

## Glossary for 2014 Medicare Fee-For-Service (FFS) Excel Workbook

The monthly county fee-for-service per capita cost calculation is one component used in determining the Medicare Advantage benchmarks. This glossary defines variables names and formulas used by Medicare actuaries in determining the fee-for-service per capita costs. All calculations are performed at the county-level unless otherwise noted.

**Fee-for-service:** The original system of obtaining care under Medicare wherein beneficiaries can choose to obtain health care services from any Medicare-approved doctor or hospital, or other health care supplier that accepts Medicare reimbursement.

There are seven worksheets in the Excel workbook:

- (1) County Overview\_adj\_clms: Displays FFS per capita cost for a selected county based on the re-priced claims data, and provides intermediate step-by-step formulation of the FFS cost.
- (2) ffs2014\_worksheet\_adj\_clms: Contains county level re-priced claims and other relevant data used to calculate the FFS costs.
- (3) County Overview\_orig\_clms: Displays FFS per capita cost for a selected county based on the unadjusted original claims data, and provides intermediate step-by-step formulation of the FFS cost.
- (4) ffs2014\_worksheet\_orig\_clms: Contains county level detailed original claims and other relevant data used to calculate the FFS costs.
- (5) absplits: Part A and Part B USPCC percentages used to calculate a county's composite enrollment ( CTYNUMYR) formula #13 below.
- (6) Payment\_data: The calendar year 2007-2011 original claims, claim adjustments by type of services, and the resultant re-priced claims.
- (7) Risk\_scores: Calendar year 2007-2011 risk scores under both the 2013 CMS-HCC model and the 2014 CMS-HCC model.

The workbook contains Macros and/or ActiveX content which must be enabled to work properly. By default, Excel protects you from running macros. When this workbook is opened, Excel may display a prompt asking if you want to enable macros – respond positively. If not prompted, you may have to manually change the protective security settings in your version of Excel. If for some reason you obtain unexpected results, completely exit from all open Excel applications and restart the workbook.

The workbook has two ways to initiate the calculation and display of a specific county's FFS cost. On the County Overview\_adj\_clms sheet, simply directly enter a valid county code into the cell G5. The available valid county codes can be looked up in column B

of the ffs2014\_worksheet\_adj\_clms sheet, where the data is sorted by county codes within state. Alternatively you may use the State and County drop down lists in the 5th row of the County Overview\_adj\_clms worksheet to initiate the calculation. The valid county code will then automatically be entered into cell G5 and the FFS cost calculations will display.

To preserve its integrity, the workbook is locked and password protected for most editing functions. Questions and comments can be e-mailed to [Clifton.Maze@cms.hhs.gov](mailto:Clifton.Maze@cms.hhs.gov) .

Formulas and explanation of terms used in the Excel Workbook

**1. FFS6\_IME = FFS5\_CRED\_BN – PHINDOLR**

The final projected calendar year 2014 monthly county FFS per capita cost less the Indirect Medical Education (IME) deduction.

**2. PHINDOLR = PHINPCT × AVGIME × FFS5\_CRED\_BN**

The indirect medical education (IME) deduction expressed as a dollar amount. Section 161 of the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) requires CMS to phase out indirect medical education (IME) amounts from MA capitation rates.<sup>1</sup>

a. PHINPCT: The maximum allowed percentage of the AVGIME that can be deducted in the contract year from the FFS rate.

b. AVGIME: The per capita costs for IME payments as a percentage of FFS costs. (5 year average)

c. FFS5\_CRED\_BN = FFS4\_CRED × BN\_FAC\_C: The blended credibility FFS per capita cost adjusted for budget neutrality.

**3. BN\_FAC\_C:** A budget neutrality factor applied to the blended credibility FFS per capita cost (FFS4\_CRED). This factor ensures that combined projected FFS payments in counties where the credibility approach is used will be equal to the combined payments that would have been paid without the credibility approach. It is calculated based only on counties within the state where the credibility factor has a value less than 1.0 (average enrollment less than 1000).

$$BN\_FAC\_C = \frac{a}{b} ,$$

$$where\ a = \sum_{cred < 1}^{all\ ctys} ( FFS2\_DOD \times \sum_{YR=2007}^{2011} \frac{ADNUMYRB}{5} )$$

<sup>1</sup> <http://www.cms.gov/MedicareAdvtgSpecRateStats/Downloads/Advance2012.pdf> - page 16, Section C

$$\text{and } b = \sum_{\text{cred} < 1}^{\text{all ctys}} \left( \text{FFS4\_CRED} \times \sum_{\text{YR}=2007}^{2011} \frac{\text{ADNUMYRB}}{5} \right)$$

#### 4. FFS4\_CRED =

$$(\text{FFS2\_DOD}) \times (\text{CRED\_FAC}) + (\text{FFS3\_CBSA}) \times (1 - \text{CRED\_FAC})$$

The blended<sup>2</sup> credibility FFS per capita cost calculation for counties where the enrollment is less than 1000.

$$\text{a. CRED\_FAC} = \sqrt[2]{\frac{\sum_{\text{YR}=2007}^{2011} \frac{\text{ADNUMYRB}}{5}}{1000}}$$

#### 5. FFS3\_CBSA

The term "core based statistical area" (CBSA)<sup>3</sup> refers to a geographic region based around an urban area of at least 10,000 people. The two categories of CBSAs are metropolitan statistical area (50,000 or more people) and micropolitan statistical area (10,000 - 49,999 people).

$$\text{FFS3\_CBSA} = \frac{a}{b},$$

$$\text{where } a = \sum_{\text{in CBSA}}^{\text{all ctys}} \left( \text{FFS2\_DOD} \times \sum_{\text{YR}=2007}^{2011} \frac{\text{ADNUMYRB}}{5} \right) \quad \text{i. e., ffs payments in CBSA}$$

$$\text{and } b = \sum_{\text{in CBSA}}^{\text{all ctys}} \sum_{\text{YR}=2007}^{2011} \frac{\text{ADNUMYRB}}{5} \quad \text{i. e., avg enrollment in CBSA}$$

<sup>2</sup> <http://www.cms.gov/MedicareAdvtgSpecRateStats/Downloads/Advance2012.pdf> - page 15, *Variations in Small Counties*

<sup>3</sup> <http://www.census.gov/population/www/metroareas/aboutmetro.html>

**6. FFS2\_DOD = FFS1\_GME × DoD\_FAC**

FFS per capita cost with DOD adjustment<sup>4</sup>, where DoD\_FAC is a predetermined value that adjusts for services received by dual-eligible military retirees outside of Medicare under the TRICARE<sup>5</sup> health program.

**7. FFS1\_GME = [ CTYAGA<sub>blended</sub> × USPPC ] × (1 – AVGGME)**

Blended projected county per capita cost less GME adjustment.

- a. AVGGME: Direct graduate medical education (GME) payments as a percent of total FFS claims. Based on 5 years of data. This payment adjustment was authorized by the Balanced Budget Act of 1997.

$$AVGGME = \frac{\sum_{2007}^{2011} DGME \text{ payment}}{\sum_{2007}^{2011} \text{Total Parts A \& B payments}}$$

- b. CTYAGA<sub>blended</sub> = (.5 × CTYAGA<sub>adj\_clms</sub> + .5 × CTYAGA<sub>orig\_clms</sub>)

**8. FFS1 = CTYAGA × USPPC**

Basic projected county per capita cost.

- a. where the standardized average geographic adjustment

$$CTYAGA = \frac{AGA}{NATAGA}$$

- b. USPPC: The combined Medicare Parts A and B projected national average Medicare per capita cost (USPPC) in the FFS sector in the contract year.

- 9. AGA:** The average geographic adjustment is an index which measures the 5 year average historical relationship of a county's per capita Medicare expenditures to the national average per capita Medicare expenditures. Division by AVG5SCOR serves to remove the effects of the health status and demographics of the beneficiaries in the county.

$$AGA = \frac{1}{AVG5SCOR} \times \sum_{YR=2007}^{2011} \left( \frac{GEOIN YR}{5} \right)$$

- 10. NATAGA:** The national average geographic adjustment is the enrollment weighted average of all the county AGA's (uses 2011 enrollment).

<sup>4</sup> <http://www.cms.gov/MedicareAdvtgSpecRateStats/Downloads/Advance2012.pdf> - page 16, Section D

<sup>5</sup> TRICARE is the health care program serving Uniformed Service members, retirees and their families.

$$NATAGA = \frac{\sum_{in\ U.S.}^{all\ ctys} (AGA \times CTYNUM11)}{\sum_{in\ U.S.}^{all\ ctys} CTYNUM11}$$

**11.AVG5SCOR:** The 5 year enrollment weighted average of all a county's fee-for-service enrollees' risk scores<sup>6</sup>.

$$AVG5SCOR = \frac{\sum_{YR=2007}^{2011} (RISCORYR \times RISNUMYR)}{\sum_{YR=2007}^{2011} RISNUMYR}$$

**GEOINYR = CPCCYRAB ÷ NPCCYRAB**

An annual index which measures the Parts A and B county per capita costs relative to the national per capita cost. For any year, this index is the ratio of all actual Medicare program per capita costs for the county, divided by the actual program per capita cost for the nation. Geographic indices are calculated for five consecutive annual periods (2007-2011), and then averaged to reduce variation. See AGA calculation.

**12.NPCCYRAB:** National Per Capita Cost for part A and B.

The national average per capita cost for a calendar year is the enrollment weighted average of all the county per capita costs for the year.

$$NPCCYRAB = \sum_{in\ U.S.}^{all\ ctys} (CPCCYRAB \times CTYNUMYR) \div \sum_{in\ US}^{all\ ctys} CTYNUMYR$$

**13.CTYNUMYR = (ADNUMYRA) × (PT\_A\_PCT) + (ADNUMYRB) × (PT\_B\_PCT)**

Composite Part A and Part B enrollment

*The county per capita cost for a calendar year is based on the actual fee-for-service payments<sup>7</sup> made for all beneficiaries residing in the county. The payments made for the Aged (age 65 and over) and the Disabled (less than age 65) are grouped together. However payments for Part A (ADCOSYRA) and Part B (ADCOSYRB) are totaled separately.*

*Similarly, the number of beneficiaries<sup>8</sup> in the county is summarized separately for Part A (ADNUMYRA) and Part B (ADNUMYRB).*

<sup>6</sup> <http://www.cms.gov/MedicareAdvtgSpecRateStats/Downloads/calculationdata2014.zip>

Filename: Risk\_Scores 2007-2011 Non-PACE.csv contains historical risk scores

<sup>7</sup> [http://www.cms.gov/MedicareAdvtgSpecRateStats/05\\_FFS\\_Data.asp#TopOfPage](http://www.cms.gov/MedicareAdvtgSpecRateStats/05_FFS_Data.asp#TopOfPage)

Medicare fee-for-service data for each county broken out by aged, disabled, and ESRD beneficiaries including data on total Medicare fee-for-service reimbursement and enrollment for Parts A and B.

<sup>8</sup> *ibid*

*Next, the Part A (CPCCYRA) and Part B (CPCCYRB) county per capita costs can be calculated by dividing the payments by the number of beneficiaries. Finally, these two per capita costs are summed to give the overall county per capita cost (CPCCYRAB).*

**14. CPCCYRAB = CPCCYRA + CBPCCYRB**

Combined Per Capita Cost for Parts A and B, Aged and Disabled beneficiaries

**15. CPCCYRA = ADCOSYRA ÷ ADNUMYRA ÷ 12**

Per Capita Cost for Part A Aged and Disabled beneficiaries

**16. CPCCYRB = ADCOSYRB ÷ ADNUMYRB ÷ 12**

Per Capita Cost for Part B Aged and Disabled beneficiaries

**17. ADCOSYRA = AACOSTYR + DACOSTYR**

Total Part A payments for Aged and Disabled beneficiaries

**18. ADCOSYRB = ABCOSTYR + DBCOSTYR**

Total Part B payments for Aged and Disabled beneficiaries

**19. ADNUMYRA = AANUMYR + DANUMYR**

Total number of Part A Aged and Disabled beneficiaries

**20. ADNUMYRB = ABNUMYR + DBNUMYR**

Total number of Part B Aged and Disabled beneficiaries