ECONOMETRICA, INC.

REPORT

Appendix A – Measure Specifications

Evaluation and Monitoring of the Bundled Payments for Care Improvement Model 1 Initiative

Contract No.:
HHSM 500 2011 00015I

Order No.:
HHSM 500 T0008

Project No.:
2248 000

Submitted To:

Centers for Medicare & Medicaid Services
Attn.: Arpit Misra
Contracting Officer's Representative
Center for Medicare & Medicaid Innovation
7205 Windsor Boulevard, Mail Stop C3-21-28
Baltimore, MD 21244

Submitted By:

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July 9, 2015

ECONOMETRICA, INC.

July 9, 2015

Mr. Arpit Misra
Contracting Officer's Representative
Centers for Medicare & Medicaid Services
Center for Medicare & Medicaid Innovation
7205 Windsor Boulevard, Mail Stop C3-21-28
Baltimore, MD 21244

Reference: Contract No.: HHSM-500-2011-00015I; Order No.: HHSM-500-T0008; "Evaluation and Monitoring of the Bundled Payments for Care Improvement Model 1 Initiative" (Project No.: 2248-000).

Dear Mr. Misra:

Econometrica is pleased to submit this Appendix A – Measure Specifications as part of the Annual Report to the Centers for Medicare & Medicaid Services, Center for Medicare & Medicaid Innovation, regarding work being conducted under the above-referenced contract.

Appendixes B, C, D, and E are being submitted as separate files.

If you wish to discuss any aspect of this submission, please feel free to contact me at (301) 395-2281.

Sincerely,

Econometrica, Inc.

Monique Sheppard, Ph.D.
Project Director

cc: Contract File

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Appendix A: Measure Specifications

Appendix A is a supplementary text to the 2014 Annual Report for the Bundled Payments for Care Improvement (BPCI) Model 1. This appendix contains measure specifications for measures presented in the associated Annual Report and Appendix B. Note that the terms "index stay" and "episode" are used interchangeably and refer to acute-care hospital stays occurring at study sample hospitals.

A.1. Detailed Measure Specifications

A.1.1. Health Care Outcomes and Resource Utilization

A.1.1.1. 30/60-Day Mortality, All-Cause

Description: This measure reports the mortality rate for Medicare fee-for-service (FFS) beneficiaries within 30/60 days of admission to an index inpatient stay.

Numerator: The number of Medicare beneficiaries who die within 30/60 days after admission date of an index inpatient stay. In cases where there are multiple index inpatient stays occurring during the 30/60 days prior to death, deaths are attributed to the first (i.e., earliest) index inpatient stay in the series.[1]

Numerator Exclusion(s): None.

Denominator: The number of index inpatient stays.

Denominator Exclusion(s):

1. Admissions for patients enrolled in the Medicare Hospice program any time in the 12 months prior to the index inpatient stay, including the first day of the index inpatient stay (since it is likely these patients are continuing to seek comfort measures only).
2. Hospitalizations with total length of stay exceeding 1 year.
3. Hospitalizations for beneficiaries with end-stage renal disease (ESRD) entitlement.
4. Hospitalizations for beneficiaries with Medicare as a secondary payer.
5. Admissions for patients who were discharged alive and against medical advice (AMA) (because providers did not have the opportunity to deliver full care and prepare the patient for discharge).
6. Admissions that were not the first hospitalization in the 30/60 days prior to a patient's death.
7. Patients who were not enrolled in Medicare FFS Parts A and B for the month of admission.

Data Source: Medicare inpatient claims.

[1] For example, if a beneficiary dies on April 23, 2012, and there are two index inpatient stays within the previous 30 days (April 5, 2012, and April 16, 2012), the death will be attributed only to the April 5, 2012, index inpatient stay, even though it is also within the 30 days following the April 16, 2012, index inpatient stay.

A.1.1.2. 30-Day All-Cause Condition-Specific Mortality Rate (Acute Myocardial Infarction (AMI)/Pneumonia/Heart Failure (HF))[2]

Description: The measure captures a hospital's 30-day all-cause condition-specific mortality rate for patients discharged from the hospital with a principal diagnosis of AMI/pneumonia/HF during the hospital stay.

Numerator: The number of Medicare beneficiaries who die within 30 days after admission to the index inpatient stay for AMI/pneumonia/HF. In cases where there are multiple index inpatient stays occurring during the 30 days prior to death, deaths will be attributed to the first (i.e., earliest) index inpatient stay in the series.[3]

Numerator Exclusion(s): None.

Denominator: The number of index inpatient stays with a principal diagnosis of AMI/pneumonia/HF, identified through the following ICD-9-CM codes:

Table A.1: ICD-9-CM Codes That Define AMI

ICD 9 CM	Description
410.00	AMI (anterolateral wall) – episode of care unspecified
410.01	AMI (anterolateral wall) – initial episode of care
410.10	AMI (other anterior wall) – episode of care unspecified
410.11	AMI (other anterior wall) – initial episode of care
410.20	AMI (inferolateral wall) – episode of care unspecified
410.21	AMI (inferolateral wall) – initial episode of care
410.30	AMI (inferoposterior wall) – episode of care unspecified
410.31	AMI (inferoposterior wall) – initial episode of care
410.40	AMI (other inferior wall) – episode of care unspecified
410.41	AMI (other inferior wall) – initial episode of care
410.50	AMI (other lateral wall) – episode of care unspecified
410.51	AMI (other lateral wall) – initial episode of care
410.60	AMI (true posterior wall) – episode of care unspecified
410.61	AMI (true posterior wall) – initial episode of care
410.70	AMI (subendocardial) – episode of care unspecified
410.71	AMI (subendocardial) – initial episode of care
410.80	AMI (other specified site) – episode of care unspecified
410.81	AMI (other specified site) – initial episode of care
410.90	AMI (unspecified site) – episode of care unspecified
410.91	AMI (unspecified site) – initial episode of care

[2] National Quality Forum. (2009). Measure evaluation 4.1. Retrieved November 20, 2013, from http://tinyurl.com/m5ll8ym.

[3] For example, if a beneficiary dies on April 23, 2012, and there are two index inpatient stays within the previous 30 days (April 5, 2012, and April 16, 2012), the death will be attributed only to the April 5, 2012, index inpatient stay, even though it is also within the 30 days following the April 16, 2012, index inpatient stay.

Table A.2: ICD-9-CM Codes That Define Pneumonia

ICD 9 CM	Description
480.0	Pneumonia due to adenovirus
480.1	Pneumonia due to respiratory syncytial virus
480.2	Pneumonia due to parainfluenza virus
480.3	Pneumonia due to SARS-associated coronavirus
480.8	Viral pneumonia: pneumonia due to other virus not elsewhere classified
480.9	Viral pneumonia unspecified
481	Pneumococcal pneumonia [streptococcus pneumoniae pneumonia]
482.0	Pneumonia due to klebsiella pneumoniae
482.1	Pneumonia due to pseudomonas
482.2	Pneumonia due to hemophilus influenzae (h. influenzae)
482.30	Pneumonia due to streptococcus unspecified
482.31	Pneumonia due to streptococcus group a
482.32	Pneumonia due to streptococcus group b
482.39	Pneumonia due to other streptococcus
482.40	Pneumonia due to staphylococcus unspecified
482.41	Pneumonia due to staphylococcus aureus
482.42	Methicillin-resistant pneumonia due to staphylococcus aureus
482.49	Other staphylococcus pneumonia
482.81	Pneumonia due to anaerobes
482.82	Pneumonia due to *Escherichia coli* [*E. coli*]
482.83	Pneumonia due to other gram-negative bacteria
482.84	Pneumonia due to legionnaires' disease
482.89	Pneumonia due to other specified bacteria
482.9	Bacterial pneumonia unspecified
483.0	Pneumonia due to mycoplasma pneumoniae
483.1	Pneumonia due to chlamydia
483.8	Pneumonia due to other specified organism
485	Bronchopneumonia organism unspecified
486	Pneumonia organism unspecified
487.0	Influenza with pneumonia
488.11	Influenza due to identified novel H1N1 influenza virus with pneumonia

Table A.3: ICD-9-CM Codes That Define HF

ICD 9 CM	Description
402.01	Malignant hypertensive heart disease with congestive heart failure (CHF)
402.11	Benign hypertensive heart disease with CHF
402.91	Hypertensive heart disease with CHF
404.01	Malignant hypertensive heart and renal disease with CHF
404.03	Malignant hypertensive heart and renal disease with CHF and renal failure (RF)
404.11	Benign hypertensive heart and renal disease with CHF
404.13	Benign hypertensive heart and renal disease with CHF and RF
404.91	Unspecified hypertensive heart and renal disease with CHF
404.93	Hypertension and unspecified heart and renal disease with CHF and RF
428.0	Congestive heart failure, unspecified
428.1	Left heart failure
428.20	Systolic heart failure, unspecified
428.21	Systolic heart failure, acute
428.22	Systolic heart failure, chronic
428.23	Systolic heart failure, acute or chronic
428.30	Diastolic heart failure, unspecified
428.31	Diastolic heart failure, acute
428.32	Diastolic heart failure, chronic
428.33	Diastolic heart failure, acute or chronic
428.40	Combined systolic and diastolic heart failure, unspecified
428.41	Combined systolic and diastolic heart failure, acute
428.42	Combined systolic and diastolic heart failure, chronic
428.43	Combined systolic and diastolic heart failure, acute or chronic
428.9	Heart failure, unspecified

Denominator Exclusion(s):

1. Admissions for patients enrolled in the Medicare Hospice program any time in the 12 months prior to the index inpatient stay, including the first day of the index inpatient stay (since it is likely these patients are continuing to seek comfort measures only).
2. Hospitalizations with total length of stay exceeding 1 year.
3. Hospitalizations for beneficiaries with ESRD entitlement.
4. Hospitalizations for beneficiaries with Medicare as a secondary payer.
5. Admissions for patients who were discharged alive and AMA (because providers did not have the opportunity to deliver full care and prepare the patient for discharge).
6. Admissions that were not the first hospitalization in the 30 days prior to a patient's death.
7. Patients who were not enrolled in Medicare FFS Parts A and B for the month of admission.

Data Source: Medicare inpatient claims.

A.1.1.3. 30/60-Day Readmissions, All-Cause

Description: This measure captures the unadjusted all-cause hospital readmission rate within 30/60 days of discharge from an index inpatient stay for Medicare FFS beneficiaries.[4]

Numerator: The number of admissions occurring within 30/60 days of discharge from an index inpatient stay. If a beneficiary's readmission is within the follow-up period of multiple qualifying hospitalizations, the readmission is attributed to the most recent hospital stay.[5] If a beneficiary had multiple inpatient stays after a qualifying index inpatient stay, only the first stay will count.

Numerator Exclusion(s): Inpatient stays that do not occur at subsection (d) hospitals (provider IDs between 0001 and 0879) or critical access hospitals (CAHs) (provider IDs between 1300 and 1399).

Denominator: The number of index inpatient stays.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission and 60 day post-discharge.
2. Hospitalizations with total length of stay exceeding 1 year.
3. Hospitalizations for beneficiaries with ESRD entitlement.
4. Hospitalizations for beneficiaries with Medicare as secondary payer.
5. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).
6. Hospitalizations in which the patient died in the hospital.
7. Admissions for patients who were discharged alive and AMA.

[4] This measure differs from National Quality Forum (NQF) measure #1789, which is intended to capture unplanned readmissions. For the purposes of this evaluation, all readmissions are more appropriate than only unplanned readmissions.

[5] For example, if there is a 30-day readmission that occurred on April 23, 2012, and there are two index inpatient stays within the previous 30 days (April 5, 2012, and April 16, 2012), the readmission will be considered a readmission only for the April 16, 2012, index inpatient stay, even though it is also within the 30 days following the April 5, 2012, index inpatient stay. Typically, the hospitalization on April 16, 2012, will be a readmission for the index inpatient stay on April 5, 2012.

Table A.4: Discharge Status Code[6] Identifying Transfer to Another Acute Care Facility

Patient Discharge Status Code	Description
02	Discharged/transferred to other short-term general hospital for inpatient care.
04	Discharged/transferred to intermediate care facility.
05	Discharged/transferred to another type of institution for inpatient care (including distinct parts).
43	Discharged/transferred to a Federal hospital.
66	Discharged/transferred to a CAH.

Data Source: Medicare inpatient claims.

A.1.1.4. 30-Day Condition-Specific Readmissions for AMI/Pneumonia/Heart Failure

Description: This measure captures the unadjusted all-cause condition-specific hospital readmission rate within 30 days of discharge from an index inpatient stay of AMI/pneumonia/HF for Medicare FFS beneficiaries.[7]

Numerator: The number of admissions occurring within 30 days of discharge from an index inpatient stay of AMI/pneumonia/HF. If a beneficiary's readmission is within the follow-up period of multiple qualifying hospitalizations, the readmission is attributed to the most recent hospital stay.[8] If a beneficiary had multiple inpatient stays after a qualifying index inpatient stay, only the first stay is counted.

Numerator Exclusion(s): Inpatient stays that do not occur at subsection (d) hospitals (provider IDs between 0001 and 0879) or CAHs (provider IDs between 1300 and 1399).

Denominator: The number of index inpatient stays with a principal diagnosis of AMI/pneumonia/HF, identified in Tables A.1–A.3.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission and 60 days post-discharge.
2. Hospitalizations with total length of stay exceeding 1 year.
3. Hospitalizations for beneficiaries with ESRD entitlement.

[6] A complete list of patient discharge status codes on inpatient claims is available at http://www.resdac.org/cms-data/variables/patient-discharge-status-code.

[7] This measure differs from NQF measure #1789, which is intended to capture unplanned readmissions. For the purposes of this evaluation, all readmissions are more appropriate than only unplanned readmissions.

[8] For example, if there is a 30-day readmission that occurred on April 23, 2012, and there are two index inpatient stays within the previous 30 days (April 5, 2012, and April 16, 2012), the readmission will be considered a readmission only for the April 16, 2012, index inpatient stay, even though it is also within the 30 days following the April 5, 2012, index inpatient stay. Typically, the hospitalization on April 16, 2012, will be a readmission for the index inpatient stay on April 5, 2012.

4. Hospitalizations for beneficiaries with Medicare as a secondary payer.
5. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).
6. Patients who died in the hospital.
7. Admissions for patients who were discharged alive and AMA.

Data Source: Medicare inpatient claims

A.1.1.5. Intensive Care Unit (ICU) Stay During Episode

Description: This measure reports the rate of ICU stays occurring during inpatient hospitalizations for Medicare FFS beneficiaries.

Numerator: The number of inpatient stays with an ICU stay occurring during the hospitalization. An inpatient claim is counted in the numerator if revenue center code 020X (except 0206) is recorded on the claim. Two ICU stays during the same hospitalization are counted once in the numerator.

Numerator Exclusion(s): None.

Denominator: Number of inpatient stays.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission.
2. Hospitalizations with total length of stay exceeding 1 year.
3. Hospitalizations for beneficiaries with ESRD entitlement.
4. Hospitalizations for beneficiaries with Medicare as secondary payer.
5. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).

Data Source: Medicare inpatient claims.

A.1.1.6. Length of Stay

Description: This measure captures the average length of stay per inpatient episode, measured in days.

Numerator: Total number of hospital days, equal to the sum of each inpatient episode's length of stay. Length of stay is given by the following equation:

$$Length\ of\ stay = Claim\ Through\ Date - Claim\ From\ Date + 1$$

Numerator Exclusion(s): None.

Denominator: The number of inpatient episodes.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission.
2. Hospitalizations with total length of stay exceeding 1 year.
3. Hospitalizations for beneficiaries with ESRD entitlement.
4. Hospitalizations for beneficiaries with Medicare as a secondary payer.
5. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).

Data Source: Medicare inpatient claims.

A.1.1.7. Rate of 30/60-Day Post-Discharge Emergency Department (ED) Visits Not Followed by Inpatient Admission

Description: This measure reports the proportion of index inpatient stays followed within 30/60 days of discharge by an ED visit that does not result in inpatient admission. Measures capturing ED visits not followed by inpatient discharge are used as access to care markers.

Numerator: The number of qualifying ED visits within 30/60 days of an index inpatient stay. If an ED visit is within the follow-up period of multiple qualifying hospitalizations, the ED visit is attributed to the most recent index inpatient stay. If the beneficiary has multiple ED visits after the index discharge, only one visit is counted in the numerator for the discharging hospital.

A Medicare outpatient claim with any of the revenue center codes listed in Table A.5 is identified as a qualifying ED visit.

Table A.5: Revenue Center Codes Identifying Emergency Room Use[9]

Revenue Center Code	Description
0450	Emergency room – general classification
0451	Emergency room – EMTALA emergency medical screening
0452	Emergency room – ER beyond EMTALA screening
0456	Emergency room – urgent care
0459	Emergency room – other
0981	Professional fees – emergency room

[9] This definition is provided by ResDAC. For more information, see Merriman, K. M., & Caldwell, D. (2012, July 1). How to identify emergency room services in the Medicare claims data. Technical Publication TN-003. Retrieved November 19, 2013, from http://www.resdac.org/resconnect/articles/144.

Numerator Exclusion(s): ED visits are excluded that do not occur at subsection (d) hospitals (provider IDs between 0001 and 0879) or CAHs (provider IDs between 1300 and 1399).

Denominator: The number of index inpatient stays.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission and 60 days post-discharge.
2. Hospitalizations for patients who died during the index hospitalization.
3. Hospitalizations with total length of stay exceeding 1 year.
4. Hospitalizations for beneficiaries with ESRD entitlement.
5. Hospitalizations for beneficiaries with Medicare as secondary payer.
6. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).

Level of Measurement: Hospital level.

Data Source: Medicare inpatient and outpatient claims.

A.1.1.8. Post-Acute Care Utilization During the 30 Days Post-Episode

Description: This measure reports the percent of inpatient stays having any post-acute care service utilization during the 30 days after inpatient discharge.

Numerator: The number of home health, skilled nursing facility (SNF), inpatient rehabilitation facility (IRF), and long-term care hospital (LTCH) claims within 30 days of discharge from an index inpatient stay. If a claim is within the follow-up period of multiple qualifying hospitalizations, the claim is attributed to the most recent hospital discharge. If there are multiple claims, only one claim is counted in the numerator for the discharging hospital.

SNF and home health claims are included in the SNF and home health agency research identifiable files, respectively, while LTCH and IRF claims are included in the inpatient research identifiable file. LTCH claims are identified by provider numbers ending in 2000–2299. IRF claims are identified by provider numbers ending in 3025–3099 or having the third position of the provider number equal to "R," "T," or "Y."

Numerator Exclusion(s): None.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission and 60 days post-discharge.
2. Hospitalizations for patients who died during the index hospitalization.

3. Hospitalizations with total length of stay exceeding 1 year.
4. Hospitalizations for beneficiaries with ESRD entitlement.
5. Hospitalizations for beneficiaries with Medicare as a secondary payer.
6. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).

Data Source: Medicare inpatient, SNF, and home health claims.

A.1.2. Medicare Payments

A.1.2.1. Total 30/60-Day Post-Episode Payments

Description: This measure reports the average total post-discharge Medicare payments occurring within 30/60 days after inpatient discharge.

Numerator: The summed Medicare payment for the non-index inpatient, carrier, outpatient, SNF, home health, hospice, and durable medical equipment (DME) claims during the 30/60 days following discharge from an index inpatient stay.

The relevant costs will be identified using the claim payment variable (PMT_AMT) and claim dates for all the claim types. For inpatient claims, the Medicare payment is calculated using the following formula: PMT_AMT + (PER_DIEM*UTIL_DAY). PER_DIEM is the claim pass through per diem amount and UTIL_DAY is the claim utilization day count.

Numerator Exclusion(s): None.

Denominator: Number of inpatient stays.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission and 60 days post discharge.
2. Hospitalizations for patients who died during the index hospitalization.
3. Hospitalizations with total length of stay exceeding 1 year.
4. Hospitalizations for beneficiaries with ESRD entitlement.
5. Hospitalizations for beneficiaries with Medicare as a secondary payer.
6. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).

Data Source: Medicare inpatient, carrier, outpatient, SNF, home health, hospice, and DME claims.

A.1.2.2. Total Medicare Payments During Inpatient Stay

Description: This measure reports the total Medicare inpatient, carrier, outpatient, and DME payments occurring during inpatient stays.

Numerator: The summed Medicare payment for inpatient, carrier, outpatient, and DME claims within the index inpatient stays. This is effectively the sum of hospital and non-hospital Medicare payments during inpatient stays.

Numerator Exclusion(s): None.

Denominator: Number of inpatient stays.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission.
2. Hospitalizations for patients who died during the index hospitalization.
3. Hospitalizations with total length of stay exceeding 1 year.
4. Hospitalizations for beneficiaries with ESRD entitlement.
5. Hospitalizations for beneficiaries with Medicare as secondary payer.
6. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).

Data Source: Inpatient, carrier, outpatient, and DME Medicare claims files.

A.1.2.3. Total Non-Hospital Payments During Inpatient Stay

Description: This measure reports the average Medicare carrier, outpatient, and DME payments occurring during inpatient stays.

Numerator: The summed Medicare payment for carrier, outpatient, and DME claims for all claims satisfying the following condition:

$$\text{ADMSN\_DT} \leq \text{CLM\_FROM} \leq \text{DSCHRG\_DT}$$

where admission date (variable name: ADMSN_DT) and discharge date (variable name: DSCHRG_DT) are from the inpatient stay, and claim from date (variable name: CLM_FROM) is from the carrier, outpatient, or DME claim.

Numerator Exclusion(s): None.

Denominator: Number of inpatient stays.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission.
2. Hospitalizations for patients who died during the index inpatient stay.
3. Hospitalizations with total length of stay exceeding 1 year.
4. Hospitalizations for beneficiaries with ESRD entitlement.
5. Hospitalizations for beneficiaries with Medicare as secondary payer.
6. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).

Level of Measurement: Hospital level.

Data Source: Medicare inpatient, carrier, outpatient, and DME claims.

A.1.3. Case Mix and Patient Characteristics

A.1.3.1. Hierarchical Condition Category (HCC) Community Risk Score

Description: This measure reports the average CMS-HCC model risk score for individuals having inpatient stays at each hospital. The CMS-HCC risk score is available from CMS' Risk Adjustment System.

Numerator: The sum of CMS-HCC community scores at a BPCI site.

Numerator Exclusion(s): None.

Denominator: The total number of beneficiaries at the BPCI site.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission.
2. Hospitalizations with total length of stay exceeding 1 year.
3. Hospitalizations for beneficiaries with ESRD entitlement.
4. Hospitalizations for beneficiaries with Medicare as secondary payer.
5. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).

Data Source: Medicare Risk Adjustment System file.

A.1.3.2. Average Medicare Severity-Diagnosis-Related Group (MS-DRG) Weight of Inpatient Stays

Description: This measure reports the average weight of MS-DRGs of inpatient stays.

Numerator: The MS-DRG weights of inpatient stays for beneficiaries at BPCI Model 1 Awardee hospitals.

Numerator Exclusion(s): None.

Denominator: Number of inpatient stays.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission.
2. Hospitalizations with total length of stay exceeding 1 year.
3. Hospitalizations for beneficiaries with ESRD entitlement.
4. Hospitalizations for beneficiaries with Medicare as secondary payer.
5. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).

Data Source: Medicare inpatient claims file.

A.1.3.3. Average Age of Patient at Index Admission

Description: This measure reports the average age of beneficiaries with inpatient stays.

Numerator: The age of beneficiaries with inpatient stays.

Numerator Exclusion(s): None.

Denominator: Number of inpatient stays.

Denominator Exclusion(s): The following hospitalizations are excluded from denominator calculations:

1. Hospitalizations for patients who were not enrolled in FFS Parts A and B for the month of admission.
2. Hospitalizations with total length of stay exceeding 1 year.
3. Hospitalizations for beneficiaries with ESRD entitlement.
4. Hospitalizations for beneficiaries with Medicare as secondary payer.
5. Hospitalizations that are at the beginning or middle of a transfer sequence (only use last discharge of transfer sequence). Exclusion is based on certain values of Patient Discharge Status Code associated with the hospital claim (see Table A.4).

Data Source: Medicare inpatient claims file and Master Beneficiary Summary File.