

Discharge to Community-Post Acute Care (DTC-PAC) Inpatient Rehabilitation Facility (IRF) Measure

Technical Specification Report

Prepared for

**Center for Clinical Standards and Quality
Centers for Medicare & Medicaid Services**
7500 Security Boulevard
Baltimore, MD 21244-1850

Prepared by

RTI International
3040 E. Cornwallis Road
Durham, NC 27713-2852
www.rti.org

September 2026



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Introduction

This report presents the technical measure specifications for the refined Discharge to Community-Post Acute Care (DTC-PAC) Inpatient Rehabilitation Facility (IRF) measure.

Section 1 provides an overview of the measure including a measure description, a history of the original version of this measure and the rationale for and summary of the refinements in the current measure, and the purpose and rationale for the original and current versions of the measure.

Section 2 describes the measure specifications, including the construction of the denominator and numerator, data sources, measure observation window, the risk adjustment model, and steps for calculating the final measure result.

Section 3 discusses measure testing, including the measure's reportability, variability, reliability, and validity results.

1. Overview

This chapter provides an overview of the updated IRF DTC-PAC measure, including a general description of the measure, the history of the measure's development, refinements to the original measure (Section 1.1), and the purpose and rationale for the measure and refinements (Section 1.2). A more detailed explanation of the measure specifications is available in Chapter 2.

1.1 Measure Description

The IRF DTC-PAC measure assesses the rate at which beneficiaries are successfully discharged to the community from the IRF. Specifically, this measure reports an IRF's risk-standardized rate of Medicare beneficiaries who are discharged to the community after a IRF stay, do not have an unplanned readmission to an acute care hospital or Long-Term Care Hospital (LTCH), and remain alive during the 31 days following that discharge. Community, for this measure, is defined as home/self-care, with or without home health services.

This measure is conceptualized similarly across the multiple post-acute care settings, in terms of the definition of the discharge to community outcome, the approach to risk adjustment, and the measure calculation. Each measure is specific to the particular PAC setting (i.e., home health [HH], inpatient rehabilitation facilities [IRF], skilled nursing facilities [SNF], or long term care hospitals [LTCH]); we do not pool PAC patients/residents across settings in the measure development and calculation.

This measure calculates a risk-adjusted DTC rate for each IRF. This is derived by first calculating a standardized risk ratio – the predicted number of IRF stays with successful discharge to the community divided by the expected number of IRF stays with successful discharge to the community for the same patients if treated at the average IRF. The

standardized risk ratio is then multiplied by the mean rate of IRF stays with successful discharge to the community in the population (i.e., all IRF stays for Medicare fee-for-service (FFS) and Medicare Advantage patients eligible for the measure) to generate the IRF-level standardized rate of discharge to community.

1.1.1 Updates to the DTC-PAC Measure to Include Medicare Advantage Beneficiaries

This Technical Specifications Report describes updates to the DTC-PAC measure to add Medicare Advantage (MA) records as a data source in addition to Medicare FFS claims.

Updates related to the inclusion of MA records include:

1. Additional data sources Section 2.1
2. Updates to stay creation, Section 2.2.1
3. Modifications of the exclusion criteria to not exclude beneficiaries with MA (Part C) coverage, and to exclude stays with problematic data coming from MA records, Section 2.2.3
4. Addition of a risk adjustment covariate for Medicare Advantage (Part C) coverage at the start of the IRF stay, Section 2.5.1.

1.2 Purpose/Rationale for the Measure

Discharge to home or community is an important patient-centered outcome in post-acute care because it reflects higher functional abilities and effective care transitions, and is associated with lower mortality and costs.^{1,2} Across diverse patient populations, including patients with stroke, traumatic brain injury, hip fracture, cancer, and medically complex conditions, patients discharged to the community generally experience better outcomes than those discharged to institutional settings.^{3,4}

¹ Patel, S. V., Arcidiacono, A., Austin, C. P., Imburgio, S., Heaton, J., DiSandro, K., Mathur, D., Besa, R., Angelo, E., Walch, B., Bakr, M., Buccellato, V., Frank, E., Hossain, M. A., & Asif, A. (2024). Improving Patient Outcomes Using Measures to Increase Discharge Rates to Home. *Cureus*, 16(5), e59738. <https://doi.org/10.7759/cureus.59738>

² Bardenheier, B. H., Rahman, M., Kosar, C., Werner, R. M., & Mor, V. (2021). Successful Discharge to Community Gap of FFS Medicare Beneficiaries With and Without ADRD Narrowed. *Journal of the American Geriatrics Society*, 69(4), 972-978. <https://doi.org/10.1111/jgs.16965>

³ Singh, S., Eguchi, M., Min, S. J., & Fischer, S. (2020). Outcomes of Patients With Cancer Discharged to a Skilled Nursing Facility After Acute Care Hospitalization. *J Natl Compr Canc Netw*, 18(7), 856-865. <https://doi.org/10.6004/jnccn.2020.7534>

⁴ Augustine, M. R., Intrator, O., Li, J., Lubetsky, S., Ornstein, K. A., DeCherrie, L. V., Leff, B., & Siu, A. L. (2023). Effects of a Rehabilitation-at-Home Program Compared to Post-acute Skilled Nursing Facility Care on Safety, Readmission, and Community Dwelling Status: A Matched Cohort Analysis. *Med Care*, 61(11), 805-812. <https://doi.org/10.1097/mlr.0000000000001925>

There are clinical predictors of discharge to the community, including functional status at discharge, particularly mobility, transfers, and self-care ability.^{5,6,7} Greater functional improvement during post-acute care and higher rehabilitation intensity increase the likelihood of home discharge.^{8,9} Specific impairments, such as lower extremity impairments, cognitive deficits, dysphagia, and incontinence, reduce the likelihood of discharge home unless targeted during rehabilitation.^{10,11,12} Lower medical complexity, fewer comorbidities, and younger age are also consistently associated with better discharge outcomes.^{13,14}

Non-clinical factors are equally influential. For example, the presence of a caregiver is one of the strongest predictors of discharge home, often exceeding clinical factors.^{15,16} Social determinants, including housing stability, transportation access, and neighborhood vulnerability, significantly affect discharge outcomes.¹⁷ Care gaps remain, with differences in post-acute care

⁵ Andrews, A. W., & Bohannon, R. W. (2023). Functional Independence predicts patients with stroke more likely to be discharged to the community after inpatient rehabilitation. *Topics in Stroke Rehabilitation*, 30(4), 393-401. <https://doi.org/10.1080/10749357.2022.2038834>

⁶ Deutsch, A., Palmer, L., Vaughan, M., Schwartz, C., & McMullen, T. (2022). Inpatient Rehabilitation Facility Patients' Functional Abilities and Validity Testing of the Standardized Self-Care and Mobility Data Elements. *Arch Phys Med Rehabil*, 103(6), 1070-1084.e1073. <https://doi.org/10.1016/j.apmr.2022.01.147>

⁷ Toth, M., Palmer, L., Marino, M. E., Smith, A., Schwartz, C., Deutsch, A., & McMullen, T. (2023). Validation of the Standardized Function Data Elements among Medicare Skilled Nursing Facility Residents. *J Am Med Dir Assoc*, 24(3), 307-313.e301. <https://doi.org/10.1016/j.jamda.2022.12.014>

⁸ Kumar, A., Roy, I., Warren, M., Shaibi, S. D., Fabricant, M., Falvey, J. R., Vashist, A., & Karmarkar, A. M. (2022). Impact of Hospital-Based Rehabilitation Services on Discharge to the Community by Value-Based Payment Programs After Joint Replacement Surgery. *PTJ: Physical Therapy & Rehabilitation Journal*, 102(4), 1-8. <https://doi.org/10.1093/ptj/pzab313>

⁹ Kushner, D. S., Johnson-Greene, D., Felix, E. R., Miller, C., Cordero, M. K., & Thomashaw, S. A. (2023). Predictors of discharge to home/community following inpatient-rehabilitation in a US national sample of Guillain-Barre-Syndrome patients. *PLoS One*, 18(5), e0286296. <https://doi.org/10.1371/journal.pone.0286296>

¹⁰ Ginex, V., Viganò, M., Gilardone, G., Monti, A., Gilardone, M., & Corbo, M. (2023). Predicting home discharge after inpatient rehabilitation of stroke patients with aphasia. *Neuropsychol Rehabil*, 33(3), 393-408. <https://doi.org/10.1080/09602011.2021.2021951>

¹¹ Shogenji, M., Yoshida, M., Sumiya, K., Shimada, T., Ikenaga, Y., Ogawa, Y., Hirako, K., & Sai, Y. (2022). Relationship between Bowel/Bladder Function and Discharge in Older Stroke Patients in Convalescent Rehabilitation Wards: A Retrospective Cohort Study. *Prog Rehabil Med*, 7, 20220028. <https://doi.org/10.2490/prm.20220028>

¹² Lee, S. W., Elsagr, C., Joung, K. M., & Ayutyanont, N. (2025). Outcomes after inpatient rehabilitation for older adults with hip fractures: A cross-sectional study. *Clinical Rehabilitation*, 39(1), 35-46. <https://doi.org/10.1177/02692155241300647>

¹³ Dubin, A., Zarreii, P., Shariffar, S., Nixon, R. M., Conic, R. R. Z., Pendem, K., & Vincent, H. K. (2025). The impact of body mass index on rehabilitation outcomes after lower limb amputation. *Pm r*, 17(5), 539-547. <https://doi.org/10.1002/pmrj.13292>

¹⁴ Porto, C. M., Wolman, D. N., Feler, J. R., Chuck, C. C., Karayi, G., Torabi, R., Moldovan, K., Furie, K. L., & Mahta, A. (2025). Predictors of Skilled Nursing Facility Length of Stay and Discharge After Aneurysmal Subarachnoid Hemorrhage. *Neurohospitalist*, 15(3), 257-265. <https://doi.org/10.1177/19418744251323639>

¹⁵ Herbold, J., Elmohsen, E., Gutierrez, G., Helgesen, M., & Babyar, S. (2023). Prediction of Discharge Destination After Inpatient Rehabilitation for Stroke Using Mobility and Self-Care Assessment in Section GG of the Inpatient Rehabilitation Facility - Patient Assessment Instrument. *Arch Rehabil Res Clin Transl*, 5(4), 100292. <https://doi.org/10.1016/j.arrct.2023.100292>

¹⁶ Li, T. K.-T., Ng, B. H.-P., Chan, D. Y.-L., Chung, R. S.-F., & Yu, K.-K. (2020). Factors predicting clinically significant functional gain and discharge to home in stroke in-patients after rehabilitation – A retrospective cohort study. *Hong Kong Journal of Occupational Therapy*, 33(2), 63-72. <https://doi.org/10.1177/1569186120979428>

¹⁷ Bright, L., Baum, C. M., & Roberts, P. (2025). Impact of race on discharge location for stroke survivors: Associations with home discharge from a retrospective analysis. *Pm r*, 17(6), 638-645. <https://doi.org/10.1002/pmrj.13303>

access among Medicaid beneficiaries.¹⁸ Facility-level factors, including patient safety culture and care coordination, also influence successful community discharge.¹⁹

Interventions that increase the likelihood of community discharge to home include:

- Increase rehabilitation intensity and focus on mobility/transfer training^{8,9}
- Provide caregiver training and support, enabling safe home transitions²⁰
- Enhance discharge planning and care coordination, including multidisciplinary programs and post-acute management^{1,21}
- Ensure post-discharge support, such as home health care, which reduces readmissions²²

Emerging clinical programs, such as condition-specific rehabilitation programs, more frequent dialysis in SNFs, and targeted transitional care, show promise in accelerating return home.^{23,24}

Discharge to home/community is a meaningful and multifactorial outcome. The evidence shows that improving this outcome requires integrated strategies that combine intensive, function-focused rehabilitation with caregiver support, coordinated transitions, and attention to social and structural barriers. Approaches that address both clinical recovery and non-clinical determinants are most effective in increasing safe and equitable discharge to home.

1.2.1 Relevance of Cross-Setting Measure Development Work Under the IMPACT Act

The Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT Act), enacted Oct. 6, 2014, directs the Secretary of Health and Human Services to “specify quality measures on which Post-Acute Care (PAC) providers are required under the applicable reporting provisions to submit standardized patient assessment data” in several domains, including

¹⁸ Strelko, O., Spiro, E., Lui, A., Tarapore, P. E., Huang, M. C., Manley, G. T., Yue, J. K., & DiGiorgio, A. M. (2026). Insurance-based disparities in traumatic brain injury length of stay and discharge dispositions: A retrospective cohort analysis of the national trauma data bank. *Injury*, 113358. <https://doi.org/10.1016/j.injury.2026.113358>

¹⁹ Guo, W., Li, Y., & Temkin-Greener, H. (2021). Community Discharge Among Post-Acute Nursing Home Residents: An Association With Patient Safety Culture? *J Am Med Dir Assoc*, 22(11), 2384-2388.e2381. <https://doi.org/10.1016/j.jamda.2021.04.022>

²⁰ Smith, S., Wilson, C. M., Lipple, C., Avromov, M., Maltese, J., Siwa, E., Jr., Colombo, R., & Seidell, J. W. (2020). Managing Palliative Patients in Inpatient Rehabilitation Through a Short Stay Family Training Program. *Am J Hosp Palliat Care*, 37(3), 172-178. <https://doi.org/10.1177/1049909119867293>

²¹ Armstrong, D., Agovi, A. M., Gehr, A. W., Cvitanovich, M., McNamara-Pittler, E., Goodier, N., Hasty, K., Govea, A., Woods, M., & Ojha, R. P. (2026). Effects of a post-acute care management program on subsequent acute care utilization for hospitalized patients discharged to skilled nursing facilities. *BMC Health Serv Res*, 26(1), 177. <https://doi.org/10.1186/s12913-025-13944-7>

²² Weerahandi, H., Bao, H., Herrin, J., Dharmarajan, K., Ross, J. S., Jones, S., & Horwitz, L. I. (2020). Home Health Care After Skilled Nursing Facility Discharge Following Heart Failure Hospitalization. *Journal of the American Geriatrics Society*, 68(1), 96-102. <https://doi.org/10.1111/jgs.16179>

²³ Bellin, E. Y., Hellebrand, A. M., Markis, W. T., Ledvina, J. G., Kaplan, S. M., Levin, N. W., & Kaufman, A. M. (2024). More Frequent On-Site Dialysis May Hasten Return to Home for Nursing Home Patients with End-Stage Kidney Disease. *Kidney360*, 5(8), 1126-1136. <https://doi.org/10.34067/kid.0000000000000487>

²⁴ Manes, M. R., Kendall, H. A., Bowden, M. G., Bailey, C. E., Paris, T., Hoertz, J. S., Shah, P., & Maher, K. (2025). Development and Evaluation of an Inpatient Rehabilitation Model of Care Tailored to Solid Organ Transplantation. *Clin Transplant*, 39(10), e70324. <https://doi.org/10.1111/ctr.70324>

medication reconciliation and resource use measures.²⁵ Measures developed to meet the requirements of the IMPACT Act include: Medicare spending per beneficiary, discharge to community and all-condition risk-adjusted potentially preventable readmission rates. The IMPACT Act requires the implementation of measures to address these measure domains in HHAs, SNFs, LTCHs, and IRFs.

The IRF DTC-PAC measure was originally finalized for adoption in the IRF Quality Reporting Program (QRP) through the FY 2017 IRF PPS Final Rule.²⁶ Documentation for this measure, IRF DTC-PAC, is available on the CMS Measures Inventory Tool website.²⁷

2. Measure Specifications

This section describes the methodology used to construct the updated IRF DTC-PAC measure. Section 2.1 describes the data sources used. Section 2.2 describes IRF stay construction and measure inclusion/exclusion criteria. Sections 2.3 and 2.4 describe the denominator and numerator, respectively. Section 2.5 describes the risk adjustment model and variables used for risk adjustment. Section 2.6 presents the steps involved in calculating the final measure result. Section 2.7 describes the measure results.

2.1 Data Sources

This measure relies on data from Medicare FFS Part A claims, MA Encounter Data Records, and Medicare's Enrollment Database, as well as the Medicare Minimum Data Set, accessed via the CMS Centralized Data Repository (CDR) and the Integrated Data Repository (IDR) environments. The enrollment files provide beneficiary-level information such as date of birth, date of death, sex, reasons for Medicare eligibility, and enrollment histories in Medicare Parts A and C. The FFS claims and Medicare Advantage encounter files provide information about each IRF and hospital stay, including dates of admission and discharge, diagnoses and procedures, and indicators for care received. Claims and encounter data are used to construct for each person a history of care before the IRF stay, which is used for constructing risk adjustment variables. This measure also uses publicly available data, such as the Clinical Classification Software (CCS), Planned Readmission Algorithm (PRA), and Hierarchical Condition Categories (HCC).

Documentation for the Medicare FFS claims data, Medicare Advantage encounter data, and Medicare enrollment data is provided online by the Chronic Conditions Data Warehouse (CCW). Data dictionaries for all standard analytical files are available at:

<https://www2.ccwdata.org/web/guest/data-dictionaries>.

²⁵ More information on the IMPACT Act is available at <https://www.govtrack.us/congress/bills/113/hr4994>.

²⁶ <https://www.federalregister.gov/documents/2016/08/05/2016-18196/medicare-program-inpatient-rehabilitation-facility-prospective-payment-system-for-federal-fiscal>

²⁷ Discharge to Community - Post Acute Care (PAC) Inpatient Rehabilitation Facility (IRF) Quality Reporting Program (QRP). Additional information available at: <https://cmit.cms.gov/cmit/#/MeasureView?variantId=1988§ionNumber=1>

2.2 IRF Stay Construction and Measure Inclusion/Exclusion Criteria

2.2.1 Construct IRF and Hospital Stays

Construct IRF and hospital stays for the measure period. IRF and hospital stays are constructed using final action Medicare FFS Part A claims and MA Encounter Data Records. Stays are constructed by linking claims that share the same beneficiary identifier, facility CCN, and admission date. Records with missing or invalid admission dates are first assigned an admission date by linkage to other claims with valid admission dates within the same stay, linked using beneficiary identifier, facility CCN, from date, through date, and patient status code. If no such linkage is identified, the admission date is imputed using the claim from date.

IRF stays considered for the denominator prior to exclusion criteria are those that end within the measure period, based on the discharge date. To implement exclusion criteria and apply risk adjustment, index IRF stays are linked to other stays, Medicare Minimum Data Set, and demographic and enrollment data using the beneficiary identifier.

2.2.2 Measure Time Window

The measure is calculated using two years of data. All IRF stays ending during the measure window, except those that meet the exclusion criteria, are included in the measure. For IRF patients with multiple IRF stays during the two-year period, each stay is eligible for inclusion in the measure.

2.2.3 IRF Stay Exclusion Criteria

Index IRF stays are excluded from the measure calculation if any of the following exclusion criteria are met. All remaining index stays are eligible for measure calculation.

1. The beneficiary was under 18 years of age at the start of the stay.

Rationale: There is limited literature on discharge destination outcomes in this age group; patients/residents in this age group represent a different cohort, likely living with their parents, and may be expected to have higher discharge to community rates compared with the rest of the Medicare population; and patients/residents in this age group represent a small proportion of the post-acute Medicare population.

2. The beneficiary was not discharged from an acute care hospital or Inpatient (IP) psychiatric hospital within 30 days prior to IRF admission.

Rationale: Acute care claims from the 30 days prior to IRF, SNF, or LTCH admission provide the principal diagnosis and other important patient/resident data for risk adjustment. In IRF, SNF, and LTCH settings, patients/residents without a short-term acute care discharge within the 30 days prior to PAC admission will be excluded from the measure, because important risk adjustment data will be missing.

3. The beneficiary was discharged from the IRF against medical advice.

Rationale: Patients/residents who discharge themselves against medical advice are excluded because their care plan may not have been fully implemented, and the discharge destination may not reflect the facility's discharge recommendation. Additionally, patients/residents discharged against medical advice may potentially be at higher risk of post-discharge readmissions or death, depending on their medical condition, or due to potential non-adherence or non-compliance with care recommendations.

4. The beneficiary was discharged from the IRF to an IP psychiatric hospital.

Rationale: Patients/residents discharged to psychiatric hospital are excluded from the measure because community living at the time of discharge may be potentially inappropriate or unsafe for them due to their mental health or psychiatric condition.

5. The beneficiary was discharged from the IRF to the same level of care (i.e., another IRF).

Rationale: Post-acute stays that end in transfer to the same level of care (e.g., IRF to IRF transfer) are excluded from the measure because their post-acute episode has not ended. For a post-acute episode that involves transfer to the same level of care, only the final post-acute provider is included in the measure. (Note that this exclusion does not apply to transitions across different levels of post-acute care (e.g., IRF to LTCH)).

6. The beneficiary was discharged from the IRF to a federal hospital or disaster alternative care site.

Rationale: Patients/residents discharged to disaster alternative care sites are excluded because these discharges are likely influenced by external emergency conditions, and may not represent discretionary discharges by the PAC provider. Discharges to federal hospitals are excluded because we will not have inpatient claims to determine whether the hospitalization was planned or unplanned.

7. The beneficiary was discharged from the IRF to court/law enforcement.

Rationale: Patients/residents who are discharged to court or law enforcement are likely ineligible for discharge to the community due to legal restrictions.

8. The beneficiary was either discharged from the IRF to hospice or has a hospice benefit period that overlaps with the 31-day post-IRF discharge window (identified via the presence of a hospice benefit start or end date within 31 days of IRF discharge).

Rationale: Patients/residents discharged to hospice care and those with a hospice benefit in the post-discharge observation window are terminally ill, and have very different goals of care compared with non-hospice patients/residents. For non-hospice patients/residents, the primary goal of post-acute care is to return to baseline, independent living in the community; death is an undesirable outcome in the non-hospice population. For hospice patients/residents, the goal is to provide the opportunity to die comfortably, at home or in a facility. A large proportion of hospice

patients/residents die in the 31-day window following discharge from the post-acute setting. The hospice agency, not the post-acute care setting, makes the final decision of discharge to hospice-home or hospice-facility.

9. The beneficiary was not continuously enrolled in Medicare (Part A, Original Medicare, and/or Part C, Medicare Advantage) for at least 90 days prior to IRF admission and for at least 31 days after IRF discharge.

Rationale: Patients/residents not continuously enrolled in Medicare (Part A and/or Part C) for the 90 days prior to the PAC admission date are excluded because risk adjustment for certain comorbidities requires information on acute inpatient bills for 90 days prior to post-acute admission. Patients/residents not continuously enrolled in Medicare for at least 31 days after post-acute discharge are excluded because readmissions and death must be observable in the 31-day post-discharge period. Patients/residents without continuous Medicare coverage during the pre- and post-PAC periods will not have complete inpatient claims in the system.

10. The beneficiary was discharged from an acute care hospital or an IP psychiatric hospital within 30 days prior to IRF admission, but the stay was for non-surgical treatment of cancer.

Rationale: Patients/residents whose prior short-term acute care stay was for non-surgical treatment of cancer are excluded because they have a different trajectory for recovery after discharge, with a high mortality rate.

11. The IRF stay is associated with problematic or incomplete data. This includes anomalous records for stays that overlap wholly or in part, or are otherwise erroneous or contradictory; stays where the beneficiary cannot be matched with Medicare enrollment data; or if the beneficiary exhausted their Medicare Part A or Medicare Advantage benefits during the stay.

Rationale: This measure requires accurate information from the post-acute stay and prior short-term acute care stay in the elements used for risk adjustment. Patients/residents who have exhausted their Medicare Part A coverage during the PAC stay are excluded because the discharge destination decision may be related to exhaustion of benefits.

12. The IRF stay was outside the 50 states, District of Columbia, Puerto Rico, and U.S. Territories (determined via the CCN of the provider rendering care, using the SOM CCN-to-U.S. state mappings).

Rationale: Patients/residents who received care from foreign facilities may not have complete inpatient claims in the system, and these facilities may not be subject to policy decisions related to this quality measure.

13. The beneficiary had a long-term nursing home stay in the 180 days preceding their prior proximal hospitalization (identified via NH MDS Omnibus Budget Reconciliation Act

[OBRA] assessments) and was not discharged to community from that stay prior to the hospitalization.

Rationale: Baseline long-term NF residents did not live in the community before their IRF stay, and discharge to a community setting may not be a safe or expected outcome for these residents.

14. The IRF stay ended in planned discharge from the IRF to an acute care hospital, IP psychiatric hospital, or an LTCH, identified by the presence of a claim from that facility type with a “claim from” date within one day of IRF discharge that is flagged as a planned admission by the planned readmission algorithm (note that all IP psychiatric hospital stays are considered planned).

Rationale: For the IRF and SNF settings, planned discharges to an acute care hospital or LTCH will be excluded. For the LTCH setting, planned discharges to an acute care hospital will be excluded. (Note that, in the LTCH setting, transfer to another LTCH is excluded because it represents a transfer to the same level of care).

2.3 Denominator

The measure denominator is the risk-adjusted expected number of IRF stays with a discharge to community. This estimate includes risk adjustment for stay-level characteristics, with the IRF-level random effect removed. The “expected” number of IRF stays with a discharge to community is projected as if the same patients had been treated at the average IRF.

The regression model used to calculate the denominator is developed using all non-excluded IRF stays in the national data. The denominator is computed in the same way as the numerator, but the IRF effect is set at the average. The descriptions of the discharge to community outcome, patient stays included in the measure, and numerator calculation are provided below.

2.4 Numerator

The measure numerator is the risk-adjusted predicted number of IRF stays where the patient is discharged to the community, does not have an unplanned readmission to an acute care hospital or LTCH in the 31-day post-discharge observation window, and remains alive during the post-discharge observation window. This estimate starts with the observed discharges to community, and is risk-adjusted for patient characteristics and a statistical estimate of the facility effect beyond case mix.

2.4.1. Identifying Numerator Events

Identify IRF stays ending in discharge to either home/self-care, home under care of an organized home health agency (HHA), home with a planned acute care hospital readmission, or discharged home under care of an HHA with a planned acute care hospital readmission, as indicated by the patient discharge status code on the last claim of the stay. Exhibit 1 below lists the Patient Discharge Status Codes used to define community.

Exhibit 1. Patient Discharge Status Codes Used to Determine Discharge to Community

Status Code	Description
01	Discharged to home or self-care (routine discharge)
06	Discharged/transferred to home under care of organized home health service organization
81	Discharged to home or self-care with a planned acute care hospital readmission
86	Discharged/transferred to home under care of organized home health service organization with a planned acute care hospital inpatient readmission

2.4.2. Numerator Exclusions: Death in the 31-Day Post-Discharge Observation Window

Remove numerator stays where the beneficiary died during the IRF stay or within 31 days of IRF discharge, identified by the patient status code or the beneficiary's date of death from the Medicare enrollment database.

2.4.3. Numerator Exclusions: Unplanned Readmissions in the 31-Day Post-Discharge Observation Window

Remove numerator stays where the beneficiary has an unplanned readmission to an acute care hospital or an LTCH within 31 days of IRF discharge, including the day of discharge, as determined using the planned readmission algorithm. IP Psychiatric hospital stays are considered always planned.

Exhibit 2. Prevalence of Events Included in the DTC-PAC Numerator Definition

Measure	FFS, n (%) N=702,473	MA, n (%) N=236,127	Total, n (%) N=938,600
Numerator Events			
Successful discharge to community outcome per measure definition	474,188 (67.5%)	164,423 (69.6%)	638,611 (68.0%)
Discharge destination code is community (1, 6, 81, 86)	557,384 (79.3%)	191,415 (81.1%)	748,799 (79.8%)
Numerator Exclusions			
Unplanned readmissions at or following discharge (0-31 days)	147,681 (21.0%)	48,176 (20.4%)	195,857 (20.9%)
Death within stay	1,505 (0.2%)	659 (0.3%)	2,164 (0.2%)
Death at or following discharge (0-31 days)	18,851 (2.7%)	5,819 (2.5%)	24,670 (2.6%)

Note: Includes IRF stays eligible for the DTC-PAC measure from fiscal year (FY) 2023-2024. The FFS column represents statistics for stays that include only FFS claims. The MA column represents statistics for stays that include any Medicare Advantage encounter record.

2.5 Statistical Risk Model and Risk Adjustment Covariates

2.5.1. Risk Adjustment Covariates

To account for beneficiary characteristics that may affect the risk of potentially preventable hospitalizations and observation stays, the risk adjustment model uses potential risk factors associated with each IRF stay:

- Beneficiary age and sex categories.
- Original Reason for Entitlement Code (OREC) categories, defined as either (1) end-stage renal disease (ESRD), (2) disability, or (3) ESRD and disability. Age is the reference category.
- CCS category of principal diagnosis from the prior proximal acute care stay.
- Comorbidities based on the prior proximal acute care stay or a 90-day lookback.²⁸
- IRF Case-Mix Groups (CMGs) (identified via the Healthcare Common Procedure Coding System [HCCS] code corresponding to Revenue Center Code "0024" on the IRF claim).
- Surgical procedure categories (if present) for the procedure codes from the prior proximal acute care stay.
- Dialysis during the prior proximal acute care stay where ESRD is not indicated.
- Indicator for ESRD status.
- Length of prior proximal acute care stay (if stay was in non-psychiatric hospital), or indicator if prior proximal acute care stay was in an IP psychiatric hospital.
- Number of intensive care unit (ICU) or cardiac care unit (CCU) days during the prior acute stay.
- Number of acute hospital stays in the 90 days prior to IRF admission (excluding the prior proximal acute care admission).
- Medicare Advantage (Part C) coverage at the start of the IRF stay.

2.5.2. Statistical Risk Model

The following section summarizes the risk adjustment approach for the measure.

A hierarchical logistic regression to predict the probability of a countable discharge to community is used. The risk adjusters are predictor variables. The patient characteristics related to each discharge and a marker for the specific discharging IRF are included in the equation. The equation is hierarchical in that both individual stay-level characteristics are accounted for as well as the clustering of stays into IRFs. The statistical model estimates both the average

²⁸ Depending on the specific comorbidity, diagnoses are mapped to HCCs using principal or secondary ICD-10 diagnosis codes from IP claims; HCCs are constructed using either the secondary diagnoses from the prior proximal acute care stay or all diagnoses from IP stays, other than the prior proximal stay, in the 90-day lookback period.

predictive effect of the stay-level characteristics across all IRFs and the degree to which each provider has an effect on the rate of numerator events that differs from that of the average IRF. The IRF effects are assumed to be randomly distributed around the average (according to a normal distribution). When computing the IRF effect, hierarchical modeling accounts for predictors of numerator events, on average, such as demographic characteristics and other risk factors, the IRF-specific observed rate, and the IRF-specific number of stays eligible for the measure. The estimated IRF random effect is determined mostly by each IRF's own data if the number of stays is relatively large (as the estimate would be relatively precise) but is adjusted towards the national average if the number of IRF stays is small (as that would yield an estimate of lower precision).

Calculate coefficient estimates for use in risk adjustment using the following hierarchical model:

Let Y_{ij} denote the outcome (equal to 1 if beneficiary i is discharged to community, 0 otherwise) for a beneficiary i at facility j . Let $Z_{ij} = (Z_1, Z_2, \dots, Z_k)$ denote a set of k risk adjustment variables. Let α_j represent the facility-specific intercept, μ the adjusted average intercept across all facilities, and τ^2 the between-facility variance component.

The probability of the outcome occurring is assumed to relate to the covariates via a logit function:

$$\text{logit}(P(Y_{ij} = 1|Z_{ij}, \alpha_j)) = \log\left(\frac{P(Y_{ij} = 1|Z_{ij}, \alpha_j)}{1 - P(Y_{ij} = 1|Z_{ij}, \alpha_j)}\right) = \alpha_j + \beta * Z_{ij}$$

$$\alpha_j = \mu + \omega_j ; \omega_j \sim N(0, \tau^2)$$

2.6 Measure Calculation Algorithm

2.6.1 Determine the National Observed Rate.

Divide the number of eligible stays resulting in a successful DTC (Section 2.4) by the total number of all eligible stays (Section 2.2).

2.6.2 Calculate provider-level final scores.

Using the estimated coefficients β , μ , and $\alpha_j = \mu + \omega_j$ determined in Section 2.5, calculate the following values for each provider:

2.6.2.1 Facility-level expected DTC number:

The number of DTCs that would be expected if that facility's beneficiaries were treated at the average provider. This is defined as:

$$\text{Expected Value}_j = \sum \frac{\exp(\hat{\mu} + \hat{\beta} \cdot Z_{ij})}{\exp(\hat{\mu} + \hat{\beta} \cdot Z_{ij}) + 1}$$

2.6.2.2 Facility-level predicted DTC number:

The predicted number of DTCs that would occur from that facility assuming the estimated provider-specific effect in the model. This is defined as:

$$\text{Predicted Value}_j = \sum \frac{\exp(\hat{\alpha}_j + \hat{\beta} \cdot Z_{ij})}{\exp(\hat{\alpha}_j + \hat{\beta} \cdot Z_{ij}) + 1}$$

2.6.2.3 Risk-Standardized DTC Rate (RSDTCR):

The final risk-adjusted facility-level DTC rate, used as the final publicly reported score. Let $\bar{Y}$ denote the national observed rate calculated in Section 2.6.1. The RSDTCR is then defined as:

$$\text{RSDTCR} = \frac{\text{Predicted Value}_j}{\text{Expected Value}_j} \times \bar{Y}$$

2.7 Measure Results

Exhibit 3 shows the stay-level observed DTC-PAC rate for all eligible IRF patients. The proportion of IRF patients successfully discharged to community was 67.5 for stays covered by FFS (Part A), 69.6 for stays covered by MA (Part C), and 68.0 across all stays.

Exhibit 3. Stay-level observed DTC-PAC Rate

Measure	FFS, n (%) N=702,473	MA, n (%) N=236,127	Total, n (%) N=938,600
Stay-level Observed DTC-PAC rate	474,188 (67.5%)	164,423 (69.6%)	638,611 (68.0%)

Note: Includes IRF stays eligible for the DTC-PAC measure from FY 2023-2024. The FFS column represents statistics for stays that include only FFS claims. The MA column represents statistics for stays that include any Medicare Advantage encounter record.

Exhibit 4 shows the IRF-level observed and risk standardized DTC-PAC rate for all IRFs and limited to IRFs with at least 25 eligible stays in the measure period. The risk standardized DTC-PAC rate across all IRFs was 67.69, and for IRFs with at least 25 stays was the same.

Exhibit 4. IRF-level observed and risk standardized DTC-PAC Rate

Measure	All IRFs N=1,217	IRFs with 25+ Stays N= 1,190
Observed DTC-PAC rate	67.74	67.82
Risk standardized DTC-PAC rate	67.69	67.69

Note: Calculated using IRF stays eligible for the DTC-PAC measure from FY 2023-2024.

3. Measure Testing

Below we provide testing results for the DTC measure including reportability, variability, reliability and validity.

3.1 Reportability

Reportability testing examines the total number and proportion of IRF providers that have at least 25 eligible IRF stays for the DTC-PAC measure in the reporting period. 1,190 IRFs out of 1,217 (97.8%) had at least 25 stays.

Exhibit 5. Publicly Reportable IRFs, FY 2023-2024

Total Number of IRFs	Total Number of IRFs with ≥ 25 Stays	Percentage of IRFs with ≥ 25 Stays
1,217	1,190	97.78%

Note: DTC-PAC measure results calculated using FY 2023-2024 data.

3.2 Variability

Variability testing summarizes the distribution of the provider-level final DTC-PAC results.

Exhibit 6. IRF-Level Distribution of DTC

N	Mean Score	Standard Deviation	Minimum	25th Percentile	50th Percentile	75th Percentile	Maximum
1,190	67.69	5.29	40.60	64.81	68.13	71.12	89.35

Note: DTC results calculated using FY 2023-2024 data from providers with at least 25 stays.

3.3 Reliability

The split-half reliability test examined agreement between two DTC measure results for each IRF based on randomly split, independent subsets of observations for each IRF in the same measurement period. Good agreement between pairs of performance measure results calculated in this manner provides evidence that the measure is capturing an attribute of the IRF rather than the effect of random chance.

For IRFs with at least 25 eligible stays in FY 2023-2024, each IRF's patients were randomly divided into halves. We calculated a provider-level DTC result for each split-half sample. We used the Shrout-Fleiss intraclass correlation coefficient (ICC [2, 1]) with the Spearman-Brown correction to calculate agreement between the split-half results. The overall intraclass correlation coefficient for IRFs with more than 25 eligible patients was 0.890, which indicates excellent reliability.²⁹

The signal-to-noise ratio (SNR) assesses how well the DTC measure distinguishes true differences in performance across IRFs. The "signal" represents real variation in IRF performance, while the "noise" reflects random variation or measurement error. A higher SNR indicates that most of the observed variation is meaningful rather than due to chance. To ensure

²⁹ Cicchetti, D. V. (1994). Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological assessment*, 6(4), 284.

a stable estimate, the SNR calculation was limited to IRFs with at least 25 stays in the FY 2023-2024 measure window. The resulting SNR was 0.90, which corresponds to strong reliability.

3.4 Validity

To evaluate convergent validity, we examined the relationships between provider DTC results and related IRF measures. Using Spearman's rank correlation, we compared providers' DTC results to the claims-based measures Potentially Preventable 30-Day Post-Discharge Readmission (PPR-PD) and Medicare Spending per Beneficiary (MSPB). We hypothesized that the IRFs that have a lower (better) result on these measures are likely to have a higher (better) result on the DTC measure. Therefore, we are looking for a negative correlation between these measures and the DTC measure as support for these measures having convergent validity. We found small, significant negative association between DTC-PAC results and PPR-PD, PPR-WS, and MSPB results. The analysis used DTC results calculated using FY 2023-2024 data from providers with at least 25 stays.

Exhibit 7. Correlations Between DTC and Other Publicly Reported Measures

Measure	N IRFs	Spearman's Correlation	p-value
Potentially Preventable 30-Day Post-Discharge Readmission (PPR-PD)	1,108	-0.108	< 0.001
Potentially Preventable Within-Stay Readmission (PPR-WS)	1,109	-0.266	< 0.001
Medicare Spending per Beneficiary (MSPB)	1,110	-0.213	< 0.001

Note: RTI analysis of Medicare FFS claims data and Medicare Advantage encounter data (DTC-PAC results calculated using FY 2023-2024 data from providers with at least 25 stays), and publicly reported IRF quality measures (available for download at <https://data.cms.gov/provider-data>). Data collection periods for publicly reported IRF claims-based measures used in this analysis are the most recent available.

Appendix A. IRF DTC Risk-Adjustment Covariates

Exhibit 8 shows the prevalence of each risk factor for IRF stays eligible for the DTC-PAC measure from FY 2023-2024, as well as risk adjustment coefficients and standard errors for the pooled (FFS and MA) population. The FFS column represents statistics for stays that include only FFS claims. The MA column represents statistics for stays that include any Medicare Advantage encounter record.

Exhibit 8. IRF DTC Risk-Adjustment Covariates Prevalence and Model Coefficients

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
MA coverage at start of stay	0 (0.0%)	235,825 (99.9%)	235,825 (25.1%)	0.2336	<0.001
Age 18-44 years, male	3,361 (0.5%)	1,496 (0.6%)	4,857 (0.5%)	0.1921	<0.001
Age 45-54 years, male	6,131 (0.9%)	3,607 (1.5%)	9,738 (1.0%)	0.0560	0.0249
Age 55-59 years, male	6,658 (0.9%)	4,392 (1.9%)	11,050 (1.2%)	-0.0034	0.8835
Age 60-64 years, male	11,113 (1.6%)	7,806 (3.3%)	18,919 (2.0%)	-0.0475	0.0126
Age 65-69 years, male	48,048 (6.8%)	23,049 (9.8%)	71,097 (7.6%)	-0.0512	<0.001
Age 70-74 years, male	63,036 (9.0%)	24,247 (10.3%)	87,283 (9.3%)	-0.1127	<0.001
Age 75-79 years, male	68,783 (9.8%)	22,092 (9.4%)	90,875 (9.7%)	-0.1802	<0.001
Age 80-84 years, male	58,671 (8.4%)	16,581 (7.0%)	75,252 (8.0%)	-0.2608	<0.001
Age 85-89 years, male	38,703 (5.5%)	9,120 (3.9%)	47,823 (5.1%)	-0.3267	<0.001
Age 90-94 years, male	16,111 (2.3%)	3,122 (1.3%)	19,233 (2.0%)	-0.4046	<0.001
Age 95+ years, male	3,732 (0.5%)	567 (0.2%)	4,299 (0.5%)	-0.4336	<0.001
Age 18-44 years, female	2,894 (0.4%)	1,679 (0.7%)	4,573 (0.5%)	0.0315	0.3631
Age 45-54 years, female	5,099 (0.7%)	3,411 (1.4%)	8,510 (0.9%)	0.0409	0.1239
Age 55-59 years, female	5,491 (0.8%)	3,939 (1.7%)	9,430 (1.0%)	0.0282	0.2673
Age 60-64 years, female	9,726 (1.4%)	6,888 (2.9%)	16,614 (1.8%)	-0.0059	0.7699
Age 65-69 years, female [REFERENCE GROUP]	44,917 (6.4%)	20,617 (8.7%)	65,534 (7.0%)	-	-
Age 70-74 years, female	66,388 (9.5%)	23,401 (9.9%)	89,789 (9.6%)	-0.0518	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
Age 75-79 years, female	79,217 (11.3%)	23,722 (10.0%)	102,939 (11.0%)	-0.1332	<0.001
Age 80-84 years, female	72,444 (10.3%)	18,757 (7.9%)	91,201 (9.7%)	-0.2316	<0.001
Age 85-89 years, female	55,428 (7.9%)	11,638 (4.9%)	67,066 (7.1%)	-0.3151	<0.001
Age 90-94 years, female	27,712 (3.9%)	4,848 (2.1%)	32,560 (3.5%)	-0.3844	<0.001
Age 95+ years, female	8,810 (1.3%)	1,148 (0.5%)	9,958 (1.1%)	-0.4072	<0.001
Prox. Surgery: Vascular	24,070 (3.4%)	15,761 (6.7%)	39,831 (4.2%)	0.0187	0.1266
Prox. Surgery: Orthopedics	180,267 (25.7%)	50,506 (21.4%)	230,773 (24.6%)	0.0580	<0.001
Prox. Surgery: General	44,763 (6.4%)	17,908 (7.6%)	62,671 (6.7%)	0.0695	<0.001
Prox. Surgery: Cardiothoracic	26,256 (3.7%)	9,795 (4.1%)	36,051 (3.8%)	0.2665	<0.001
Prox. Surgery: Neurosurgery	41,906 (6.0%)	23,537 (10.0%)	65,443 (7.0%)	0.0333	0.0052
Prox. Surgery: Plastic	20,718 (2.9%)	7,957 (3.4%)	28,675 (3.1%)	-0.0677	<0.001
Prox. Surgery: Otolaryngology	2,038 (0.3%)	1,046 (0.4%)	3,084 (0.3%)	0.0523	0.2048
Prox. Surgery: Obstetrics/gynecology	911 (0.1%)	264 (0.1%)	1,175 (0.1%)	-0.0342	0.5995
Prox. Surgery: Urologic	4,773 (0.7%)	1,404 (0.6%)	6,177 (0.7%)	-0.0588	0.0403
Dialysis in hospital where HCC 136/ESRD not indicated	8,867 (1.3%)	3,756 (1.6%)	12,623 (1.3%)	-0.0252	0.2254
ESRD	29,547 (4.2%)	10,337 (4.4%)	39,884 (4.2%)	-0.2156	<0.001
Original reason for entitlement is age [REFERENCE GROUP]	561,324 (79.9%)	161,971 (68.6%)	723,295 (77.1%)	-	-
Original reason for entitlement is ESRD only, or aged with ESRD	8,202 (1.2%)	2,535 (1.1%)	10,737 (1.1%)	-0.2127	<0.001
Original reason for entitlement is disabled without ESRD	130,142 (18.5%)	70,665 (29.9%)	200,807 (21.4%)	-0.1225	<0.001
Original reason for entitlement is disabled with ESRD	2,805 (0.4%)	956 (0.4%)	3,761 (0.4%)	-0.2140	<0.001
ICU/CCU days associated with prior acute stay: 0 [REFERENCE GROUP]	363,452 (51.7%)	94,418 (40.0%)	457,870 (48.8%)	-	-
ICU/CCU days associated with prior acute stay: 1-3	125,603 (17.9%)	18,758 (7.9%)	144,361 (15.4%)	-0.0020	0.7787

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
ICU/CCU days associated with prior acute stay: 4-9	149,349 (21.3%)	66,856 (28.3%)	216,205 (23.0%)	-0.0189	0.0037
ICU/CCU days associated with prior acute stay: 10-19	50,027 (7.1%)	40,322 (17.1%)	90,349 (9.6%)	-0.0722	<0.001
ICU/CCU days associated with prior acute stay: 20+	14,042 (2.0%)	15,773 (6.7%)	29,815 (3.2%)	-0.1060	<0.001
Prior stay: LOS 1-6 days [REFERENCE GROUP]	371,178 (52.8%)	69,646 (29.5%)	440,824 (47.0%)	-	-
Prior stay: LOS 7-14 days	256,892 (36.6%)	117,190 (49.6%)	374,082 (39.9%)	-0.1839	<0.001
Prior stay: LOS 15+ days	73,895 (10.5%)	49,074 (20.8%)	122,969 (13.1%)	-0.3926	<0.001
Prior stay: psychiatric hospital	508 (0.1%)	217 (0.1%)	725 (0.1%)	-0.2973	<0.001
Prior ACH stays: 0 stays in past 90 days (excluding prior proximal) [REFERENCE GROUP]	504,710 (71.8%)	174,951 (74.1%)	679,661 (72.4%)	-	-
Prior ACH stays: 1 stay in past 90 days (excluding prior proximal)	141,810 (20.2%)	44,128 (18.7%)	185,938 (19.8%)	-0.2521	<0.001
Prior ACH stays: 2 stays in past 90 days (excluding prior proximal)	41,015 (5.8%)	12,298 (5.2%)	53,313 (5.7%)	-0.4688	<0.001
Prior ACH stays: 3 stays in past 90 days (excluding prior proximal)	11,147 (1.6%)	3,318 (1.4%)	14,465 (1.5%)	-0.6943	<0.001
Prior ACH stays: 4 stays in past 90 days (excluding prior proximal)	2,819 (0.4%)	943 (0.4%)	3,762 (0.4%)	-0.8872	<0.001
Prior ACH stays: 5 stays in past 90 days (excluding prior proximal)	972 (0.1%)	489 (0.2%)	1,461 (0.2%)	-1.3052	<0.001
HCC 6: Opportunistic Infections	2,926 (0.4%)	1,082 (0.5%)	4,008 (0.4%)	-0.1510	<0.001
HCC 8: Metastatic Cancer and Acute Leukemia	19,425 (2.8%)	6,537 (2.8%)	25,962 (2.8%)	-0.2993	<0.001
HCC 9: Lung and Other Severe Cancers	12,720 (1.8%)	3,667 (1.6%)	16,387 (1.7%)	-0.1836	<0.001
HCC 10: Lymphoma and Other Cancers	13,075 (1.9%)	4,297 (1.8%)	17,372 (1.9%)	-0.1500	<0.001
HCC 11: Colorectal, Bladder, and Other Cancers	8,669 (1.2%)	2,375 (1.0%)	11,044 (1.2%)	-0.0596	0.0057
HCC 12: Breast, Prostate, and Other Cancers and Tumors	14,529 (2.1%)	5,719 (2.4%)	20,248 (2.2%)	-0.0158	0.3247

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
HCC 17: Diabetes with Acute Complications	3,572 (0.5%)	1,766 (0.7%)	5,338 (0.6%)	-0.1942	<0.001
HCC 18, 19: Diabetes with Chronic Complications; Diabetes without Complication	264,799 (37.7%)	105,010 (44.5%)	369,809 (39.4%)	-0.0808	<0.001
HCC 21: Protein-Calorie Malnutrition	68,022 (9.7%)	24,142 (10.2%)	92,164 (9.8%)	-0.2036	<0.001
HCC 22: Morbid Obesity	67,758 (9.6%)	25,307 (10.7%)	93,065 (9.9%)	-0.0436	<0.001
HCC 23: Other Significant Endocrine and Metabolic Disorders	52,451 (7.5%)	18,234 (7.7%)	70,685 (7.5%)	-0.0590	<0.001
HCC 27: End-Stage Liver Disease	9,595 (1.4%)	3,298 (1.4%)	12,893 (1.4%)	-0.3995	<0.001
HCC 28: Cirrhosis of Liver	11,172 (1.6%)	3,820 (1.6%)	14,992 (1.6%)	-0.2355	<0.001
HCC 29: Chronic Hepatitis	2,076 (0.3%)	1,183 (0.5%)	3,259 (0.3%)	-0.0530	0.1724
HCC 39: Bone/Joint/Muscle Infections/Necrosis	20,289 (2.9%)	8,450 (3.6%)	28,739 (3.1%)	-0.0721	<0.001
HCC 40: Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	45,932 (6.5%)	12,920 (5.5%)	58,852 (6.3%)	-0.0480	<0.001
HCC 46: Severe Hematological Disorders	3,846 (0.5%)	1,102 (0.5%)	4,948 (0.5%)	-0.2119	<0.001
HCC 48: Coagulation Defects and Other Specified Hematological Disorders	81,177 (11.6%)	29,462 (12.5%)	110,639 (11.8%)	-0.0310	<0.001
HCC 51, 52: Dementia With Complications, Dementia Without Complication	83,716 (11.9%)	23,326 (9.9%)	NA (NA)	-	-
HCC 54, 55: Substance Use with Psychotic Complications; Substance Use Disorder, Moderate/Severe, or Substance Use with Complications	20,087 (2.9%)	8,561 (3.6%)	28,648 (3.1%)	-0.0218	0.1162
HCC 56: Substance Use Disorder, Mild, Except Alcohol and Cannabis	1,867 (0.3%)	1,630 (0.7%)	3,497 (0.4%)	-0.1523	<0.001
HCC 57: Schizophrenia	4,798 (0.7%)	2,053 (0.9%)	6,851 (0.7%)	-0.2693	<0.001
HCC 58: Reactive and Unspecified Psychosis	1,445 (0.2%)	481 (0.2%)	1,926 (0.2%)	-0.1083	0.0285
HCC 59: Major Depressive, Bipolar, and Paranoid Disorders	35,306 (5.0%)	13,656 (5.8%)	48,962 (5.2%)	-0.1077	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
HCC 60: Personality Disorders	404 (0.1%)	161 (0.1%)	565 (0.1%)	-0.2826	0.0021
HCC 70: Quadriplegia	4,192 (0.6%)	2,521 (1.1%)	6,713 (0.7%)	-0.2384	<0.001
HCC 71: Paraplegia	5,273 (0.8%)	2,797 (1.2%)	8,070 (0.9%)	-0.2451	<0.001
HCC 72: Spinal Cord Disorders/Injuries	19,699 (2.8%)	10,583 (4.5%)	30,282 (3.2%)	-0.0515	<0.001
HCC 73: Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	638 (0.1%)	234 (0.1%)	872 (0.1%)	-0.0053	0.9368
HCC 74: Cerebral Palsy	1,487 (0.2%)	466 (0.2%)	1,953 (0.2%)	-0.1008	0.0495
HCC 76, 77: Muscular Dystrophy; Multiple Sclerosis	7,712 (1.1%)	3,135 (1.3%)	10,847 (1.2%)	-0.0262	0.2486
HCC 78: Parkinson's and Huntington's Diseases	32,434 (4.6%)	7,503 (3.2%)	39,937 (4.3%)	-0.0363	0.0026
HCC 80: Coma, Brain Compression/Anoxic Damage	30,593 (4.4%)	20,653 (8.7%)	51,246 (5.5%)	-0.1403	<0.001
HCC 82: Respirator Dependence/Tracheostomy Status	3,588 (0.5%)	2,300 (1.0%)	5,888 (0.6%)	0.0505	0.0769
HCC 85: Congestive Heart Failure	215,997 (30.7%)	68,127 (28.9%)	284,124 (30.3%)	-0.1393	<0.001
HCC 86: Acute Myocardial Infarction	29,495 (4.2%)	10,785 (4.6%)	40,280 (4.3%)	-0.0585	<0.001
HCC 87: Unstable Angina and Other Acute Ischemic Heart Disease	17,588 (2.5%)	5,625 (2.4%)	23,213 (2.5%)	-0.0567	<0.001
HCC 96: Specified Heart Arrhythmias	246,029 (35.0%)	74,132 (31.4%)	320,161 (34.1%)	-0.1144	<0.001
HCC 99: Intracranial Hemorrhage	16,486 (2.3%)	14,701 (6.2%)	31,187 (3.3%)	-0.0972	<0.001
HCC 100: Ischemic or Unspecified Stroke	19,719 (2.8%)	26,679 (11.3%)	46,398 (4.9%)	-0.0782	<0.001
HCC 103: Hemiplegia/Hemiparesis	95,593 (13.6%)	66,134 (28.0%)	161,727 (17.2%)	-0.1155	<0.001
HCC 104: Monoplegia, Other Paralytic Syndromes	7,744 (1.1%)	4,297 (1.8%)	12,041 (1.3%)	-0.0018	0.9353
HCC 106: Atherosclerosis of the Extremities with Ulceration or Gangrene	12,250 (1.7%)	6,144 (2.6%)	18,394 (2.0%)	-0.2936	<0.001
HCC 107: Vascular Disease with Complications	18,148 (2.6%)	7,992 (3.4%)	26,140 (2.8%)	-0.0629	<0.001
HCC 108: Vascular Disease	94,429 (13.4%)	36,293 (15.4%)	130,722 (13.9%)	-0.0622	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
HCC 110, 111, 112: Cystic Fibrosis; Chronic Obstructive Pulmonary Disease; Fibrosis of Lung and Other Chronic Lung Disorders	146,279 (20.8%)	48,189 (20.4%)	194,468 (20.7%)	-0.1323	<0.001
HCC 114: Aspiration and Specified Bacterial Pneumonias	29,886 (4.3%)	13,247 (5.6%)	43,133 (4.6%)	-0.0574	<0.001
HCC 134: Dialysis Status	25,765 (3.7%)	8,985 (3.8%)	34,750 (3.7%)	-0.3463	<0.001
HCC 135: Acute Renal Failure	163,826 (23.3%)	56,571 (24.0%)	220,397 (23.5%)	-0.1893	<0.001
HCC 136: Chronic Kidney Disease, Stage 5	5,821 (0.8%)	1,974 (0.8%)	7,795 (0.8%)	-0.3072	<0.001
HCC 137: Chronic Kidney Disease, Severe (Stage 4)	8,549 (1.2%)	2,281 (1.0%)	10,830 (1.2%)	-0.3012	<0.001
HCC 138: Chronic Kidney Disease, Moderate (Stage 3)	56,118 (8.0%)	17,217 (7.3%)	NA (NA)	-	-
HCC 157, 158: Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone; Pressure Ulcer of Skin with Full Thickness Skin Loss	8,240 (1.2%)	2,827 (1.2%)	11,067 (1.2%)	-0.3120	<0.001
HCC 159: Pressure Ulcer of Skin with Partial Thickness Skin Loss	6,371 (0.9%)	2,084 (0.9%)	8,455 (0.9%)	-0.2636	<0.001
HCC 161: Chronic Ulcer of Skin, Except Pressure	14,613 (2.1%)	4,870 (2.1%)	19,483 (2.1%)	-0.1481	<0.001
HCC 162: Severe Skin Burn or Condition	181 (< 0.1%)	129 (0.1%)	310 (< 0.1%)	-0.0673	0.6100
HCC 166, 167: Severe Head Injury; Major Head Injury	16,669 (2.4%)	10,427 (4.4%)	27,096 (2.9%)	-0.0574	<0.001
HCC 169: Vertebral Fractures without Spinal Cord Injury	27,644 (3.9%)	8,928 (3.8%)	36,572 (3.9%)	-0.0651	<0.001
HCC 170: Hip Fracture/Dislocation	23,519 (3.3%)	8,994 (3.8%)	32,513 (3.5%)	-0.0443	0.0020
HCC 176: Complications of Specified Implanted Device or Graft	15,859 (2.3%)	5,994 (2.5%)	21,853 (2.3%)	-0.1136	<0.001
HCC 188: Artificial Openings for Feeding or Elimination	11,624 (1.7%)	3,952 (1.7%)	15,576 (1.7%)	-0.2121	<0.001
HCC 189: Amputation Status, Lower Limb/Amputation Complications	10,540 (1.5%)	4,705 (2.0%)	15,245 (1.6%)	-0.0623	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
CCS 1, 3, 4, 5, 6, 7, 8, 9, 10: Tuberculosis; Bacterial infection, unspecified site; Mycoses; HIV infection; Hepatitis; Viral Infection; Other infections, including parasitic; Sexually transmitted infections (not HIV or hepatitis); Immunizations and screening for infectious disease	1,470 (0.2%)	361 (0.2%)	1,831 (0.2%)	-0.2833	<0.001
CCS 2: Septicemia (except in labor)	56,985 (8.1%)	14,617 (6.2%)	71,602 (7.6%)	-0.2509	<0.001
CCS 11, 12, 13, 14, 15, 18, 20, 21, 22, 23, 24, 25, 26, 28, 29, 30, 31, 34, 36, 37, 38, 39, 40, 41, 43: Cancer of head and neck; esophagus; stomach; colon; rectum and anus; other GI organs, peritoneum; other respiratory and intrathoracic; bone and connective tissue; melanomas of skin; other non-epithelial cancer of skin; breast; uterus; cervix; other female genital organs; prostate; testis; other male genital organs; other urinary organs; thyroid; Hodgkin's disease; Non-Hodgkin's lymphoma; Leukemias; Multiple myeloma; other and unspecified primary cancer; Malignant neoplasm without specification of site	8,485 (1.2%)	3,712 (1.6%)	12,197 (1.3%)	-0.2137	<0.001
CCS 16, 17, 19, 27, 35: Cancer of liver and intrahepatic bile duct; Cancer of pancreas; Cancer of bronchus, lung; Cancer of ovary; Cancer of brain and nervous system	3,005 (0.4%)	1,513 (0.6%)	4,518 (0.5%)	-0.2584	<0.001
CCS 42: Secondary malignancies	2,810 (0.4%)	1,473 (0.6%)	4,283 (0.5%)	-0.1746	<0.001
CCS 48, 51, 53, 54: Thyroid disorders; Other endocrine disorders; Disorders of lipid metabolism; Gout and other crystal arthropathies	2,952 (0.4%)	591 (0.3%)	3,543 (0.4%)	-0.1984	<0.001
CCS 49, 50: Diabetes mellitus without complication; Diabetes mellitus with complications	13,393 (1.9%)	5,494 (2.3%)	18,887 (2.0%)	-0.3445	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
CCS 52, 58: Nutritional deficiencies; Other nutritional, endocrine, and metabolic disorders	1,934 (0.3%)	549 (0.2%)	2,483 (0.3%)	-0.3603	<0.001
CCS 55: Fluid and electrolyte disorders	6,601 (0.9%)	1,101 (0.5%)	7,702 (0.8%)	-0.3246	<0.001
CCS 56, 57, 59, 60, 61, 62, 63, 64: Cystic fibrosis; Immunity disorders; Deficiency and other anemia; Acute posthemorrhagic anemia; Sickle cell anemia; Coagulation and hemorrhagic disorders; Diseases of white blood cells; Other hematologic conditions	3,835 (0.5%)	927 (0.4%)	4,762 (0.5%)	-0.3906	<0.001
CCS 76, 77, 78: Meningitis (except that caused by tuberculosis or sexually transmitted disease); Encephalitis (except that caused by tuberculosis or sexually transmitted disease); Other CNS infection and poliomyelitis	1,808 (0.3%)	864 (0.4%)	2,672 (0.3%)	-0.3415	<0.001
CCS 79, 80, 81, 82: Parkinson`s disease; Multiple sclerosis; Other hereditary and degenerative nervous system conditions; Paralysis	5,099 (0.7%)	1,781 (0.8%)	6,880 (0.7%)	-0.1939	<0.001
CCS 83: Epilepsy, convulsions	4,870 (0.7%)	1,816 (0.8%)	6,686 (0.7%)	-0.1594	<0.001
CCS 95: Other nervous system disorders	14,954 (2.1%)	4,998 (2.1%)	19,952 (2.1%)	-0.1709	<0.001
CCS 96: Heart valve disorders	5,507 (0.8%)	1,706 (0.7%)	7,213 (0.8%)	-0.2856	<0.001
CCS 97, 104: Peri-, endo-, and myocarditis, cardiomyopathy (except that caused by tuberculosis or sexually transmitted disease); Other and ill-defined heart disease	1,465 (0.2%)	524 (0.2%)	1,989 (0.2%)	-0.3243	<0.001
CCS 98, 99: Essential hypertension; Hypertension with complications and secondary hypertension	25,834 (3.7%)	5,940 (2.5%)	31,774 (3.4%)	-0.3324	<0.001
CCS 100, 107: Acute myocardial infarction; Cardiac arrest and ventricular fibrillation	10,379 (1.5%)	3,530 (1.5%)	13,909 (1.5%)	-0.2239	<0.001
CCS 101, 102: Coronary atherosclerosis and other heart disease; Nonspecific chest pain	9,595 (1.4%)	3,048 (1.3%)	12,643 (1.3%)	-0.1680	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
CCS 103: Pulmonary heart disease	4,068 (0.6%)	1,046 (0.4%)	5,114 (0.5%)	-0.0093	0.7896
CCS 105, 106: Conduction disorders; Cardiac dysrhythmias	11,511 (1.6%)	2,630 (1.1%)	14,141 (1.5%)	-0.2190	<0.001
CCS 108: Congestive heart failure, nonhypertensive	1,236 (0.2%)	354 (0.1%)	1,590 (0.2%)	-0.4250	<0.001
CCS 109, 110, 111, 113: Acute cerebrovascular disease; Occlusion or stenosis of precerebral arteries; Other and ill-defined cerebrovascular disease; Late effects of cerebrovascular disease	100,689 (14.3%)	75,455 (32.0%)	176,144 (18.8%)	-0.3020	<0.001
CCS 112: Transient cerebral ischemia	2,451 (0.3%)	630 (0.3%)	3,081 (0.3%)	-0.0600	0.1918
CCS 114: Peripheral and visceral atherosclerosis	2,555 (0.4%)	851 (0.4%)	3,406 (0.4%)	-0.5025	<0.001
CCS 115: Aortic, peripheral, and visceral artery aneurysms	2,823 (0.4%)	1,195 (0.5%)	4,018 (0.4%)	-0.2791	<0.001
CCS 116, 117: Aortic and peripheral arterial embolism or thrombosis; Other circulatory disease	4,589 (0.7%)	894 (0.4%)	5,483 (0.6%)	-0.1345	<0.001
CCS 118, 119, 120, 121: Phlebitis, thrombophlebitis and thromboembolism; Varicose veins of lower extremity; Hemorrhoids; Other diseases of veins and lymphatics	2,440 (0.3%)	564 (0.2%)	3,004 (0.3%)	-0.3638	<0.001
CCS 122, 123, 125, 126: Pneumonia (except that caused by tuberculosis or sexually transmitted disease); Influenza; Acute bronchitis; Other upper respiratory infections	23,028 (3.3%)	3,354 (1.4%)	26,382 (2.8%)	-0.1604	<0.001
CCS 124, 130, 132, 133, 134: Acute and chronic tonsillitis; Pleurisy, pneumothorax, pulmonary collapse; Lung disease due to external agents; Other lower respiratory disease; Other upper respiratory disease	3,119 (0.4%)	803 (0.3%)	3,922 (0.4%)	-0.3719	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
CCS 127, 128: Chronic obstructive pulmonary disease and bronchiectasis; Asthma	3,146 (0.4%)	646 (0.3%)	3,792 (0.4%)	-0.4637	<0.001
CCS 129: Aspiration pneumonitis, food/vomitus	3,317 (0.5%)	676 (0.3%)	3,993 (0.4%)	-0.3128	<0.001
CCS 131: Respiratory failure, insufficiency, arrest (adult)	6,458 (0.9%)	1,779 (0.8%)	8,237 (0.9%)	-0.2965	<0.001
CCS 135, 136, 137, 138, 140, 141, 142, 143, 144, 146, 147, 148, 154, 155: Intestinal infection; Disorders of teeth and jaw; Diseases of mouth, excluding dental; Esophageal disorders; Gastritis and duodenitis; Other disorders of stomach and duodenum; Appendicitis and other appendiceal conditions; Abdominal hernia; Regional enteritis and ulcerative colitis; Diverticulosis and diverticulitis; Anal and rectal conditions; Peritonitis and intestinal abscess; Noninfectious gastroenteritis; Other gastrointestinal disorders	13,629 (1.9%)	2,659 (1.1%)	16,288 (1.7%)	-0.2948	<0.001
CCS 145: Intestinal obstruction without hernia	3,836 (0.5%)	732 (0.3%)	4,568 (0.5%)	-0.1319	<0.001
CCS 149, 150, 151, 152: Biliary tract disease; Liver disease, alcohol-related; Other liver diseases; Pancreatic disorders (not diabetes)	5,209 (0.7%)	1,259 (0.5%)	6,468 (0.7%)	-0.3777	<0.001
CCS 153: Gastrointestinal hemorrhage	5,438 (0.8%)	1,151 (0.5%)	6,589 (0.7%)	-0.3063	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
CCS 156, 160, 161, 162, 163, 164, 165, 166, 168, 169, 170, 171, 172, 173, 174, 175: Nephritis, nephrosis, renal sclerosis; Calculus of urinary tract; Other disease of kidney and ureters; Other disease of bladder and urethra; Genitourinary symptoms and ill-defined conditions; Hyperplasia of prostate; Inflammatory conditions of male genital organs; Other male genital disorders; Inflammatory disease of female pelvic organs; Endometriosis; Prolapse of female genital organs; Menstrual disorders; Ovarian cyst; Menopausal disorders; Female infertility; Other female genital disorders	2,090 (0.3%)	423 (0.2%)	2,513 (0.3%)	-0.3406	<0.001
CCS 157, 158: Acute and unspecified renal failure; Chronic kidney disease	12,330 (1.8%)	2,118 (0.9%)	14,448 (1.5%)	-0.3906	<0.001
CCS 159: Urinary tract infections	12,833 (1.8%)	1,661 (0.7%)	14,494 (1.5%)	-0.3326	<0.001
CCS 167, 197, 198, 199, 200: Nonmalignant breast conditions; Skin and subcutaneous tissue infections; Other inflammatory condition of skin; Chronic ulcer of skin; Other skin disorders	5,198 (0.7%)	930 (0.4%)	6,128 (0.7%)	-0.3330	<0.001
CCS 201: Infective arthritis and osteomyelitis (except that caused by tuberculosis or sexually transmitted disease)	2,225 (0.3%)	659 (0.3%)	2,884 (0.3%)	-0.4299	<0.001
CCS 202, 210: Rheumatoid arthritis and related disease; Systemic lupus erythematosus and connective tissue disorders	569 (0.1%)	207 (0.1%)	776 (0.1%)	-0.1974	0.0170
CCS 204, 206: Other non-traumatic joint disorders; Osteoporosis	1,285 (0.2%)	142 (0.1%)	1,427 (0.2%)	-0.1163	0.0724
CCS 205: Spondylosis, intervertebral disc disorders, other back problems	35,591 (5.1%)	13,179 (5.6%)	48,770 (5.2%)	-0.0577	0.0028
CCS 207: Pathological fracture	12,535 (1.8%)	2,572 (1.1%)	15,107 (1.6%)	-0.2399	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
CCS 208, 209: Acquired foot deformities; Other acquired deformities	4,130 (0.6%)	1,117 (0.5%)	5,247 (0.6%)	-0.0122	0.7612
CCS 212: Other bone disease and musculoskeletal deformities	802 (0.1%)	166 (0.1%)	968 (0.1%)	-0.1027	0.2087
CCS 213, 214, 215, 216, 217: Cardiac and circulatory congenital anomalies; Digestive congenital anomalies; Genitourinary congenital anomalies; Nervous system congenital anomalies; Other congenital anomalies	702 (0.1%)	327 (0.1%)	1,029 (0.1%)	-0.0294	0.7015
CCS 225: Joint disorders and dislocations, trauma-related	692 (0.1%)	159 (0.1%)	851 (0.1%)	-0.3822	<0.001
CCS 226: Fracture of neck of femur (hip)	67,938 (9.7%)	14,170 (6.0%)	82,108 (8.7%)	-0.2248	<0.001
CCS 227: Spinal cord injury	2,370 (0.3%)	1,827 (0.8%)	4,197 (0.4%)	-0.4198	<0.001
CCS 228, 231: Skull and face fractures; Other fractures	30,899 (4.4%)	7,082 (3.0%)	37,981 (4.0%)	-0.1597	<0.001
CCS 229: Fracture of upper limb	7,950 (1.1%)	1,378 (0.6%)	9,328 (1.0%)	-0.2572	<0.001
CCS 230: Fracture of lower limb	19,694 (2.8%)	4,080 (1.7%)	23,774 (2.5%)	-0.3994	<0.001
CCS 232, 239: Sprains and strains; Superficial injury, contusion	3,138 (0.4%)	431 (0.2%)	3,569 (0.4%)	-0.0943	0.0235
CCS 233: Intracranial injury	20,823 (3.0%)	11,304 (4.8%)	32,127 (3.4%)	-0.4041	<0.001
CCS 234: Crushing injury or internal injury	3,463 (0.5%)	1,168 (0.5%)	4,631 (0.5%)	-0.0629	0.1078
CCS 235, 236, 240, 244: Open wounds of head, neck, and trunk; Open wounds of extremities; Burns; Other injuries and conditions due to external causes	3,840 (0.5%)	1,019 (0.4%)	4,859 (0.5%)	-0.3135	<0.001
CCS 237, 238: Complication of device, implant or graft; Complications of surgical procedures or medical care	38,055 (5.4%)	11,169 (4.7%)	49,224 (5.2%)	-0.3719	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
CCS 241, 242, 243: Poisoning by psychotropic agents; Poisoning by other medications and drugs; Poisoning by nonmedicinal substances	1,038 (0.1%)	244 (0.1%)	1,282 (0.1%)	-0.0682	0.3001
CCS 245, 246, 247, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259: Syncope; Fever of unknown origin; Lymphadenitis; Shock; Nausea and vomiting; Abdominal pain; Malaise and fatigue; Allergic reactions; Rehabilitation care, fitting of prostheses, and adjustment of devices; Administrative/social admission; Medical examination/evaluation; Other aftercare; Other screening for suspected conditions (not mental disorders or infectious disease); Residual codes, unclassified	5,477 (0.8%)	1,026 (0.4%)	6,503 (0.7%)	-0.1764	<0.001
CCS 248: Gangrene	1,441 (0.2%)	644 (0.3%)	2,085 (0.2%)	-0.5398	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
CCS 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670: Adjustment disorders; anxiety disorders; attention-deficit, conduct, and disruptive behavior disorders; delirium, dementia, and amnesic and other cognitive disorders; developmental disorders; disorders usually diagnosed in infancy, childhood, or adolescence; impulse control disorders, NEC; mood disorders; personality disorders; Schizophrenia and other psychotic disorders; Alcohol-related disorders; Substance-related disorders; Suicide and intentional self-inflicted injury; Screening and history of mental health and substance abuse codes; Deficiency and other anemia; Miscellaneous mental health disorders	4,630 (0.7%)	1,189 (0.5%)	5,819 (0.6%)	-0.1953	<0.001
CMG 0101-0103: Stroke	48,227 (6.9%)	31,621 (13.4%)	79,848 (8.5%)	0.5808	<0.001
CMG 0104-0106: Stroke	62,935 (9.0%)	42,555 (18.0%)	105,490 (11.2%)	-0.6960	<0.001
CMG 0201-0205: Traumatic brain injury	22,693 (3.2%)	10,361 (4.4%)	33,054 (3.5%)	-0.1107	<0.001
CMG 0301-0302: Non-traumatic brain injury	21,546 (3.1%)	5,995 (2.5%)	27,541 (2.9%)	0.3795	<0.001
CMG 0303-0304: Non-traumatic brain injury	21,409 (3.0%)	4,354 (1.8%)	25,763 (2.7%)	-0.2906	<0.001
CMG 0305: Non-traumatic brain injury	10,438 (1.5%)	3,158 (1.3%)	13,596 (1.4%)	-0.6890	<0.001
CMG 0401-0405: Traumatic spinal cord injury	3,165 (0.5%)	1,625 (0.7%)	4,790 (0.5%)	0.0302	0.4070
CMG 0406-0407: Traumatic spinal cord injury	1,668 (0.2%)	1,023 (0.4%)	2,691 (0.3%)	-1.1488	<0.001
CMG 0501-0503: Non-traumatic spinal cord injury	10,723 (1.5%)	4,644 (2.0%)	15,367 (1.6%)	0.4159	<0.001
CMG 0504-0506: Non-traumatic spinal cord injury	13,603 (1.9%)	6,798 (2.9%)	20,401 (2.2%)	-0.6322	<0.001
CMG 0601-0602: Neurological	32,450 (4.6%)	6,847 (2.9%)	39,297 (4.2%)	0.3107	<0.001
CMG 0603-0604: Neurological	53,059 (7.6%)	11,684 (4.9%)	64,743 (6.9%)	-0.4444	<0.001
CMG 0701-0703: Fracture of lower extremity	47,813 (6.8%)	9,583 (4.1%)	57,396 (6.1%)	0.4116	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
CMG 0704: Fracture of lower extremity	32,635 (4.6%)	5,207 (2.2%)	37,842 (4.0%)	-0.6755	<0.001
CMG 0801-0804: Replacement of lower extremity joint	12,998 (1.9%)	2,101 (0.9%)	15,099 (1.6%)	0.4134	<0.001
CMG 0805-0806: Replacement of lower extremity joint	3,705 (0.5%)	638 (0.3%)	4,343 (0.5%)	-0.5292	<0.001
CMG 0901-0903: Other orthopedic	28,618 (4.1%)	5,109 (2.2%)	33,727 (3.6%)	0.2757	<0.001
CMG 0904: Other orthopedic	17,044 (2.4%)	2,743 (1.2%)	19,787 (2.1%)	-0.6710	<0.001
CMG 1001-1002: Amputation, lower extremity	2,323 (0.3%)	1,644 (0.7%)	3,967 (0.4%)	0.6066	<0.001
CMG 1003: Amputation, lower extremity	2,692 (0.4%)	1,770 (0.7%)	4,462 (0.5%)	0.3239	<0.001
CMG 1004: Amputation, lower extremity	7,045 (1.0%)	3,685 (1.6%)	10,730 (1.1%)	-0.3684	<0.001
CMG 1101-1102: Amputation, non-lower extremity	199 (< 0.1%)	63 (< 0.1%)	262 (< 0.1%)	0.3169	0.0208
CMG 1103: Amputation, non-lower extremity	253 (< 0.1%)	82 (< 0.1%)	335 (< 0.1%)	-0.3654	0.0014
CMG 1201-1203: Osteoarthritis	514 (0.1%)	38 (< 0.1%)	552 (0.1%)	0.1986	0.0578
CMG 1204: Osteoarthritis	98 (< 0.1%)	12 (< 0.1%)	110 (< 0.1%)	-0.4208	0.0443
CMG 1301-1303: Rheumatoid, Other arthritis	664 (0.1%)	114 (< 0.1%)	778 (0.1%)	0.3747	<0.001
CMG 1304-1305: Rheumatoid, Other arthritis	474 (0.1%)	78 (< 0.1%)	552 (0.1%)	-0.4652	<0.001
CMG 1401-1402: Cardiac	17,021 (2.4%)	3,588 (1.5%)	20,609 (2.2%)	0.3787	<0.001
CMG 1403-1404: Cardiac	22,722 (3.2%)	4,859 (2.1%)	27,581 (2.9%)	-0.2230	<0.001
CMG 1501-1502: Pulmonary	4,686 (0.7%)	775 (0.3%)	5,461 (0.6%)	0.1682	<0.001
CMG 1503-1504: Pulmonary	6,136 (0.9%)	899 (0.4%)	7,035 (0.7%)	-0.3359	<0.001
CMG 1601-1603: Pain syndrome	542 (0.1%)	79 (< 0.1%)	621 (0.1%)	0.0099	0.9178
CMG 1604: Pain syndrome	220 (< 0.1%)	30 (< 0.1%)	250 (< 0.1%)	-0.9936	<0.001
CMG 1701-1704: Major multiple trauma without brain or spinal cord injury	13,204 (1.9%)	3,790 (1.6%)	16,994 (1.8%)	0.2419	<0.001
CMG 1705: Major multiple trauma without brain or spinal cord injury	5,319 (0.8%)	1,186 (0.5%)	6,505 (0.7%)	-0.9333	<0.001

Risk Factor	Prevalence			Risk Adjustment Model Coefficients	
	FFS (N=702,473)	MA (N=236,127)	Total (N=938,600)	Coefficient	P-value
CMG 1801-1803: Major multiple trauma with brain or spinal cord injury	1,902 (0.3%)	1,067 (0.5%)	2,969 (0.3%)	0.5169	<0.001
CMG 1804-1806: Major multiple trauma with brain or spinal cord injury	2,337 (0.3%)	1,253 (0.5%)	3,590 (0.4%)	-0.5255	<0.001
CMG 1901-1903: Guillain Barre	771 (0.1%)	420 (0.2%)	1,191 (0.1%)	0.3904	<0.001
CMG 1904: Guillain Barre	611 (0.1%)	308 (0.1%)	919 (0.1%)	-0.8473	<0.001
CMG 2101: Burns	145 (< 0.1%)	92 (< 0.1%)	237 (< 0.1%)	0.8110	<0.001
CMG 2102: Burns	215 (< 0.1%)	130 (0.1%)	345 (< 0.1%)	-0.1846	0.1290
CMG 5001: Short-stay cases	-	-	33 (< 0.1%)	-	-

Note: Includes IRF stays eligible for the DTC-PAC measure from FY 2023-2024. The FFS column represents statistics for stays that include only FFS claims. The MA column represents statistics for stays that include any Medicare Advantage encounter record. When the number of cases is less than 11, or could be calculated as less than 11, data are suppressed.