Inpatient Quality Reporting (IQR) Program

Support Contractor

Hospital-Specific Report Fast-Track: The Quickest and Easiest Way to Examine Your January 2020 *Hospital Compare* and FY 2020 Hospital VBP Program Medicare Spending Per Beneficiary Measure and Hospital-Specific Reports

Questions and Answers

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Webinar attendees asked the following questions and subject-matter experts provided the responses during the live webinar. The questions and answers have been edited for grammar.

Question 1: **Is there a specific time, immediately prior to or following the episode, that is included in the Medicare Spending per Beneficiary (MSPB)?**

An MSPB episode will include all Medicare Part A and Part B claims with the start date falling between three days prior to an Inpatient Prospective Payment System (IPPS) hospital admission, also known as the index admission for the episode, through 30 days post discharge.

Question 2: **Could you clarify the following from slide 25? "Hospital admissions that are NOT considered as index admissions include: Admissions having discharge dates fewer than 30 days prior to the end of the performance period."**

Index admissions with discharge dates within 30 days from the end of the performance period are not included in measure calculations, as those episodes could contain costs not incurred during the period of performance. A period of performance spans January 1 to December 31.

For example, a beneficiary discharged on December 20 would not have their index admission counted towards the MSPB measure calculation because the 30-day post discharge period for this episode would end on January 9, which is outside the period of performance for that year.

Question 3: **What is included in the outpatient claim type?**

The outpatient file contains final action fee-for-service (FFS) claims data submitted by institutional outpatient providers. Examples of institutional outpatient providers include hospital and outpatient departments, oral health clinics, renal dialysis facilities, outpatient rehabilitation facilities, comprehensive outpatient rehabilitation facilities and community mental health centers. Additional information on outpatient claim types is available at https://www.resdac.org/cms-data/files/op-rif.

Question 4: **Are claims in the MSPB measure included even if the hospital is not an IPPS provider?**

Admissions to hospitals that Medicare does not reimburse through IPPS, (e.g., cancer hospitals, critical access hospitals [CAHs], hospitals in Maryland) are not considered index admissions and therefore not eligible to begin an MSPB episode.

However, if an acute to acute hospital transfer or a hospitalization in an IPPS-exempt hospital occurs during the 30-day window following an included index admission, it will be counted in the measure. More information can be found on the MSPB measure page on *QualityNet*: https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228772057350.

Question 5: **Why are Medicare Advantage patients excluded?**

The exclusion of Medicare Advantage patients from the measures is due to a data limitation. The measure excludes beneficiaries enrolled in Medicare Advantage during an episode to ensure that a complete picture of resources use can be accounted for through the duration of an episode.

The system of validating encounter data differs between services under Medicare Advantage and services under the FFS system. Such differences make it difficult to compare claims data across patients who are and who are not enrolled in Medicare Advantage.

Question 6: **We see a lot of major diagnostic category (MDC) 0 (Pre-MDC) episodes. What does this mean?**

The MDC expense episodes is determined by the Medicare Severity Diagnosis-Related Group, or MS-DRG, of the index hospital stay. The pre-MDC represents hospital stays related to transplants given that the MDC is determined from several diagnosis or procedure situations.

Specifically, pre-MDC DRGs include organ transplants, bone marrow transplants, and tracheostomy cases. This is because transplants tend to be very expensive and can be needed for several reasons that do not come from one diagnosis domain. The explanation of the pre-MDC is also explained in a footnote of Table 6 in the Hospital-Specific Report (HSR).

Question 7: **Are planned readmissions included in the inpatient category of the post-acute portion of the episode?**

The 30 Days After Hospital Discharge category includes all Medicare Parts A and B claims for services furnished from an index hospitalization discharge up to and including 30 days post-discharge. Given that readmissions would be an inpatient claim, they would appear under the inpatient category of the 30 Days After Hospital Discharge category in Table 5 of the HSR. No distinction is made between planned and unplanned readmissions in the MSPB measure.

Question 8: **Is inpatient rehabilitation spending included in the index hospital visit or post-acute visit?**

Since inpatient rehabilitation services would be billed as an inpatient claim, they would appear under the inpatient category of the 30 Days After Hospital Discharge category in Table 5 of the HSR.

Question 9: **What if the post-acute care goes past the 30 days after an index stay? In other words, how is payment included in the episode of care calculations if the end time of the post-acute claim is beyond 30 days post discharge from the hospital?**

The MSPB measure associates index hospitals with the cost of all claims that start within 30 days after discharge from the index admission, and costs are not prorated. Thus, if a patient is admitted to the hospital, triggers an MSPB episode, and then receives home health care that is billed within 30 days after discharge, the index hospital is responsible for the full cost of that home health claim.

Again, the measure calculation does not prorate the cost of home health care. Another example is if a patient is admitted to the hospital, triggers an MSPB episode, discharged to a skilled nursing facility, and remains in the skilled nursing facility for more than 30 days (e.g., 90 days spent in the facility), then the index hospital is responsible for the full cost of the skilled nursing facility stay.

Question 10: **Can you explain why the hospital's MSPB amount is divided by the national median MSPB and not the national average MSPB?**

The median score represents the score that falls in the middle of the distribution scores from lowest to highest score, and the median is less influenced by scores in the high or low ends of the distribution

than the average. As such, we use the MSPB median score, not the MSPB average score.

Question 11: **Can you explain what is meant by price-standardized payments?**

Price standardization accounts for payment differences in geographic locations and special Medicare programs that are unrelated to care (e.g., graduate medical education), while retaining other aspects and differences in Medicare payments. For more information, you can refer to the MSPB Measure Information Form on the *QualityNet* Measure Methodology Reports webpage: https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228772057350. That webpage also provides documentation describing payment standardization.

Question 12: **Can you explain "risk-adjustment"?**

The MSPB risk adjustment methodology adjusts the MSPB measure for age, severity of illness, and enrollment status indicators. Specifically, the methodology includes 12 age categorical variables and 79 Hierarchical Condition Category (HCC) variables that are derived from the beneficiary's claims during the period 90 days prior to the start of the episode to measure the severity of the illness and the MS-DRG of the index hospitalization.

The risk adjustment methodology also includes HCC interaction variables, status indicator variables, whether the beneficiary qualifies for Medicare through disability or end-stage renal disease (ESRD), and whether a beneficiary resides in a long-term care facility. For more information, please refer to the MSPB Measure Information Form, which is located on the *QualityNet* Measure Methodology Reports webpage: https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier4&cid=1228772057350.

Question 13: **Do we want our MSPB as close to 1 as possible, or is it better to be well below 1?**

An MSPB measure of greater than 1 indicates your hospital's MSPB amount is more expensive than the US national median MSPB amount. An MSPB measure of less than 1 indicates that your hospital's MSPB amount is less expensive than the US national median MSPB amount.

The MSPB measure should be viewed in the context of other measures to evaluate the quality of care. The MSPB measure is not the only measure by which CMS evaluates hospitals. It is instead one part of the Hospital VBP Program that contributes to the overall evaluation of a hospital's performance.

Question 14: **Since most hospitals do not have access to the Medicare numbers and are paid based on Diagnostic-Related Group (DRG) payment, how do you expect hospitals to do performance improvement and, nationally, what areas do you see as the best areas to focus on for improvement?**

Starting with the first question, the HSRs provide each hospital with a wealth of information to assess its performance in the current period against previous HSRs and evaluate performance against other hospitals in the state and in the nation. In addition to the MSPB measure, the HSRs present the major components used to calculate the MSPB measure for the hospital, state, and the US. These components include average spending per episode, average risk-adjusted spending (the MSPB amount), the number of eligible admissions, and the national MSPB amount.

In addition, the HSR includes the national distribution of the MSPB measure and tables with a:

- Breakdown of the MSPB spending by seven claim types and three time periods (3 days prior to index admission, during-index admission, and 30 days after hospital discharge).
- Breakdown of spending (actual and expected) by MDC.

Alongside your MSPB HSRs, each hospital is given three accompanying hospital-specific data files that enable hospitals to explore the driving forces behind their MSPB measure. For example, a hospital can analyze the breakdown of its spending by service types and period of service (from the HSR) and figure out the most expensive providers (from Episode file).

With this information, the hospital can identify the areas where the spending is most concentrated, which may represent opportunities for more efficient care coordination with other healthcare providers. Thus, by improving care coordination and efficiency and reducing delivery system fragmentation, the provider may be able to improve its relative performance.

Speaking to your second questions, the main drivers of MSPB spending will vary by hospital, and the areas of improvement will be hospital-specific. More generally, most of the variation in the MSPB spending comes from post-discharge spending, specifically, skilled nursing facilities (SNFs) followed by inpatient readmissions. Thus, better care coordination in the post-discharge setting may be one of the areas for improvement.

Question 15: **Can you explain "carrier" in table 5 on slide 53?**

Carrier spending levels represent spending for services that appear in the Carrier Claims File, which contains claims submitted by non-institutional providers. Research Data Assistance Center (https://www.resdac.org/cms-data/files/carrier-ffs) describes the carrier file as follows:

The Carrier Claims File includes FFS claims submitted by professional providers, including physicians, physician assistants, clinical social workers, and nurse practitioners. Claims for some organizational providers, such as free-standing facilities are also found in the Carrier Claims File. Examples include independent clinical laboratories, ambulance providers, free-standing ambulatory surgical centers, and free-standing radiology centers.

Question 16: **I did not receive an email or secure file about the MSPB measure in the *QualityNet* Secure Portal. Is that because we are a Critical Access Hospital?**

Correct. The MSPB Measure calculation only includes hospitals subject to the Inpatient Prospective Payment Systems (IPPS). As a result, CAHs are excluded from the MSPB calculation and will not receive an MSPB HSR.

Question 17: **Is there a limited user amount to obtain reports per organization?**

The reports are sent to each user who has the appropriate roles. There should not be a limitation on number of users receiving the report.

Subject-matter experts researched and answered the following questions after the live webinar. The questions may have been edited for grammar.

Question 18: **Slide 57: Are diagnoses present on admission included in the risk score for the index admission?**

No. Diagnoses present on admission are not directly included in the risk adjustment model to predict episode spending. However, these diagnoses are somewhat indirectly included in the risk adjustment model. The risk adjustment model includes the Medicare Severity Diagnosis-Related Group (MS-DRG) of the admission which by construction considers the admissions diagnoses.

Question 19: **Are HCC indicators primarily found in claims from the index inpatient admission or throughout an episode?**

Neither. The HCC indicators are intended to adjust risk for the expected resource use of a beneficiary given their health status prior to the start of the episode. HCCs are defined using diagnosis information on inpatient, outpatient, and physician/supplier claims in the 90 days prior to the episode start date.

Question 20: **Are there any exclusions/adjustments for patients who are admitted to an acute care hospital from a SNF and then returned to the same SNF post-discharge?**

No, there is no adjustment made for this sort of case. Adjustments are made for age and severity of illness. Risk factors are determined using beneficiary enrollment data and claims history in the 90 days prior to the episode. Events during or after the episode, except for the index admissions MS-DRG, are not considered in risk adjustment. So, a return to the SNF would not be considered. Long-term care occurring in a SNF is included in the risk adjustment model, characterized as long-term institutionalized care. This includes SNF care as well as long-term care institutionalized at non-skilled nursing homes. This aggregate population of long-term care institutionalized beneficiaries is identified through their Minimum Data Set (MDS) assessment data. No information from SNF claims (e.g., the diagnoses or the resource utilization group) is used in the model, meaning the amount or type of care in the SNF is not included.

Question 21: **Can you explain why this program is based nationally and not peer grouped to be consistent with the readmission calculations?**

Previous testing during the NQF re-endorsement of the MSPB measure on including an indicator for dually enrolled beneficiaries into the risk adjustment model found minimal increase in the model's predictive power. This suggests that characteristics of a dual-eligible beneficiary (i.e., a beneficiary eligible for both Medicare and Medicaid) that may lead to increased resource use may already be fully explained by the other beneficiary health status indicators already present in the MSPB model. Furthermore, NQF determined that comparing hospital scores when including dual enrollment into the model and the current base model resulted in no substantial shift in a provider's percentile ranking.

Question 22: **Could/should acute to acute transfer exclusion include acute hospitals from Mexico?**

Yes. The acute to acute transfer exclusion includes hospitals from Mexico. Only claims for beneficiaries admitted to subsection (d) hospitals during the period of performance are included in the calculation of the MSPB measure. Subsection (d) hospitals are hospitals in the 50 states and DC, other than psychiatric hospitals, rehabilitation hospitals, hospitals whose inpatients are predominantly under 18 years old, hospitals whose average inpatient length of stay exceeds 25 days, and hospitals involved extensively in treatment for or research on cancer.

Question 23: **Does the disposition status of a patient leaving a hospital impact the SNF claim?**

No. The disposition status of a patient leaving the hospital does not impact the SNF claim.

Question 24: **Does the new MSPB file contain the beneficiary-specific data?**

The MSPB HSRs contain information for the MSPB measure. Your HSR provides your hospital with MSPB measure results and detailed MSPB measure statistics of your hospital and other hospitals in your state and the nation. Your HSR is also accompanied by the following three supplementary hospital-specific data files:

(i) An index admission file that presents all inpatient admissions for a hospital in which a beneficiary was discharged during the period of performance.

(ii) A MSPB episode file that helps identify specific episodes of care.

(iii) A beneficiary risk score file that helps characterize the patient case mix for your episodes.

These files are intended to provide important information to aid you in assessing your hospital's performance on the MSPB measure.

Question 25: **An Excess Days in Acute Care (EDAC) measure has been added to the Hospital Readmissions Reduction Program. Will this be included in the 30 days after hospital discharge calculation?**

Please note the Hospital Readmissions Reduction Program only uses condition- and procedure-specific readmissions measures; it does not use any measures that include post-discharge return to the emergency department or observation stay such as the Excess Days in Acute Care measures, which are only used in the Hospital Inpatient Quality Reporting Program. The MSPB measure includes costs for emergency department and/or observation stays if they occur within 30 day post-discharge.

The outcome of interest for the EDAC measure is the number of excess days that a hospital's patients spent in acute care within 30 days after discharge versus MSPB's ratio. The MSPB measure score is a ratio calculated by dividing the amount Medicare spent per patient for an episode of care initiated at this hospital by the median (or middle) amount Medicare spent per episode of care nationally.

Question 26: **Are readmissions included in the inpatient category during the 30-day period post index admission?**

The 30 Days After Hospital Discharge category includes all claims that fall between an episode's index admission discharge date and 30 days after hospital discharge. The inpatient category includes all claims in the inpatient claims file. An MSPB episode can have an inpatient claim during the 30 Days After Hospital Discharge category if the patient is readmitted to the hospital after the index admission discharge. This could include inpatient readmission, as well as admissions to an inpatient psychiatric or rehabilitation facility.

Additional information on the inpatient claim type, as well as other claim types, is available at https://www.resdac.org/cms-data/files/ip-ffs.

Question 27: **How can a hospital improve when the highest outlier cost is in the SNF?**

A hospital may be able to improve its MSPB measure by reducing Medicare spending and delivery system fragmentation, including improving coordination with post-acute providers to reduce the likelihood of hospital readmissions, reduce inefficient inpatient services (e.g., multiple CT scans), reduce unnecessary post-acute service, and shift post-acute care from more expensive services (e.g., SNFs) to less expensive services (e.g., home health) when appropriate.

Question 28: **How is expected spending calculated?**

Expected spending is calculated as a conditional expected value given the values of the risk adjustment variables, including age, HCCs, DRG codes, chronic condition indicators, and long-term care indicators. These variables are regressed against price-standardized episode cost. The predicted values from this regression are used to measure expected spending for each episode.

Question 29: **Is there another way for a CAH to get MSPB data to ensure it is appropriately using resources for the Medicare population?**

Since CAHs are excluded from the IPPS and reimbursed differently than subsection (d) hospitals, MSPB scores are not calculated for CAHs. We are not aware of alternate ways for CAHs to obtain MSPB calculations.

Question 30: **Our hospital is looking to find the "N" numbers for categories listed in Table 6 of the report. What is the best way to obtain the number of episodes for each category?**

The three hospital-specific data files that your hospital received in conjunction with its HSR provide episode-level detail that can help your hospital verify the calculation of its MSPB measure and assist you in examining the MSPB measure patterns among your patients.

This can be verified from any of the three CSV files provided. From the "Episode" file, filter Column E 'INDEX_ADMSN_FLAG' = 1. This will exclude outlier episodes (i.e., exclude episodes for which column HOSP_EPSIODE_COUNT is missing OR EXCLUDED_REASON column has "Outlier Episode"). Once filtered, the provider can determine the count for each MDC category by filtering Column K "MDC."

Question 31: **Slide 11: Why were the clinical episode measures removed? What was included in the measures?**

In the FY 2019 IPPS/LTCH PPS Final Rule, CMS finalized its proposal to remove six clinical episode-based payment (CEBP) measures from the Hospital IQR Program beginning with the FY 2020 payment determination. The six CEBP measures that were removed are Cellulitis Payment, Gastrointestinal Hemorrhage (GI) Payment, Kidney/Urinary Tract Infection (Kidney/UTI) Payment, Aortic Aneurysm (AA) Payment, Cholecystectomy and Common Duct Exploration (Chole and CDE) Payment, and Spinal Fusion (SFusion) Payment.

CMS removed the Cellulitis Payment, GI Payment, Kidney/UTI Payment, AA Payment, Chole and CDE Payment, and SFusion Payment measures under removal Factor 8: The costs associated with a measure outweigh the benefit of its continued use in the program. Specifically, CMS believes the costs associated with interpreting the requirements for multiple measures with overlapping data points outweigh the benefits to beneficiaries because the measure data are already captured within the overall hospital MSPB measure.

For more information on the removal of the six CEBP measures, reference the FY 2019 IPPS/LTCH PPS Final Rule (83 FR 41560-41562).

Question 32: **Slide 28: What are subsection (d) hospitals?**

Subsection (d) hospitals are hospitals in the 50 states and DC other than psychiatric hospitals, rehabilitation hospitals, hospitals whose inpatients are predominantly under 18 years old, hospitals whose average inpatient length of stay exceeds 25 days, and hospitals involved extensively in treatment for or research on cancer.

For a full description of subsection (d) hospitals, please refer to the Social Security Act on the Social Security Administration's website: https://www.ssa.gov/OP_Home/ssact/ssact-toc.htm.

Question 33: **Slide 33: Can you please explain "comorbidity interactions"? What comorbidities are considered?**

Comorbidity interactions are indicators for the presence of multiple comorbidities in which the expected episode spending when these characteristics are observed together is more than the expected spending when considered independently. For example, the independent expected episode spending for beneficiaries with chronic heart failure (CHF) plus the independent expected episode spending for beneficiaries with chronic obstructive pulmonary disease (COPD) may be less than the expected spending for a beneficiary that has both CHF and COPD. The comorbidity interaction included in the model, as well as the HCCs, are adapted from the CMS HCC v22 Community model and tested for their predictive validity in MSPB. The 13 interactions included are:

- Disabled * HCC6: Opportunistic Infections
- Disabled * HCC34: Chronic Pancreatitis
- Disabled * HCC46: Severe Hematological Disorders
- Disabled * HCC54: Drug/Alcohol Psychosis
- Disabled * HCC55: Drug/Alcohol Dependence
- Disabled * HCC110: Cystic Fibrosis
- Disabled * HCC176: Complications of Specified Implanted Device or Graft
- Sepsis * CRF
- Cancer * Disorders of Immune System
- Diabetes * CHF
- CHF * COPD
- CHF * Renal
- COPD * CRF

Question 34: **Slide 56: To find opportunities for improvement, should we compare our spending to the hospital expected or the US national average expected spending?**

To find opportunities for improvement, you may look at both values. One compares spending based on the patient case mix within your hospital and the other compares it to the nation.

Since the main drivers of MSPB spending may vary by hospitals, the areas of improvement will likely be hospital-specific. More generally, most of the variation in the MSPB spending comes from post-discharge spending, specifically SNFs followed by inpatient readmissions. Thus, better care coordination in the post-discharge setting is one of the potential areas to focus on for improvement.

Alongside your hospital-specific MSPB report, you should have received three accompanying hospital-specific data files. These files provide hospitals with additional information to explore some of the driving forces behind their MSPB measure.

For example, a hospital can analyze the breakdown of its spending by service types and period of service (from the HSR) and figure out the most expensive providers (from the Episode file). With this information, the hospital can identify the areas where the spending is most concentrated that may benefit from improved coordination with other healthcare providers. Thus, by improving care coordination and efficiency and reducing delivery system fragmentation, the provider may be able to improve its relative performance.

Question 35: **Slide 57: In the beneficiary risk score file, why is there a variance in the dollar amount of the same HCC between different patients?**

Episodes are stratified by the MDC of the index admission, and separate risk adjustment models are predicted for these cohorts to compare more medically related inpatient admissions. The coefficient (i.e., the predicted additional spending to the intercept holding all other factors constant) will have one value respective to an MDC regression. While the value may be different across MDCs, it will be the same within an MDC.

Question 36: **Where can we crossmatch the National Provider Identifiers (NPIs) provided in the episode file?**

You can crossmatch the NPIs provided in the episode file using the National Plan & Provider Enumeration System (NPPES) NPI Registry located here: https://npiregistry.cms.hhs.gov/

Question 37: **Why was the example national average MSPB = 0.99? I thought the national average was normalized to 1.0.**

The value will always be very close to 1.0, but it is unlikely to be exactly 1.0. This is primarily due to two statistical transformations in the methodological steps when calculating the measure: winsorization and outlier exclusion. Winsorization is a statistical transformation that limits extreme values in data to reduce the effect of possibly spurious outliers. Thus, all predicted values below the 0.5th percentile are assigned the value of the 0.5th percentile. These techniques aim to limit the effects of extreme values on expected costs and prevent the effect of outliers on a provider's score.

After the risk adjustment models are predicted for each respective cohort of episodes sharing the same MDC, the ratio of mean observed spending and mean expected spending across a given MDC's episode population should equal 1. For each MDC cohort, after the initial spending is predicted, winsorization of the lower bound estimates (i.e., bottom coding) involves equating extremely low predicted values to a predetermined lower limit. For episodes with expected spending below the 0.5th percentile, the value of the 0.5th percentile of expected spending is assigned. After this transformation, expected spending is then renormalized by multiplying all expected spending by the ratio of the mean observed spending to the mean expected spending after winsorization for the respective MDC cohort. Renormalization multiplies all winsorized expected spending by the same scalar to effectively shift the entire distribution back to be centered around 1 and affect all providers equally.

Next, all episodes are aggregated together across MDCs and residuals are calculated as the difference between the observed episode spending and winsorized, renormalized expected spending. To mitigate the effect of high-spending and low-spending outliers on each hospital's MSPB measure score, MSPB episodes with residuals that fall above the 99th percentile or below the 1st percentile of the distribution of residuals across all MSPB episodes are excluded from the MSPB calculation. Excluding outliers based on residuals eliminates the episodes that deviate most from their predicted values in absolute terms. This step also renormalizes the predicted values to ensure that the average expected episode spending levels are the same as average standardized spending levels after outlier exclusions. This renormalization multiplies the predicted values after excluding outliers by the ratio of the average standardized spending level and the average winsorized predicted spending level after excluding outliers.

In application, after these transformations, rounding the population mean MSPB ratio can be slightly above or below 1.0. Returning to a scale of 1.0 is intended to make measure score more easily interpreted but does not disproportionally affect any single provider.