688	0.312	0.62	0.38
2012	0.688	0.312	0.62	0.38
2013	0.688	0.312	0.62	0.38
2014	0.696	0.304	0.62	0.38
2015	0.696	0.304	0.62	0.38

	CLM PMT AMT	$10,247		Claim payment amount from NCH
+	DEDUCTABLE AMT	$1,132		Beneficiary inpatient deductible amount
+	COINSURANCE AMT	$0		Beneficiary Part A coinsurance liability amount
	NET PAYMENT	$11,379		Claim payment plus deductible and coinsurance
×				
(	NAT LABOR PCT	0.62		Labor related share
×	CURR INDEX	0.7477		Current wage index
+	NON-LABOR PCT	0.38	)	Non-labor related share
		0.84		Current wage ratio: (0.62 x 0.7477 + 0.38) = 0.84
÷				
(	NAT LABOR PCT	0.62		Labor related share
×	PREV INDEX	0.8112		Prior wage index
+	NON-LABOR PCT	0.38	)	Non-labor related share
		0.88		Prior wage ratio: (0.62 x 0.8112 + 0.38) = 0.88
	NEW WAGE RATIO	0.96		New wage ratio = (0.84 / 0.88)
×	ADJ PAYMENT	$10,872		Adjusted payment = $11,379 x (0.84 / 0.88)
−	DEDUCTABLE AMT	$1,132		Beneficiary inpatient deductible amount
−	COINSURANCE AMT	$0		Beneficiary Part A coinsurance liability amount
	NEW PAYMENT	$9,740		New payment amount including adjustment

This method is adjusting the claim payment amount from NCH, which includes the DRG outlier approved payment amount, disproportionate share, indirect medical education, and total PPS capital. It does not include pass-thru amounts, beneficiary-paid amounts (i.e., deductibles and coinsurance); or any other payer reimbursement.

Skilled Nursing Facility Prospective Payment System

1. Obtained SNF wage indices for 2009 thru 2015 from http://cms.gov
2. Obtained provider county from the Provider of Service (POS) file
3. Convert prior year CBSA wage indices to state/county by merging with County crosswalk files
4. NCH records
    a. Keep only SNF claims - claim type 20 or 30
    b. Include provider range 5000 thru 6499
    c. Determine provider state and county per POS
5. Apply wage adjustment
    a. Apply Urban/Rural wage index by state and county
    b. Use the appropriate labor percentage from Table 2
    c. Apply wage index adjustment

Table 2: SNF Labor Percentage

2009	0.69783
2010	0.69840
2011	0.69311
2012	0.68693
2013	0.68693
2014	0.69545
2015	0.69180

	CURR INDEX	0.7121	SNF PPS wage index of current year
−	PREV INDEX	0.7327	SNF PPS wage index of prior year
	NET INDEX	-0.0206	Difference between current and prior wage index
×	LABOR SHARE	0.6984	Labor related share
	WAGE INDEX ADJ	-0.01439	Wage difference times labor related share
	NAT LABOR	0.6984	Labor related share
×	PREV INDEX	0.7327	SNF PPS wage index of prior year
	WAGE ADJ FACTOR	0.5117	Previous index times labor related share
	1	1	
−	LABOR SHARE	0.6984	Labor related share
	NONLABOR SHARE	0.3016	Non-labor related share
	CLM PMT AMT	5507.85	Claim payment amount from NCH
÷	TOT ADJ FACTOR	0.8133	Wage payment adjustment factor plus non-labor share
	BASE PMT RATE	$6,772	Claim payment times payment adjustment factor
×	WAGE INDEX ADJ	-0.01439	Wage difference times labor related share
	ADJ PMT AMT	-$97	Final adjustment to claim payment amount
+	CLM PMT AMT	$5,508	Claim payment amount from NCH
	NEW PMT AMT	$5,410	New payment amount including adjustment

Home Health Prospective Payment System (HH PPS)

1. Obtained HH-PPS CBSA wage indices for 2009 thru 2015 from CM
2. Convert prior year CBSA wage indices to state/county by merging with County crosswalk files
3. NCH records
    a. Keep only HH-PPS claims - claim type 10
    b. Include claims with a type of bill equal to 32 or 33 and claim frequency code not equal to 0 or 2
    c. Drop DME claim lines paid under fee schedule where revenue center not equal 029*x*, 060*x*, or 0274
    d. Add wage index to claims by beneficiary SSA state and county from claim
    e. Labor percentage for current year is 78.535% and is 77.082% for all other years.
    f. Sum claim lines to the claim level
    g. Subtract outlier payment for 2009 data only
    h. Apply adjustment
    i. Add outlier back in for 2009 data only

		CLM PMT AMT	$1,443		Claim payment amount from NCH
	−	OULTIER PAYMENT	$483		HH-PPS Outlier Payment for 2009 only
		NET PAYMENT	$960		Claim payment minus outliers for 2009 only
×					
(		NAT LABOR PCT	0.77082		Labor related share
	×	CURR INDEX	0.8017		Current wage index
	+	NON-LABOR PCT	0.22918	)	Non-labor related share
			0.847		Current wage ratio: (0.77082 x 0.8017 + 0.22918) = 0.847
÷					
(		NAT LABOR PCT	0.77082		Labor related share
	×	PREV INDEX	0.8159		Prior wage index
	+	NON-LABOR PCT	0.22918	)	Non-labor related share
			0.858		Prior wage ratio: (0.77082 x 0.8159 + 0.22918) = 0.858
		NEW WAGE RATIO	0.987		New wage ratio = (0.847 / 0.858)
	×	ADJ PAYMENT	$948		Adjusted payment = $960 x (0.847 / 0.858)
	+	OULTIER PAYMENT	$483		HH-PPS Outlier Payment for 2009 only
		NEW PAYMENT	$1,431		New payment amount including adjustment

This method is adjusting the claim line payment amount from NCH, which includes the HH-PPS outlier approved payment amount**.** This amount is removed when re-pricing the claim for 2009 because the 10% outlier rule had not yet taken effect. For 2009 claims, a 10% cap has been applied to outlier payments and were excluded from the repricing to phase-in the impact for providers.

Physician Fee Schedule

1. Obtained 2009 - 2015 relative value units (RVUs) and geographic practice cost indexes (GPCIs) from CM
2. NCH Records
    a. Extracted physician claim lines with claim types 71 or 72
    b. Added RVUs to each claim line by HCPCS code and first modifier code
    c. Added GPCIs to claim based on contractor and locality
    d. Use the appropriate facility or non-facility practice expense RVU
        i. Facility is where the place of service equals one of the following
            21, 22, 23, 24, 26, 31, 34, 41, 42, 51, 52, 53, 61, 56
    e. Multiply the previous RVU by the previous GPCI for work, practice, and mal-practice expenses
    f. Multiply the previous RVU by the current GPCI for work, practice, and mal-practice expenses
    g. Divide the current rate by the previous rate to obtain a percent difference
    h. Multiply the percent difference by the line payment, resulting in the final adjustment value
    i. Added the final adjustment value to the line payment to obtain an adjusted payment

		Work		Practice Expense		Mal-practice		RVU x GPCI Sum	
Previous									
RVU		1.16		0.68		0.07			
GPCI	×	1		1.046		0.658			
		1.16	+	0.71128	+	0.04606	=	1.91734	Prior year payment rate
Current									
RVU		1.16		0.68		0.07			
GPCI	×	0.99		1.044		0.86			
		1.1484	+	0.70992	+	0.0602	=	1.91852	Current year payment rate
							÷	0.0615%	Percent difference of payment rates
							×	$43.26	Line payment amount from NCH
								$0.03	Final adjustment to claim payment
							+	$43.26	Line payment amount from NCH
								$43.29	New payment including adjustment

The GPCIs measure geographic differences in physician wages, wages of clinical and administrative staff, cost of contracted services (e.g. accounting and legal services), cost to rent office space, and the cost of professional liability insurance. The GPCIs assume that medical supplies (including pharmaceuticals) and medical equipment are purchased in national markets and no geographic adjustment is made for these components of a physician practice.

Outpatient Perspective Payment System (OPPS)

1. Obtained IPPS wage indices for 2009 thru 2015 from http://cms.gov
2. Obtained provider county from the Provider of Service (POS) file
3. Convert prior year CBSA wage indices to state/county by merging with County crosswalk files
4. NCH records
    a. Keep only outpatient claims - claim type 40
    b. Limit to OPPS claims where status code equals P, S, T, V, or X
    c. Determine provider state and county per POS
5. Apply wage adjustment
    a. Use provider reclassification if it exists
    b. Else use Urban/Rural state/county index
    c. Removed prior year wage index
    d. Calculate current year wage ratio
    e. Apply wage index adjustment

	LINE PMT AMT	$97.65	Line payment amount from NCH
÷	(.6 × WAGE INDEX + .4)	0.90526	Remove prior year wage index
	UNADJSTD PMT	$107.87	Unadjusted payment amount
	(.6 × WAGE 2013 + .4)	0.90364	Apply current year wage index
×	UNADJSTD PMT	$107.87	Unadjusted payment amount
	NEW PMT AMT	$97.48	New payment amount including adjustment

This process is adjusting the labor related portion of the standard OPPS national unadjusted payment rates to account for geographic wage differences. These wage indexes are the same as those in the fiscal year based IPPS, but adopted into the OPPS on a calendar year basis. Certain services such as those with status indicators of G, H, K, R, and U are not adjusted by a wage index, as the paymen9ot does not include a labor related portion (I.e. G and K represent drugs, H is devices, R is blood and blood products, U is brachytherapy sources).

Competitive Bid Program for

Durable Medical Equipment Prosthetic Orthotics Supplies (DMEPOS)

Below is the process used to adjust the DMEPOS Claims to account for the changes in the prices associated with the Competitive Bidding Program. OACT calculates Managed Care payment amounts for CY2016 based on the 5 year average of Fee-For-Service (FFS) claims from CY2009 to CY2013. In order to reflect the new single payment amounts (SPA) for DMEPOS in the base years, we use the following methodology to re-price DMEPOS claims from 2009 to 2013 for all Round 1 Re-compete and Round 2 single payment amounts:

1. Download single payment amounts (SPAs) for DMEPOS for Round 1 Re-compete and Round 2 including geographic areas and HCPCS codes from the Competitive Bidding website located at http://www.dmecompetitivebid.com
2. Create a re-pricing table combining all DMEPOS items and geographic areas for Round 1 Re-compete and Round 2.
3. Identify FFS DMEPOS payments using National Claims History (NCH) Records as loaded into Integrated Data Repository (IDR)
    a. Extracted DME claim lines with claim type 72, 81 or 82.
    b. Determine if DME claim is subject to competitive bidding based on zip code from the NCH.
    c. Determine whether DME claim line HCPCS code is subject to competitive bidding.
    d. Include only Fee-for-Service claims
    e. Exclude ESRD beneficiaries (beneficiary with active dialysis period at time of service)
    f. Exclude Beneficiaries enrolled in MAO Cost Plans
    g. Calculate Medicare maximum payment by multiplying allowed charge amount by the share to be borne by Medicare, or 77.5%
4. Determine the re-priced payment amount for DMEPOS Competitive Bidding by multiplying the single payment amounts (for the HCPCS code in the geographic area as defined by the zip code) by unit quantity.
    a. Specifications for Modifier Code 1 = "RR" (Rented Items)
        i. For wheelchair DME: HCPCS equals K0813 through K0829
            1. If Modifier Code 2 or 3 = "KH" or "KI", then repriced amount = SPA × 1.5
            2. If Modifier Code 2 or 3 = "KJ" then repriced amount = SPA × 0.6
        ii. For non- wheelchair DME: HCPCSs other than K0813 through K0829
            1. If Modifier Code 2 or 3= "KH" or "KI", then repriced amount = SPA × 1.0
            2. If Modifier Code 2 or 3= "KJ" then repriced amount = SPA × 0.75
    b. Round 2 claims, through June 30, 2013
        i. These claims were paid under FFS schedule. Repricing based on initial Round 1 bids (eff. 7/1/13)
        ii. Per statue, there should be no negative impacts.
            1. Thus, drop the record if the repriced impact is negative.
    c. Round 2 claims, including mail order, July 1, 2013 and later
        i. The claims were paid based on initial round 2 bids, which is the same basis as repricing.
        ii. Thus, there should be no repriced impact. Drop all records.
    d. Round 1 claims for 2009 and 2010
        i. These claims were paid under FFS Schedule. repriced based on Round 1 re-compete (eff. 1/1/14)
        ii. Per statute, there should be no negative impacts
            1. Thus, drop the record if the repriced impact is negative
    e. Round 1 claims 2011-2013
        i. The claims were paid based on round 1 re-bids. Repricing based on Round 1-recompete (eff. 1/1/14)
        ii. There could be legitimate negative repriced impacts.
            1. Thus include all records

5. Calculate adjustment to reimbursements to account for implementation of DMEPOS Competitive Bidding
    a. Obtain savings ratio by subtracting the new single payment amount from the FFS Medicare maximum payment and then dividing by the FFS Medicare maximum payment amount
    b. Apply Savings ratio to the actual covered payment amount as reported on the claim
    c. Summarize claim payments by SSA state and county for qualified CBA claims
    d. Multiply covered claim payments by savings ratio to obtain Medicare savings

	219.84	Allowed charge amount
×	0.775	Medicare share
	170.38	FFS Medicare maximum payment amount (MDCR_Max_Paid)
	18.88	Single payment amount for HCPCS Code A7032 in zip code 10506
×	6	unit quantity
×	0.775	Medicare share
	87.79	New Medicare Single payment amount (CBA_Bid_Amt)
	0.485	Percent savings = (MDCR_Max_Paid - CBA_Bid_Amt) / MDCR_Max_Paid
×	175.87	Covered payment amount
	85.25	Change in spending

Disproportionate Share (DSH)

1. Obtain FY 2015 Final Medicare DSH Supplemental Data from http://cms.gov
2. NCH records
   a. Keep only inpatient claims - claim type 60
   b. Exclude ESRD beneficiaries (beneficiary with active dialysis period at time of service)
   c. Exclude Sole Community Hospitals that are projected to be paid a facility-specific rate in FY 2015 (as reflected in Supplemental DSH exhibit in FY 2015 Final IPPS rule).
   d. Exclude rehab hospitals and facilities that have tied out/terminated according to "STAR."
3. Match DSH from claim to UCP from FY 2015 Final IPPS Rule
4. Calculate adjustment factor $_{(base\ year)}$
   a. Aggregate DSH payments $_{(base\ year)}$ × 75 percent × FY 2015 UCP factor 2 (of . 7619) / aggregate projected UCP $_{(FY\ 2015)}$
      i. Note: base year represents calendar years 2009 through 2012, and January-September 2013
5. Calculate provider-specific per-capita UCP amount $_{(base\ year)}$
   a. Aggregate projected UCP for provider $_{(FY\ 2015)}$ × adjustment factor $_{(base\ year)}$ / number of claims $_{(base\ year)}$
6. Calculate claim level adjustment as provider-specific per-capita UCP amount $_{(base\ year)}$ minus 75 percent of DSH included in the claim payment.
7. Below exhibit is illustration of adjustment for calendar year 2009 claims.

	CY 2009 (Original)			FY 2015	CY 2009 (adjusted)	
Provider type	DSH	DSH × 75%	DSH × 75% UCP × factor 2	UCP	UCP	Repricing adjustment
DSH in 2009 and 2015	$8,742	$6,557	$4,996	$7,447	$4,978	($1,579)
$0 DSH in 2015	204	153	117	0	0	(153)
$0 DSH in 2009	0	0	0	201	134	134
Total	$8,946	$6,710	$5,112	$7,648	$5,112	($1,598)

UCP factor 2 FY 2015	0.7619

Uncompensated Care Payments (UCP)

1. Obtain FY 2014 and FY 2015 Final Medicare DSH Supplemental Data from http://cms.gov
2. Records excluded from DSH Supplemental Data:
   a. Exclude Sole Community Hospitals (SCH) that are projected to be paid a facility-specific rate
   b. UCP status for FY 2015 = "SCH"
   c. UCP status for FY2014 = "SCH" and UCP status for FY2015 = "No" or missing
   d. Records with UCP status for FY2014 = "SCH" and UCP status for FY2015 = "Yes" were kept. That is, facilities that switched from SCH status to standard status.
3. National claims History (NCH) records
   a. Keep only inpatient claims - claim type 60
   b. Exclude ESRD beneficiaries (beneficiary with active dialysis period at time of service)
   c. Exclude SCH in FY 2015 (as reflected in Supplemental DSH exhibit in FY 2015 Final IPPS rule)
   d. Exclude rehab hospitals and facilities that have tied out/terminated according to "STAR"
4. Match UCP from claim to UCP from FY 2014 and FY 2015 Final IPPS Rules.
5. Providers found on the supplemental FY 2014 DSH exhibit and not found on the supplemental FY 2015 DSH exhibit and providers with FY 2015 UCP status = "N" are assigned a Factor 3 value of 0.000.
6. Calculate the gross UCP dollars for 4Q 2013 after replacing FY 2014 Factor 2 (0.943) with FY 2015 Factor 2 (.7619). This is the total of the re-priced UCP for this set of providers.
7. For providers with no 2013 UCP, but with inpatient claim, the re-priced UCP per claim equals the gross UCP adjustment multiplied by the FY 2015 Factor 3 divided by the number of claims.
8. Below exhibit is illustration of adjustment for calendar year 2013 claims.

		Actual 4Q 2013 UCP		FY 2015 DSH Suppl. Data		Re-priced UCP Claims	
Provider Number	**Projected to receive DSH in FY 2014**	**Dollars (000)**	**Number of claims**	**Projected to receive DSH in FY 2015**	**Factor 3**	**Gross (000)**	**Per Claim**
	YES	$2,058,726		YES	1.00000000		
	NO	$0		NO	0.00000000		
	n/a OR SCH	$1,693		n/a OR SCH	0.00000000		
	Subtotal	$2,060,419			1.00000000	$1,664,722	
	Factor 2		0.943		0.7619		
111111	YES	$1,438.7	2159	YES	0.00059230	$986.0	$456.7
222222	YES	497.5	1076	YES	0.00023330	388.3	360.9
333333	YES	740.5	1487	YES	0.00029401	489.4	329.1
444444	YES	46.6	173	YES	0.00002711	45.1	260.8
555555	YES	33.3	52	YES	0.00002538	42.2	812.5
666666	YES	770.2	1070	YES	0.00039828	663.0	619.6
777777	YES	611.8	890	YES	0.00028628	476.5	535.4

…some data not shown…