

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

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INTRODUCTION

The Outcome and Assessment Information Set (OASIS-C1) is a comprehensive assessment for all adult patients receiving home health care. OASIS-C1 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 (SOC), internal home health agency performance improvement, CMS Outcome-Based Quality Improvement (OBQI) metrics, and Home Health Compare.

The OASIS-C1 SOC assessment is the first, and most comprehensive record completed for all patients. Thereafter, a briefer version of the OASIS-C1 assessment is used. The discharge OASIS-C1 assessment includes complete assessment data upon discharge from the agency. However, transfer to inpatient care and death at home OASIS-C1 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-C1 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 SOC. High accuracy in the patient history facilitates appropriate care planning (OASIS-C1 Guidance Manual, 2015). The purpose of this study was to contribute knowledge to the validity of OASIS-C1 data by quantifying 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 SOC and following home health care information on the OASIS-C1 assessments.

Population. OASIS-C1 assessments of beneficiaries who were covered by Medicare FFS for the start and end of care (n=2.6 million assessments).

STATISTICAL ANALYSIS

Demographics. OASIS-C1 and Medicare enrollment data were used to compare demographic and enrollment information.

Beneficiary Settings. Summary statistics were computed to determine the distribution of prior and post home health settings.

Comparison of Prior Services and Death/Transfers. Percent agreement between OASIS-C1 and claims indicators was calculated for prior services and post home health services. In addition, the proportion of OASIS-C1 assessments that were validated with claims data was calculated. Adjusted levels of concordance between OASIS-C1 and claims indicators for prior patient history were assessed with the kappa statistic.

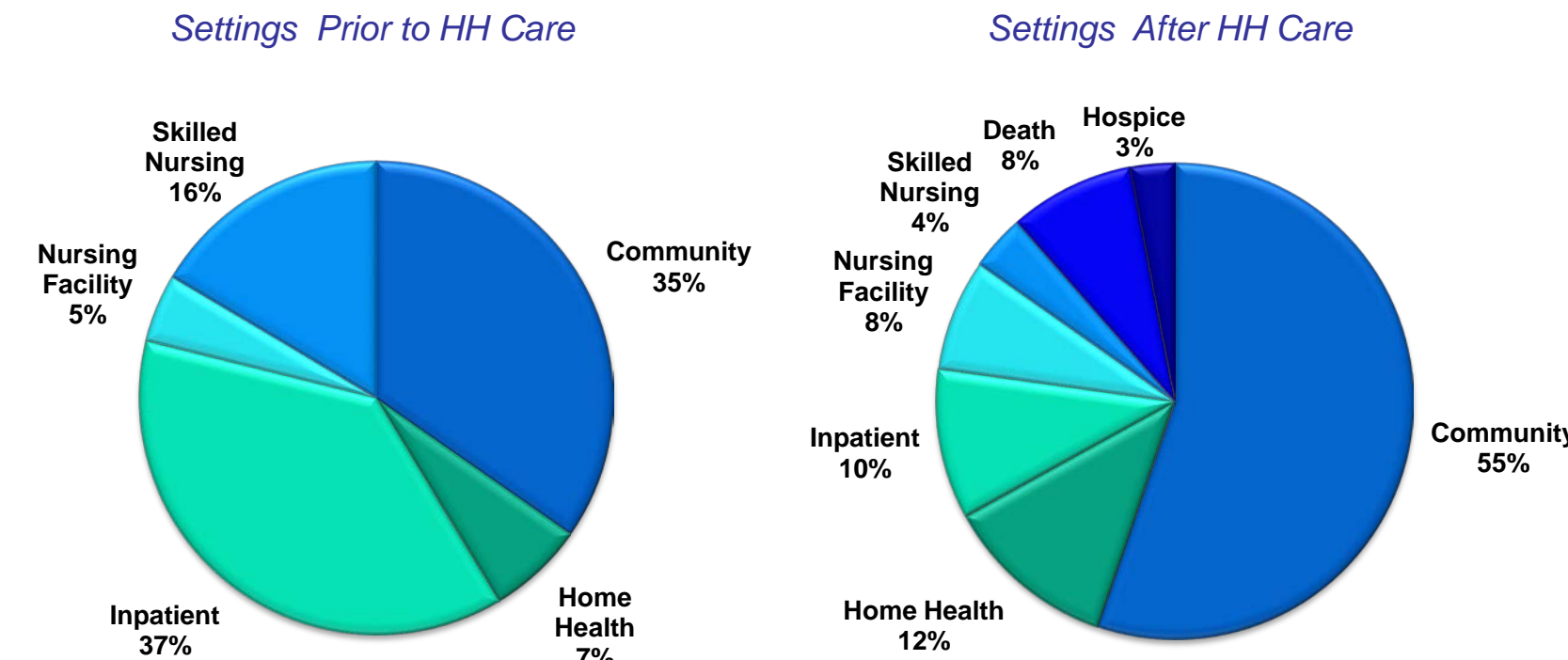
RESULTS

Demographics. Over 99% of OASIS-C1 assessments for Medicare beneficiaries agreed with Medicare enrollment data on (M0066) patient date of birth and (M0069) gender. 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 remained in 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.

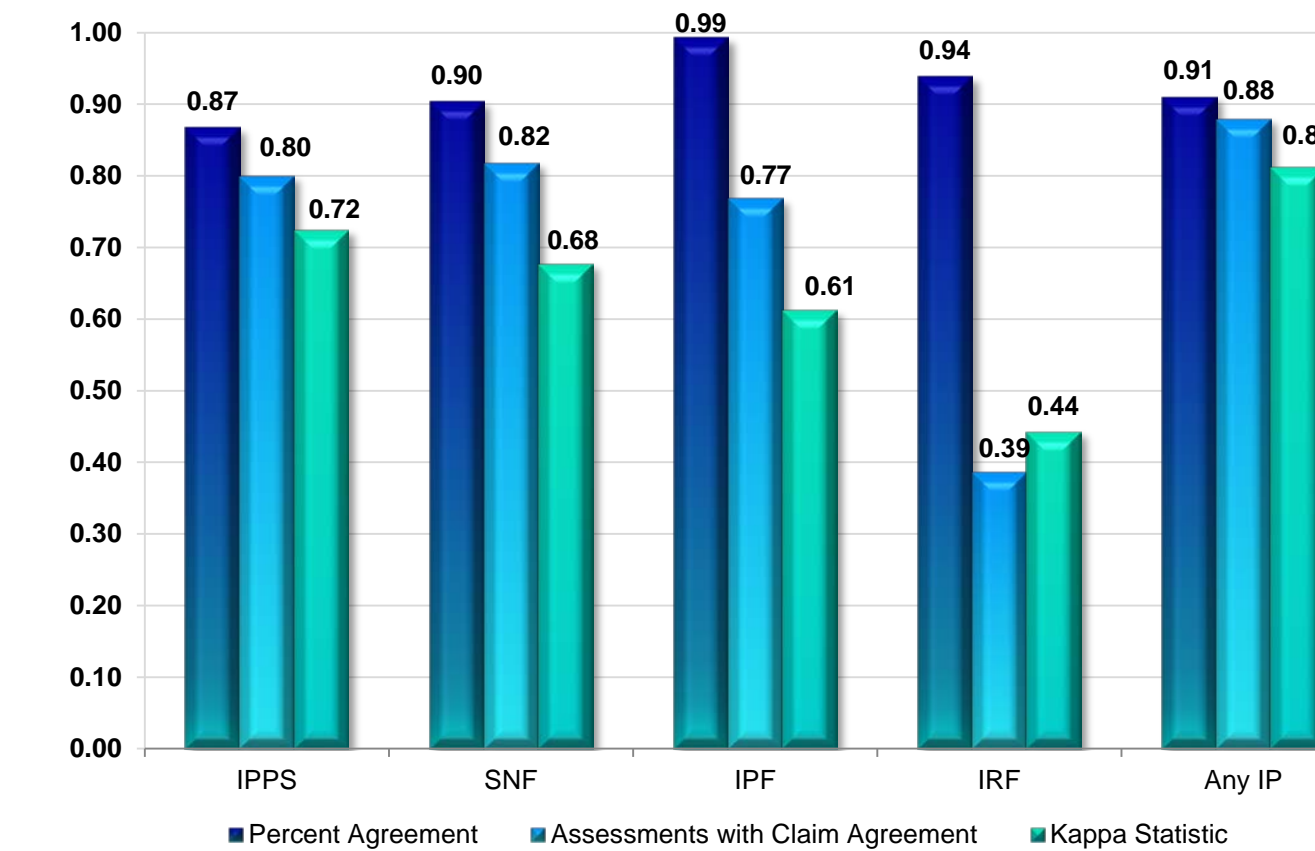
Figure 1: Service Settings Prior to Home Health (left) and After Home Health (right) for FFS beneficiaries using Medicare Claims and MDS Assessment Data, 2015



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 a OASIS-C1 assessments (kappa=0.72, p=0.0004). Of the beneficiaries with prior inpatient services indicated on the OASIS-C1 assessment, only 80% had an inpatient claim during that period. The adjusted level of agreement was significant but moderate at kappa=0.72, p=0.0004. Figure 2.

Claims data agreed with OASIS-C1 data for 90% of OASIS-C1 assessments regarding prior skilled nursing facility (SNF) services in the 14 days prior to home health care.

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



82% of the beneficiaries indicated to have prior SNF services on the OASIS-C1 assessment had a prior Medicare SNF claim during this period. The adjusted level of agreement for SNF prior services was kappa=0.68 and p=0.0005.

For prior Inpatient Psychiatric Facility (IPF) services, the percent agreement of claims and OASIS-C1 data was high at over 99%, whereas 77% of OASIS-C1 assessments indicating prior IPF were validated with an IPF FFS claim in the 14 days to the start of care. The adjusted level of agreement for the IPF prior setting was kappa=0.61 and p=0.0034.

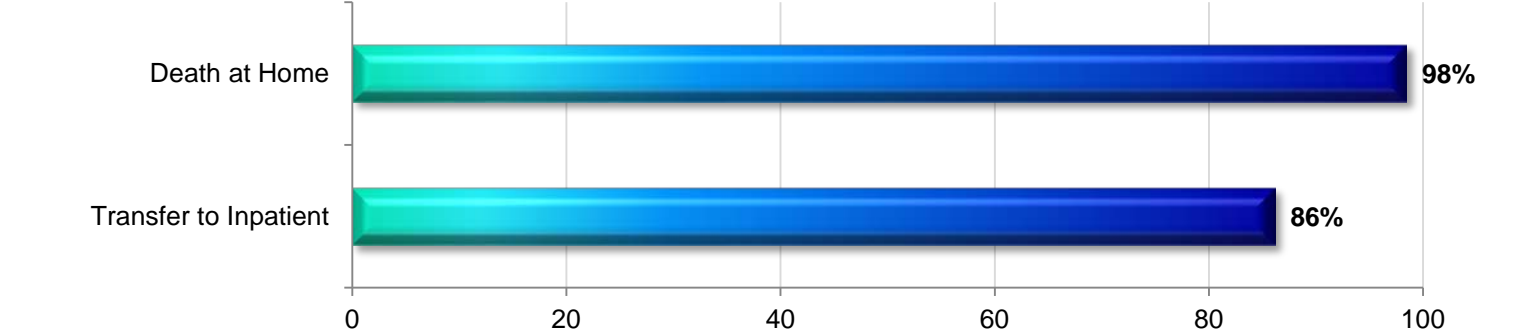
Among IRF services 14 days prior to the SOC date, the percent agreement between claims and OASIS-C1 data was 94% of OASIS-C1 assessments. Of the beneficiaries with prior IRF services indicated on the OASIS-C1 assessment, only 39% had an IRF claim during that period. The adjusted level of agreement for IRF was the lowest of all settings compared at kappa=0.44 and p=0.0010.

Combining all inpatient settings (IPPS, SNF, IPF, IRF), the percent agreement of any inpatient setting indicated on the OASIS-C1 SOC assessment with a claim for any of the inpatient service types was 91%. Claims were found in Medicare data for 88% of OASIS-C1 assessments indicating any prior inpatient services (kappa=0.81, p=0.0003).

Transfers and Death. Of the OASIS-C1 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.

Among beneficiaries where the OASIS-C1 indicated a death, record of death was confirmed 98% of the time in Medicare enrollment data. However, for 26% of these beneficiaries, the (M0906) date of death in the OASIS-C1 did not agree with the enrollment data of death, which is provided by the Social Security Administration. 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 AND IMPLICATIONS

Information on demographics and prior health services received by the home health patient impacts 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-C1 discharge assessment for metric calculation. Previous studies (O'Connor, 2012; Tullai-McGuinness, 2009) have quantified the correlation of OASIS-C1 ADL and cognitive measures with gold standard instruments to be between 0.20 and 0.68. Our study focused on the agreement of demographic and prior service information on the OASIS-C1 assessments and Medicare data.

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-C1 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.

Improving the validity of prior and post home health services information on the OASIS-C1 assessment should be a priority for home health care providers.

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