SUPPORTING DOCUMENT 7:

DESCRIPTION OF THE OUTCOME-BASED QUALITY IMPROVEMENT
DEMONSTRATIONS


in Volume 3 of the report series entitled:

OASIS and Outcome-Based Quality Improvement in Home Health Care:
Research and Demonstration Findings, Policy Implications,
and Considerations for Future Change


for the three interrelated studies:

The National Medicare Quality Assurance and Improvement Demonstration
The New York State Outcome-Based Quality Improvement Demonstration
A Project to Assist Home Care Providers to Effectively Use Patient Outcomes


February 2002


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### OVERVIEW

Descriptive information is provided on the two Outcome-Based Quality Improvement (OBQI) demonstration projects, home health agency activities in response to OBQI reports, and other logistical and operational features of the demonstrations. Statistics on location, size, type, and auspice of participating agencies are included. In addition to describing the component of the New York State Demonstration that involved the 19 certified agencies whose OBQI findings are highlighted in Volumes 1 and 2 of this report series, this supporting document summarizes information about activities and additional agencies involved in other components of the New York project.

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CONTENTS

### A. THE NATIONAL AND NEW YORK STATE OBQI DEMONSTRATION PROGRAMS

### 1. <u>Background and Purpose</u>

Following the development of a set of measures useful for evaluating and ultimately improving patient outcomes for home health agencies, the Center for Health Services Research (CHSR, or the Research Center) conducted demonstration projects to implement and evaluate an outcome-oriented approach to quality improvement. The continuous quality improvement (CQI) approach employed in these demonstrations used the outcome-based quality improvement (OBQI) framework described in Volumes 1 and 2 of this report series. As noted, the outcome analysis component of OBQI began with collecting (through assessment of patient health status) and transmitting uniform data to a central source. Statistical analyses of these data then resulted in risk-adjusted outcome reports being returned to each participating agency.

In the outcome enhancement component of OBQI, each demonstration agency conducted its own quality improvement activities. These included selecting specific target outcomes for enhancement, conducting process-of-care investigations to determine specific aspects of care to improve (or to reinforce), and developing and implementing plans of action specifying how care processes would be changed to enhance the target outcomes. The next period's outcome report provided information to each agency on whether its efforts to impact patient outcomes were successful.

An OBQI pilot project, funded by the Robert Wood Johnson Foundation, demonstrated the feasibility and utility of OBQI to improve patient outcomes. The experience gained from this initial project also provided valuable operational and training insights for subsequent larger-scale projects.

This document provides an overview of the two larger OBQI demonstrations, the National Medicare Quality Assurance and Improvement Demonstration[1] and the New York State Quality Improvement Demonstration.[2] Due to the similarity in design of the two projects, they are described together. Any variations from the basic OBQI operational structure or differences in agency characteristics are noted.

The main objectives of both demonstrations were to identify the feasibility of and methodology for:

- Collecting uniform data on adult, nonmaternity patients to measure and report patient outcomes, and

- Utilizing outcome measures for quality assurance and quality improvement in home health agencies.

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[1] This project was funded by the Centers for Medicare & Medicaid Services (CMS), Department of Health and Human Services, Contract No. 500-94-0054.

[2] This project was funded by the New York Department of Health (NYDoH), Contract No. C-012800.

The National Demonstration trial also was intended to determine the feasibility of:

- Incorporating outcome measurement into the Medicare quality assurance approach, and

- Establishing a partnership between home health agencies and the Medicare program in collecting and processing patient information for the sake of improved outcomes, improved agency performance, and a more efficient Medicare system approach to quality assurance.

In addition to the two general objectives stated above, the New York State Demonstration also was designed to:

- Establish a partnership between home care agencies, the New York State Department of Health, and the five home care associations in New York State.

Agency-level activities in the National Demonstration began in 1995; agency participation ended by January 2000. The first phase of the New York State Demonstration was conducted from early 1996 through mid-1998. The second phase of the New York State Demonstration, involving the original (i.e., continuing) agencies as well as additional agencies, began in mid-1998 and continued until January 2001. (Phase 2 of this project is described further in Section B of this document.) Nineteen Medicare-certified agencies in New York State participated continuously in both Phase 1 and Phase 2 of the state-sponsored demonstration; their outcome results are presented in Volume 2 of this report series. In addition to these certified agencies, four licensed home care agencies participated in Phase 1. For more information about selected initial findings from Phase 1, see "Demonstration Overview and Conclusions," Volume 1, Deliverable 5: Final Report from the *New York State Outcome-Based Quality Improvement Demonstration* (Shaughnessy et al., 1998).

To meet the respective objectives of both demonstrations, home care agencies were recruited, selected, trained in both outcome analysis and outcome enhancement components and processes, and provided clinical and technical support regarding OBQI and OASIS procedures and protocols. Following agency selection, implementation and operational project phases began. Timing of the New York State Demonstration followed a schedule approximately six months behind that of the National Demonstration. Lessons learned in the National Demonstration were implemented for the New York State project, and knowledge acquired during New York State Phase 1 was applied during Phase 2. Thus, demonstration implementation itself followed a CQI process.

## 2.  Recruitment/Selection of Agencies

The project design called for a sample of home care agencies that represented a reasonable cross-section of the industry. Secondary to this requirement, motivated agencies were perceived as most likely to assume a leadership role in implementing a new approach to improving quality of patient care. National and state home care associations helped to publicize the demonstrations and elicit interest. Agencies that responded received details of the project requirements (including uniform data collection at specified time points and data transmission) and an application form. The application

form requested information on current agency size; a description of the agency's quality assurance and quality improvement programs, organizational structure, and current programs and services; and an indication of interest in or motivation for demonstration participation. For both demonstrations, approximately six applications were received and reviewed for every available opening. Using prespecified criteria, CHSR staff reviewed all applications and conducted follow-up telephone interviews with the administrative and quality improvement staff at those agencies judged to have reasonable potential for successfully implementing OBQI.

For the National Demonstration, the final 54 agencies were selected so they were dispersed geographically across 27 states with all CMS regions represented. For the New York State Demonstration, the selected agencies were representative of all major regions of New York State, including upstate, downstate and New York City. Figure 1 (at the end of this section) indicates the names and locations of agencies participating in both demonstrations. In both projects, efforts were made to incorporate an adequate representation of agency sizes (small, medium, and large caseloads using HCFA size categories) and auspices (including facility-based, visiting nurse association, private nonprofit, and proprietary). Table 1 presents additional information on size and auspice characteristics of the agencies.

Minimal attrition occurred across both demonstrations. The original 50 National Demonstration agencies had been selected with the expectation of 20% attrition; instead, additional agencies were gained through mergers or acquisitions. In both projects, almost the only attrition that occurred was caused by agencies closing or merging with other agencies.

## 3. __Implementation Phase__

Implementation of the outcome analysis component began after agency recruitment and involved a number of activities to prepare for OBQI. This phase was designed to enable the demonstration agencies to integrate the Outcome and Assessment Information Set (OASIS) data collection methodology into existing agency processes. Training materials, protocols, and instructions for integrating the OASIS items into patient assessment forms and agency procedures were prepared and training sessions for groups of 7 to 10 agencies were conducted. During the implementation phase, approaches to sending computerized patient-level data to the Research Center on a regular basis were developed. Training included an overall orientation to the demonstration and OBQI approach. The activities conducted by the demonstration agencies during the implementation phase of the outcome analysis component are summarized in Table 2.

A second training program occurred approximately three months before risk-adjusted outcome and case mix reports were distributed to agencies. These outcome enhancement training sessions discussed the purpose of and rationale for improving patient outcomes and provided hands-on experience in all aspects of the processes involved. The sessions were provided to groups of 7 to 12 agencies. Each training session consisted of small- and large-group activities, with the goal that agency staff would learn how to read and interpret outcome and case mix reports, select target outcomes, and devise plans of action to modify or to reinforce patient care delivery practices.

**TABLE 1:** National and New York State Demonstration Agencies by Admissions per Year, Auspice, and Location.

| | National Demonstration Agencies | | New York State Demonstration Agencies | |
|---|---|---|---|---|
| **Number of Admissions per Year[a]** | Number of Demonstration Agencies | Percent of Total Demonstration Agencies | Number of Demonstration Agencies | Percent of Total Demonstration Agencies |
| <150 | 2 | 4% | 1 | 5% |
| 150-750 | 15 | 28% | 10 | 53% |
| 751-1250 | 12 | 22% | 4 | 21% |
| >1250 | 25 | 46% | 4 | 21% |
| Total | 54 | 100% | 19 | 100% |
| **Auspice** | Number | Percent of Total | Number | Percent of Total |
| VNA | 13 | 24% | 6 | 32% |
| Government | 3 | 6% | 5 | 26% |
| Freestanding Proprietary | 14 | 26% | 2 | 10.5% |
| Freestanding Not-for-Profit | 5 | 9% | 0 | 0 |
| Hospital/Rehab-Based | 18 | 33% | 4 | 21% |
| SNF/Nursing Facility-Based | 1 | 2% | 2 | 10.5% |
| Total | 54 | 100% | 19 | 100% |
| **Location** (CMS Region) | | | | |
| I | 3 | | | |
| II | 7 | | | |
| III | 11 | | | |
| IV | 10 | | | |
| V | 5 | | | |
| VI | 3 | | | |
| VII | 4 | | | |
| VIII | 4 | | | |
| IX | 2 | | | |
| X | 5 | | | |
| Total | 54 | | | |

[a] Source: Demonstration agencies self-reported their number of admissions when applying for participation in the demonstration. The number represents the total number of admissions per year even though only subunits of some of the agencies actually participated in the project.

## 4.    Operational Phase of OBQI

a.    Annual OBQI Activities:  Following a pilot test of data collection and data transmission processes at each agency, the full operational phase of OBQI was initiated. This included (1) the outcome analysis component that involved collecting and transmitting data, and producing agency-level reports based on these data; and (2) the outcome enhancement component that involved agencies' selecting target outcomes, investigating care leading to these outcomes, and developing and implementing plans of action to improve the outcomes. Ongoing technical assistance to agencies and refinements of data collection and management procedures were major components of the operational phase.

**TABLE 2: Primary Activities During the Implementation Phase of the Outcome Analysis Component of the OBQI Demonstrations.**

Key Activities of Each Demonstration Agency

1. Incorporate OASIS data items into clinical records.

2. Train and orient clinical staff regarding purpose of project and how to collect data.

3. Orient clinical and data processing staff on uniform definitions of time points and discharge.

4. Implement data collection.

5. Establish data tracking system.

6. Establish and test approach to providing computerized data to Research Center.

7. Conduct a 30-45 day pilot test of all data collection, computerization, and data transmittal procedures before implementing the operational phase.

The operational phase involved annual OBQI cycles, each of which incorporated one round of outcome analysis (reporting) and outcome enhancement. These cycles were "approximately" annual, at times spanning more than 12 months because of logistical issues and external factors affecting home care providers. Three OBQI cycles occurred in the National Demonstration between 1996 and 2000, with outcome reports and case mix reports being produced in 1997 (from data collected in 1996), 1998 (from data collected January 1997 through January 1998), and late 1999 (from data collected January 1998 through June 1999). Two OBQI cycles occurred in Phase 1 of the New York State Demonstration between 1996 and 1998, with outcome reports and case mix reports being produced in 1997 (from data collected July 1996 through June 1997) and 1998 (from data collected July 1997 through June 1998). Phase 2 of the New York State Demonstration had two additional OBQI cycles, with reports produced in 1999 and late 2000.

b. The Outcome Analysis Component: In this component, agencies collected patient status data on all patients at the specified time points. Data were submitted to the Research Center at least monthly using software developed specifically for the project and supplied at no cost to participating agencies. Data were processed and edited by the Research Center to ensure accuracy and consistency (to the extent reasonably possible). After the first year of the demonstrations, data edit checking responsibilities were returned to the agencies, and only data that met certain standards were accepted. The data entry software included the same edit checks that previously had been performed at the Research Center. Data receipt verification reports were faxed to agencies within one day of data arriving at the Research Center. These reports delineated whether the data were clean or needed to be resubmitted. Specific data quality issues were identified in the verification reports.

Data quality reports were provided on a routine schedule to agencies. These reports summarized any quality issues present in the data submitted; for example, they provided the number of matched episodes (those with both start of care and discharge/transfer assessments) and the number of start of care/resumption of care assessments received

over the past period. Agencies used this information to determine whether all assessments had been submitted to the Research Center. The goal of these reports was to alert agencies to possible issues regarding missing assessments that would negatively impact the number of patient episodes included in the OBQI reports.

At approximately annual intervals, data were aggregated to the agency level, and a variety of reports were produced for participating agencies (see Illustrative Agency Reports, Supporting Document 6 of this volume, for more information). The reports included risk-adjusted outcome, case mix, adverse event outcome, consumer response and satisfaction, and patient tally reports.

These reports comprise a key feature of OBQI, namely feedback on agency-specific patient characteristics and performance (expressed as patient outcomes) relative to a reference group (of other participating agencies). In the second and subsequent OBQI cycles, the reports also provided comparisons with each agency's case mix and outcomes in the preceding time period. Each report distribution included detailed documentation on how to read and use the reports. Agency-specific observations on findings contained in the report and suggestions on follow-up also were included in a cover letter.

Consumer response and satisfaction reports included aggregated results of telephone surveys conducted by agency staff of a sample of discharged patients (or family caregivers of discharged patients). The consumer response and satisfaction reports provided the response mean for each of the survey questions and a comparison with the mean of the reference sample from all agencies. As noted by the report title, the findings in the reports pertained to patient or caregiver satisfaction with the quality of care provided by the agency.

Patient tally reports provided descriptive information for each individual case included in the outcome report analysis. For each patient care episode, agencies could identify if a specific outcome measure had been computed for a given patient and, if so, whether that outcome was achieved (corresponding to the risk-adjusted outcome report). In addition, agencies could view the patient-specific values for all case mix variables (used in the case mix report) for each patient at start of care or resumption of care (e.g., if the patient was disabled in bathing or had an acute cardiac condition). Lastly, the tally reports made it possible to view the values of all (raw) OASIS items for each patient at start of care or resumption of care. These reports were distributed with the outcome and case mix reports to facilitate agency identification of cases that should be included in process-of-care investigation activities for the outcome enhancement stage.

In September 1997 (approximately six months after agencies implemented their first action plans), interim outcome reports were generated for the target outcomes selected by agencies participating in the National Demonstration. These reports included nonrisk-adjusted results for the target outcomes compared to the previous year's outcomes. Due to time lags in data entry and data transmission, only four to five months of patient assessment data were included in the interim reports. A low sample size with potentially strong seasonal impact resulted. It also was determined that insufficient time

had elapsed to evaluate the impact of the plans of action. For this reason, production of interim reports was not repeated.

    c.    <u>The Outcome Enhancement Component</u>: In this component, each participating agency conducted its own outcome enhancement activities (i.e., the QI of OBQI). As noted earlier, the major steps of outcome enhancement include selecting target outcomes, investigating processes of care leading to these outcomes, determining best care practices, and developing and implementing plans of action. The action plans and monitoring approaches are intended to produce change(s) in care delivery that will impact subsequent patient outcomes.

For each of the OBQI report cycles, agencies selected one to two target outcomes for enhancement and created a plan of action for each. Although use of a specific action plan format was optional for the first year, it was required for the second and subsequent report rounds. This change was made after noting that agencies not using the recommended format ignored pertinent features of the plan of action, resulting in inadequate plans and poor implementation strategies. Agencies were instructed to complete the plans of action and begin implementing them within four to six weeks after receiving the outcome reports. This rapid response to the reports was determined to be an important condition in enhancing outcomes in the OBQI pilot project. The relatively short time period before behavioral change was implemented allowed sufficient time for the modified or new care behaviors to impact patient outcomes prior to the next year's outcome reports. Each action plan summarized results of the investigation for the target outcome, identified specific aspects of care delivery to be changed (for an outcome in need of improvement) or reinforced (for an exemplary outcome), and specified the interventions for improving (or reinforcing) care behaviors. In addition, the action plan included activities to monitor the target care processes throughout the next year. During the outcome enhancement activities, the project's clinical staff provided technical support to agencies. All action plans were reviewed by Research Center staff following specific criteria. Agency QI coordinators subsequently were interviewed about internal agency procedures used to conduct the process-of-care investigation and about whether the components were congruent with other aspects of their current CQI programs. Nearly all respondents indicated that the procedures fit conceptually with their existing programs. In addition, the outcome reports and enhancement activities provided more direction toward examining care processes that impacted patient outcomes. Over the course of the demonstrations, the process-of-care investigation and plan of action became the central focus of many agencies' CQI programs.

Agency staff members who led or facilitated the outcome enhancement activities at their agencies maintained logs of their QI processes, which were submitted to the Research Center along with their action plans. Details from the logs assisted in identifying those outcome enhancement areas that were difficult for agencies to understand and those areas that were relatively easy to incorporate. Findings on how to better meet agency needs were incorporated into additional training materials or other communication modalities, such as newsletters and presentations at annual meetings.

As noted in Volumes 1 and 2 of this report series, participating agencies in both demonstrations were requested to select the target outcome of hospitalization from their first outcome report. Agency successes in enhancing outcomes also were presented in Volume 2. Supporting Document 8 of this volume describes in greater detail the approaches agencies used to enhance their target outcomes.

5. **Other Demonstration Activities**

Throughout the demonstrations, a variety of other activities occurred or were undertaken:

- All participating agencies received quarterly newsletters, which included specific details about upcoming project activities and provided technical support for the agencies.

- Staff from participating agencies attended annual meetings. The National Demonstration's meetings took place in Denver; the New York State Demonstration's meetings were held in Albany. The meetings allowed agencies to share their successes and challenges in collecting data and in developing and implementing plans of action. Agencies exchanged information through small group discussions, networking or other informal communication, and poster presentations. They also received updates regarding the progress of the demonstration from Research Center staff.

- When the OASIS data collection and transmission requirements were mandated for all Medicare-certified agencies in summer 1999, the National and New York State Demonstration agencies were exempted because they were already collecting and submitting OASIS data to the Research Center. The exemption for agencies participating in the National Demonstration expired in October 1999. The exemption for the New York State Demonstration agencies expired in October 2000 with the implementation of the home health prospective payment system.

The National Demonstration included several additional activities:

- Research Center clinicians made site visits to participating agencies in the first year of data collection. During the visits, they observed the implementation of protocols for OASIS data collection and provided formal and informal staff training as requested. Research Center staff also had opportunities to accompany agency staff on patient assessment visits at some sites.

- An interrater reliability study of OASIS items was conducted in 1998 in Denver-area home care agencies. Research Center clinicians were trained on the reliability study protocols, and reliability home visits were conducted. Results of the reliability study are included in Supporting Document 2 of this volume.

- A compilation of demonstration agencies' experiences with OBQI was written in 1999. Agencies described their experiences in a few specific topic areas, such as motivating staff to participate in OBQI or developing a plan of action. Thirty written descriptions were organized into a compendium, which was distributed to all agencies during the annual meeting in September 1999.

The New York State Quality Improvement Demonstration included the following additional activities:

- Resource consumption (cost) data were voluntarily collected and submitted by several participating agencies. Resource consumption data, when linked to outcome data, can be very informative for evaluating agency cost-effectiveness. Refinements to resource consumption data collection methods were determined by surveying participating agencies regarding barriers that inhibited their ability to collect or provide these data.

- A telephone survey of agency experts was undertaken to assess the characteristics of personal care (PC) patients and services in New York State. Results of this survey were used to begin defining and creating an initial set of PC data items. (See the report of Phase 2 of the New York State Demonstration in the next section of this document for additional information.)

## 6.  **Summary**

Both demonstrations showed that the requisite changes to agency-level operational, documentation, and quality improvement processes are feasible. In addition, as documented in Volumes 1 and 2, both projects demonstrated that a positive impact on patient outcomes can result from the OBQI methodology.

Information sharing between home health agencies and Medicare regarding quality improvement has occurred, with OASIS becoming a part of comprehensive assessments under the new Comprehensive Assessment Condition of Participation for certified home health agencies in July 1999. OASIS data also are used in calculating payment rates status for the Home Health Prospective Payment System, which began in October 2000. OASIS-based adverse event outcome reports and case mix reports were made available to certified agencies in early 2001, and OBQI reports are being prepared for dissemination to these agencies in early 2002. In New York State, the success of Phase 1 of the OBQI demonstration led to Phase 2, which incorporated additional certified and licensed home care agencies. This, in turn, led to Phase 3, which will further expand the involvement of licensed agencies. Phase 2 is described in more detail in the next section. Preparation for Phase 3 is currently underway, with pilot implementation anticipated in 2002.

# Reference

Shaughnessy PW, KS Crisler, RE Schlenker, K Greydanus, and EB Walls (1998). Demonstration overview and conclusions. Volume 1. Deliverable 5: Final Report from the *New York State Outcome-Based Quality Improvement Demonstration*. Denver, CO: Center for Health Services Research, January.

## All National Demonstration Agencies[1]

Advocate Home Health Care Services, Oak Brook, IL
American Nursing Care, Cincinnati, OH
Appalachian OH-9, Inc.-Home Care, Bluefield, WV
Associated Professional Home Health Care, Inc., Denver, CO
Brooklyn Hospital Center Home Health Services, Brooklyn, NY
Carraway Home Health, Birmingham, AL
Clinical Arts Home Care Services, Covington, GA
Central Home Health Care-Dekalb of Central Health Services, Inc., Atlanta, GA
Christiana Care, Dover, DE
Community Health Affiliates, Ardmore, PA
Community Home Health, Inc., Boise, ID
Community Nursing Services, Salt Lake City, UT
Forrest General Home Care, Hattiesburg, MS
Health South Home Health Services, Miami, FL
Heartland Health Care, Inc., Dale, IN
Home Health Care and Community Services, Inc., Keene, NH
HOMESTAFF Health Care Services, Inc., Norwalk, CT
Houston County Home Health Care, Inc., Crockett, TX
Humboldt Home Health Services, Eureka, CA
In Home Health Services, Sparta, NJ
Jefferson Home Health Main Line Hospitals, Ardmore, PA
Lifeline, Somerset, KY
Loretto Home Care, Syracuse, NY
Memorial Home Care Services/Yakima Valley, Yakima, WA
Mercy Medical Center Home Health, Nampa, ID
Methodist Hospital Home Health, Bryn Mawr, PA
Metro Home Health Services, Inc., Atlanta, GA
Missouri Baptist Hospital Sullivan Home Health Care, Sullivan, MO

Missouri Home Care, Rolla, MO
Monroe County Medical Center HHA, Tompkinsville, KY
Olsten Health Services, Santa Maria/San Luis Obispo, CA
Olympic Peninsula Home Health, Bremerton, WA
Columbia Home Care, Port St. Lucie/Vero Beach, FL
PCMRC Home Health Agency, Rolla, MO
Prime Care Services, Inc., Bingham Farms, MI
Providence Home Health Care, Novi, MI
Rehabilitation and Visiting Nurse Association, Greeley, CO
Sarasota Memorial Home Care, Sarasota, FL
Shands HomeCare, Boca Raton, FL
South County Healthcare Services, Port Arthur, TX
South Suburban Home Health, Oak Brook, IL
St. Alphonsus Home Health, Boise, ID
St. Joseph's VNA, Mishawaka, IN
St. Mary's Home Care Services, Grand Junction, CO
SUN Home Health Services, Inc., Northumberland, PA
Thomas Jefferson University Hospital, Bryn Mawr, PA
Trinity LifeCare, Grove, OK
Twin County Regional Home Health, Galax, VA
UNS Home Health Agency, Inc., Portage, MI
Upper Savannah Health District, Greenwood, SC
Valley Home Care, Inc., Ridgewood, NJ
Visiting Nurse Association of Pottstown & Vicinity, Pottstown, PA
Visiting Nurse Services of Health Midwest, Kansas City, MO
Visiting Nurse Service of New York, New York, NY
Visiting Nurses Association, Western Pennsylvania, Butler, PA
VNA Healthcare, Inc., Waterbury, CT



### Locations of National Demonstration Agencies

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[1] The listing and map in this figure includes 56 agencies. Since two of these agencies did not provide sufficient data for all years of the demonstration, the findings presented earlier were based on 54 agencies.

## New York Demonstration Agencies[2]

Beth Abraham Hospital Certified Home Health Agency, Bronx

Brookhaven Memorial Hospital Medical Center Home Health Agency, Patchogue

Catholic Medical Center - Division of Home Care, Jamaica

Community Health Center for Health and Policy Research, Johnstown

Eddy Visiting Nurse Service, Troy and Catskill

Finger Lakes Visiting Nurse Service, Geneva

Jefferson County Public Health Service, Watertown

Metropolitan Jewish Geriatric Center, Brooklyn

Mount Sinai Home Health Agency, New York City

Oswego County Health Department, Oswego

Staffbuilders, Niagara Falls

St. Camillus, Camillus

St. Vincent's Hospital and Medical Center, New York City

VNA of Albany, Saratoga and Rensselaer, Albany

VNA of Long Island, Garden City

VNA of Rochester and Monroe County, Webster

VNS of Schenectady County, Schenectady

ViaHealth Home Care, Rochester

WILLCARE, Inc., Newburgh

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**Locations of New York State Demonstration Agencies[3]**



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[2] Agency list depicts certified agencies in New York State that participated continuously in Phase 1 and Phase 2, and contributed to the analyses presented in this report.

[3] The locations of the above 19 agencies and four additional licensed agencies that participated in the initial stage of the New York State Demonstration are indicated on this map.

## B. PHASE 2 OF THE NEW YORK STATE QUALITY IMPROVEMENT DEMONSTRATION

Based on the success achieved in Phase 1 of the New York State Quality Improvement Demonstration, the Department of Health decided to expand the project into a second phase. Phase 2 of the demonstration began in November 1998 and ended in January 2001. It involved both Medicare-certified and noncertified agencies. Support for Phase 2 of the demonstration program was provided by the New York State Department of Health through Contract No. C-015111.

### 1. Project Objectives

The overall goal of this project phase was to continue the established partnership between home care agencies and the New York State Department of Health in:

- Collecting and processing patient status information for the sake of analyzing outcomes,

- Improving agency performance,

- Ensuring the most effective approach to providing home care services to patients, and

- Facilitating the growth of OBQI in New York State and the nation.

### 2. Project Overview

Phase 2 of the demonstration focused on:

- Testing the validity of the OBQI program for expanded numbers of licensed and certified agencies,

- Exploring the possibility of linking outcomes to cost through an emphasis on resource consumption data,

- Testing draft personal care (PC) and chronic care data items as part of OASIS, and

- Continuing with the basic OBQI approach to monitor and enhance patient outcomes.

Phase 2 differed from the earlier Phase 1 and the National Demonstration in two major respects. First, the many home care agency and program types in New York State (e.g., licensed and certified agencies, Long-Term Home Health Care Program patients, multiple Medicaid personal care programs, Department of Social Services programs, etc.) complicated data collection and analyses. Many of these program types have unique data collection requirements, oversight entities, and operational procedures that needed to be considered for this OBQI project to be successful. Second, multiple New York stakeholders including the Department of Health, home care associations, and the Department of Social Services had vested interests in the project.

### 3.   Recruitment and Training of Phase 2 Participants

The 19 certified and four licensed agencies that had participated in Phase 1 of the demonstration continued their participation into Phase 2.  New agencies were recruited and interviewed for participation following the distribution of a statewide solicitation by the state home care associations.  Approximately 85 agencies submitted applications to the Research Center describing their agency structure, current quality assurance or quality improvement (QA/QI) and data processing (DP) programs, and ability and commitment to participate in the OBQI project.  Following telephone interviews, 45 agencies were selected for participation in Phase 2.  With the 23 agencies from Phase 1, a total of 68 agencies (37 Medicare-certified and 31 noncertified) participated in Phase 2.  (The numbers of agencies stated in Volume 1 of this document, 33 certified and 24 non-certified, pertain to those agencies for whom sufficient data were available for purposes of descriptive analyses throughout the duration of Phase 2.)  New participants were asked to sign and submit a Letter of Agreement confirming their understanding of the project requirements.

Three initial training sessions for groups of new participating agencies were held in summer 1998.  Training materials, content, and approaches were adapted from those used for the Phase 1 agencies.  Selected staff from Phase 1 agencies served as mentors and were an important component of this training as they shared their experiences with the new agencies.

### 4.   Operational Phase

As a "typical" OBQI demonstration, Phase 2 contained both outcome analysis and outcome enhancement components.  Similar to Phase 1, the second phase included two data collection cycles.  The first cycle covered the period from November 1, 1998 through July 31, 1999, and the second covered August 1, 1999 through July 31, 2000.  All agencies with at least 30 patients who had two or more data collection points (for whom outcomes could be computed) received risk-adjusted outcome and case mix reports in November 1999.  Some licensed agencies did not receive outcome reports in 1999 due to the sample size stipulation, but they did receive case mix reports.  Certified agencies also received outcome and case mix reports for their cardiac and orthopedic patients.  In addition, certified agencies with Long Term Home Health Care Programs (LTHHCPs) received separate outcome and case mix reports for patients admitted to LTHHCPs.  In 2000, the 30-patient sample size requirement was waived, so all agencies and program types received outcome and case mix reports.  In 1999 and 2000, taking into consideration the various patient populations for whom outcome and case mix reports were generated, approximately 150 risk-adjusted outcome and case mix reports were distributed to participating agencies.

Continuing agencies received 3-bar outcome reports in both 1999 and 2000, along with 3-column case mix reports.  (See Supporting Document 6 of this volume for more information on the types of reports distributed to demonstration agencies.)  New agencies received 2-bar outcome reports (and 2-column case mix reports) in 1999 and 3-bar outcome reports (with 3-column case mix reports) in 2000.  Agencies received the full series of reports described earlier in this document, including adverse event outcome

reports, consumer response and satisfaction reports, patient tally reports, and the various types of data quality reports.

In a manner similar to Phase 1, outcome enhancement activities were conducted by agencies in response to the feedback reports. Training for outcome enhancement occurred in three sessions conducted at two locations in New York State. The training was held in fall 1999, prior to the distribution of the first risk-adjusted outcome and case mix reports for new or non-continuing Phase 2 agencies. Other demonstration activities, including quarterly newsletters and annual meetings, were part of Phase 2.

## 5.    **Additional Project Objectives**

a.    PC Outcome Measures and Data Items:  Testing the validity and utility of initial or draft PC outcome measures compared to other (current OASIS-based) measures was a new aspect of the Phase 2 demonstration. Using the advice and consultation of home care experts in New York State, an initial set of PC outcome measures and associated data items was developed in 1998. The experts recommended the development of outcome measures and associated data items pertaining to hygiene, social interaction/isolation, nutritional status, hydration status, and other areas. (OASIS-based ADL and IADL outcome measures, as well as utilization outcomes, also were considered relevant for these patients.) All agencies were required to incorporate the draft PC data items into their assessment processes. The data entry software provided for the demonstration participants was modified to transmit the PC items to the Research Center. The PC items were then analyzed to assess their utility for outcome and case mix measurement in fall 1999. The utility of the measures based on the new PC items was judged to be marginal.

In spring 1999, after more than six months of data collection, a survey was sent to all agencies requesting feedback on the utility of the individual PC items. Responses identified no individual PC item as either inappropriate or outstanding. The responses and measure evaluations contributed to an item revision process in 1999 to clarify item wording and data collection protocols. Following the revisions, items were redistributed to agencies for the second data collection cycle beginning in fall 1999.

A PC item interrater reliability study was conducted in winter 2000. Clinical staff at each agency performed a regularly scheduled start of care, follow-up, or discharge assessment for three patients. A second staff person returned to the patient's home within 24 hours to collect only the PC data items. Copies of both assessments were sent to the Research Center for analysis to evaluate PC item reliability. Reliability results were mixed, with most PC data items having poor to average reliability. The final results are being taken into consideration in developing OASIS-PC, the data collection tool that licensed home care agencies will use in Phase 3 of the demonstration. Agency representatives have been patient as Research Center staff have endeavored to clarify specific attributes of personal care and outcome measures (with corresponding new PC data items) that will be most relevant and useful for OBQI.

b. <u>Resource Consumption Measures and Data Submission</u>: Agencies were strongly encouraged to submit resource consumption data with OASIS data during Phase 2. The objective of this component of the demonstration was to begin linking cost and outcomes, with the eventual goal of studying cost effectiveness. Written and telephone surveys of agencies were conducted to determine their ability to collect and submit these data accurately and efficiently. Agencies were encouraged to submit the resource consumption data via their billing department systems to save the time and effort of double data collection and entry. Through these survey mechanisms, three options were developed and offered to agencies for resource consumption data collection and submission: (1) data entry and submission via the OASIS Genie data entry software; (2) data submission via a database alternative file format; or (3) data submission via an ASCII alternative file format. The analysis of the Phase 2 resource consumption data continued until the end of Phase 2. Agencies received their first resource consumption report in spring 2000.

## 6. <u>Current Demonstration Status</u>

Data submission for all agencies participating in Phase 2 was scheduled to cease December 31, 2000. Prior to this date, the New York State Department of Health approved a Phase 3 project continuation. This new phase tentatively was scheduled to begin in early 2001. Agencies participating in Phase 3 continued sending their data after December 31, 2000. In spring 2001, certified agencies that were not continuing in Phase 3 received final adverse event and case mix reports covering the period from August 1, 2000 through December 31, 2000.

Although some certified agencies are continuing their participation in Phase 3 of the OBQI demonstration, most of the Phase 2 certified agencies are maintaining their OBQI programs independently. Agencies are required to submit OASIS data as well as resource consumption data to the Research Center in an effort to study the relationship between outcomes and costs. Licensed agencies continuing in the demonstration also are submitting OASIS data to the Research Center, as project and New York State Department of Health staff prepare for a pilot program to begin in 2002. A version of OASIS for personal care patients, termed OASIS-PC, is being developed and tested in this pilot project. The primary focus of the pilot will be to conduct an initial test of the feasibility and utility of the newly developed OASIS-PC. The demonstration component of Phase 3 (for licensed agencies) will formally begin in late 2002 or early 2003.

SUPPORTING DOCUMENT 8:

METHODS USED BY AGENCIES IN ATTAINING SUCCESS
IN OUTCOME-BASED QUALITY IMPROVEMENT

in Volume 3 of the report series entitled:

OASIS and Outcome-Based Quality Improvement in Home Health Care:
Research and Demonstration Findings, Policy Implications,
and Considerations for Future Change

for the three interrelated studies:

The National Medicare Quality Assurance and Improvement Demonstration
The New York State Outcome-Based Quality Improvement Demonstration
A Project to Assist Home Care Providers to Effectively Use Patient Outcomes

February 2002

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### OVERVIEW

Upon receipt of their annual outcome reports, demonstration agencies implemented the second component of Outcome-Based Quality Improvement (OBQI), which is called outcome enhancement. Throughout the target outcome selection and plan of action phases of this OBQI component, agencies shared information about their progress in outcome enhancement with the Center for Health Services Research staff. This supporting document contains selected OBQI experiences and observations as reported by agency staff, as well as a compilation of effective practice strategies for incorporating OBQI into an agency's quality improvement activities.

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### CONTENTS

# METHODS USED BY AGENCIES
# IN ATTAINING SUCCESS
# IN OUTCOME-BASED QUALITY IMPROVEMENT

## A.   INTRODUCTION

One purpose of the National Medicare Quality Assurance and Improvement Demonstration was to implement and refine a patient outcome-based quality improvement (OBQI) approach in home health care.   OBQI is a two-stage process, with the first component requiring collecting, processing, and transmitting patient health status data utilizing the Outcome and Assessment Information Set (OASIS).   Data are then analyzed and aggregated to the agency level, and outcome (and other) reports are generated.   As noted in Table 1, the second stage of OBQI -- the outcome enhancement component -- then utilizes the outcome data for continuous quality improvement (CQI) activities.   During this stage, agencies select one or two specific target outcomes to address, investigate the care delivered to patients to determine if care processes were performed (or omitted) that impacted each target outcome, and identify specific problems or strengths in care delivery. Agencies then identify best practices, or excellent clinical actions that should be utilized in care provision, and develop and implement a plan of action to ensure that these best practices are utilized by all clinicians.   Ongoing data collection and outcome reports are used to evaluate patient outcomes resulting from implementation of the plan of action.

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**TABLE 1:   Steps in the Outcome Enhancement Component.**

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Investigate
1)   Select Target Outcomes
2)   Conduct Process-of-Care Investigation

Identify
3)   Identify Target Care Processes or clinical actions associated with the target outcome and develop statements of problem (or strength) in care provision
4)   Identify corresponding Best Practices or excellent care practices that should be put in place

Plan
5)   Plan Intervention Actions or strategies to ensure that best practices are  utilized by all care providers
6)   Plan evaluation methods for each intervention action

Implement
7)   Implement intervention actions

Monitor
8)   Monitor effectiveness of action plan
9)   Evaluate effectiveness of intervention actions.

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This document describes the outcome enhancement experiences of the agencies participating in the National Demonstration.   Throughout the demonstration, agencies freely shared these experiences with Center for Health Services Research (CHSR, or the Research Center) staff in several ways.   Upon receipt of plans of action, Research Center

staff reviewed the documents (see Attachment 1 for the review forms that were used) and suggested revisions (if indicated) to the agencies' representatives. During these conversations, agency staff provided input regarding their individual approaches to outcome enhancement implementation. Agencies were requested to keep journals during their first year's activities, and most submitted copies to the Research Center. Following the first and second years' outcome enhancement activities, Research Center staff conducted telephone interviews with agencies regarding the processes utilized in developing their plans of action (see Attachment 2 for the interview form). Special attention was directed toward what did and did not work in plan development. Discussion during telephone consultations and at the demonstration's annual meetings also was a source of information about these experiences.

## B. OUTCOME ENHANCEMENT ACTIVITIES CONDUCTED BY AGENCIES

### 1. Agency Preparation

To prepare for their first outcome and case mix reports, two representatives from each agency attended a workshop provided by Research Center staff on interpreting reports, conducting process-of-care investigations, and formulating and implementing action plans. The training included hands-on experience with the steps of the process (Richard, Crisler, & Shaughnessy, 1996). The agency representatives, in turn, were responsible for training their own staff on how the outcome enhancement process works and for preparing the agency to receive outcome and case mix reports.

In each of the three outcome report cycles in the National Demonstration, outcome enhancement activities were to begin as soon as agencies received the reports. Between the initial training and receipt of the reports, agencies were encouraged to establish two teams: one to select the target outcomes (possibly titled the Target Outcome Selection Team) and another to conduct the other activities (possibly titled the Care Process Action Team). The Target Outcome Selection Team analyzed the outcome report and selected the specific outcomes to be investigated. This team usually included agency administrative and quality improvement staff. The Care Process Action Team conducted the investigation and planned implementation activities (with leadership often provided by a member of the Target Outcome Selection Team). Agencies were advised to have some staff common to both teams to ensure continuity of process.

In general, it is desirable for the Care Process Action Team to include staff directly involved in providing care related to the target outcome. In small agencies, the Target Outcome Selection Team and Care Process Action Team may include primarily the same individuals. In large agencies, there may be one Target Outcome Selection Team, a Care Process Action Team for the first target outcome, and another Care Process Action Team for a second target outcome.

It was also impressed on agency representatives that all staff should have a basic understanding of OBQI and be involved in various aspects of outcome enhancement pertinent to their responsibilities. Having each department of the agency that is affected by the process represented on the team increased communication and understanding among

staff. Because of resource limitations, agencies became creative in encouraging staff input for the various steps of the outcome enhancement process. One agency used e-mail messages to obtain input from their staff; another agency put up poster boards requesting input by the area where staff picked up paychecks; others added OBQI updates to staff paycheck envelopes. These approaches eliminated the need for meetings, but still encouraged valuable observations and suggestions from staff.

## 2.   Target Outcome Selection

Initiating the outcome enhancement component of OBQI, agency staff analyzed and interpreted their outcome reports, selecting one or two target outcomes for which they would develop action plan(s). The number of outcomes chosen for investigation was limited to allow agencies to focus their activities, since the project required agencies to conduct the investigation and formulate the action plans within one month after receiving the reports. The first year, project staff encouraged agencies to focus on a common outcome of Acute Care Hospitalization to encourage interagency communication and networking. This request also provided an opportunity to evaluate the cumulative effects of agency efforts to improve a common outcome. Thus, agencies were encouraged to target the outcome of hospitalization regardless of whether it met the selection criteria for a target outcome.

The criteria agencies followed to select an additional target outcome were that the outcome should: (1) be statistically significant ($p \le .10$), (2) demonstrate a substantial magnitude of difference from the reference value (in the subsequent years, the difference was from the agency's prior year value), and (3) have a sample size of at least 30 cases. In addition, staff considered the clinical importance of the outcome and its relevance to their agency. The target outcomes selected fell into three categories: physiologic, functional, and utilization reflecting the types of outcomes included in the report. Table 2 presents the percentage of plans of action received for the various outcome measures in each round of outcome reports. Because agencies focused on a common target outcome in Year 1, utilization outcomes were the focus of over half of the plans of action submitted. Both physiologic and functional outcome measures were selected more often for Years 2 and 3. Two measures in particular, Improvement in Management of Oral Medications and Improvement in Pain Interfering with Activity, were commonly selected as target outcomes.

The selected target outcomes could be either favorable or unfavorable compared to the reference value. Most agencies selected target outcomes that were unfavorable compared to the reference sample, seeking to improve the outcomes. Some demonstration agency staff selected a target outcome whose result was better than the reference value to reinforce the care that was being provided. These agencies reported that identifying exemplary care processes and developing plans of action for favorable outcome measures were difficult. They felt that it was easier to identify what should have happened and did not in the case of an unfavorable outcome result than to note precisely what did happen to achieve a favorable result.

**TABLE 2:   Plans of Action Received for Specific Target Outcomes.**

| Outcome Type | Percent of Plans of Action Received | | |
|---|---|---|---|
| | Year 1 | Year 2 | Year 3 |
| Physiologic | | | |
| Improvement or Stabilization in: | | | |
|   Dyspnea | 10% | 7% | 7% |
|   Anxiety | 6% | 4% | 4% |
|   Pain Interfering with Activity | 4% | 13% | 16% |
|   Urinary Incontinence | 3% | 1% | 0% |
|   Status of Surgical Wounds | 2% | 5% | 6% |
|   Confusion | 1% | 0% | 0% |
|   Speech/Language | 1% | 0% | 0% |
|   Number of Surgical Wounds | 1% | 0% | 0% |
|   Cognition | 0% | 1% | 0% |
|   Behavior Problem Frequency | 0% | 0% | 3% |
|   Urinary Tract Infection | 0% | 0% | 1% |
|     Category Total | 28% | 31% | 37% |
| Functional | | | |
| Improvement or Stabilization in: | | | |
|   Ambulation/Locomotion | 5% | 8% | 8% |
|   Transferring | 4% | 7% | 6% |
|   Managing Oral Medications | 2% | 9% | 18% |
|   Bathing | 2% | 4% | 6% |
|   Grooming | 2% | 1% | 1% |
|   Dressing Upper Body | 2% | 1% | 3% |
|   Light meal Preparation | 1% | 0% | 0% |
|   Toileting | 1% | 1% | 0% |
|   Dressing Lower Body | 1% | 1% | 0% |
|     Category Total | 20% | 32% | 42% |
| Utilization | | | |
|   Acute Care Hospitalization | 50% | 32% | 18% |
|   Emergent Care | 2% | 4% | 3% |
|     Category Total | 52% | 36% | 21% |

## 3.   Process-of-Care Investigation

After the target outcomes were selected, the agencies' Care Process Action Teams examined the care provided for specific patients by conducting a process-of-care investigation. The goal of this investigation was to determine which specific care processes were the primary contributors to outcome results.

In conducting the investigation, agency staff reviewed the care provided to approximately 20 patients. Most often this was done through a review of clinical records, utilizing an audit tool. Often the record reviews were conducted by Quality Improvement (QI) teams, resulting in brainstorming sessions during which findings were discussed and validated or rejected. Some agencies also interviewed their staff or made observational home visits to obtain additional perspectives on the care processes occurring in patient-staff interactions. Agencies were encouraged to utilize a team approach and CQI tools (e.g., flow charting, fish-bone diagrams) during the investigation. These tools assisted the QI teams to summarize their findings. In the first year, the agencies related that staff training for this

process took time but, when the same staff were involved in the following year(s) process-of-care investigations, only a quick review of the process was required.

In the second year of the demonstration (1997-1998), HFCA implemented the Interim Payment System (IPS). IPS was put in place to control the costs that home health agencies were claiming for care provided to Medicare beneficiaries. In response to these limitations, many home health agencies found that they needed to make major changes to their staffing structure and maximize the time their clinical staff spent providing patient care. Many agencies reported that with IPS constraints, it was necessary to involve fewer staff in the process-of-care investigation, although most continued to include clinical and management staff on the team. Agencies with the same staff on the Care Process Action Team as the first year related that the investigation proceeded more rapidly because of everyone's comfort level with the process and increased staff creativity. There also was better buy-in by management and staff, with the realization that the focus was on the care being provided, not on the staff providing the care. Agencies experiencing staff turnover between the first and second years reported more challenges in the investigation, but they also noted that the availability of the Research Center staff for telephone consultation was helpful. Some agencies reported that once the target outcome was selected, they wanted to jump immediately to solving the perceived problem rather than identifying the nature of the actual problem. For these agencies, the team facilitators found that reminding the team of the process-of-care investigation process and redirecting/refocusing their efforts was a successful approach.

The staff involved in the record review varied among the participating agencies. One agency included directors along with other staff. Some agencies included home health aides in the investigative process. This approach was reported to be a beneficial learning experience for the aides, and it was helpful for the team to hear their perceptions of care provision. Other agencies reported that they paired RNs with other staff to audit the charts. They found that this helped their staff discover that different disciplines used different words for the same clinical activity (e.g., nursing used "assessment" and physical therapy used "evaluation"). The ensuing interaction assisted the staff to consciously work to ensure that discussion focused on common understanding of all clinical terms involved in care.

In the first year, the Research Center provided an audit tool listing some care practices associated with specific outcomes for potential adaptation and use in the process-of-care investigation. In the second year, agencies noted that they did not use the Research Center's tool to audit their patient records as frequently as in the first year. Instead, they developed their own standards for what care should be provided. A few agencies noted that their standards were not definitive for the patient record audit, and inconsistencies among reviewers resulted in the audit being repeated with clearer standards.

In the first year, agencies were encouraged to complete their full investigation in three weeks. This time period was intended to maximize the potential impact on patient outcomes for the next outcome report. Agencies identified in their journals and through the interview process that completing the necessary activities in three weeks was difficult; the Research Center revised the recommendation to four weeks for the subsequent years.

Comments received following this change indicated that the extra week eased this burden. There was less stress or pressure on completing the activities in the short period of time.

### 4. Identification of Target Care Behaviors

As each Care Process Action Team conducted and summarized their investigation, they identified trends or patterns in care processes that were perceived to lead to the target outcome. Agencies then utilized this information to form problem/strength statements, which became the basis for developing action plans. Typically, agencies examining problematic outcomes discovered target care processes that needed to be remedied, and agencies examining exemplary outcomes identified excellent care practices that could be reinforced. However, some agencies identified both problematic and excellent care behaviors during the investigation.

The specific care processes identified as problematic or exemplary during the process-of-care investigation were unique to each agency due to varying policies, procedures, and local home health or medical practices. However, most target care processes could be categorized as: clinical issues involving patients and care providers, documentation issues, or circumstantial issues primarily involving persons external to the agency (see Table 3).

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**TABLE 3: Target Care Processes (Problem/Strength Statements) for One Target Outcome (Acute Care Hospitalization) Year 1 Plans of Action.**

|  | Clinical Issue | Documentation | Circumstantial Issue |
|---|---|---|---|
| Percent of Care Behaviors Developed for Outcome of Acute Care Hospitalization: | 71% | 17% | 12% |
| Examples: | Abnormal findings and changes in condition are not being reported to physicians in a timely manner. | Inadequate documentation of medication regimen, patient knowledge of disease process, and nutritional status. | Physician did not respond to agency communication. |
|  | Inadequate assessments of cognitive functioning. | Incomplete documentation of thorough review of systems. | Early discharge from hospital without appropriate discharge planning. |
|  | Lack of assessment of patients' and caregivers' ability to utilize emergency plan. |  |  |

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In the problem/strength statements, clinical issues included communication, assessment, care planning, interventions, and care coordination. Communication was the primary clinical issue identified. Specific issues included communication with other health care providers outside the agency (particularly with physicians after the start of care visit or after patient status changes) or to internal agency care providers (e.g., referrals to other

disciplines, maintaining continuity of care). Assessment and care planning also were identified frequently in problem/strength statements. Assessment issues were both specific (e.g., pain control, knowledge of steps to take when symptoms develop or exacerbate) and general (e.g., incomplete or inadequate assessments). The trends identified in care planning were the number and frequency of visits planned, lack of referral to other disciplines (e.g., social work), lack of individualized (or standardized) care plans, and continuity of care concerns due to inappropriate and multiple staff members seeing a patient. Intervention also was designated as a target care process, particularly patient teaching regarding signs and symptoms, when to contact agency staff, and the use of standardized teaching materials. Other target care processes were identified for coordinative activities, such as lack of communication and coordination with hospital discharge planners.

Documentation was identified in many problem/strength statements. Problems with documentation included no reason being documented for patient hospitalization, lack of recorded reassessments, incomplete or inadequate recording of interventions, missing medication profiles, incomplete documentation regarding patient knowledge of disease process, poor documentation describing the patients' nutritional intake and status, and inadequate pain description. Although documentation by itself is not a care process, the recording of the processes actually occurring during patient care is important for care coordination and for legal concerns, and thus was frequently addressed. After reviewing the first year's plans of action, the Research Center staff recommended that the focus on documentation be limited in the problem/strength statements, emphasizing instead the actual care being provided (which would then be documented).

For physiologic target outcomes, problem statements tended to focus on incomplete or inconsistent assessment (e.g., of dyspnea, anxiety, pain, etc.), including assessment of medications. Other problem statements for this group of outcomes concerned lack of interventions, inconsistency in care providers, and poor documentation. Problem statements for functional outcomes addressed inadequate assessment of endurance, pain related to functioning, fine motor function, and lack of care planning or appropriate referrals to other disciplines. Utilization outcome problem statements tended to focus on inadequate assessments and interventions. Some problem statements for emergent care use or hospitalization indicated inadequate assessment of medication and treatment regimen compliance.

## 5.   Identification of Best Practices

After the target care processes were identified, corresponding "best practice" clinical actions were described. Best practices are excellent care practices that should be put in place to address the statement of problem (or strength) already identified. As an example, for the target care process (problem) statement "In cardiac patients, dyspnea is not regularly assessed," a potential best practice would be "Assess for the presence of dyspnea in all cardiac patients on every visit." A majority of the agencies developed appropriate, clear, and practical best practices. Best practices were categorized as communication, assessment, care planning, interventions, and coordination activities (see Table 4).

**TABLE 4: Specific Care Processes Included in Best Practice Statements for One Target Outcome (Acute Care Hospitalization) in Plans of Action.**

| | Percentage of Plans of Action | |
|---|---|---|
| | Year 1 | Year 2 |
| Care Planning | 57% | 64% |
| Assessment | 53% | 74% |
| Communication | 39% | 42% |
| Intervention | 35% | 61% |
| Documentation | 57% | 55% |

Care planning was one of the most frequently cited categories of best practices. Specific care planning areas included best practices for frequency of home visits, continuity of staff assignment, appropriateness of referrals, and addressing specific needs of patients (e.g., standing orders for PRN diuretics). Another frequent category of best practice was assessment activities. Agencies wrote best practice statements for initial (admission) patient assessments (e.g., assessing for drug allergies, determining risk level for readmission to hospital) and for assessing changes in condition (e.g., identifying changes in weight or pain control).

Best practices for communication (both with physicians and with other members of the agency's care delivery team) were also identified. Specific best practices included notifying the physician of changes in patient condition within a certain time frame, and assuring that referrals to appropriate disciplines are ordered and care is provided. Best practices related to provider interventions primarily focused on patient education, with instruction to patients and families on alternative pain control methods, dyspnea management, notifying the agency of changes in condition, and side effects of medications. Some agencies identified coordinative aspects of patient care as best practices. These included limiting the number of care providers in a patient's home, coordination with hospital discharge planners, and assessment consistency among care providers.

Documentation (e.g., of assessments, communications, interventions, etc.) was a concern for many agencies and was consistently listed as a best practice, primarily in conjunction with other best practices. For example, a best practice for one agency was "The MD will be notified of any exacerbation of symptoms, and communication will be documented."

Best practices for physiologic outcomes tended to be very problem-specific. For example, best practices for problems with dyspnea assessments (from separate agencies) included: (1) RN will assess and document weight on every visit; (2) care providers will assess and document anxiety related to dyspnea; (3) care providers will assess jugular vein distention; and (4) RN will assess and document $O_2$ saturation with pulse oximeter. Other best practices indicated the need for increased consistency in assessments of dyspnea, pain, anxiety, wounds, and cognitive status (e.g., using consistent definitions and criteria),

increased consistency in care providers, and documentation of interventions for pain, anxiety, and dyspnea on care plans.

Functional outcome best practices included adequate assessment and documentation of patients with poor endurance, high risk for falls, pain related to activity, and fine motor functioning, with appropriate referrals to occupational or physical therapy.  Best practices for utilization outcomes included care provider assessments of medication/treatment regimen compliance, patient education regarding early symptom recognition and reporting to the home care agency, patient education for symptom management, increased nursing visits to "complicated" patients, and timely visit or telephone call follow-up of patients with changing medical conditions.

In the first year, only two agencies chose favorable target outcomes for physiologic or functional outcomes.  Of these, one agency found problems to be remedied even as they investigated care leading to the favorable outcome.  Best practice statements of strength (for favorable outcomes) focused on ways to maintain the positive outcome (e.g., discussing patients with wounds at case conferences).

Because all agencies investigated the outcome of Acute Care Hospitalization in the first year, this outcome was superior to the reference sample for some agencies.  Even in these cases, unplanned hospitalizations occurred.  Therefore, most agencies developed problem statements for areas of care practice they felt could be improved, regardless of whether their overall hospitalization rate was favorable.  As with physiologic or functional outcomes, agencies with statements of strength developed best practices to further improve the outcome.  Examples of strength statements for Acute Care Hospitalization target outcomes were:

- Staff nurses assess appropriately for pain and patient's knowledge of pain management.

- Staff performs thorough assessment at start of care, initiating identification of problems.

- For patients that are not hospitalized, consistent strong documentation and coordination of care are evident.

Occasionally, agencies found in developing their best practices that the problem/strength statements needed to be reworded in more definite terms so that the subsequent best practice statements would also be clear.  They reported that when the problem statements were revised in more understandable terms, their Care Process Action Teams could then continue with their plan of action development with more ease.

## 6.  <u>Plans of Action</u>

After identifying specific target care processes and best practices, agencies developed specific intervention activities to change clinical practice or to make the best practices established care processes.  In the first year of the demonstration, agencies submitted their

plans of action in their own formats. Research Center staff noted that some agencies' plans did not include all the pertinent sections (e.g., problem/strength statement). Beginning with the second year, agencies were advised to use a specific format designed by the Research Center for the plan of action (see Attachment 3). Following this format, agencies used the sections as prompts to ensure that all steps of outcome enhancement were included. Agencies were encouraged to use the plan of action form to communicate with their staff regarding the problems/strengths found in their investigation, what best practices were to be implemented, and how the implementation would occur and be monitored.

Agency-level interventions varied considerably and included activities such as the development of written standards, purchase of equipment, staff education, and development or revision of forms. Agencies reported that it was helpful to focus on a few basic interventions when developing the action plan. More than five interventions greatly increased the complexity of the plan: multiple tasks that were necessary to complete became overwhelming, and the focal point of the quality improvement activity -- improving or reinforcing care behaviors -- was lost. In response to the question "What is one thought you would like to share with other agencies who are just starting to implement their plans of action?" many agencies responded, "Keep it simple."

It was also noted that administrative support is particularly important at this point of the plan development. The Care Process Action Team might plan major interventions that require costly purchases needing administrative approval. For the best practice "All dyspneic patients must be weighed at SOC and every week thereafter," the team may decide to purchase scales for all of the professional staff. If the administrative staff is not aware of the findings of the process-of-care investigation, and of this plan, the purchase order may be denied. The best practice at this point would not be implemented. Coordinating and communicating with administration provide the opportunity for developing best practices that have full agency backing.

## 7. Monitoring Approaches

Monitoring approaches were identified to ensure that each planned intervention activity actually occurred and to determine its effect on care delivery. The primary approach to monitoring was assessment during routine clinical record review, since most home care agencies are required to review their charts on a quarterly basis. For example, if an agency determined that an intervention approach was the development of a teaching plan for cardiac patients, then a corresponding monitoring approach might include record review to determine compliance with the use of the teaching plan. In addition to the monitoring of specific interventions, agencies planned evaluations of the action plan as a whole. Evaluation strategies included ongoing meetings of the QI team to obtain anecdotal information, quarterly clinical record reviews, and reassessment of outcomes during additional outcome report cycles.

Monitoring approaches provided the most challenge for a majority of the agencies. Some agencies related that they had developed grandiose plans for monitoring their plan of action and then could not manage to complete the designated activities. Like intervention actions, just a few monitoring approaches should be planned -- each with depth rather than

breadth -- to facilitate actual implementation.  Agencies reported that if there was not a structure in place, even when only a few staff were involved, then the monitoring plan was not followed.  Also, having a single person do all the monitoring did not support staff buy-in on the findings.  Several agencies identified that their Care Process Action Teams developed very detailed plans of action including the intervention actions and monitoring approaches.  However, the monitoring did not occur for various reasons (e.g., it was not seen as important, other organizational activities took priority), and their staff were not providing the standard of care that they had planned.  The lack of follow-through in the plan of action often is an indication that administrative support for the OBQI activities is lacking.  Other agencies frequently reinforced the best practices at staff meetings and emphasized the purpose of OBQI is to provide exemplary care.  Overall, agencies felt that monitoring approaches were successful when they were integrated with existing processes, were clearly assigned to a specific group of people with definite timeframes for completion, and were communicated to staff.

## C.    SUCCESSFUL PLANS OF ACTION

Plans of action were examined by Research Center staff for trends or patterns to determine the presence of a relationship between statements, intervention actions, and the target outcomes' measurements for the following year.  Successful plans of action were identified as those where the identified target outcomes were statistically significant and favorable in the following year's outcome report.

In the successful plans of action, common characteristics included: the problem/strength, best practice, and intervention action statements were clearly stated, focused on patient care, and connected to the target outcome.  Successful intervention actions also identified how the staff would be involved in implementing the best practices, stated clear time frames, and noted those individuals responsible for completing the activity.

Table 5 provides excerpts of plans of action with corresponding sections.

## D.    SUMMARY

The outcome enhancement activities of OBQI are new to most agencies, at least by name.  Often, those organizations familiar with CQI processes are able to make the most direct link to similar OBQI activities.  Throughout the demonstration project, Research Center staff clinicians provided telephone technical assistance on an as-needed basis.  Through these communications, Research Center staff compiled an extensive list of methods and processes that helped agencies to have a favorable impact on their outcome enhancement activities.  These are presented in Attachment 4, OBQI Practice Strategies: Lessons Learned.

In general, most agencies followed guidelines developed by CHSR when conducting their outcome enhancement activities.  Some agencies had difficulty synthesizing findings from record reviews and developing problem or strength statements with corresponding best practices.  In addition, many agencies reported difficulty conducting all components of the outcome enhancement phase within one month (a time limit set by CHSR to maximize

**TABLE 5:  Illustrative Problem/Strength Statements, Best Practices, Intervention Actions, and Monitoring Approaches.**

**Target Outcome**

| Problem/Strength | Best Practice | Intervention Action | Monitoring Approach |
|---|---|---|---|
| Acute Care Hospitalization | | | |
| Problem:  Incomplete assessment of medication compliance and lack of identification of patients at high risk for non-compliance at SOC. | Assessment at SOC must be complete including patient's ability to take meds and understand medication regimen. | Educate nurses re: assessing medication compliance and patient understanding of medication regimen. | Audit assessment of all admissions monthly. |
| Improvement in Dressing Upper Body | | | |
| Problem:  For patients with difficulty dressing upper body, poor assessment of upper body function is evident. | For all patients, routine SOC assessment includes upper body function screen. | In-service, and schedule demonstrate/return demonstration for field nurses on screen and upper extremity ROM exercises. | Monthly record review to monitor protocol implementation; field visits at scheduled field performance appraisal to assess care provider skill level. |
| Improvement in Dyspnea | | | |
| Problem: Inconsistent and/or sporadic assessment and teaching in the management of dyspnea. | Clinician will effectively assess and teach management of dyspnea to patient and caregiver. | Develop a protocol that will be used to assess and teach clients and caregivers to manage patients' dyspnea. | Chart review of all records to determine effectiveness of dyspnea assessment and teaching. |
| Acute Care Hospitalization | | | |
| Strength: Staff practices thorough assessments, initially and ongoing, of individual patient needs with appropriate referrals executed. | All patients assessed using SOC assessment and documentation of 24 hour diet recall and all involved community resources. | In-service for RNs regarding 24 hour diet recall and involved community resources. | Supervisory review each admission record. |

the impact of outcome enhancement on the next outcome report), but most were able to complete the investigation and to develop an action plan by the deadline or shortly thereafter.

Agencies having the most difficulty with outcome enhancement activities tended to have weak administrative support or high QI and management turnover.  In a few cases, field staff were not involved in the process due to high patient demands or lack of administrative support for staff time to attend meetings.  New QI staff that had not attended training workshops struggled to understand the process but were supported by Research Center technical assistance.  An OBQI video and a corresponding workbook were provided

to agencies that experienced staff turnover following the initial OBQI training to assist new agency staff in learning the outcome enhancement process.

Agency QI coordinators commented that the process-of-care investigation was congruent conceptually with their current CQI programs. They also noted that the outcome reports and suggested methods provided more focus than had been the case previously in examining care processes that impact outcomes. In several agencies, the process-of-care investigation and plan of action have become the central focus of their performance improvement programs. Attachment 5 provides an overview of OBQI and cites two case studies on how agencies can use OBQI to enhance patient care.
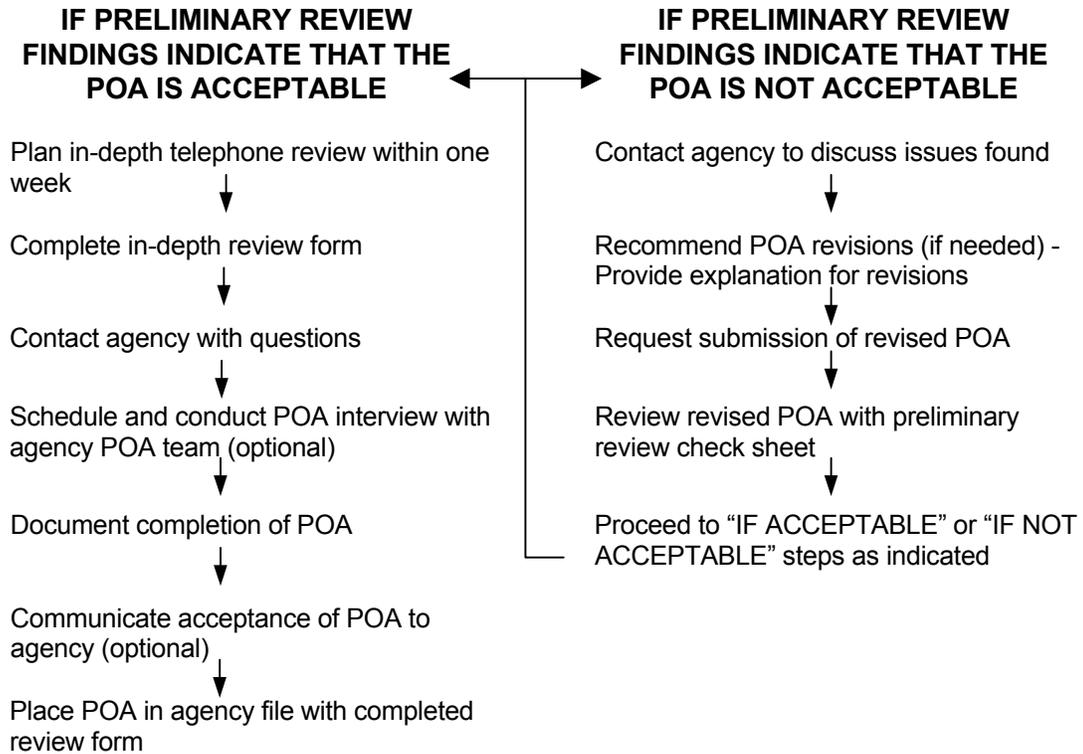
## Reference

Richard AA, KS Crisler, and PW Shaughnessy (1996). Training materials for the first process-of-care investigation. Working Paper 5 from *Medicare Home Health Quality Assurance Demonstration.* Denver, CO: Center for Health Policy Research, December.

**ATTACHMENT 1**

**Forms Used by Research Center Staff to Review Plans of Action**

# PLAN OF ACTION (POA) RECEIPT AND REVIEW PROCESS

**IF PRELIMINARY REVIEW FINDINGS INDICATE THAT THE POA IS ACCEPTABLE**

Plan in-depth telephone review within one week

↓

Complete in-depth review form

↓

Contact agency with questions

↓

Schedule and conduct POA interview with agency POA team (optional)

↓

Document completion of POA

↓

Communicate acceptance of POA to agency (optional)

↓

Place POA in agency file with completed review form

**IF PRELIMINARY REVIEW FINDINGS INDICATE THAT THE POA IS NOT ACCEPTABLE**

Contact agency to discuss issues found

↓

Recommend POA revisions (if needed) - Provide explanation for revisions

↓

Request submission of revised POA

↓

Review revised POA with preliminary review check sheet

↓

Proceed to "IF ACCEPTABLE" or "IF NOT ACCEPTABLE" steps as indicated

**Plan of Action Preliminary Check Sheet**


Agency  _____  Receipt Date  _____

Target Outcome  _____


__     POA Form is not the recommended form AND is difficult to read or follow


__     POA Form is not complete   (areas missing, sections incomplete)


__     The "n" of the Target Outcome is lower than 30


__     The Target Outcome is not statistically significant to warrant investigation


__     There does not appear to be a rationale for the Target Outcome chosen


__     More than two outcomes were chosen with no explanation why


__     First implementation date of intervention(s) is later than 1 month from receipt of
       outcome report


__     Full implementation of necessary changes in care behaviors is later than 1-2 months
       from receipt of outcome report

# Plan of Action In-Depth Review Sheet

Target Outcome_____        Agency_____

Date_____        Reviewer_____

Current____ Adjusted Prior ____ Reference _____Significance ____

| ITEM | YES | NO | | Comments |
|---|---|---|---|---|
| 1. Team members identified? | | | | |
| 2. Titles/Disciplines specified? | | | | |
| 3. Target Outcome in specific terms? | | | | |
| 4. Plan specified for Remediation or Reinforcement? (circle which one(s)) | | | | |
| 5. Problem or Strength identified? | | | | |
| 6. Is Problem or Strength logically consistent with Target Outcome? | | | | |
| 7. Is Problem/Strength stated in specific terms that guide best practices? | | | | |
| 8. Are Care Behaviors or Processes identified as Best Practices? | | | | |
| 9. Are stated Care Behaviors or Processes logically consistent with Problem/Strength? | | | | |
| 10. Are Care Behaviors stated in specific terms that will guide clinician behavior? | | | | |
| 11. Are Intervention Activities identified? | | | | |
| 12. Is there a combination of Proactive/Participative approaches? | | | | |
| 13. Are specific time frames specified? | | | | |
| 14. Are responsible individuals named? | | | | |
| 15. Are Activities practical/achievable? | | | | |
| 16. Do Actions go beyond in-servicing and forms revision? | | | | |
| 17. Are Intervention Activities logically consistent with Best Practices? | | | | |
| 18. Will Activities be implemented in 1 month? | | | | |
| 19. Are necessary changes in care behaviors to be in place in 1-2 months? | | | | |
| 20. Are Monitoring and Follow Through specified? | | | | |
| 21. Is Review, Evaluation and Monitoring Schedule specified? | | | | |
| 22. Reviewer's score | 1 | 2 | 3 | |

**ATTACHMENT 2**

**Questions Used to Interview Agency Staff
Regarding Implementation of Plans of Action**

# Plan of Action Interview Questions

Agency: _____ Date/time of call: _____ Interviewer: _____

Agency Personnel Present: _____

**Outcome Report:**
    What was the response to your outcome report? Were the reactions of management and staff similar or different?

**Target Outcome Selection:**
    What was the basis for choosing your target outcomes? What process did you use to select your target outcomes?
    Who participated in the selection of your target outcomes? Were your staff in agreement concerning the target outcomes your agency selected?

**Process-of-Care Investigation (POCI):**
    How would you evaluate your first POCI experience? Please describe how your team worked together, how your team decided on care behaviors, the care review process, and other areas of interest.

    In what ways did outcome enhancement training prepare you for the POCI? What was a surprise?

    What difficulties (if any) did your team experience during the POCI?

    What will you do differently <u>next year</u> as a result of this year's POCI process?

    What worked particularly well with this year's POCI that you want to be sure to include <u>next year</u>?

**Plan of Action (POA) Development:**

How did your POA development proceed?  Please describe your team member involvement and how you decided on problem or strength statements and intervention actions.

In what ways did outcome enhancement training prepare you for your POA development?  Were there any surprises, unexpected occurrences?  If yes, what were they?

What difficulties (if any) did your team experience during the POA development?

What will you do differently next year as a result of this year's POA process?
What worked particularly well with this year's POA process that you want to be sure to include next year?

**Implementation of the Plan of Action:**

According to your POAs, you planned to begin implementation of the first POA _____ on _____and the second POA _____ on _____.  How did that go?

*IF POA Implementation Has Not Started*:  When will implementation begin?

You planned that your POAs' implementation would be completed by _____ for your first POA and by _____ for your second POA.  Is that still your plan? *(Remind them that we recommend implementation of Plans of Action within 1 month or sooner, and the necessary changes in care behaviors should be in place within 1-2 months.)*

**Monitoring of Intervention Actions:**

What is your plan for identifying if/when revisions to the POA will be necessary?

What types of monitoring approaches have you planned for this year?  How did you decide on these approaches?

Are your staff aware that POA monitoring activities will occur throughout the year?

**Resources:**

Did you find that your agency's resources (staff, time) were limited during the POCI and POA development?  If yes, please explain how you proceeded with limited resources.

**Overall Comment:**

What is one thought you would like to share with us or with other agencies that are implementing OBQI concerning the POCI or the implementation of POAs?

**ATTACHMENT 3**

**Plan of Action Form**

**_____ HOME CARE AGENCY**

| **Plan of Action for Continuous Quality Improvement** |

### QUALITY IMPROVEMENT TEAM MEMBERS

1. _____    4. _____    7. _____
2. _____    5. _____    8. _____
3. _____    6. _____    9. _____

Outcome Report Date _____          Plan of Action Date _____

| 1. | **Target Outcome Addressed by Plan of Action:** |
| | |
| | |
| 2. | **Action Plan for (circle one):**  a.  Remediation      b.  Reinforcement |
| 3. | **Identified Problem or Strength:** |
| | |
| 4. | **Care Behaviors or Processes Selected as Best Practices (Prioritized):** |
| | |
| | |
| | |
| 5. | **Intervention Actions (Prioritized):** |
| | |

| **Action** | **Time Frame** | | **Responsible Person(s)** | **Monitoring Approaches (and Frequency)** |
| | **Start** | **Finish** | | |
| a. | | | | |
| | | | | |
| b. | | | | |
| | | | | |

| Action | Time Frame | | Responsible Person(s) | Monitoring Approaches (and Frequency) |
|---|---|---|---|---|
| | Start | Finish | | |
| c. | | | | |
| d. | | | | |

6. **Evaluation:**

a. **Review of Plan:**
   **Date:** _____
   **Responsible person(s):** _____
   _____
   **Results:**

b.     **Next outcome report:**
   **Date:** _____
   **Result:** _____
   **Next Step(s):**

c. **Monitoring Activities:**

(1)   **Activity:**

     **Date Completed:**
     **Finding:**

     **Response:**

(2)   **Activity:**

     **Date Completed:**
     **Finding:**

     **Response:**

(3)   **Activity:**

     **Date Completed:**
     **Finding:**

     **Response:**

(4)   **Activity:**

     **Date Completed:**
     **Finding:**

     **Response:**

**ATTACHMENT 4**

**OBQI Practice Strategies:  Lessons Learned**

OBQI Practice Strategies should be considered "outcome-enhancing behaviors" that can guide agencies to implement, maintain, and improve OBQI programs.  The source of these "practices" is the experience of the demonstration agencies.  They represent a composite of conclusions reached from varied communications with demonstration agency staff in order to determine the most useful approaches to modifying clinical behaviors and enhancing outcomes.

**Outcome Enhancement Process:**

1.    <u>Selecting Target Outcomes</u>:

Definition:  The first step of the outcome enhancement process is agency selection of a limited number of target outcomes.  Specific criteria are applied when making the selection.  This step allows an agency to focus its resources and to use time and staff most effectively.

Principles:  (1) The group responsible for selecting target outcome(s) should be selected and trained in this process before the outcome report arrives at the agency.  (2) The agency is most likely to have an impact on its target outcome(s) if it follows the six criteria for target outcome selection in the priority order presented.  (3) If target outcome selection proceeds efficiently once the outcome report is received, then the rest of the activities necessary to develop the plan of action can occur promptly.

Practice Strategies:
- The group that will be responsible for selecting the target outcome(s) should be trained in the process before the reports arrive at the agency.  This training should include practice in the use of the six criteria for selecting target outcomes with several sample outcome reports.
- Practicing with sample outcome reports will prepare the Target Outcome Selection Team for the emotional response they are likely to experience with their own outcome report.  This will minimize some of the "data shock" and will allow the group to proceed quickly to the selection process.
- Once the agency's outcome report is received, staff should be aware that reacting defensively to the outcome report is normal.  A review of the data collection protocols and the concept of risk adjustment (if necessary) increase the staff's receptivity to the reports and encourage them to move forward to select target outcomes and investigate care processes.  Support and communication with staff when they first see the outcome reports will help their understanding.
- Specific agency priorities (e.g., accreditation initiatives, agency-wide programs, facility-based initiatives, etc.) should be made clear before beginning the target outcome selection process.  For this reason, it is often most appropriate for the agency's management group (or a subset of this group) to participate in the target outcome selection process.

- For success in outcome enhancement, specific agency considerations should not rank higher in priority than the first tier of (statistical) criteria for selecting target outcomes. That is, statistical significance, an adequately large number of cases (at least 30), and magnitude of the difference or deviation from the reference value (or the agency's value for the prior year) should be the first criteria applied. After these criteria are met, the agency should consider its specific concerns or objectives as additional factors in making the final selection of target outcomes.
- The agency should plan its target outcome selection process to occur in a timely manner. A specific time interval can be set for the selection process. An agency can specify, for example, that the target outcome(s) will be selected within three days of the outcome report being received by the agency.
- If the selection group is well trained in the process, each member can review the reports individually and propose potential target outcome(s) to pursue. Meeting time then can be used to reach consensus on specific target outcome(s) rather than to conduct the entire review process. This meeting also will allow the group to plan the additional outcome enhancement activities, including personnel and timing.
- Agencies sometimes attempt to select one (overall) target outcome that they perceive will also impact other outcomes (e.g., selecting Improvement in Ambulation/Loco-motion as a target outcome because they feel it also is likely to influence Improve-ment in Dyspnea and Acute Care Hospitalization). Such rationale is incorrect and should be avoided. Each outcome is computed separately and has its own unique risk-adjustment model for analysis. A target outcome should be chosen on its own merits, not because it is felt to be one where success in impacting one outcome will guarantee success in impacting others.
- If the agency's QI team has difficulty selecting target outcomes, reinforce the need to limit outcome enhancement activities to one or two target outcomes. Reviewing the specific list of criteria for selecting target outcomes usually assists the QI team to stay on track.
- Once the target outcome selection process is concluded, the agency staff can be informed of the rationale for this selection. Some agencies ask for staff input at this point, even requesting staff to ratify the selection. This can increase staff buy-in to the process from the beginning of the outcome enhancement activities. (Staff are better prepared to provide such input if they have been given at least a gradual orientation to the outcome report and the OBQI process.)

2. Conducting the Process-of-Care Investigation:

Definition: The second step of the outcome enhancement process is a systematic investi-gation of the clinical actions that contributed to the target outcome(s) and leads to specific aspects of care provision to change (or reinforce) to improve patient care. The step begins with the development of a "should be done" list of clinical care processes that is subsequently used to evaluate care provision.

Principles: (1) Clinical staff members from all disciplines at all levels must be involved in this process for any subsequent change in clinical actions to be successful. (2) Critical thinking and careful review of care provision are required for a thorough investigation.

(3) The investigation can be done efficiently if adequate advance preparation occurs. (4) Focused clinical record reviews are often used in the investigation but should not be considered the only possible approach to reviewing care provision. (5) When selecting patients to include in the investigation of care provision, carefully consider whether to be very focused or more broad in applying the selection criteria. (6) Agencies without QI focus or experience are likely to proceed somewhat more slowly through the investigation.

Practice Strategies:
- It is <u>critical</u> to involve clinical staff in the development of the "should be done" list for evaluating care provision. They are the key individuals providing care (the ones who know what to do and what is being done for specific patient types), as well as the persons who will need to change their care processes. They need to understand why such change is indicated. If clinical staff do not see the need to modify care delivery, new approaches to care provision are unlikely to occur, because clinicians practice so autonomously in home health care.
- Consider all aspects of care provision when developing the "should be done" list. Assessment, care planning, interventions, patient or caregiver teaching, evaluation of interventions/teaching, and coordination with the care team are categories of care provision that might be relevant. A "should be done" list that includes only assessment criteria is too narrowly focused.
- Developing the "should be done" list can occur without meetings by describing a patient situation (e.g., a patient who is not independent in transferring at SOC) and requesting essential aspects of care provision be submitted by voicemail, by notes, on a list posted where staff obtain supplies or turn in paperwork, etc. All suggestions can be compiled and presented to staff for prioritizing (via multivoting, for example). This approach can be used to obtain input from contract staff or home health aides who may have limited participation in meetings.
- If the QI team is unable to identify problematic or superior care processes linked with the target outcome, consider using CQI tools and techniques. Brainstorming (focused on care that should be provided for the conditions that influenced the outcome under consideration) can generate a list of actions clinicians should always take related to the target outcome. Pare the list down to several (less than ten) key behaviors and use this list for reviewing records. Tally the results of the record reviews to identify which key behaviors are occurring consistently and which ones are often missing. Encourage the QI team to look at care processes rather than at the completion of paperwork.
- Use existing resources when available to assist in developing the "should be done" list. Examples of such resources include published articles on caring for certain conditions such as incontinence or pain; standardized care plans or care paths; or expert opinion, such as enterostomal therapist input for patients with wounds.
- If meeting time is deemed necessary for staff to develop or add to the "should be done" list, append it to a regular meeting time. Request that staff bring to the meeting a short list of the most important aspects of care delivery needed to achieve the selected target outcome. The comprehensive list (from all staff) can be compiled

during the regular meeting time and presented for discussion (and prioritizing) at the end of the regular meeting.

- Thoroughly investigating care provision requires individuals to apply critical thinking skills to the review of clinical records or to staff interviews, rather than drawing conclusions from assumptions without evidence. For example, when a patient is admitted with a new medication, it should not be assumed that medication teaching occurs at the first visit if such teaching is not documented in the clinical record (or is reported in staff interview). Similarly, do not decide that pain (or dyspnea or incontinence) is not an important patient problem to address in a specific situation when documentation is lacking.

- Lack of specificity in the "should be done" list will result in clinical record reviewers (or interviewers) making their own interpretations and assumptions about what the criteria mean. Questions from reviewers requesting interpretation early in the review process often indicate that the "should be done" criteria must be more specific.

- Individuals who currently review records in the agency often are skilled at locating aspects of care in clinical records. If record review is used for the process-of-care investigation, these individuals' expertise should be utilized. Prior to beginning the OBQI review, explain the differences between this record review and the more typical reviews currently done in home care agencies (e.g., utilization review).

- Record reviews need not occur in a group setting; they can be done individually. Some agencies have found it desirable to begin with one group session so that questions and procedures can be addressed with all participants. Decide what would work best for the agency and staff.

- Bringing participants together to discuss and summarize their findings at the conclusion of clinical record reviews does appear to be particularly effective for the development of the problem/strength statement.

- Advance preparation for the process-of-care investigation will allow it to be conducted more efficiently, thus saving time. Specific record review (or interview) audit forms that include the review/interview criteria (developed from the "should be done" list) can be distributed to all participating staff members. Adding a "Comments" section to each audit form allows the staff member to note relevant observations. A form to tally the results of individual audits will facilitate overall summarization.

- An adequate number of care episodes from which to draw conclusions should be included in the process-of-care investigation. Too small a number of episodes can lead to conclusions that cannot be generalized across the agency. If the agency uses clinical record review, 15 to 20 records should be reviewed. If the agency interviews clinicians about care practices, 15 to 20 unique patient situations should be addressed in the interviews.

- Give careful consideration to the selection of specific patients to include in the process-of-care investigation. Sometimes agencies are too restrictive in their selection of patients for the review of care, focusing exclusively on patients with a specific cardiac diagnosis if the target outcome is Improvement in Dyspnea, for example, or exclusively on orthopedic patients if the target outcome is Improvement in Ambulation. Use of successive queries to the patient tally report and review of the case mix

characteristics for patients selected by these queries will assist in selecting an optimal group of cases for review of care provision.

- Agencies who are new to QI activities are likely to find the emphasis on care process review to be unique. Their past record review activities more likely focused on verifying that reimbursement requirements were met or that service utilization was appropriate, rather than on investigating specific aspects of care provision. Such an agency may find it most useful to conduct record review activities in a group setting, allowing all participants to "keep on track" with the new emphasis.

3. <u>Developing the Plan of Action</u>:

Definition: Once the process-of-care investigation is complete, agency staff write a plan of action for each target outcome. The plan of action is written to improve (or reinforce) care provision and outline the activities that are necessary to actually enhance patient outcomes. The major components of the plan of action are the statement of problem (or strength) in care provision, the best practices that identify precise clinical actions, and the intervention actions that are undertaken in the agency to implement the specified best practices.

Principles: (1) In the written plan of action, specifically worded statements will assist the agency to discuss and present the plan to staff, thus increasing the likelihood of impacting outcomes. (2) A logical, consistent relationship between the target outcome, the problem/strength statement, and the best practices should be evident in the plan. (3) All components of the plan of action should be carefully evaluated to determine whether they are clear to staff. (4) Multiple intervention approaches are more effective than a single approach. (5) To have the maximum impact on the next outcome report, the plan needs to be completed and implemented quickly once the agency has selected its target outcome(s).

Practice Strategies:

a. <u>Problem/Strength Statements</u>:
- Are formulated by summarizing the results of the process-of-care investigation. The summary of the process-of-care investigation (conducted prior to this step) leads to the identification of specific patient care issues important for the agency. If many issues are identified, prioritize and possibly categorize them to assist in narrowing the focus.
- Describe SPECIFIC aspects of care provision or care issues. The care issues should be clearly linked to the target outcome selected. The patient care issues should be within the agency's control. Specific statements address the CARE that will be provided (and later documented), <u>not</u> just the documentation.
- Contain TANGIBLE, CLEAR WORDING using concrete terms to which clinical staff can relate. The focus is relatively narrow to emphasize a manageable area of change (e.g., "start of care and recertification assessments" instead of "assessments"). The statement is clear enough that <u>all</u> readers can understand exactly the problem or strength in care provision that was found in the process-of-care investigation.

- Guide the development of best practices, which in turn guide the development of agency-level interventions to implement the plan of action. They focus the reader on the direction of the remainder of the action plan.
- Examples of problem statements:
  ➢ Acceptable problem statement for the target outcome Improvement in Dyspnea: "For patients with noticeable shortness of breath at start of care, there is inadequate assessment of changes in respiratory rate in response to activity." The statement focuses on patient care, addresses issues within the agency's control, focuses on more than documentation, uses specific wording, and can guide further delineation of best practices.
  ➢ Unacceptable problem statement for the target outcome Improvement in Anxiety: "Inconsistent definition of anxiety so similar assessment data are not consistently interpreted. When anxiety is present, no specific interventions occur. Lack of continuity of staff adds to patient anxiety." The issues addressed are within the agency's control, but the statement includes assessment, interventions, and apparently scheduling issues. The problem area needs to be more clearly circum-scribed. If more than one problem area exists for this agency, then the specific problems should be individually stated.
- Examples of strength statements:
  ➢ Acceptable strength statement for the target outcome Acute Care Hospitalization: "At start of care, patients and caregivers are taught the changes in a patient's signs and symptoms that would warrant a call to the home health agency." The statement addresses a patient care issue beyond documentation and guides the writing of the best practices.
  ➢ Unacceptable strength statement for the target outcome Stabilization in Speech/ Language: "Adequate assessment of speaking ability in patients with neurologic diagnoses." From this statement, the timing of the assessment is not clear, nor is the discipline of the clinician doing the assessment. Is the assessment conducted for any patient with a neurologic diagnosis, only patients with specific neurologic diagnoses, or only patients with new neurologic diagnoses? Additional speci-ficity is needed.

b. Best Practices:
- Are statements of exactly <u>what</u> the clinician should do and <u>when</u> and <u>how</u> it should be done (relative to the problem or strength identified for the target outcome). The prac-tices must be patient care centered (i.e., focused on the care to be delivered). The best practices address specific assessments, treatments, services, care planning, and coordination directly related to the identified problem or strength. The practices are not limited to documentation, but address the care that is provided before being docu-mented. Best practices include activities that are within an agency's control.
- Are clearly and specifically stated to identify exactly what clinicians are to do in specific situations. They should have a direct link to the problem/strength statement. Optimally, only three or four clinical actions are included. Too many best practices can be difficult for your clinical staff to remember to implement consistently, thus reducing the potential impact on your target outcome.

- The agency's clinical staff are an excellent resource for best practices. Educate the staff about how this activity fits into OBQI and about the importance of their input. Notify them of the need for their input in advance (via message, voicemail, email, or all of these), then locate the materials for their responses in a highly visible heavy traffic area. When staff pick up supplies or paychecks or drop off paperwork, they can contribute their input by writing suggestions on a poster board or by "voting" for their preferred care practices relative to the issue being addressed. When staff members' input is requested (and used), the reward will be their buy-in to the plan of action.
- Examples of best practice statements:
  - ➢ Acceptable best practice statement for the target outcome Improvement in Dyspnea: "For all patients with dyspnea, an inclusive cardiopulmonary assessment per the (specified) Manual will be performed and documented at all assessment time points." This statement cites a specific clinical activity to be performed at specific time points. There is an assumption that all clinical staff have easy access to the (specified) Manual.
  - ➢ Unacceptable best practice statement for the target outcome Improvement in Anxiety: "When anxiety is present, staff will intervene." This statement lacks specific directions as to which interventions are expected. A new staff member in the agency would not know precisely what to do when he/she encounters a patient with anxiety.

c. <u>Intervention Actions</u>:
- Are those activities that must occur within the agency to implement (or to reinforce) the specified best practices. Selected actions should be practical and achievable within the agency.
- Should begin soon after the plan of action is written and be completed within four to six weeks. A reasonable number of intervention actions (e.g., four or five) are more likely to be fully implemented in a short period of time than a longer list of activities. Responsibility for carrying out each specific intervention action should be clearly determined and stated in the written plan of action.
- Are focused on fostering behavioral change (or reinforcing existing practices) in agency staff members, to modify (or reinforce) those specific care provision activities, which are specified as best practices. Clinicians must recognize the need for change, understand the specific change desired, and have organizational support for the change to occur. Use of only one approach (e.g., education) to informing staff members about the desired change is seldom sufficient. For greater success, strive for a balance between educational activities and structural or process modification (e.g., development or revision of forms and processes). Testing comprehension at the end of an educational session and reviewing its practical application at a later time helps clinicians retain the information as well as assist in evaluating the success of educational efforts. Reminder mechanisms presented periodically also serve to keep the chosen best practices continually in front of staff members. These mechanisms may be even more important when agencies choose to reinforce strengths in care provision.

- If the QI team is having difficulty implementing the action plan, review the plan to make sure it contains specific problem statements and best practices and that it is realistic. Ensure that each action plan activity includes timelines and responsible persons assigned. Action plans should have three to five clearly-stated intervention activities.
- Example of an intervention action:
  - "Develop a mentoring program for clinicians with weak dyspnea assessment skills."

4. <u>Assessing the Effectiveness of the Plan of Action</u>:

Definition: Once the plan of action is developed and implemented, agency focus shifts to assuring the success of the implementation efforts, assessing staff compliance with proposed clinical practice changes, and determining any potential need for modification of the plan.

Principles: (1) Because change in clinical behavior is necessary for change in patient outcomes to occur, it cannot be assumed that such change will simply happen and will continue. Regular monitoring of the best practices is necessary. (2) Incorporating monitoring activities into other routine agency activities increases the likelihood that they will occur and will not be overlooked in the press of agency routine. (3) Staff must be provided feedback on whether the desired change in clinical care delivery is occurring. (4) Ongoing evaluation of the plan of action (particularly if the evaluation is documented and shared with staff) will assist in outcome enhancement during the current year and in responding to subsequent outcome reports.

Practice Strategies:
- Are most successful when monitoring activities are practical and achievable.
- Successful monitoring activities are routine within the agency and are incorporated into QI activities that are already in place, such as quarterly clinical record reviews.
- Begin the monitoring approaches at a high frequency, then taper to less-frequent intervals.
- A designated person or group should review the results of the monitoring as soon as possible after activities are completed. This allows modification of the plan to occur as necessary if the best practices are not consistently being done.
- Provide staff prompt feedback on whether the desired changes in clinical care practices are occurring.
- Congratulate achievement, or redirect areas for growth.
- When the plan is written, be sure to designate the individual(s) who will be responsible for its evaluation.
- Involve the individuals who participated in the development of the plan in its evaluation.
- Consider each of the sections of the plan of action in the evaluation.
- When evaluating the plan, determine "what worked" and "what did not work" in the plan development and implementation. Note suggestions for which activities the

agency should include in next year's outcome enhancement process and which activities should be revised, including specific suggestions for the revisions. It is easier to do this during the first few months after the plan is developed than to attempt to re-create it months later.

- Carry out the first evaluation of the plan by the end of the third month after receiving the outcome report, and continue at least quarterly thereafter until the next outcome report is received. Incorporate the monitoring results as part of the plan evaluation.
- Communicate with staff the results of the evaluation findings. Re-communicate, re-educate, and revise areas that are not working as planned.
- Celebrate successes at all points along the way.
- If the action plan was implemented but no change occurred on the subsequent outcome report, review the monitoring strategies used to ensure that the clinicians were aware of and implemented the best practices throughout the year. Review techniques for reminding clinicians of the goal of improving target outcomes. At the time the action plan is implemented, ensure that clinical staff has "buy-in" to the action plan and the goal of improving that target outcome. Clinical staff involvement from the beginning is imperative for the success of OBQI.

**ATTACHMENT 5**

**Using OASIS for Outcome-Based Quality Improvement**

# Using OASIS for Outcome-Based Quality Improvement

Angela A. Richard, MS, RN,
Kathryn S. Crisler, MS, RN, and
Paula M. Stearns, MSN, RN

OASIS was developed for the purpose of measuring and enhancing outcomes of patients receiving home health services. OASIS-derived outcome reports provide a foundation of Outcome-Based Quality Improvement (OBQI). This article describes the OBQI process and provides two case studies to illustrate how agencies can use OBQI to enhance patient care.

The Outcome and Assessment Information Set (OASIS) was developed for the purpose of measuring outcomes of patients receiving home healthcare. The OASIS data set provides a consistent format and standardized time points for documenting key aspects of patient health status. When OASIS data are compared between two or more time points, patient outcomes (improvement, worsening, or no change) can be determined.

Because OASIS data are uniformly collected for all patients, outcome information can be aggregated to produce agency-level outcome reports. These agency-level outcomes can be compared to a reference sample and to the agency's own outcomes from a previous time point. Outcome reports provide a basis for follow-up quality im-
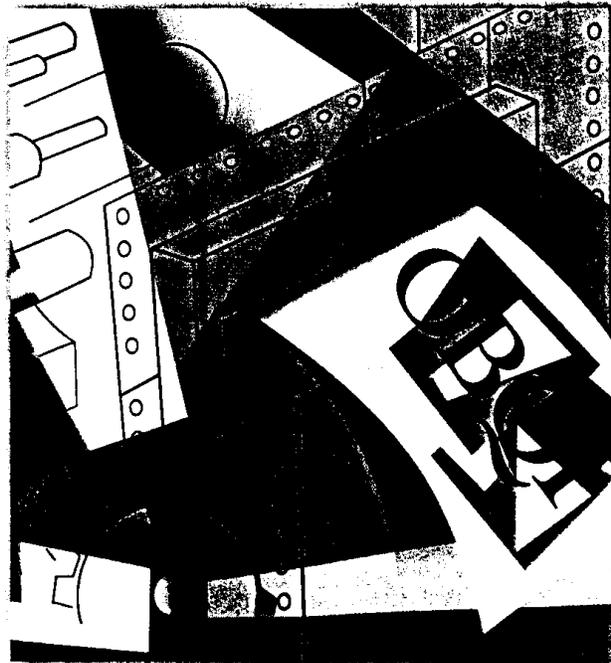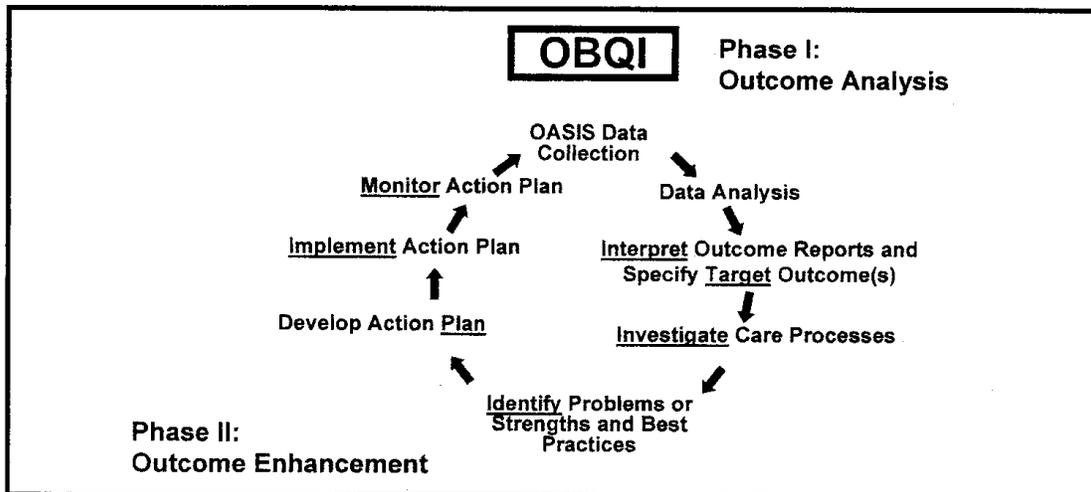
*Figure 1. The OBQI process. Reprinted with permission of author.*

provement (QI) activities. Outcome reports are described in detail in a companion article in this issue, "We've Collected OASIS Data, Now What?"

## The Two Phases of OBQI

Figure 1 illustrates the steps of the OBQI process, which consists of two phases. Phase I, outcome analysis, involves data collection and analysis. During this phase, OASIS data are collected during comprehensive assessments and transmitted to a central storage place (e.g., a state agency). Data can then be analyzed and outcome reports generated. Although some home care agencies can currently generate simple outcome reports from OASIS data through manual means, the Health Care Financing Administration (HCFA) ultimately intends to perform more complex analysis and provide reports to agencies (Department of Health and Human Services, HCFA, 1999).

Phase II of OBQI is outcome enhancement. During this phase, agencies conduct QI activities in a response to the outcome reports. There are six key steps to the outcome enhancement phase:

• interpret/target,
• investigate,
• identify,
• plan,
• implement, and
• monitor.

## The Outcome Enhancement Phase: Step by Step

### 1. Interpret/Target

After agencies receive and interpret outcome reports, one or two outcomes are targeted for further investigation. In general, agencies select out-

comes because they are worse than those of the reference group. However, some agencies select target outcomes that are superior to the reference group to determine why the outcomes were excellent, and to reinforce superior care practices.

### 2. Investigate

Once target outcomes are selected, the outcome investigation begins. An interdisciplinary QI team is identified to conduct the investigation. Team members should include staff who are regularly involved in or affected by the work processes related to the outcome being investigated. For example, if the target outcome is "Improvement in Ambulation/Locomotion," it would be important to include a physical therapist on the QI team. The size of the QI team should be relatively small to remain workable, probably no more than five to seven people.

The mission of the QI team is to identify specific processes of care that influenced the target outcome. It may be helpful to first brainstorm about best practices that relate to the outcome. For example, if the target outcome is "improvement in pain interfering with activity," team members may identify types of clinical assessments, care plans, and interventions that should be provided for patients who have problems with pain. The QI team can then compare these best practices to the care that was actually provided to patients.

A variety of QI tools can be utilized in conducting a thorough investigation of care processes (see Table 1), including clinical record reviews, staff interviews, flow-charting, and cause-and-effect diagrams (Leebov, 1991; Shaughnessy & Crisler, 1995).

## Table 1. Quality Improvement Tools for the Care Process Investigation

- Brainstorming
- Staff Interviews
- Multivoting
- Flow Chart Diagrams
- Cause and Effect Diagrams (Fishbone Diagrams)
- Pareto Charts
- Checklists
- Run Charts

### 3. Identify

Once the investigation is complete, the QI team develops a summary of findings. In this step of the outcome enhancement phase, the team identifies specific problems or strengths in care delivery that impacted the target outcome. Often a primary problem, such as lack of consistent assessment, delays in appropriate follow-up for patients whose conditions worsen, or ineffective teaching becomes apparent.

The QI team should also identify the corresponding best practices. For example, if the problem identified is "effectiveness of interventions to relieve pain interfering with activity is not being consistently evaluated," a corresponding best practice might be "clinicians will measure the effectiveness of interventions given to relieve pain interfering with activity within at least 24 hours, either during a visit or via a telephone call to the patient/family."

### 4. Plan

After problems/strengths are identified, the QI team develops a plan of action to inform staff of findings from the investigation and promote the use of best practices in day-to-day patient care. The plan includes the activities or tasks that the QI team will initiate to promote staff use of the best practices, individuals responsible for each task,

*Angela A. Richard, MS, RN, is a Research Associate, Center for Health Services Research, University of Colorado Health Sciences Center, Denver, Colorado where Kathryn S. Crisler, MS, RN, is a Senior Research Associate, and Paula M. Stearns, MSN, RN, is a Research Associate. Address for correspondence: Angela A. Richard, MS, RN, Research Associate, Center for Health Services Research, University of Colorado Health Sciences Center, 1355 South Colorado Boulevard, Suite 306, Denver, Colorado 80222.*

time frames for implementation, and methods for monitoring the action plan. Figure 2 shows an example of an abbreviated plan of action (complete plans of action include additional information such as a list of QI team members and additional best practices).

### 5. Implement

The QI team is then responsible for ensuring that outcome-enhancing activities listed in the action plan are implemented. It is strongly recommended that activities in the plan of action be completed within 1 month of the plan's development. A 1-month time frame maximizes the potential impact of outcome-enhancing activities for the next outcome report. (Outcome reports are typically generated on an annual basis.)

### 6. Monitor

After the plan of action is implemented, the QI team will conduct monitoring activities to assess the progress of the plan, determine if clinicians are utilizing the best practices in care delivery, and identify the need for revisions to the plan. Examples of monitoring activities are clinical record reviews, supervisory visits designed to evaluate the use of best practices, and staff interviews. If clinicians are not using the best practices identified in the action plan, the QI team may need to alter its strategies for enforcing the best practices by revising the plan.

The ultimate test of the action plan is its ability to positively change patient outcomes; therefore, the next outcome report will also be an evaluation tool to determine if the agency is able to improve (or maintain) the target outcome (Shaughnessy & Crisler, 1995).

## Case Studies from the Demonstration Agencies

Home care agencies participating in demonstration projects (conducted to test and evaluate OASIS) were able to demonstrate improvements in target outcomes using the OBQI system. The following two case studies illustrate how agencies conducted the outcome enhancement phase of OBQI.

### 1. Case Study—Agency A

a. *Interpret/Target.* Agency A interpreted its outcome report and chose "Unplanned Hospitalization" for its *target outcome.*

## Plan of Action for Continuous Quality Improvement

Outcome Report Date ___1/3/2000___     Plan of Action Date ___1/17/2000___

**Target Outcome Addressed by Plan of Action:**
Improvement in Pain Interfering with Activity

**Identified Problem or Strength:**
When an intervention to relieve pain interfering with activity is performed, the effectiveness of the intervention is not being consistently documented.

**Care Behaviors or Processes Selected as Best Practices (Prioritized):**
Clinicians will measure the effectiveness of interventions to relieve pain interfering with activity within at least 24 hours, either during a visit or via a telephone call to the patient or family, and at each subsequent visit.

**Intervention Activities (Prioritized):**

| Action | Time Frame | | Responsible Person(s) | Monitoring Approaches (and Frequency) |
|---|---|---|---|---|
| | Start | Finish | | |
| a. Revise policy on administering pain medications to include evaluation of effectiveness within 24 hours and at each subsequent visit. | 1/18/00 | 1/24/00 | Dan | QI team will review revised policy 1/26/00 |
| b. Revise policy for non-medication pain interventions to include evaluation of effectiveness within 24 hours and at each subsequent visit. | 1/18/00 | 1/24/00 | Tom | QI team will review revised policy 1/26/00 |
| c. New policy will be disseminated to clinicians via in-house mail. | 1/26/00 | 1/28/00 | Sandy | Supervisors to speak to each clinician to ensure they received policy by 2/2/00 |
| d. Policy will be discussed in staff meeting. | 2/2/00 | 2/2/00 | Meg | Discussions will be documented in staff meeting notes |

**Evaluation:**

a.  **Review of Plan:**
    Date: ___4/1/2000___
    Responsible person(s): ___QI Team___
    _____
    **Results:**

b.  **Next outcome report:**
    Date: _____
    Result: _____
    Next Step(s)

c.  **Monitoring Activities:**

    (1) **Activity:** Clinical record review of 15 records monthly to determine adherence to revised policy with individual feedback to clinicians by supervisors as needed.

    **Date Completed**

    **Finding:**

    **Response:**

    (2) **Activity:** Clinical record review findings will be discussed in quarterly QI meeting and summarized in quarterly staff meetings

    **Date Completed**

    **Finding:**

    **Response:**

*Figure 2. Illustrative Plan of Action.*

b. *Investigate*: The quality improvement coordinator selected a QI team of field nurses and therapists to conduct a care process investigation for this outcome. The QI team used staff interviews, focus groups, brainstorming, and clinical record reviews to investigate care processes for patients who were admitted to an inpatient facility for acute care.

c. *Identify*: The QI team identified the following *problem statement*: When deterioration in health status was assessed, clinicians were not consistently consulting with the physician on the same day as the visit and were not conducting follow-up visits or phone calls with patients in a timely manner. *Best practices* were identified as the following:

- For (a) patients needing immediate assessment and teaching related to treatments, disease process, or safety;
- (b) patients with unstable conditions likely to change within 24 hours; or
- (c) patients whose caregivers have serious difficulty coping with client care and need guidance and direction, the nurse will identify the need for a follow-up visit or telephone call to the physician within 24 hours and will relay this need to the team leader to ensure that the visit or phone call occurs.

d. *Plan*: The team developed a plan of action that included the following *intervention activities*:

1. Clinical team leaders would immediately relay the plan to staff;
2. Criteria sheets would be developed and distributed to staff to assist in identification of patients needing follow-up;
3. Clinical educators would present the protocol to new staff during orientation; and
4. The action plan would be reinforced by presenting it at staff meetings, with articles in the agency newsletter, and by posting it on agency bulletin boards.

To evaluate the above intervention activities, field staff were surveyed regarding satisfaction and compliance with the new protocol and criteria sheets. Findings from the surveys were discussed in a clinical team leader meeting.

e. *Implement*: The agency implemented the above plan within 1 month of its development. Each intervention activity was evaluated by the QI team leaders in a meeting following the action plan implementation. Staff were surveyed and indicated that they were satisfied with and adhering to the new protocol and criteria sheets.

f. *Monitor*: To monitor the action plan, the QI team planned chart audits 3 and 6 months after implementation of the plan. During chart audits QI team members verified that care providers consistently utilized criteria sheets, appropriately identified patients needing immediate follow-up, and recorded that the team leader was notified. In addition, the agency utilized subsequent outcome reports to evaluate whether the plan of action actually improved the outcome of unplanned hospitalization.

## 2. Case Study—Agency B

a. *Interpret/Target*: Agency B interpreted their outcome report and chose the *target outcome* of "Improvement in Dyspnea."

b. *Investigate*: The agency quality improvement coordinator led a QI team of field staff that had volunteered to participate in the process-of-care investigation. This team used brainstorming, multivoting, cause-and-effect diagramming, and clinical record review to identify care behaviors that impacted the target outcome.

c. *Identify*: The team identified two *problem statements*:

1. Clinicians did not adequately communicate information regarding the patient's dyspneic status to other members of the care team, and
2. Clinical staff were using varied criteria to evaluate the presence of dyspnea (thus were not consistent in their assessments of dyspnea). Corresponding *best practices* were:
   - staff will have a common definition of dyspnea,
   - staff will initiate interdisciplinary communication at start of care for patients with dyspnea, and
   - documentation will accurately reflect patient's respiratory status.

d. *Plan*: The team developed an action plan for performance improvement; it included the following *intervention activities*:

1. The development of a self-study module for dyspnea assessment (completion was required by all new and existing staff);
2. The development of stickers for patient charts delineating criteria for respiratory assessment (clinical parameters); and
3. Renewed emphasis on interdisciplinary communication with corresponding documentation.

The QI team planned to evaluate the self-study module with a posttest. The respiratory assessment criteria stickers would be evaluated by re-

viewing charts to determine if they were being used. In addition, the team planned to audit clinical documentation for evidence of interdisciplinary communication.

e. *Implement.* This plan was introduced to clinical staff during staff meetings and the self-study module and stickers were distributed to staff via mail. Clinical staff were required to complete a posttest for the study module and return it to supervisors within 1 week.

f. *Monitor.* The agency monitored the plan of action by quarterly focused chart review to evaluate the presence of stickers on charts and for documentation of respiratory assessment with appropriate interdisciplinary communication. In addition, the agency evaluated the effectiveness of the action plan strategies through discussions with clinicians in staff meetings. When the next outcome report became available, agency staff determined whether the outcome for "Improvement in Dyspnea" improved, stayed the same, or worsened compared to the previous year's results.

## Summary

Improving patient outcomes is one of the most important uses of OASIS-derived outcome data. Most home care agencies are currently focused on implementing the processes necessary to collect, encode, and transmit OASIS data. However, as agencies master data collection and management tasks, many will be ready to take the next step: using outcome data in quality-improvement programs. The OBQI framework is not complicated, nor is it a new concept for agencies that have experience with core QI principles. Agencies that take the step from OASIS data collection to OBQI will be able to fully realize the power of patient outcome information. ♠

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SUPPORTING DOCUMENT 9:

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in Volume 3 of the report series entitled:


OASIS and Outcome-Based Quality Improvement in Home Health Care:
Research and Demonstration Findings, Policy Implications,
and Considerations for Future Change


for the three interrelated studies:


The National Medicare Quality Assurance and Improvement Demonstration
The New York State Outcome-Based Quality Improvement Demonstration
A Project to Assist Home Care Providers to Effectively Use Patient Outcomes


February 2002


| OVERVIEW |
| --- |
| This bibliography largely consists of literature on home care quality, outcomes, and outcome measurement as well as the Outcome and Assessment Information Set (OASIS), Outcome-Based Quality Improvement (OBQI), and related topics in home health care. |

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