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Vi Schwand

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OUTCOME BASED QUALITY IMPROVEMENT IN HOME CARE USING THE OUTCOME AND ASSESSMENT INFORMATION SET

By Vi Schwind

University of North Dakota

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Introduction

Escalating healthcare costs have been a concern for consumers, payers and providers alike for the past 30 years. The home health segment of the industry saw tremendous growth during the 1980's and 1990's and exhibited the largest growth in utilization and expenditures in the 1990's, more than any other portion of the healthcare industry (Forster, 1998).

Concern over the run-away costs of home healthcare prompted officials to look for cost-containment strategies and to question the value and effectiveness of the services they were paying for. The movement to measure outcomes in home health began more than 25 years ago (Shaughnessy, Crisler, Schlenker, & Arnold, 1995).

A research project was conducted over a five-year period from 1989 to 1994 at the Center for Health Policy Research and the Center for Health Services Research at the University of Colorado (The Center). The purpose of the project was to develop and test the feasibility of using outcome-based measures to evaluate the quality of home care services provided. The research focused on development of outcome measures that Medicare and home health agencies could implement into quality improvement programs and approaches to prove effectiveness of home healthcare. This project provided the framework from which the Outcome-Based Quality Improvement (OBQI) program in home care began (Shaughnessy, et al.1995).

The Outcome and Assessment Information Set (OASIS) was developed in conjunction with the OBQI concept to collect data for aggregation across the home care continuum to allow analysis of agency performance to prove effectiveness of care. The goal was to improve the quality of home health care by creating an effective method to evaluate the quality of the care provided and to improve the care through outcome analysis at the agency level (Shaughnessy, et al, 1995).

Purpose

Home Health Agencies (HHA) that use a data-driven OBQI model should show improved outcomes. The purpose of this study is to determine if OBQI and the use of the OASIS data collection tool result in improved patient outcomes. Data will be collected from a local home health care agency and analyzed to test the hypothesis that this population of home health care patients has shown improved outcomes as a result of the home health care provided.

Background

During the past 25 years, professionals in home health care have been attempting to prove to the rest of the health care establishment that the role of home health care is an important component of the patient-care continuum. The home-care industry has known that home health care is what consumers want. It is cost-effective and provides quality service to help people get better sooner or help them adapt to changes in their health status by allowing them to stay in their own homes longer (Koch, 1999).

Medicare and other payers have been requiring more evidence that their investment in home health care is beneficial and that it results in better health for beneficiaries, policy holders, managed care enrollees, and consumers in general. They want to know what they obtain on behalf of their patients for the dollars spent. Payers and the general public want to know what they are getting for their health-care dollars both in terms of services and most importantly in terms of patient outcomes or changes in health status as a result of services provided (Shaughnessy, Crisler, & Schlenker, 1998).

Outcome measures are the basis of Outcome-Based Quality Improvement (OBQI), the approach the home health industry has taken to systematically measure quality of care provided. The Outcome and Assessment Information Set (OASIS) is the tool used to provide a detailed and systematic measurement of patient outcomes. OASIS is a group of data items developed, tested, and refined over the past two decades through an extensive research and demonstration program funded largely by The Center for Medicare and Medicaid Services (CMS), and the Robert Wood Johnson Foundation (RWJF) (Department of Health and Human Services, HCFA, 1998). Peter W. Shaughnessy, PhD, the Director of The Center and his colleagues Kathryn S. Crisler, MS, RN, Robert E. Schlenker, PhD, and Angela G. Arnold MS, RN headed the project. The extensive work by Dr. Shaughnessy, his colleagues and over a thousand home care clinicians and administrators began in1988 (Shaughnessy, Crisler, Hittle, & Schlenker, 2002). The program has been used by all Medicare certified Home Health Agencies (HHA) since July 2003 as a Condition of Participation (CoP) in the Medicare home health benefit.

Outcomes derived from OASIS are designed to measure changes in a patient's health status between two or more points in time. Agencies are able to examine patient outcomes in the current year, compare it to the prior year and to local, state and national references. From these outcome reports, HHAs can identify areas that require remediation or reinforcement in the context of a quality improvement program – which is the ongoing process of OBQI (Shaughnessy, Crisler, Schlenker, 1998).

According to the OASIS implementation manual (1998):

- 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 example of an OASIS-based outcome measure is whether a patient improves in the ability to ambulate independently between home health start of care and discharge, with ambulation ability measured according to a precise zero to five scale. HHAs that use a data-driven OBQI model should show improvement in care and thus improved outcomes (OBQI Implementation Manual, 2002).

Literature Review

During the late 1980s, little was known about the quality of care in home health, long-term care and ambulatory care. Measures to evaluate effectiveness of care in these areas and improve the quality of care did not exist. In 1980, the federal Omnibus Budget Reconciliation Act loosened restrictions on the provision of home health care. According to researchers from The Center at the University of Colorado, the number of home heath agencies grew from 2,924 in 1980 to 5,695 in 1990 (Researchers Identify Ways to Measure and Improve Home Health Care, 2005).

Need for Cost Containment

During this period of rapid growth, home health agencies received reimbursement on a cost-per-visit basis. From 1990 to 1997, the number of beneficiaries and the amount of services they received increased dramatically (GAO, 2001). Expenditures for home healthcare increased from $3.8 billion in 1990 to $16.2 billion in 1995 (Forster, 1998). The more visits made, the more revenue the agency made. Over-utilization and abuse of Medicare funds became common because agencies were reimbursed and rewarded for providing as many services and visits as possible. The cost-based reimbursement system for home care encouraged agencies to provide a high volume of services with little consideration of cost. Under this environment, home health care thrived and became a critical component of the health care industry providing community-based health care for patients after hospital discharge ("The Balanced Budget Act:" 1998).

It was understandable that the Center for Medicare and Medicaid Services (CMS), the federal agency that administers the Medicare program, would eventually become concerned about the escalating costs and the value of what it was paying for. As early as 1987, Congress suggested a need for more oversight in home health care (GAO, 2001). It became apparent a method was needed to substantiate the tangible benefit for the money being spent. A decision was made by CMS that the measure of value would be in the form of patient outcomes. The home care community welcomed the concept of evaluating patient outcomes because it would be a method of establishing the importance of home care, and would provide an avenue to adequately reimburse home care agencies for direct and indirect costs of providing care (Schulmerich, 2000).

In developing the mechanisms to measure patient outcomes, officials looked to the 1983 law that had introduced the Diagnosis Related Group (DRG) system of payment to hospitals. This system, when applied to home health care, would create a payment system based on prospectively set rates. This Prospective Payment System (PPS) set the payment rate in advance for home health care services (Forster, 1998). By 1996, a PPS proposal had been drafted by the home health care industry. A consortium of home care professionals from every state supported this proposal and the industry moved forward to develop and implement the new reimbursement system ("Statement of Intent," 1997).

Prior to PPS, there was little incentive for providers to be efficient and minimize costs because they were reimbursed on a cost basis. The per-episode prospective payment system changed this. When payment for services provided is known in advance, the incentive is to provide the services at minimal cost. Under this arrangement the payer no longer needs to be concerned that the health care provider is abusing the system and the provider is free to manage the care of the patient without interference from the payer (Goldberg, 1997). CMS recognized that the Prospective Payment System would meet the need to control costs and prevent over-utilization of home health under Medicare, and accepted the proposal (Heller, Lyon, & Lavelle, 1997).

Under this new reimbursement system, it became even more important to monitor patient outcomes to ensure adequate care and services to home health patients. Under PPS, agencies are paid a fixed amount for an episode of care, no matter how many visits or services are provided. Under this system, agencies have an incentive to provide fewer visits. This raises a question of impact on the patients, particularly on patient outcomes (Shaughnessy, et al. 1998).

Development of OBQI

The development of the OBQI model began in the late 1980s. The RWJF provided $4.2 million that funded nine grants for the development and implementation of a quality improvement system for home health care. Six projects were designed to improve health care quality in home health, long-term and ambulatory care and to analyze methods to improve the quality of health care in these settings ("Researchers Identify Ways," 2005). The purpose was to provide a comprehensive system of quality measures for home care. The objective was to obtain an integrated system of outcome measures that could be used by various disciplines to evaluate the effectiveness of home care at the patient/client level (Shaughnessy, et al. 1998). Shaughnessy, et al. (p. 62) state further that considerable effort to develop the tool included:

- Establishing a clear conceptual basis and applications framework for outcomes and OBQI;
- Reviewing, synthesizing, and critiquing work done to date by researchers and providers of care;
- Developing and refining outcome measures with clinical and research staffs;
- Reviewing and revising the initial sets of outcome measures with clinical and research staffs;
- Reviewing and revising the initial sets of outcome measures by initially convening several multidisciplinary clinical panels;
- Continuing to review and revise outcome measures and, thereafter, associated data items with ongoing assistance and input from regularly

convened clinical and research panels whose composition changed in accord with the nature of the review activities over an extended period of several years;

- Conducting a range of empirical pilot investigations of all measures and data sources under consideration;
- Testing reliability and validity of outcome measures and data items;
- Undertaking a large-scale field effort to collect longitudinal data on patient outcomes on site for over 3,000 patients (initially) in 49 home care agencies throughout the country;
- Analyzing these data using descriptive, nonparametric, multivariate, and time series/stochastic process-based methods to test and refine measures, measurement methods, and risk adjustment of outcomes; and
- Recommending an outcome measure system and "self-evolving" outcome-based approach to quality improvement as a result of analyzing this national data set.

This work resulted in a system of outcome measures with a practical framework which home care agencies can use for continuous quality improvement (CQI). This framework was designed to direct how home care agencies, payers, and external organizations might use the outcome system to monitor and improve the effectiveness of home care (GAO, 2001).

Development of a Comprehensive Assessment Tool

In 1997, the Omnibus Reconciliation Act mandated that CMS develop a standardized tool for patient assessment to facilitate monitoring of HHAs. Using the information from years of research and demonstrations, the OASIS data set was developed by the University of Colorado Center for Health Services and Policy Research (CHSPR) for the purpose of measuring patient outcomes in home health care (GAO, 2001).

Initially, efforts included review of existing approaches and assessment techniques, including both a literature review and consultation with clinical experts (GAO, 2001). Studies were conducted to analyze the data that could be acquired from clinical records and other data sources such as Medicare claims and plan-of-treatment forms. Data were collected from 3,427 Medicare and non-Medicare patients treated in 49 HHAs (GAO, 2001). The subsequent empirical testing of these data elements involved examination of their statistical reliability. Measures based on those data elements were analyzed on a variety of criteria that included clinical meaningfulness, coverage across multiple dimensions of health status, avoidance of redundancy, and ability to determine differences among HHAs (GAO, 2001). The result of the process was a set of core data items to compute core quality indices with consideration of relevant differences of the patients served, that is, risk adjustment (GOA, 2001).

The OASIS originally included 90 items in the data set (Home Healthcare Nurse, 1997). These items addressed all areas of patient symptoms, physical function, and home care needs (Boling, 2003). Specifically the measures assessed included clinical record items such as demographics, patient history, living arrangements, and supportive assistance. Physical function and symptoms measures included sensory status, integumentary status, respiratory status, elimination status, neuro/emotional/behavior status, activities of daily living, management of medication and equipment, and emergent care (Waggoner, 1999). Data are collected on each person receiving skilled care at the initial visit or Start of Care (SOC), at Resumption of Care (ROC) following an inpatient facility stay, every 60 days thereafter for the duration of treatment, at discharge, transfer to inpatient facility and follow-up for a significant change in condition. The HHA reports the data to a state survey and certification agency, which then transfers the data to a central repository, maintained by CMS (GAO, 2001).

CMS regulations allow that data may be collected by the various professional disciplines that provide home health services. Registered nurses, physical therapists, speech therapists, and occupational therapists are trained in a manner that ensures the data remain valid and reliable (Sperling, 1999). Several pilot studies and demonstration projects were conducted over the next several years to assess the feasibility and utility of measuring outcomes in home health care (Shaughnessy, et al. 2002).

The first pilot project in 1992 was funded by the RWJF with approximately 50 HHAs and continued for several years. The purpose was to implement, test and experiment with ways to increase practical application of the still-evolving outcome system to determine if it could make a difference in the quality of home care. The pilot project made it possible to test a wide variety of operational procedures and approaches and to refine several of the measures (Shaughnessy, et al. 1998).

The Home Health Quality Initiative was begun in 1994 to ensure that the Medicare home health care program is in the best interest of its beneficiaries. CMS decided that outcomes and OBQI would be instrumental in Medicare quality assurance in the future. To facilitate this end, CMS funded a research project between 1995 and 2000 to administer the Medicare National OBQI Demonstration (Shaughnessy, et al. 1998).

The project had three objectives. The major objective was to determine if an OBQI approach based on developmental work by The Center was feasible. Another important area was the establishment of methodology for collection of standardized data on all patients in order to measure and report patient outcomes for quality assurance and quality improvement purposes in home health agencies. The third objective was to introduce outcome measures into the Medicare quality assurance approach and to build a partnership between home health agencies and Medicare in gathering and processing patient information to facilitate improved outcomes, improve agency performance, and a more effective Medicare system approach to quality assurance (Medicare Home Health Quality Assurance Demonstration, 1994-2003).

As part of the National OBQI Demonstration project, 54 home care agencies from 27 states served as the prototype for what was intended to become a National OBQI Program. Medicare planned to put this in place for all Medicare-certified agencies upon completion of the demonstration (Shaughnessy, Crisler, Hittle, & Schlenker 2002). This National OBQI trial was designed to establish a methodology and template to: (1) collect standardized OASIS data on all adult, non-maternity home health patients to measure and report patient outcomes; (2) utilize outcome measures for Continuous Quality Improvement (CQI) in home health care; and (3) provide a foundation for enhancing patient outcomes that could lead to a more efficient system wide approach to performance improvement in home health care (Shaughnessy, et al. 2002). Additionally, in 1996 New York State implemented a 22 agency OBQI demonstration patterned after the national model. The intent was to evaluate the utility of using outcomes for regulatory and agency specific applications (Shaughnessy, et al. 1998).

Another related project that was a modified version of OBQI was conducted as part of the National (per-episode) Prospective Payment Demonstration. The CMS definition of an episode of care begins with the first billable visit and ends with the sixtieth day from the start of care, regardless of the number of days of service within the episode or the number of visits. A patient may have an unlimited number of episodes as long as the Medicare qualifying conditions are met and the approved services meet established criteria (St. Pierre and Dombi, 2000). Ninety-one agencies in California, Texas, Florida, Illinois, and Massachusetts were involved in the National (per-episode) Prospective Payment Demonstration. CMS sponsored this demonstration to focus on quality assurance because under the per-episode payment, agencies have incentives to reduce services, number of visits, or both. Under such a payment approach, it is extremely important to monitor outcomes to ensure that patients get the best care possible to promote optimum health status.

The agencies involved in either the national or New York State demonstration incorporated all aspects of outcome data collection, monitoring, processing, and data transmission into their daily operations. The agencies in the national program received the first round of outcome reports in early 1997. The national group was to undergo three rounds of outcome reporting and outcome improvement, while the New York group was scheduled to undergo at least two rounds of reporting and outcome improvement as part of this demonstration (Shaughnessy, et al. 1998).

Preliminary findings from the National Medicare Demonstration OBQI pilot studies found that HHAs could use OASIS data to improve health care outcomes, and that OBQI had a substantial impact on patient outcomes (Shaughnessy, et al. 2002).

Agencies in the demonstration projects were asked to focus on reduction in rehospitalization rates as one of the target outcomes. Based on the initial OASIS information, HHAs examined their care processes and developed plans of action designed to enhance this specific outcome (GAO, 2001). Over the three and four-year reporting cycles, relative rate of decline in hospitalization rates were 22% and 26% respectively (Shaughnessey, et al. 2002). For some agencies the rate showed a 20% decline in hospitalization rates (Home Healthcare Quality Breakthrough, 2003).

Other target outcome measures for health and functional status such as improvement in ambulation, improvement in upper body dressing, stabilization in management of oral medications, improvement in status of surgical wound, stabilization in level of anxiety, and improvement in urinary tract infection, showed rates of improvement that averaged between 5% and 7% per year in both OBQI demonstration trials (Shaughnessy, et al. 2002). Improvement in target outcomes was significantly higher compared to outcomes that were not targeted for outcome enhancement. The changes in outcomes not targeted for improvement were about 1% (Shaughnessy, et al. 2002).

Subsequently, CMS funded a national study for The Center at the University of Colorado to examine the quality of home care provided to Health Maintenance Organization (HMO) patients. Outcomes for HMO patients were compared to patients receiving fee-for-service care using the outcome measures that had been developed for the home care outcome study. Theoretically, a data-driven OBQI model should show improved care regardless of the payer source (Adams, et al. 1998). Findings from the HMO study were compared statistically between the baseline period and the final quarter of data gathering. The percentages of patients in this group that showed improvement between the two time points were not statistically different ($p < .05$) for any of the five outcomes measured (Adams, et al. 1998). The results of the project indicated that HMOs spent less because they provided fewer visits per episode of home care. Very few of the HMO patients received home care services for 60 days or more so the 60-day follow-up assessments were not conducted in this study. More importantly, patients belonging to HMOs had outcomes that were markedly inferior to fee-for-service patients. These results suggest that the HMO patients did not show improvement because services authorized were inadequate to permit improvement (Adams, et al. 1998).

Utilization of the OASIS/OBQI Model

Implementation of OASIS as a Condition of Participation (CoP) in the Medicare home health benefit became effective January 1999 (Harris, 1998). Utilization of the OBQI became mandatory in July 2003 when CMS released the new CoP. Currently every Medicare certified HHA in the nation uses the OASIS/OBQI model (Home Healthcare Quality Breakthrough, 2003).

Utilization of the OASIS/OBQI model is a six-step process. Each agency will (1) collect patient-specific data at regular time intervals, (2) computerize and transmit the data on all patients to a central source, (3) receive reports that compare their outcomes with all other agencies and with its own performance from the previous time interval, (4) evaluate its performance and choose specific outcomes for remediation and reinforcement, (5) establish activities to determine how to affect the target outcomes, then (6) implement a written plan of action to improve or reinforce appropriate care behaviors. Success is measured with the next outcome report (“Home Healthcare,” 2003).

There are two components of the OBQI applications framework: outcome analysis and outcome enhancement (Shaughnessy, et al. 2002). The outcome analysis begins with the HHAs collection, computerization and transmission of patient data to a central source using the OASIS data set (Shaughnessy, et al. 2002). From this data, the outcome, case-mix, and adverse event reports are produced on an annual basis to each participating home health agency. Most important, is the All Patient's Outcome Report, which provides a risk-adjusted comparison of an agency's performance measured in terms of patient outcomes relative to a national benchmark sample from one year to the next. There are 41 outcome measures in this report and include functional, physiological, emotional/behavioral, cognitive, and health care utilization (e.g., hospitalization) measures (Shaughnessy, et al. 2002). Functional outcomes are stressed because the main purpose of home care is to assist patients to become or remain as independent as possible in order to stay in their homes and avoid institutional, long-term care.

The outcome enhancement component of the OBQI framework provides agencies considerable latitude to conduct CQI activities. Each agency chooses target outcomes for quality improvement, and conducts care process investigations that result in creation of action plans to define how to modify care behaviors to enhance target outcomes. The agency incorporates the plans, and the outcome reports for the next year reflect the extent to which target outcomes were influenced (Shaughnessy, et al. 2002).

Examination of the Home Health PPS

While one of the purposes of the OASIS tool is to collect standardized data for OBQI activities, even more significant is its use for determination of payment under PPS. Answers to specific questions in the OASIS database determine the reimbursement rate for home healthcare for each Medicare beneficiary for each 60-day episode of care under PPS (Spath, 2004). OASIS data is used by CMS to assign patients to one of 80 relative payment levels known as Home Health Resource Groups (HHRG), which are similar to the hospital DRG concept. From the OASIS assessment, assignment is based on 23 patient descriptors that measure clinical condition, functional status and service utilization. A relative weight is assigned for each payment group that reflects the cost of the average beneficiary in that category relative to all home health care users (GAO, 2001).

The final rule for PPS was published in the *Federal Register* on July 3, 2000 and was implemented on October 1, 2000 (Schwartz, 2000). It allowed payment for each episode of care to be adjusted to reflect the beneficiary's health condition and needs; included was a special outlier provision to ensure adequate payment for those beneficiaries having the most expensive care needs. In the proposal, CMS had noted an adjustment of payment to reflect the cost of the HHA to provide care to each beneficiary including the sickest, to ensure that all beneficiaries would have access to the home health care they were eligible for (Schwartz, 2000).

Schwartz, (2000) cites the PPS is composed of the following main features:

1. Payment for the 60-day episode of care, with the option of another 60-day episode for longer stay patients.
2. Case-mix adjustment – adjusting for a beneficiary's condition and needs.
3. Outlier payments – adjustments for beneficiaries who require only a few visits during the 60-day episode.

4. Adjustments for beneficiaries who experience a significant change in their condition not envisioned when the episode began – a Significant Change in Condition (SCIC).
5. Adjustments for beneficiaries who change HHA.

Once the OASIS data is collected and transmitted to the CMS central data source required by CMS, the HHA submits a request for anticipated payment (RAP). For patients who need longer stays, CMS does not limit the number of 60-day episodes; recertification for additional 60-day episodes is permitted. Under the 60-day episode of payment, the HHAs will receive an initial payment of 60% of the payment rate with the remaining 40% paid at the conclusion of the 60-day episode. For subsequent episodes, the payment will be 50% of the rate at the beginning of the episode and 50% at the end (Ravitz, 2000).

For episodes that require four or fewer visits, the HHA will be paid a per-visit rate per-discipline called the low utilization payment adjustment (LUPA). The LUPA is calculated based on a standardized national average per-visit amount per discipline updated by the market basket index (adjusted wage index) (Ravitz, 2000). The market basket index allows for a payment rate adjustment similar to the wage index adjusted for inflation. It results in an increase in LUPA payments.

There are provisions for proportional payment adjustment for a partial episode payment (PEP). This is based on the span of billable service dates prior to an intervening event. This event could be a patient-elected transfer, the results of an OASIS assessment, a new physician-certified plan of care, or a discharge as a result of the patient reaching treatment goals in the original plan of care with a subsequent return to the HHA. This would warrant a new start of care date for payment purposes (Ravitz, 2000).

Another important provision for payment adjustment is the significant change in condition (SCIC). When a patient has an unanticipated significant change in condition from the time of the original admission, Medicare will make an adjustment in payment. A new OASIS data set is completed when there is an unexpected deterioration or improvement in the patient's condition. In this case, the payment would be split between the episode period and the case mix period, so a blended payment would result (Cuppett, 2000).

Questions surfaced regarding the potential manipulations of OASIS data to maximize provider payments. There is the possibility that HHAs could benefit financially by making their patients appear sicker and as functionally impaired as possible at initial assessment in order to be assigned to a higher payment group (GAO, 2001). CMS was aware of the temptation to misrepresent patient's status and sought to minimize this possibility when it selected the specific OASIS data elements used to assign the different PPS payment groups (GAO, 2001). CMS launched an accuracy demonstration program and evaluated alternative methods to ensure the accuracy of the OASIS data submitted by HHAs. In addition, state surveyors are required to check a sample of patient assessments against medical records. Manipulation of data is discouraged by this practice because if the OASIS data are not supported by the medical record CMS will adjust the payment grouping accordingly (GAO, 2001).

The principal goal of PPS was to construct a fair and feasible distribution system that would allocate Medicare home health benefits to home care agencies at a level that allows them to provide appropriate care to the Medicare home health population (Remington, 2001). The most significant opportunity and challenge for agencies under PPS is to use the flexibility allowed under the per-episode rate to meet the needs of the patients, balance the impact of the higher and lower cost patients, and reach a level of revenue to cost that allows for a healthy home care community.

Methodology

The study design is evaluation research. The setting is a hospital-affiliated home health agency in a rural mid-western state. Patient data were collected by trained professional disciplines at the HHA using the OASIS assessment tool. The data were collected from two different time periods and compared. The first time period is from 09/2004 – 08/2005. The second time period is from 09/2005 – 08/2006. The sample consisted of patients admitted and discharged from the HHA in the time periods stated. Excluded were patients less than 21 years of age and pre- and post-natal women because OASIS data are not collected on those populations. Some patients had more than one admission and discharge during the collection period, so were included in the database with each referral. Data collected included the outcome measures listed below (see Table 1.) Data collected and compared is exhibited in Appendix A.

Table 1. Outcome Measures

Grooming
Upper Body Dressing
Lower Body Dressing
Bathing
Toileting
Transferring
Ambulation/Locomotion
Eating
Light Meal Preparation
Laundry
Housekeeping
Shopping
Phone Use
Management of Oral Medications
Dyspnea
Urinary Tract Infections
Urinary Incontinence
Bowel Incontinence
Confusion Frequency

All of the outcomes are global in that they apply to all home health patients. An example of an OASIS outcome measure is: Ambulation/Locomotion: Ability to SAFELY walk, once in a standing position, or use a wheelchair, once in a seated position, on a variety of surfaces. The response options are:

0- Able to independently walk on even and uneven surfaces and climb stairs with or without railings i.e. needs no human assist or assistive device.

1- Requires use of a device e.g., cane or walker, to walk alone or requires human supervision or assistance to negotiate stairs or steps or uneven surfaces.

2 – Able to walk only with the supervision or assistance of another person at all times.

3 – Chair fast, unable to ambulate but is able to wheel self independently.

4 – Chair fast, unable to ambulate and is unable to wheel self.

5 – Bedfast, unable to ambulate or be up in a chair.

UK – Unknown.

Three scores for outcome measures are defined from the OASIS data: improve, stabilize or decline. Improvement is defined as the number of discharged patients that could have improved their outcome status at the start of their care (SOC). That is the number of patients who were not already at the highest level of functioning when they were admitted to home care. Stabilized is the number of discharged patients that could stabilize their outcome at the SOC. That is, the number of patients who were not already at the lowest level of functioning when they were admitted to home care. Patients at the lowest level are not "given credit" for remaining at that level, thus they are not included in the calculations. This number is the same as the number of cases that could decline at

SOC. Decline is the number of patients who could have declined in their functioning at SOC. That is the number of patients who were not already at the lowest level of functioning when they were admitted to home care. This number is the same as the number of cases that could stabilize at SOC.

Data collection by the trained professional staff of the HHA closely followed the protocols outlined in the *Home Health Agency Manual for the National Medicare Quality Assurance and Improvement Demonstration.* Data collection was done at SOC, 57-62 days after SOC, after discharge from an inpatient facility or Resumption of Care (ROC), follow-up for a significant change in condition, and at discharge. The data were input to the state central repository source maintained by CMS. Outcome reports are generated on a monthly basis and sent to the HHA for evaluation and analysis of their outcomes compared to a prior period and to a national benchmark for each outcome measure.

Results

Data analysis included outcomes for two periods of time. The outcomes were for all patients admitted and discharged in the two time periods. The number of cases for the current period is 623, the number of cases for the prior period is 721, and the number of cases in the national reference sample is 2,740,606.

During the current period, improvement scores ranged from a low of 32.1% for Ambulation/Locomotion to a high of 82.2% for improvement in Urinary Tract Infection (See Appendix A). Compared to the prior period, current improvement in Ambulation/Locomotion is just slightly higher, with improvement in the prior period at 31.9%. The National Reference is at 40.9%; so there is room for substantial improvement. For improvement in Urinary Tract Infection, the current period is just slightly lower than the prior period that is 82.8%. The National Reference is 87.1%, which also shows opportunity for improvement.

The reference sample consists of many thousands of patient care episodes while the number of agency episodes is much smaller. The statistical significance is highly impacted by the sample size. Outcome comparisons that are statistically significant include: Stabilization in grooming, Improvement in Lower Body Dressing, Improvement in Bathing, Improvement in Ambulation/Locomotion, Stabilization in Laundry, Improvement in Shopping, Stabilization in Shopping, Improvement in Phone Use, Stabilization in Phone Use, Improvement in Management of Oral Medications, Improvement in Dyspnea, and Improvement in Urinary Incontinence. Agency focus is generally on the statistically significant outcomes.

The Utilization Outcomes in Appendix B include: Any Emergent Care, Discharge to Community and Acute Care Hospitalization. These outcomes are important because they reflect the overall effectiveness of the home healthcare provided and are listed on the Home Health Compare web site as a reference for physician referral and patient preference in choosing a home care provider. The current period for this HHA includes 821 cases, prior period is 991 cases and the national reference sample is 3,899,703 cases. The lower percentages for Emergent Care and Acute Care Hospitalization are desirable and show improvement from both the prior period and the national reference sample. Both are statistically significant and indicate the quality and effectiveness of the care provided. The outcome Discharged to the Community also shows improvement compared to the prior period and the national reference sample.

Discussion

The results show that this HHA did show improved outcomes in most areas compared to the prior period and the national reference sample. Two areas that did not show improvement are Improvement in Phone Use and Improvement in Urinary Incontinence. This may be due to the difference in individual scoring of these OASIS data items. However, it is important to be mindful of the fact that certain conditions cannot be reversed and show improvement. If the patient is an elderly person who has dementia or residual effects of a stroke, it may not be possible to improve use of the phone or improve urinary incontinence. In the future these areas may warrant target focus to improve the outcomes. It is important to consider the date a new plan of action is implemented and be realistic as to when evidence of improvement will become apparent. The recommendation is to wait approximately 12 months after implementation of action plans to evaluate outcomes.

Previous outcome reports have shown a fluctuation in improved outcomes between time periods. This should not occur if all clinicians are consistent and conscientious in scoring the OASIS data items. Indications are that there is laxness or "laziness" that surface at times. The administration and work committees in the agency have been diligent with developing plans of action and best practice methods to assure enhanced outcomes for their patients. Staff training and oversight is key to maintaining the quality of care and demonstrate improved outcomes for the patients.

Areas of success for this HHA are the Improvement in Management of Oral Medications and reduction in Acute Care Hospitalization. These outcomes had been targeted for remediation and have shown that development of care maps and chart audits for follow-up have been effective in improving these outcomes.

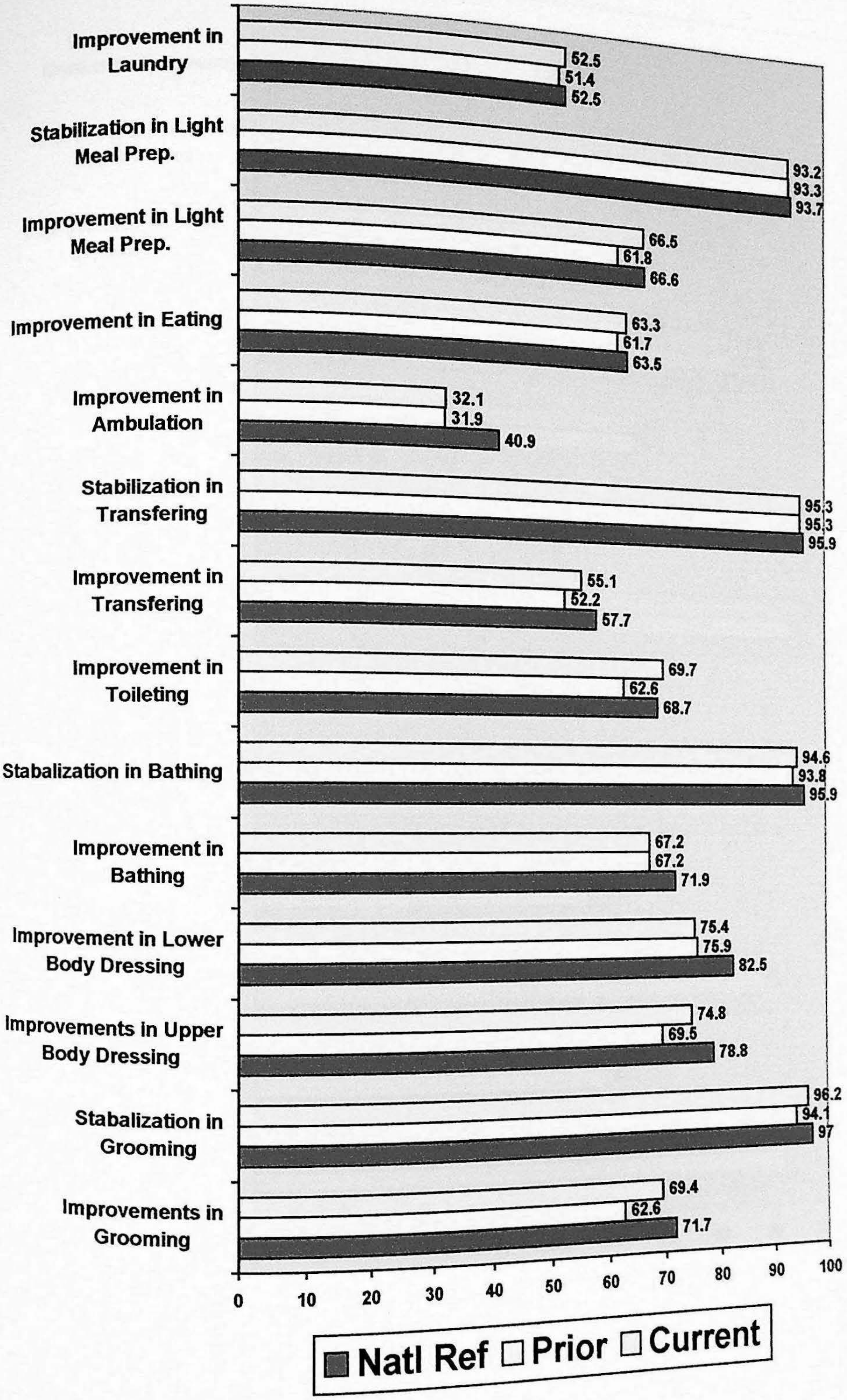
The current target outcome for improvement is Improvement in Ambulation/Locomotion. There is already progress toward improvement shown from the prior period from 31.9% to 32.1%, but it is still substantially behind the National Reference Sample. Team members from the various disciplines meet weekly to discuss strategies for improvement and enhanced outcomes.

Overall the data show improved outcomes. Of the twenty-nine outcomes in the End Result Outcomes report, there is improvement in seventeen with four showing essentially no change, and eight that show some decline, or less improvement than the previous period. Of the three utilization outcomes, there are significant changes in two of the outcomes. These data indicate definite improvement in outcomes for this home health agency and show successful enhancement of targeted outcomes. Appendix C shows the agency has already reached its' target rate for reduced acute care hospitalization.

Conclusion

The home health industry has had tremendous ups and downs over the past 20 years. With the introduction of the hospital DRGs in the mid 1980's, the home care industry became an important component of the health care system. People who were discharged form the hospital "sicker and quicker" came to rely on the home care community to provide the needed health care in their homes. The Medicare beneficiary became the largest consumer of home health care services and due to these services; many people who would otherwise have had to enter nursing homes were able to remain expectations of their various stakeholders and use information as a strategic tool to manage the optimal cost/quality equation within their organization" (cited in Twiss, 2000, p. 28). The bottom line is that efficient providers can do more than just survive – they can thrive!

Appendix A (End Result Outcomes)



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