Readmissions Reduction Program Analysis

-Version 1-

Analysis Description

The Readmissions Reduction Program (RRP) Analysis is intended to provide detailed performance information on the readmissions measures that are currently evaluated under the Medicare Hospital Readmissions Reduction Program and to provide hospitals with an in-depth review of actual performance under the Federal Fiscal Years (FFYs) 2020 and 2021 programs.

The specific measures analyzed (6 in total) represent the measures the Center for Medicare and Medicaid Services (CMS) has adopted for use in the FFYs 2020 and 2021 Hospital Readmissions Reduction Programs and include:

- Heart Attack (AMI)
- Heart Failure (HF)
- Pneumonia (PN)
- Hip/Knee Surgery (THA/TKA)
- Chronic Obstructive Pulmonary Disease (COPD)
- Coronary Artery Bypass Graft Surgery (CABG)

CMS calculates hospital readmissions rates on a rolling 3-year aggregate basis and updates are published on Hospital Compare annually. These readmission rates reflect Medicare inpatient fee-for-service (FFS) patients only and do not include patients enrolled in Medicare Advantage (MA) Plans.

The readmission rates included in this analysis cover two update periods as follows:

- 2nd Quarter 2019 update: July 2015 – June 2018
- 2nd Quarter 2020 update: July 2016 – June 2019

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This report provides a detailed review of hospital performance and the factors that drive performance under the Readmissions Reduction Program for FFYs 2020 and 2021, using actual and estimated data. The report includes tables and graphs to highlight exposure areas that drive payment penalties by year.

The top section of this report provides the actual adjustment factors used to adjust inpatient rates for FFYs 2020-2021, as well as estimated impacts for those fiscal years. In addition, revenue and impacts for individual readmission measures are provided in order to better see how each condition area affects payments. The checkboxes on the left can be used to toggle the graph between condition revenue and estimated impact.

An adjustment factor in yellow indicates there would have been a higher penalty if the penalty was not capped at 3.0%.

The 21st Century Cures Act of 2016 required CMS to implement a Socio-Demographic Status (SDS) adjustment into the program. CMS adopted an interim adjustment in which hospitals will be grouped into quintiles based on their ratio of full-benefit dual eligible to total Medicare Fee-For-Service (FFS) and Medicare Advantage (MA) patients. Hospitals then are compared to the condition-specific median excess ratio of all hospitals within their quintile. The adjustment is budget neutral nationally.

CMS identifies full-benefit dual eligible patients using the State Medicare Modernization Act (MMA) file and the total number of Medicare patients as the total number of Medicare FFS and MA patients using MEDPAR. The full-benefit dual eligible ratios and quintile assignments are provided in this analysis and are from CMS' FFYs 2020 and 2021 IPPS Final Rule Hospital RRP Supplemental Files. The FFYs 2020 and 2021 full-benefit dual eligible ratios and corresponding quintiles are calculated using the same three-year period as the program performance periods.

The SDS impact is provided as a breakout of the total impact to allow hospitals to see how much the introduction of the SDS adjustment into the program helped or hurt their overall impact.

The bottom section provides an overview of measure-specific readmission rates and resulting excess readmission ratios for each of the program years analyzed. The checkboxes on the left can be used to view the calculation of a condition. The excess readmission ratios are used as part of the calculation of the adjustment factor for each program year. Excess readmission ratios are calculated as the hospital condition-specific prediction rate divided by expected rate.

- Predicted Rate: Hospital's 30-day readmission rate for discharges in each time period with hospital-specific risk adjustments.
- Expected Rate: U.S. 30-day readmission rate for all hospitals participating in the Readmissions Reduction Program for discharges in each time period with hospital-specific risk adjustments.

When a hospital has fewer than 25 discharges attributable to a specific condition or rates were not available on Hospital Compare, "-" will be displayed.

Revenue used under the program represents Base Operating IPPS revenue, which excludes adjustments due to Disproportionate Share Hospital (DSH) payments, Indirect Medical Education (IME), capital, low volume, outliers, and quality performance.

Condition-specific Diagnostic Related Group (DRG) payment ratios are multiplied by the condition-specific quintile median excess ratio minus each condition's corresponding excess ratio to determine the excess ratio used to calculate payment penalties. The DRG payment ratio represents the ratio of Medicare FFS inpatient base operating DRG payments for each condition among total Medicare FFS inpatient base operating DRG payments for discharge periods specific to each program year. This value is also used to estimate condition-specific inpatient operating revenue by multiplying each condition-specific ratio by the total inpatient operating revenue.

Then, the total excess ratio amount is multiplied by a budget neutrality factor such that Medicare savings without the SDS adjustment and Medicare savings with the SDS adjustment are equal to determine the annual adjustment factors applied to base operating IPPS payments (these factors are capped at 3.0%).

The result of the calculation is compared to the actual program factor published by CMS in the FFYs 2020-2021 Medicare IPPS final rules that are used to adjust payments under the IPPS during those FFYs. The factors' estimated total impact on Medicare inpatient FFS operating payments is also shown. Estimated FFY 2020

Medicare IPPS FFS operating payments are calculated by applying a deflation factor to FFY 2021 estimates. The use of slightly different hospital claims data is the cause of any difference between the actual and estimated factors.

Hospitals in the higher quintiles (higher percent of full-benefit dual eligible patients) will typically have a less stringent benchmark (median excess ratio) while hospitals in the lower quintiles (lower percent of full-benefit dual eligible patients) will generally have a more stringent benchmark (median excess ratio). Therefore, although the program is budget neutral nationally, there will be winners and losers within each quintile.

The approximate range of full-benefit dual eligible ratios for quintile distribution for FFY 2021 and the median excess ratio for each quintile per condition are as follows:

	Quintile 1 (0.000%-13.71%)	**Quintile 2** (13.72% - 18.24%)	**Quintile 3** (18.25% - 22.96%)	**Quintile 4** (22.97% - 30.71%)	**Quintile 5** (30.72%+)
AMI	0.9936	0.9918	0.9938	0.9978	1.0075
HF	0.9874	0.9899	0.9904	1.0053	1.0240
PN	0.9903	0.9872	0.9879	1.0039	1.0166
THA/TKA	0.9892	0.9941	0.9966	1.0045	0.9984
COPD	0.9946	0.9942	0.9983	0.9989	1.0073
CABG	0.9758	0.9942	0.9953	1.0053	1.0137

FFY 2020 and 2021 Data Sources

- Readmissions rates and information from the most recent Hospital Compare update (July 2020 update) at http://www.medicare.gov/download/downloaddb.asp.
- Readmissions rates and information from previous Hospital Compare updates at https://data.medicare.gov/data/archives/hospital-compare.
- Medicare inpatient claims data from the Medicare Provider Analysis and Review (MEDPAR) Files from FFYs 2015-2019.
- Hospital payment data from the FFY 2021 IPPS final rule Impact File available on the CMS Web site at https://www.cms.gov/medicare/acute-inpatient-pps/fy-2021-ipps-final-rule-home-page.
- FFYs 2020 and 2021 Readmissions Reduction Program Supplemental Data files available on the CMS Web site at:
  - https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/FY2020-IPPS-Final-Rule-Home-Page.html.
  - https://www.cms.gov/medicare/acute-inpatient-pps/fy-2021-ipps-final-rule-home-page.

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Data Dictionary

$$\text{Est. Base Operating Revenue} = \text{Most recent est. base operating revenue adjusted by an update factor as needed}$$

$$\text{Condition Revenue} = \text{Condition DRG Ratio x } 3 - \text{Year Est. Base Operating Revenue}$$

$$\text{Condition Excess Ratio (calculated by CMS)} = \frac{\text{Predicted Rate}}{\text{Expected Rate}}$$

$$\text{Condition Excess \% (when Excess Ratio} > \text{Quintile Median)} = \text{Quintile Median} - \text{Excess Ratio}$$

$$\text{Condition Excess Amount} = \text{Condition DRG Ratio x Condition Excess \%}$$

$$\text{Total Excess Amount} = \sum \text{Condition Excess Amount}$$

$$\text{Condition Excess \% of Total} = \frac{\text{Condition Excess Amount}}{\text{Total Excess Amount}}$$

$$\text{Hospital Penalty \% (capped at 3.0\%)} = \text{Total Excess Amount x SDS Budget Neutrality Modifier} * -1$$

$$\text{Adjustment Factor (capped at 0.97)} = 1 + \text{Hospital Penalty \%}$$

$$\text{Hospital Penalty} = \text{Adj. Factor x Est. Base Operating Revenue} - \text{Est. Base Operating Revenue}$$

$$\text{Estimated Condition Impact} = \text{Hospital Penalty x Condition Excess \% of Total}$$

$$\text{SDS Impact (Breakout)} = \text{Hospital Penalty with SDS adj.} - \text{Hospital Penalty without SDS adj.}$$

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