APPENDIX F – OASIS AND OBQI

CMS provides several reports to HHAs generated from OASIS data. These include reports on agency-patient related characteristics (case mix), potentially avoidable events (adverse event outcomes), and end-result and utilization outcomes. Agency case mix data are derived from OASIS data provided at Start or Resumption of Care (SOC/ROC). Outcomes are calculated from both discharge or transfer OASIS data, and SOC/ROC data. These outcomes can be used to identify focus areas as part of an Outcome-Based Quality Improvement (OBQI) program. OASIS-C incorporates measures of process quality that should also be considered within quality improvement programs. Process measures will be reported as the percentage of patients for whom specific care processes were completed, as specified in OASIS-C.

Process items represent actions taken by home health care providers that are designed to improve patient outcomes. An example of a process measure is the percentage of patients for whom drug education on all medications was provided during the episode (defined as "since the previous OASIS assessment"). The process items in OASIS-C have been carefully chosen to represent "evidence-informed" practice. However, not every process item will apply to every patient. There is no expectation that agencies attain 100% performance on the process items. Two examples may help to demonstrate:

Example: The US Preventive Services Task Force recommends that men ages 45 to 79 use aspirin for primary prevention of cardiovascular disease.

http://www.annals.org/cgi/content/full/150/6/396

However, there are strong clinical reasons where this recommendation would not be appropriate (e.g., allergy to aspirin, history of GI bleeding).

Example: OASIS-C includes a process item to screen for depressive symptoms (M1730). However, a home health care patient with moderate to severe cognitive impairment would not be easily screened with the standard screening instruments.

With respect to OASIS-based outcome measurement and OBQI, it is important to clarify what we mean by patient outcomes and risk adjustment.

What outcomes are:

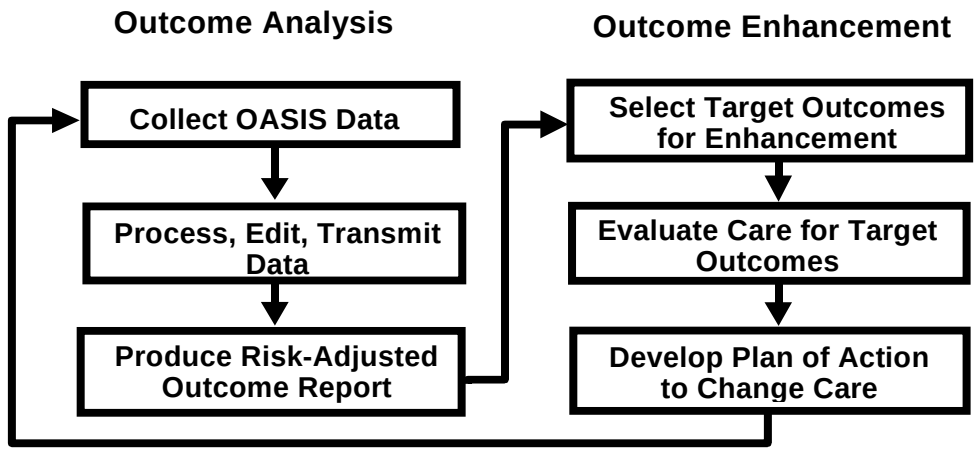
- Outcomes are health status changes between two or more time points, where the term "health status" encompasses physiologic, functional, cognitive, emotional, and behavioral health.
- Outcomes are changes that are intrinsic to the patient.
- Outcomes are positive, negative, or neutral changes in health status.
- Outcomes are changes that result from care provided, or natural progression of disease and disability, or both.

An **outcome** is a health status change that occurs over time, where the change is intrinsic to the patient. Thus, a change in the patient's environment, such as the provision of a walker or handrails in the patient's residence, is not considered an outcome according to this definition — such changes are services or processes of care. Because the nature of the change can be positive, negative, or neutral, the actual change in patient health status can correspond to improvement, decline, or stabilization (i.e., no change) in patient condition. The definition of an outcome does not include a presumed direction; therefore, any deviation (or nondeviation) in health status between the initial time point and the follow-up time point constitutes an outcome. An **end-result outcome** is a change in patient health status, such as physiologic, functional, cognitive, emotional, or behavioral health, between two or more time points. Examples of end-result outcomes are: Improvement in Ambulation/Locomotion and Stabilization in Bathing. A **utilization outcome** is a type of health care utilization (or non-utilization) that reflects (typically a substantial) change in patient health status over time. Examples of utilization outcomes are hospital admission, use of hospital emergency department services, and discharge to the community.

Change in health status over a time interval during which care is provided (e.g., a care episode) can occur either as a result of the care provided or the natural progression of disease and disability. The challenge in outcome analysis is to attempt to somehow separate changes due to care from those due to natural progression. Statistical **risk adjustment** refers to a collection of analytic methods designed to separate the relationships of outcomes with care provided from the relationship of outcomes with natural progression of disease and disability, which is critical to accurate outcome analysis. One of the major purposes of OASIS is to provide data items needed for risk adjustment. In essence, the general intent of risk adjustment is to compensate or adjust for differences in case mix or risk factors (between agency and a comparison sample) that should be taken into consideration if outcomes are to be compared validly. *Risk adjustment compensates or controls for the potential influence of case mix variables (i.e., risk factors) that can affect outcomes.*

OASIS data items and OASIS data do not represent an end in themselves. Rather, they are the means to achieve outcome measurement and OBQI. The OBQI approach is fundamentally a two-stage process as shown in Figure F.1. The first stage is outcome analysis. For the outcome analysis to be conducted for a given agency, it is necessary to collect uniform OASIS data for all patients in the agency — or those patients with conditions of interest. The result of the first stage is an agency-level report showing the agency's present performance in terms of patient outcomes relative to a national sample of home care patients. This is the first outcome report that an agency receives. The second, and subsequent, outcome reports contain comparisons of an agency's present performance in terms of patient outcomes relative to the preceding time period for the agency and relative to a national sample of home care patients. These outcome comparisons constitute the outcome analysis portion of OBQI. This first stage should incorporate risk adjustment through grouping or statistical methods, as appropriate. As noted earlier, risk adjustment refers to the process of compensating or controlling for the potential influence of risk factors or case mix variables that can affect outcomes.

FIGURE F.1: TWO-STAGE OBQI FRAMEWORK.



The outcome report produced from the first-stage analysis helps to determine which outcomes are clearly inferior and which are clearly superior relative either to the prior time period or to the national sample. Therefore, the second stage (that of outcome enhancement) *starts* with those outcomes, termed target outcomes, identified for further investigation. By selecting target outcomes, providers can focus their attention and energies for quality improvement on those care behaviors that produced the target outcomes. Evaluating or investigating processes of care entails reviewing the care provided for those patients who contributed to the target outcomes. This review can take several forms, ranging from informal discussions and brainstorming with agency care providers to structured clinical record reviews.

The review process results in findings, which in turn must be translated into recommendations for changing or reinforcing certain aspects of care provision. These need to be systematically documented in a written plan of action for each target outcome (usually only a few target outcomes are chosen because this can be an intensive effort). The plan of action needs to be thoroughly implemented and continually monitored, which requires a strong agency commitment to changing care behaviors for each target outcome.

Subsequent outcome reports will allow evaluation of how well the care behavior changes have worked — in terms of patient outcomes. Thus, in reviewing its next outcome report, the agency should examine its target outcomes and the changes in those outcomes for their agency between the prior and current outcome reporting periods. Once OBQI is successfully implemented in an agency and becomes a "steady-state" activity, it emerges as a powerful agency tool to continuously improve care for the benefit of patients. Detailed information on the OASIS reports and the OBQI process is provided in the CMS Outcome-based Quality Improvement Manual, available at http://www.cms.hhs.gov/HomeHealthQualityInits/16_HHQIOASISOBQI.asp.