Compensation by Medicare for hospital inpatient stays is determined by the length of stay (LOS) and medical severity diagnosis related group (MS-DRG). The primary diagnosis on the claim determines the main DRG category, (heart failure, for example). MS-DRG is further classified by medical severity based on secondary diagnoses listed on the claim — for example heart failure with complications or comorbidities (CC) or heart failure with major complications or comorbidities (MCC). Each MS-DRG has an associated weight. Payment is determined as a daily rate modified by the MS-DRG weight. MS-DRG weight, and therefore compensation, is substantially higher for a claim with MCC than one with only CC or one with no CC/MCC.

This report examines trends in MS-DRG and length of stay for hospital inpatient claims from 2014 – 2019, using data from the Washington All-Payer Claims Database.

Average MS-DRG weight and the percent of claims in the highest severity category (MCC) increased steadily for all payers from 2014 through 2019. The trends were statistically significant for all payers except Medicare Fee-For-Service, for which there are too few years of data to analyze a trend.
Against expectation, average length of stay for Medicare Fee-For-Service claims in the highest severity category (MCC) was considerably lower than in claims in the lowest severity category (no CC/MCC). Average LOS for Medicare Advantage, Medicaid, and Commercial payers was higher for claims in the MCC category than for claims in the no CC/MCC category.

The U.S. Department of Health and Human Services Office of the Inspector General (OIG) examined Medicare Part A claims from 2014-2019 and found that hospitals are increasingly charging at the highest severity (MCC). They found that a third of MCC claims are for an exceptionally short length of stay, and that over half contain only one secondary diagnosis code that qualifies as MCC. They also found considerable variation in billing patterns among hospitals. Taken together, OIG considers these results suggestive that systematic “upcoding” — the practice of billing at a level higher than is warranted — may be occurring.

The results presented here for Washington state are consistent with those found nationally for Medicare by the OIG. They further show that the trend toward increased MS-DRG severity and weight is also occurring in Medicaid and commercial claims. We do not, however, observe a suspiciously short length of stay for payers other than Medicare Fee-For-Service.

It is important to note that, while suggestive, these trends by themselves do not constitute clear evidence of upcoding. Two events with long-term impact occurred during the time period which could potentially confound the results. The first was the implementation of the Affordable Care Act in 2014, which altered the insured population for both Medicaid, through Medicaid expansion, and commercial payers, through the Health Benefit Exchanges. Also, in October 2015, hospitals switched from International Classification of Diseases, Version 9 (ICD-9) to International Classification of Diseases, Version 10 (ICD 10) for diagnosis coding.

OIG recommend that the Center for Medicare and Medicaid Services (CMS) conduct targeted reviews of MS-DRGs vulnerable to upcoding, as well as hospitals that frequently bill them. Though less conclusive, our results for Washington state Medicaid and commercial payers suggest that similar vigilance may be advisable for the Washington State Health Care Authority and Office of the Insurance Commissioner.