Agreement of Enrollment and Services Items in the Outcomes and Assessment Information Set (OASIS–C1) with Medicare Claims and Enrollment Data, 2015

Colleen Kummet PhD[1], Michelle Roozeboom-Baker[1] PhD, Esra Erdem[1] MA, Kathy Schneider[2] PhD, Mindy Cohen[3] MPH, Daniel Kurowski[3], MPH

[1]General Dynamics Health Solutions, [2]Schneider Research Associates, LLC, [3]Centers for Medicare & Medicaid Services

INTRODUCTION

The Outcome and Assessment Information Set (OASIS) is a comprehensive assessment for all adult home care patients. OASIS data are used for a variety of purposes including patient assessment and care planning, agency-level reports detailing demographic, health, or functional status at start of care, internal home health agency performance improvement, CMS Outcome-Based Quality Improvement (OBQI) metrics, and Home Health Compare.

The Start of Care (SOC) assessment is the first, and most comprehensive record completed for all patients. Thereafter, a briefer version of the assessment is used. The discharge assessment includes complete assessment data upon discharge from the agency. However, transfer to inpatient care and death at home assessments are not required to include key outcomes data such as Activities of Daily Living (ADLs), pressure ulcer information, and other quality measures.

Previous studies have indicated that the validity of OASIS data range from low to moderate and vary depending on the assessment item studied. The patient history section identifies whether the patient has been discharged from an inpatient facility in the 14 days immediately preceding the start of care (SOC). High accuracy in the patient history facilitates appropriate care planning (OASIS-C1 Guidance Manual, 2015). The purpose of this study was to quantify the agreement between the demographic, enrollment, prior and post services items on the OASIS-C1 assessment with Medicare claims and enrollment data.

METHODS

Study Design. Data sources for this study included OASIS-C1 assessments for 2015, 100% Medicare Enrollment and Medicare Part A claims for 2014-2016, and Minimum Data Set v3 (MDS). All data were obtained through the Chronic Conditions Data Warehouse (CCW). Demographic and payer information from the OASIS-C1 assessment data was compared to Medicare enrollment data for the assessment month. For Medicare FFS beneficiaries, Part A claims and MDS data were used to validate settings prior to start of care and following home health care information on the OASIS-C1 assessments.

Population. OASIS assessments of beneficiaries who were covered by Medicare FFS for the start and end of care (n=2.6 million assessments).

Statistical Analysis. OASIS and Medicare enrollment data were used to compare demographic and enrollment information. Percent agreement between OASIS and claims indicators was calculated for prior services and post home health services. In addition, the proportion of OASIS assessments that were validated with claims data was calculated. Adjusted levels of concordance between OASIS and claims indicators for prior patient history were assessed with the kappa statistic.

RESULTS

Demographics. Over 99% of assessments for Medicare beneficiaries agreed with Medicare enrollment data on (M0066) patient date of birth and (M0069) sex. Medicare enrollment and OASIS-C1 assessment data sources agreed on (M0150) FFS status at a rate of 96%.

Beneficiary Settings Prior to and After Care. Over 37% of Medicare FFS home health beneficiaries resided in an inpatient setting prior to the HH SOC date according to claims data. About 35% resided in the community prior to care and 21% resided in a skilled nursing or nursing facility.

At the end of home health care, 55% of beneficiaries returned to the community, whereas 10% transitioned to inpatient care, and 4% and 8% entered skilled nursing or nursing facilities, respectively. Death occurred in 8% of beneficiaries and 3% transitioned to hospice care. Figure 1.

Figure 1: *Service Settings Prior to Home Health (left) and After Home Health (right) for FFS beneficiaries using Medicare Claims and MDS Assessment Data, 2015*
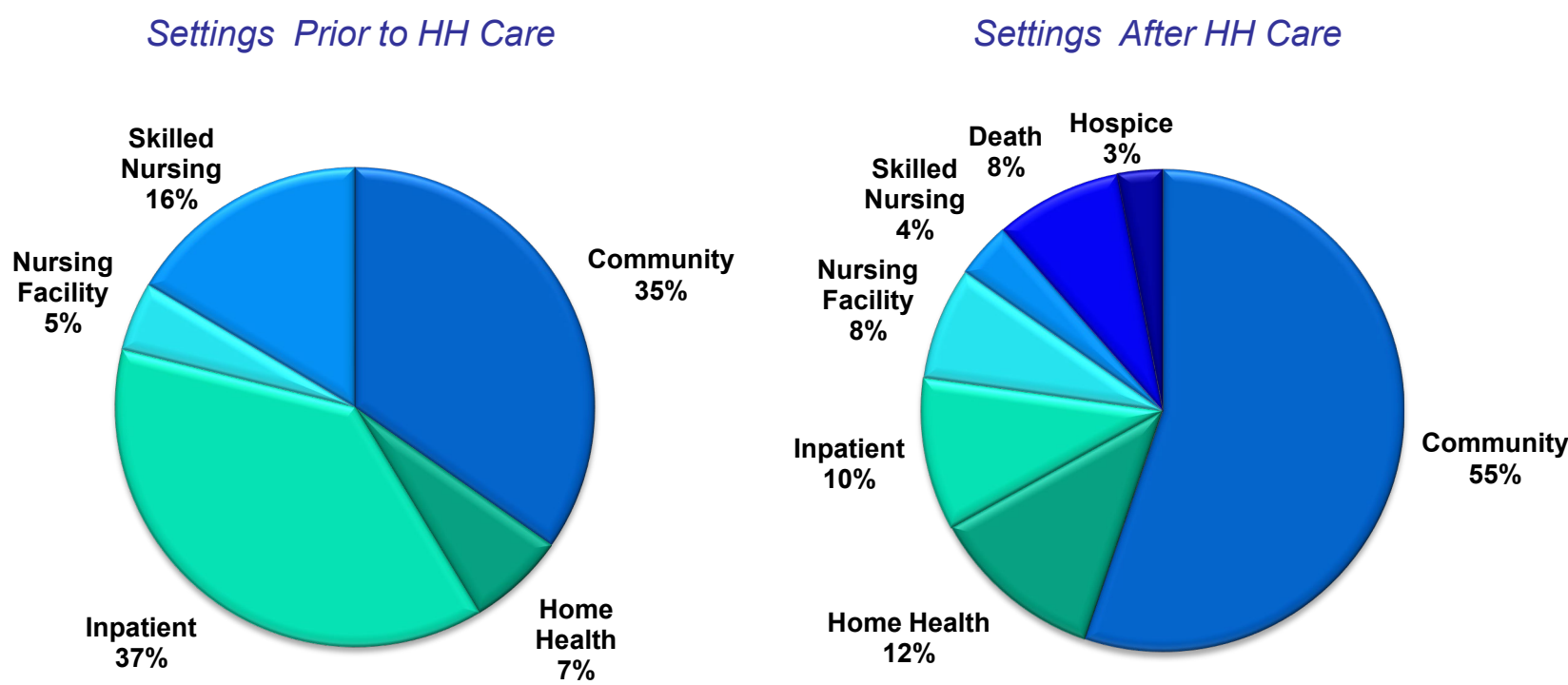
Comparison of Prior Services. Among Medicare FFS beneficiaries, OASIS-C1 data on (M1000) inpatient services received by the patient 14 days prior to the SOC date agreed with inpatient claims for 87% of assessments (kappa=0.72,p=0.0004). Of the beneficiaries with prior inpatient services indicated on the OASIS assessment, 20% had no inpatient claim during that period. For nearly 13% of beneficiaries with an inpatient claim in the 14 days prior to home health, no record of this was indicated on the OASIS start of care assessment.

Claims data agreed with OASIS data for 90% (kappa=0.68,p=0.0005) of assessments regarding prior skilled nursing facility (SNF) services in the 14 days prior to home health care. However, 18% of the beneficiaries indicated to have prior SNF services on the OASIS assessment had no prior Medicare SNF claim during this period. Figure 2.

Figure 2: *Comparison of OASIS-C1 Assessments for FFS Medicare Beneficiaries Indicating Prior Inpatient Services within 14 days of SOC with Medicare Claims by Service Type, 2015*
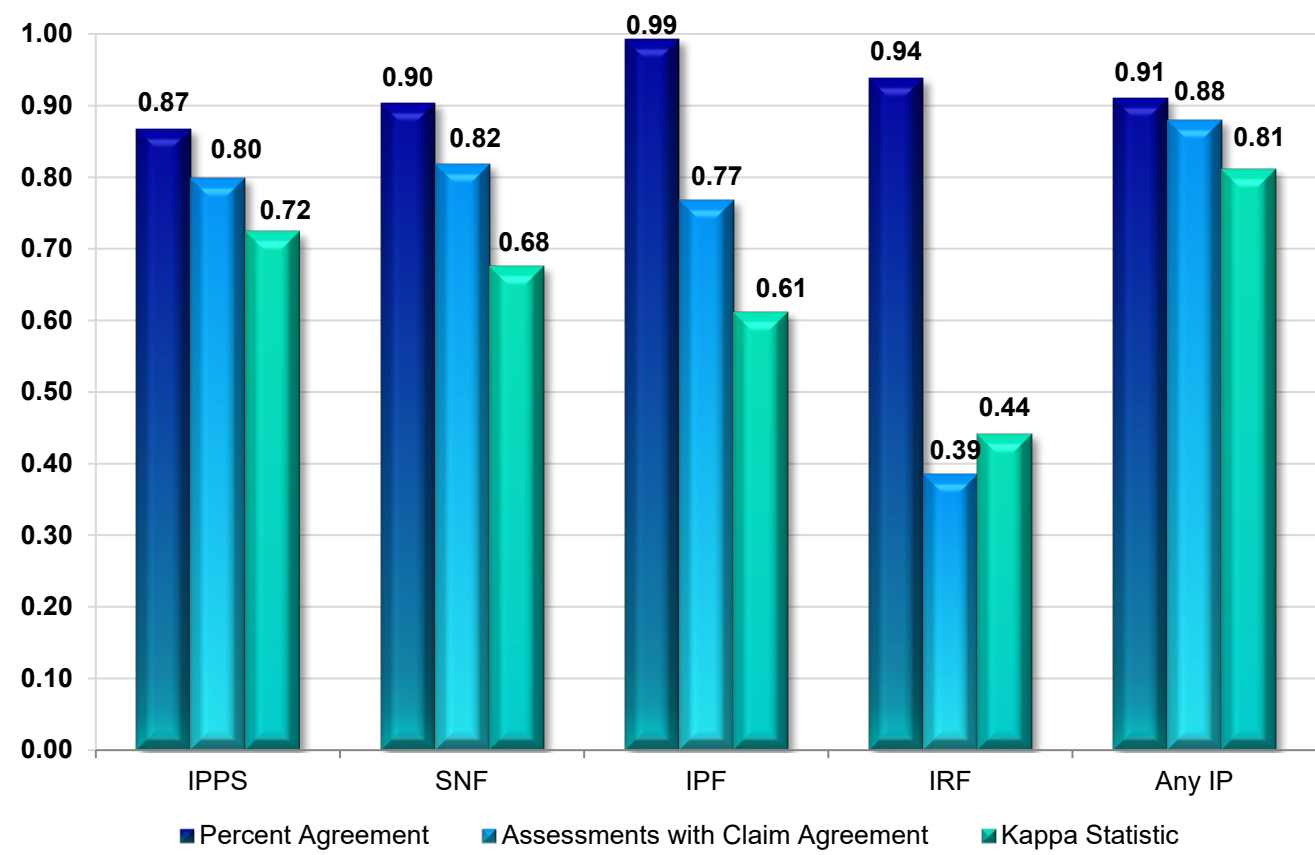
Conversely, one third of beneficiaries with a SNF claim 14 days prior to the start of home health care had no indication of this service on the OASIS start of care assessment.

For prior Inpatient Psychiatric Facility (IPF) services, the percent agreement of claims and OASIS data was high at over 99% (kappa=0.61,p=0.0034). 77% of assessments indicating prior IPF were validated with an IPF FFS claim in the 14 days to the start of care. The percent agreement of claims and OASIS data for prior IRF services was 94% (kappa=0.44,p=0.0010).

Combining all inpatient settings (IPPS, SNF, IPF, IRF), the percent agreement of any inpatient setting indicated on the OASIS SOC assessment with a claim for any of the inpatient service types was 91%. Claims were found in Medicare data for 88% of assessments indicating any prior inpatient services (kappa=0.81, p=0.0003).

Transfers and Death. Of the OASIS assessments for FFS Medicare beneficiaries that indicated a transfer to inpatient as the reason for assessment (M0100), a Medicare inpatient claim was found within one week of the transfer assessment for only 84% of assessments.

In 26% of death at home OASIS-C1 assessments, the (M0906) date of death differed from the validated date of death (from Social Security) contained in the Medicare enrollment data. No record of death was confirmed in enrollment data less than 2% of FFS beneficiaries with a death at home assessment. Figure 3.

Figure 3: *Percent of OASIS-C1 Transfer to Inpatient and Death at Home Assessments Validated with Medicare Claims and Enrollment Data, 2015*
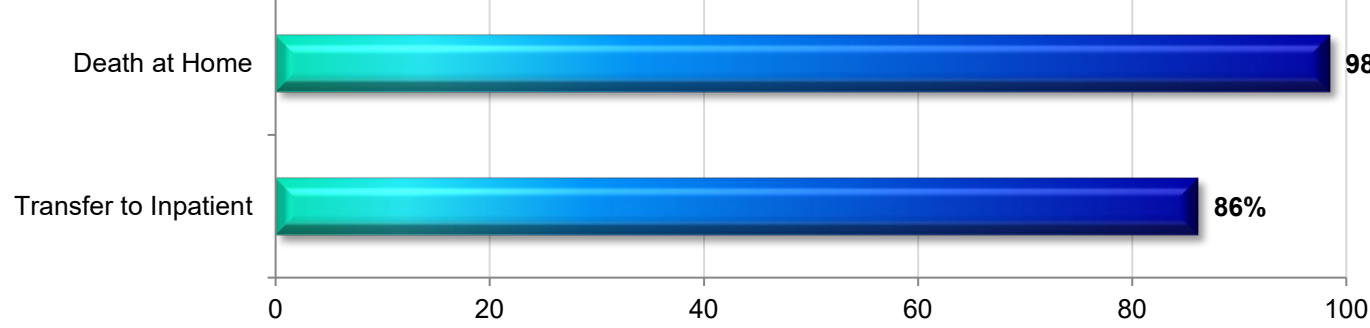
CONCLUSIONS

Excellent agreement was observed for demographic and enrollment items on the OASIS-C1 assessment when compared to Medicare enrollment data. Over 37% of Medicare FFS beneficiaries served by home health agencies resided in an inpatient setting prior to the start of care. About 10% of home health patients are transferred to inpatient to end their home health care.

Only a moderate level of agreement (kappa=0.44-0.72) existed between OASIS and Medicare claims data regarding the specific type of institutional services received prior to home health care. Significant agreement existed between OASIS-C1 assessment and claims for indication of any inpatient services received prior to the start of care.

IMPLICATIONS

Information on health services received by the home health care patient may impact care planning and services received during a home health episode of care. In addition, home health quality measures depend on the presence of an OASIS discharge assessment for metric calculation.

Improving the validity of prior and post home health services information on the OASIS assessment should be a priority for home health care providers.

This material was developed under contract with the Centers for Medicare & Medicaid Services.

GENERAL DYNAMICS
Health Solutions