Acute Inpatient Prospective Payment System (IPPS)

1. Obtained IPPS wage indices for 2018 thru 2024 from https://www.cms.gov/
2. Obtained provider county from the Provider of Service (POS)
3. NCH records
    a. Keep only inpatient claims – claim type 60 and the 50 U.S. states plus the District of Columbia, minus Maryland, and plus Puerto Rico
    b. Includes acute care hospitals – range 0001 thru 0879
    c. Determine provider state and county per POS
    d. Determine wage index per provider
    e. AND CLM_TOT_CHRG_AMT > 0 AND CLM_MCO_PD_SW NE '1'
    f. AND SUBSTR(PROVIDER_NUMBER,3,1) EQ '0'
    g. AND SUBSTR(PROVIDER_NUMBER,5,1) NE 'V'
    h. AND SUBSTR(PROVIDER_NUMBER,6,1) NOT IN ('E', 'F')
    i. AND SUBSTR(PROVIDER_NUMBER,3,3) NOT IN ('897', '898', '899', '998', '999')
    j. AND PROVIDER_NUMBER NOT IN ('050146', '050660', '220162', '330154', '330354', '360242', '390196', '450076', '100079', '100271', '500138')
    k. 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
2018	0.683	0.317	0.62	0.38
2019	0.683	0.317	0.62	0.38
2020	0.683	0.317	0.62	0.38
2021	0.683	0.317	0.62	0.38
2022	0.676	0.324	0.62	0.38
2023	0.676	0.324	0.62	0.38
2024	0.676	.0324	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 × 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 × 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 × (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 2018 thru 2024 from https://cms.gov. Starting with the FY2023 wage indices, apply the 5% cap on any decrease in the wage index from the prior fiscal year. (As a simplifying assumption, we are treating all facilities in our historical data as existing facilities to which this 5% cap applies since we expect most facilities in a CBSA would receive the capped value.)
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

2018	0.70800
2019	0.70500
2020	0.70900
2021	0.71300
2022	0.70400
2023	0.70800
2024	0.71100

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	0.7040	Labor related share of claim year (e.g., 2022)
WAGE INDEX ADJ	−0.0145	Wage difference times labor related share
NAT LABOR	0.7040	Labor related share of claim year (e.g., 2022)
PREV INDEX	0.7327	SNF PPS wage index of prior year
WAGE ADJ FACTOR	0.5158	Previous index times labor related share
1	1	
LABOR SHARE	0.7040	Labor related share of claim year (e.g., 2022)
NONLABOR SHARE	0.2960	Non-labor related share of claim year
CLM PMT AMT	5507.85	Claim payment amount from NCH
TOT ADJ FACTOR	0.8118	Wage payment adjustment factor plus non-labor share
BASE PMT RATE	$6,785	Claim payment times payment adjustment factor
WAGE INDEX ADJ	−0.0145	Wage difference times labor related share
ADJ PMT AMT	−$98	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 2018 thru 2024 from https://www.cms.gov/
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. Use the appropriate labor percentage from Table 3.
    f. Sum claim lines to the claim level
    g. Apply adjustment

Table 3: HHA Labor Percentage

2018	0.78535
2019	0.76100
2020	0.76100
2021	0.76100
2022	0.76100
2023	0.76100
2024	0.74900

		CLM PMT AMT	$1,443		Claim payment amount from NCH
×					
(		NAT LABOR PCT	0.74900		Labor related share
	×	CURR INDEX	0.8017		Current wage index
	+	NON-LABOR PCT	0.25100	)	Non-labor related share
			0.8515		Current wage ratio: (0.74900 × 0.8017 + 0.25100) = 0.8515
÷					
(		NAT LABOR PCT	0.76100		Labor related share
	×	PREV INDEX	0.8159		Prior wage index
	+	NON-LABOR PCT	0.23900	)	Non-labor related share
			0.8599		Prior wage ratio: (0.76100 × 0.8159 + 0.23900) = 0.8599
		NEW WAGE RATIO	0.9902		New wage ratio = (0.8515 / 0.8599)
	×	ADJ PAYMENT	$1,429		Adjusted payment = $1,443 × (0.8515 / 0.8599)

This method is adjusting the claim line payment amount from NCH, which includes the HH-PPS outlier approved payment amount**.**

Physician Fee Schedule

1. Obtained 2018 - 2024 relative value units (RVUs) and geographic practice cost indexes (GPCIs) from CM for all jurisdictions.
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
            02, 19, 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 malpractice expenses
    f. Multiply the previous RVU by the current GPCI for work, practice, and malpractice expenses. The current GPCI is the final 2024 GPCIs for all provider locations.
    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		Malpractice		RVU × 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 Prospective Payment System (OPPS)

1. Obtained IPPS wage indices for 2018 thru 2024 from https://www.cms.gov/
2. Obtained provider county from the Provider of Service (POS) file
3. NCH records
    a. Keep only outpatient claims - claim type 40
    b. Limit to OPPS claims where status code equals P, S, T, V, J1, or J2
        i. In addition, status code of X thru 2014
    c. Exclude non-PPS cancer hospitals, OPPS only hospitals, CMHCs, and children's hospitals
    d. Determine provider state and county per POS
4. Apply wage adjustment
    a. Use provider reclassification if it exists
    b. Else do not adjust
    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
÷	(0.6 × WAGE INDEX + 0.4)	0.90526	Remove prior year wage index
	UNADJSTD PMT	$107.87	Unadjusted payment amount
	(0.6 × WAGE 2024 + 0.4)	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 payment 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).

ESRD Prospective Payment System (ESRD PPS)

1. Obtained ESRD PPS CBSA wage indices for 2018 thru 2024 from https://www.cms.gov/. For the FY 2021 wage index only, apply a 5% cap on any decrease from its FY 2020 wage index. Starting with the FY2023 wage indices, apply the 5% cap on any decrease in the wage index from the prior fiscal year. (As a simplifying assumption, we are treating all facilities in our historical data as existing facilities to which this 5% cap applies since we expect most facilities in a CBSA would receive the capped value.)
2. Convert prior year CBSA wage indices to state/county by merging with County crosswalk files
3. Apply wage adjustment for ESRD beneficiaries on dialysis to ESRD PPS amounts only
    a. Keep only claims ESRD PPS for Dialysis Facilities - include claims with a claim type 40 and type of bill equal to 72*x* and exclude claims with condition code 84
    b. Adjust only lines paid under ESRD Dialysis PPS: revenue center 0821, 0831, 0841, 0851, 0881
    c. Determine wage index by provider state and county per POS
    d. Use the appropriate labor percentage from Table 4
    e. Calculate current year wage ratio using most recent wage index
    f. Calculate prior year wage ratio using the claim year wage index
    g. Apply wage index adjustment

Table 4: ESRD PPS Labor Percentage

2018	2019	2020	2021	2022	2023	2024
0.50673	0.52300	0.52300	0.52300	0.52300	0.55200	0.55200

		CLM LINE PMT AMT	$198.99		Claim line payment amount from NCH
	−	OUTLIER AMT	$0.00		Outlier payment
	−	TDAPA	$24.21		Transitional drug add-on payment adjustment
	−	TPNIES	$0.00		Transitional add-on payment adjustment for new and innovative equipment and supplies
	−	(&ADD_ON x PREV INDEX)	$85.35		Self-dialysis add-on adjustment x Prior wage index: ($95.60 x 0.8928)
		NET PAYMENT	$89.43		Claim line payment less adjustments
×					
(		NAT LABOR PCT	0.523		Labor related share from year of claim (e.g. 2021)
	×	CURR INDEX	0.9362		Current wage index
	+	NON-LABOR PCT	0.477	)	Non-labor related share from year of claim (e.g. 2021)
			0.9668		Current wage ratio: (0.5230 × 0.9362 + 0.4770) = 0.9668
÷					
(		NAT LABOR PCT	0.523		Labor related share from year of claim (e.g. 2021)
	×	PREV INDEX	0.8928		Prior wage index
	+	NON-LABOR PCT	0.477	)	Non-labor related share from year of claim (e.g. 2021)
			0.9439		Prior wage ratio: (0.5230 × 0.8928 + 0.4770) = 0.9439
		ADJ PAYMENT	$91.60		Adjusted payment = $89.43 × (0.9668 / 0.9439)
	+	OUTLIER AMT	$0.00		Outlier payment
	+	TDAPA	$24.21		Transitional drug add-on payment adjustment
	+	TPNIES	$0.00		Transitional add-on payment adjustment for new and innovative equipment and supplies
	+	(&ADD_ON x CURR INDEX)	$89.50		Self-dialysis add-on adjustment x Current wage index: ($95.60 x 0.9362)
		NEW PAYMENT	$205.31		New payment amount including adjustment

*The outlier payment, transitional drug add-on payment adjustment and transitional add-on payment adjustment for new and innovative equipment and supplies are not wage-adjusted. The self-dialysis training add-on ($95.60 since 2017) is fully wage-adjusted when the condition code is 73 or 87.

Uncompensated Care Payments (UCP)

1. Obtain FY 2023 and FY 2024 Final Medicare DSH Supplemental Data from https://www.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 2024 = "SCH"
   c. UCP status for FY2023 = "SCH" and UCP status for FY2023 = "No" or missing
   d. Records with UCP status for FY2023 = "SCH" and UCP status for FY2024 = "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 2024 (as reflected in Supplemental DSH exhibit in FY 2024 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 2023 and FY 2024 IPPS Rules.
5. To account for supplemental payments to Indian Health Service/Tribal hospitals and hospitals in Puerto Rico, an additive adjustment equal to the provider's supplemental payment divided by the total uncompensated care payment for all providers is applied to the Factor 3's for these providers to apply in the historical period when no supplemental payments existed.
6. Providers found on the supplemental FY 2023 DSH exhibit and not found on the supplemental FY 2024 DSH exhibit and providers with FY 2024 UCP status = "N" are assigned a Factor 3 value of 0.000.
7. Calculate the gross UCP dollars for 2022 after replacing FY 2022 Factor 2 (0.6857) with FY 2024 Factor 2 (0.5929). This is the total of the re-priced UCP for this set of providers.
8. For providers with no 2022 UCP, but with inpatient claim, the re-priced UCP per claim equals the gross UCP adjustment multiplied by the FY 2024 Factor 3 divided by the number of claims.
9. Below exhibit is illustration of adjustment for calendar year 2022 claims.

		Actual 2022 UCP		FY 2024 DSH Suppl. Data		Re-priced UCP Claims	
Provider Number	**FY 2023 UCP Status**	**Dollars (000)**	**Number of claims**	**Projected to receive DSH in FY 2024**	**Factor 3**	**Gross (000)**	**Per Claim**
	YES	$728,108		YES	1.000000010		
	NO	$3,523		NO	0.000000000		
	n/a OR SCH	$4,643,302		n/a OR SCH	0.000000000		
	Subtotal	$5,374,933			1.000000010	$4,647,510	
	Factor 2		0.6857		0.5929		
111111	YES	$3,193.6	4,750	YES	0.00071977	$3,345.1	$704.24
222222	YES	1,433.3	1,570	YES	0.00037484	1,742.1	1,109.59
333333	YES	1,138.0	3,470	YES	0.00024092	1,119.7	322.67
444444	YES	236.1	469	YES	0.00004878	226.7	483.39
555555	YES	0.3	113	YES	0.00001446	67.2	594.55
666666	YES	3,509.9	2,386	YES	0.00062803	2,918.8	1,223.29
777777	YES	1,596.4	1,680	YES	0.00035015	1,627.3	968.65
…some data not shown…							

Competitive Bid Program for
Durable Medical Equipment Prosthetic Orthotics Supplies (DMEPOS)

OACT calculates Managed Care payment amounts for CY2025 based on the 5-year average of Fee-For-Service (FFS) claims from CY2018 to CY2022. The historical FFS claim payment amounts represent the payment methods that were in place during that time period. We have developed a process to adjust the DMEPOS Claims to account for the changes in the prices associated with the Competitive Bidding Program (CBP) in order to appropriately set MA Ratebook amounts that reflect the payment methods consistent with the MA bid year to which the rates will be applied. 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 for each year 2018 to 2022 for all HCPC codes associated with the former CBP:

1. Download single payment amounts for DMEPOS for the former CBP HCPCS codes including geographic areas and product categories from the CMS website located at https://www.cms.gov/medicare/payment/fee-schedules/dmepos/dmepos-fee-schedule/dme24
2. Create a re-pricing table combining all DMEPOS items and geographic areas.
3. Identify FFS DMEPOS payments using National Claims History (NCH) Records as loaded into Integrated Data Repository (IDR)
    a. Extract DME claim lines with claim type 72, 81 or 82.
    b. Determine whether DME claim line HCPCS code was subject to competitive bidding.
    c. Determine if DME claim was subject to competitive bidding based on NCH zip code.
    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 77.7%.
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.
5. Calculate adjustment to reimbursements to account for implementation of DMEPOS Competitive Bidding
    a. Obtain percent change ratio by dividing the difference of the re-priced payment amount and Medicare maximum payment by the Medicare maximum payment. Exclude claim if percent change ratio is greater than 100%.
    b. Apply savings ratio to covered payment amount (actual amount paid from claim.)
    c. Summarize claim payments by SSA state and county for qualified CBA claims.
    d. Multiply covered claim payments by percent change ratio to obtain Medicare savings.

	219.84	Allowed charge amount
×	0.777	Medicare share
	170.82	FFS Medicare maximum payment amount (MDCR_Max_Paid)
	21.80	Single payment amount for HCPCS Code A7032 in zip code 10506
×	6	unit quantity
×	0.777	Medicare share
	101.63	New Medicare Single payment amount (CBA_Bid_Amt)
	−0.405	Percent change = (CBA_Bid_Amt − MDCR_Max_Paid) / MDCR_Max_Paid
×	175.87	Covered payment amount (actual claim payment amount)
	−71.23	Change in spending

Adjusted FFS Payments based on Competitive Bid Program (CBP) for Durable Medical Equipment Prosthetic Orthotics Supplies (DMEPOS)

Section1834(a)(1)(F) of the ACA mandates adjustments to the fee schedule amounts for DMEPOS furnished on or after January 1, 2016, based on information from the former Competitive Bidding Program (CBP). The adjusted fee schedule amounts were developed using the average of SPAs from the CBP to be applied in different regions and separated by rural and non-rural areas. Below is the process used to adjust the DMEPOS Claims in Non-CBA areas using the CBP adjusted FFS payment amounts. OACT calculates Managed Care payment amounts for CY2024 based on the 5-year average of Fee-For-Service (FFS) claims from CY2018 to CY2022. In order to reflect the new CBP adjusted DMEPOS FFS payment amounts in the base years, we use the following methodology to re-price DMEPOS claims for each year 2018 to 2022 for Non-CBP claims:

1. Download DMEPOS adjusted FFS payment amounts for Non-CBA areas including Rural and Non-Rural geographic areas and product categories from the CMS website located at https://www.cms.gov/medicare/payment/fee-schedules/dmepos/dmepos-fee-schedule/dme24
2. Create a re-pricing table combining all DMEPOS items and geographic areas for Rural and Non-Rural Non-CBA areas.
3. Identify FFS DMEPOS payments using National Claims History (NCH) Records as loaded into Integrated Data Repository (IDR).
    a. Extract DME claim lines with claim type 72, 81 or 82.
    b. Determine whether DME claim line HCPCS code was subject to competitive bidding.
    c. Determine if DME claim was not already subject to competitive bidding based on zip code from the NCH.
    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 77.7%.
4. Determine the re-priced payment amount based on DMEPOS Competitive Bidding by multiplying the single payment amounts (for the HCPCS code in the geographic area defined by the zip code) by unit quantity.
5. Calculate adjustment to reimbursements to account for implementation of adjusted FFS payment amounts
    a. Obtain percent change ratio by dividing the difference of the re-priced payment amount and Medicare maximum payment by the Medicare maximum payment. Exclude claim if percent change ratio is greater than 100%.
    b. Apply Percent Change ratio to covered payment amount (actual amount paid from claim.)
    c. Summarize claim payments by SSA state and county for qualified claims.
    d. Multiply covered claim payments by percent change ratio to obtain Medicare savings.

	219.84	Allowed charge amount
×	0.777	Medicare share
	170.82	FFS Medicare maximum payment amount (MDCR_Max_Paid)
	36.29	Fee schedule amount for HCPCS Code A7032 in zip code 10985
×	6	unit quantity
×	0.777	Medicare share
	169.18	New Medicare Single payment amount (CBA_Bid_Amt)
	−0.010	Percent change = (CBA_Bid_Amt − MDCR_Max_Paid) / MDCR_Max_Paid
×	175.87	Covered payment amount (actual claim payment amount)
	−1.76	Change in spending