Inpatient Rehabilitation Facility (IRF) Prospective Payment System (PPS) Facility-Level Payment Adjustments Methodology

Data Variables, Sources and Construction

1. Number of equivalent cases
   The number of equivalent cases at each facility ("eqcase") is the sum of the "casewt" variables per facility. "Casewt" is the product of the weight per discharge and the weight assigned to the case which is set equal to 1 for all cases except for the short-stay transfers, which are counted as a fraction of a case. This fraction equals the length of stay (LOS) of the transfer case plus 0.5 days divided by the average LOS for the CMG/tier.

2. Average cost per case
   "Costpc"=total costs per hospital ("totcst") divided by number of equivalent cases per hospital ("eqcase").

3. Case mix index
   The case mix index ("cmi") is the sum of the weight per discharge across all discharges at the hospital divided by the number of equivalent cases.

4. Wage index
   The IRF wage index ("wi") for a given fiscal year is made available on the CMS website at https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/InpatientRehabFacPPS/IRF-Rules-and-Related-Files. CBSAs are mapped to providers using a crosswalk containing both the CBSA and SSA state and county codes in order to assign a wage index to IRFs.

5. Disproportionate Share Hospital (DSH) patient percentage
   This measure ('dshr') is calculated by summing the SSI and Medicaid fractions from the provider specific file located at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ProspMedicareFeeSvcPmtGen/psf_text.

6. Rural / urban variable
   We identify rural versus non-rural facilities based on the IRF's CBSA. This variable is called "rural" in the SAS code below.

7. Indirect teaching
   This measure ("teach") is the ratio of full-time equivalent interns and residents to the IRF's average daily census. This is obtained from the provider specific file located at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/ProspMedicareFeeSvcPmtGen/psf_text.

8. Freestanding versus unit
   IRF units of acute care hospitals, long term care hospitals, or inpatient psychiatric facilities have a "T" in the third digit of the Medicare provider number, and IRF units of critical access hospitals have an "R" in the third digit of the Medicare provider number. Thus, a facility is classified as freestanding ("freestand"=1) if the third digit of the provider number is not a "T" or an "R."

9. IRF size
   This measure ("irfsize") is the IRF's average daily census (ADC) from its most recent cost report. We then assign size by the following rules:
   i. Small: ADC < 25 (freestanding); < 10 (unit)
   ii. Medium: ADC ≥ 25 and < 50 (freestanding) ; ADC ≥ 10 and < 25 (unit)
   iii. Large: ADC ≥ 50 (freestanding); ADC ≥ 25 (unit)
   iv. If the ADC is missing, we designate the IRF as a medium-sized.

10. Proprietary ownership
    This measure ("propown") is obtained from the IRF's most recent cost report (variableS2_1_C1_21). If the value in the cost report variable is equal to 3, 4, 5, or 6 then "propown"=1.

Regression Models to Estimate the Facility-Level Payment Adjustments

First, a fully-specified regression model was used to understand the relationship between IRF characteristics and cost per case.

Note on variable derivation:

• logcostM =log(costpc)

• logcostpayM =log(costpc/(cmi*(non-labor share + labor share*wi)))

• logcmi =log(cmi)

• log wi =log(non-labor share + labor share*wi)

• logdsh =log(1+dshr)

• logtch =log(1+teach)

SAS Code:

```
proc glm data=Facility_Adj;

weight eqcase;

model logcostM=logcmi logwi logdsh logtch freestand sizeL sizeM sizeS rural propown /
solution; run;
```

Second, we used a payment regression model after identifying characteristics that were both significantly related to cost per case and that are included in the IRF PPS.

```
proc glm data=Facility_Adj;

weight eqcase;

model logcostpayM=logdsh rural logtch freestand / solution; run
```