I. EXECUTIVE SUMMARY

Background

Over the past several years, the home health industry has undergone tremendous change. Of great significance to home health agencies (HHAs), was the requirement by the Centers for Medicare & Medicaid Services (CMS) in July 1999 to collect Outcome and Assessment Information Set (OASIS) data. OASIS was developed by the Center for Health Service Research (CHSR) at the University of Colorado Health Sciences Center over a 15-year period to measure the outcomes of home health patients by documenting key aspects of patient's health status at standardized time points. OASIS data items provide the basis for HHAs to identify and implement quality improvement activities. Although patient outcomes have always been important, only recently has it been possible, through OASIS, to adequately measure them.

Subsequent to that mandate, while the HHAs were becoming more comfortable and proficient in OASIS data collection, the Prospective Payment System (PPS) was implemented in October 2000. One of the driving forces for the implementation of OASIS data collection is its use by HHAs to group patients into categories for payment under the Home Health PPS.

CMS's draft Medicare Conditions of Participation (CoP) require HHAs to develop and maintain programs that promote continuous quality improvement (CQI) in caring for their patients. This is part of the CMS's efforts to achieve broad-based, measurable improvement in the quality of care furnished through federal programs. As noted above, an integral part of this approach is the CoP requirement that HHAs use a standard core assessment data set, OASIS, when evaluating patients. Within the preamble of the draft regulation is a further requirement for the HHAs to use OASIS data for quality improvement to identify quality care problems for quality improvement. Thus, HHAs are required to develop an outcome based quality improvement (OBQI) program based on OASIS data analysis. It is entirely incumbent on the HHAs to interpret and make the best use of OASIS information.

Pilot Project Led by QIOs

No mechanism existed to provide support to the HHAs in developing and managing QI programs. To respond to this need, CMS initiated a project to establish a home health OBQI system through the Quality Improvement Organization (QIO) Program because of their QI expertise with Medicare providers. This pilot project consisted of a lead QIO, Delmarva Foundation (Maryland), along with four other QIOs selected under separate solicitation, which included Michigan, New York, Rhode Island and Virginia. The primary focus of the pilot project was to support the QI efforts of the HHAs in the five QIO states and by doing so to determine if the QIO program was the entity to help facilitate the OBQI system in HHAs nationwide.

The model used in the Home Health OBQI System Pilot Project was proven effective in improving quality in two previous demonstration projects. The Medicare Home Health Quality Assurance (MEQA) Demonstration and the New York State Trial, conducted by the CHSR, successfully tested the OBQI system in over 54 HHAs in 28 states. The results of these demonstrations showed an increase in the quality of care in several areas, most notably in decreasing hospitalization by 22% and 26% respectively for patients over the three year and four year demonstration periods.

The major tasks undertaken in the OBQI pilot project, discussed in more detail in this report, include:

- Develop and implement a successful recruitment effort
- Provide an OBQI training program to the participating HHAs in the five states
- Develop an ongoing technical assistance capability to support the participating agencies
- Create a clearinghouse to distribute resources for HHAs and the 5 QIOs

In leading the pilot project, Delmarva recognized two major objectives in implementing this initiative in the five states. The first was to ensure consistency among the five states in certain aspects of the project, particularly in the training program and the project plan. The second was to incorporate sufficient flexibility so that the QIOs could address the different circumstances and needs of each state, i.e. size of state, number of Medicare-certified agencies, etc.

In implementing this pilot project, Delmarva adopted a collaborative approach, enabling the CHSR, the five QIOs and the Government Task Leaders from CMS to collectively brainstorm, solve problems and share information on a regular basis. The mainstay of this collaborative process was the weekly conference calls where information was shared and the team engaged in problem solving when needed. The foundation for the success that resulted from this weekly conference call was the relationships that developed within the team through face-to-face meetings in the initial two training sessions within the first 6 months of the project.

Results of Pilot Project

As a special project funded by CMS, Delmarva Foundation worked with five states to explore the feasibility of using the QIO program to help HHAs implement and maintain the OBQI system. Due to the success of the pilot, OBQI will be implemented nationally by all the QIOs in the Seventh Scope of Work. The following facts represent the highlights of this pilot:

- Project Timeline – April 2000 through October 2002
- Participating States – Maryland, Michigan, New York, Rhode Island and Virginia
- Consultant – University of Colorado Center for Health Sciences Research
- Participating HHAs – 417 (68% recruitment rate)
- Training Program – 27 training sessions held; 877 HHA staff trained

- Retention of HHAs in pilot – greater than 90% implemented OBQI
- Presentations – national and local level, trade associations meetings and conferences
- Publications – seven articles in two home health journals in 2002: *Home Health Nurse* and *Home Health Care Management & Practice*
- Next phase – national implementation of OBQI via QIO Program in 7th Scope of Work; pilot test HH publicly reported measures, spring 2003

Pilot Project Staff:

Delmarva Foundation (Lead QIO)
Julie Crocker, MSN, RN, Project Director
Barbara Vencill, RN, CPUR, Lead QI Coordinator
Kathleen Murdock, MS, Education Coordinator
Matthew Fitzgerald, DrPH, Senior Scientist/Epidemiologist
Elaine Shortall, Executive Secretary

Maryland (Delmarva Foundation)
Deborah Chisholm, RN

Michigan (MPRO)
Barbara Allen, RN, MSN
Pam Burt, BSN, RN, CPHQ

New York (IPRO)
Sara Butterfield, RN, BSN, CPHQ, CCM
Susan Hollander, MPH, CPHQ
Peggy Shaffer, RN, CPHQ

Rhode Island (Rhode Island Quality Partners)
Ann Ganung, RN, MBA

Virginia (Virginia Health Quality Center)
Annette Holmes, RN
Bonnie Jorde, RN, MSN

University of Colorado, Center of Health Services Research
Peter Shaughnessy, PhD
David Hittle, PhD
Cathy Krisler, RN, MSN
Karin Conway, RN
Lecia West, MS

CMS Central Office, Government Task Leaders
Armen Thoumaian, PhD
Mary Wheeler, RN

II. RECRUITMENT

The goal of the recruitment phase of the pilot project was to reach every Medicare-certified agency in the five states and invite them to participate. This presented a challenge because QIOs had not traditionally worked in the home health setting, and for the most part were an unknown entity to home care professionals. As a result the recruitment efforts undertaken by the QIOs were multifaceted, and included efforts both at the state and national level.

Stakeholders

The QIOs began by identifying stakeholders in their states and soliciting their support for the pilot project. Typical stakeholders included state home health associations, the OASIS Education Coordinators (OECs) and Automation Coordinators (OACs), state health departments, and RHHIs. Other identified stakeholders were unique to each state, for example Michigan had an OASIS Advisory Committee. The QIOs also sought out particularly important opinion leaders in their states, for example, meeting with home health care consultants in the private sector who became champions for OBQI and the pilot project. Several of the pilot QIOs organized advisory panels that met throughout the project.

An important activity was seeking out opportunities to speak at state meetings and conferences of home health associations and other home health-related groups, which leveraged the QIOs' time and resources and reached broader audiences. The lead QIO pursued opportunities on a national level to educate the home care industry about the QIO Program and to promote the OBQI methodology. Examples include speaking at conferences of the National Association of Home Care and publishing in home care and nursing journals. Focus groups were also convened to obtain provider input in developing communication strategies.

Recruiting Volunteer Agencies

HHA participation in the pilot project was strictly voluntary. The QIOs had to convince agencies (who were already feeling beleaguered by implementing OASIS data collection and preparing for the introduction of the prospective payment system) that there were benefits to joining the pilot. The benefits that were promoted included:

- Getting a jump start on OBQI by receiving OASIS-based reports before the rest of the country
- Implementing a structured, proven CQI program
- Receiving comprehensive, and free, OBQI training for staff members
- Obtaining ongoing assistance and support from quality experts at no cost
- Using participation in the project and commitment to quality care as a marketing tool
- Contributing through their experiences to the refinement of a CQI program for HHAs that had potential to be implemented nationwide

Soliciting volunteers required the development of a marketing effort (the tools developed and used by the QIOs are discussed in the "Promoting OBQI" section of this report). Initially, the agencies were contacted by mail. The QIOs sent out both an introductory letter from CMS and QIO letters inviting the agencies to participate. This written communication was followed up with phone calls, which revealed that many agencies had not received the letters or the letters had never been passed on to the appropriate person in the agency.

Using the collaborative approach that became a hallmark of the project, the team brainstormed about how to recruit volunteers and shared tools to use in the effort. In addition to the interventions already discussed, others included:

- Talking points to introduce the QIOs to HHAs
- Dissemination of brochure and other written promotional materials
- Newsletters to HHAs and stakeholders
- Focus groups
- Multiple contacts and both hard copy and electronic forms to make it convenient and easy for HHAs to sign up for the project
- Articles published in state HH association newsletters
- Meetings with management of large hospital based HH agencies and/or companies with multiple agencies

Ultimately, the recruitment was extremely successful, as shown in the chart following. Overall, the QIOs found that the barriers to recruitment were not as great as they had feared, and that home health agencies wanted to participate. As a state with over 200 home health agencies, Michigan decided for resource reasons to sign up only half of the agencies, and ended up with 57 percent.

That did not negate, however, some of the administrative barriers the QIOs faced. For example, they had to identify all the Medicare-certified agencies, and attempted to use the OSCAR database for this information. The QIOs discovered, however, that OSCAR contained outdated and erroneous information, and the QIOs had to turn to other resources to cross check the data. This proved to be a time-consuming task, given the frequency with which HHAs come and go, merge, change administrators, and change names.

OBQI Pilot Project Participants - 2000				
State	**Number of HHAs in Pilot**	**Number of Medicare Certified HHAs in State**	**% of HHAs in Pilot**	**Total Number of HHA Staff Trained**
Maryland	39	48	81%	72
Michigan	103	182	57%	208
New York	171	208	82%	367
Rhode Island	13	24	54%	35
Virginia	91	151	60%	187
Total	**417**	**513**	**68%**	**877**

Lessons Learned

- One-on-one phone calls, initiated by the QIO, were key to the success of the recruitment process, as they would prove to be in all other phases of the pilot project.
- Getting written communication to the appropriate staff member(s) in a home health agency proved to be difficult.
- The problems with the information in OSCAR remain. Delmarva has already pursued discussion with CMS staff to explore alternative and more reliable methods of identifying Medicare-certified agencies.
- Home health agencies in general expressed interest in participating in a project that had the potential to assist them in improving the quality of care and patient outcomes, however follow-up and persistence was required on the part of the QIOs to actually obtain commitments from many agencies because of competing demands on their time and attention.
- It is possible to obtain a high recruitment rate among agencies to participate in implementing OBQI.

III. TRAINING

Background

A key component of the Outcome-Based Quality Improvement Pilot Project was the development and delivery of training programs for both the pilot QIOs and the home health agencies. Beginning in 1995, CMS (then HCFA) had funded the Medicare Home Health Quality Assurance Demonstration (MEQA). MEQA was conducted by the Center for Health Services Research (CHSR) at the University of Colorado. As part of this demonstration, CHSR assisted approximately 50 HHAs in using their OASIS outcome information to develop and use their own OBQI programs. The MEQA demonstration served as a successful test model for the design of the Home Health OBQI System. In conducting MEQA, CHSR had developed a training program on the OBQI process that became the basis for the program and materials developed for the pilot project.

Training the Pilot QIOs

In order for QIO staff in the pilot states to successfully implement OBQI within those home health agencies (HHAs) participating in the project, the Home Health QIO, working with its subcontractor, CHSR, initiated a series of three training sessions.

At the first kick-off meeting of the project in April 2000, a Training Workgroup was formed to focus on specific training activities including training schedules and logistics, development of a needs assessment and training plan, development of training materials, training evaluation and mechanisms for continuous training. This workgroup consisted of QIO staff members from the five pilot states, and their work was conducted through conference calls led jointly by DF and CHSR. This workgroup was one of the early examples of the collaborative effort of the QIOs that became a signature of the OBQI pilot project.

The second QIO training session, in September 2000, provided an overview of the home health industry and an introduction to the OBQI process. The third session, conducted two months later, was the "train-the-trainer" model, providing the substantive content of the OBQI methodology. At the conclusion of the training, each QIO was provided all the materials necessary to conduct the HHA training in their states.

The rationale at that time for providing the training at separate sessions was two-fold. First, the amount of materials was massive and overwhelming. The materials really focused on two different objectives--to orient the QIOs to the home health industry and OBQI and to train the QIOs to present the OBQI methodology to their HHAs. Secondly, separating the sessions by two months gave the QIOs time to assimilate the information and to interact with the HHAs through their recruitment efforts so that they were able to better relate to the train-the-trainer information.

In transferring these activities to the 7th SOW Task 1.b, DF believes that the training can be done over three consecutive days for several reasons: 1) As a result of the lessons learned from the pilot, the training materials have been considerably streamlined; 2) unlike the pilot, QIOs generally will come to the training with some knowledge of the home health industry and the OBQI process (which they can obtain from the OBQI Clearinghouse), and 3) resources can be saved by limiting the need to travel.

Training the Home Health Agencies

An integral part of the pilot project was to successfully teach home health agencies how to implement an ongoing Outcome-Based Quality Improvement (OBQI) program. From January 9 to March 3, 2001, the Pilot QIOs trained HHAs in their states that had agreed to participate in the project. A total of 877 HH staff members participated, representing 425 home health agencies across the five states.

The training was rated highly by the participants. The overall, average evaluation score was 1.62 (1= excellent, 2 = very good on a 5-point scale). Comments received on the participant evaluations indicated appreciation for the educational opportunity and a level of enthusiasm that would positively impact their implementation of OBQI. The participants commented frequently that they enjoyed the opportunity to network and to learn from each other. In addition, when HHA staff were interviewed later in the course of the project, they often cited the quality of the training and materials as being very helpful to their OBQI efforts.

The Training Workgroup had agreed that the training program would be structured, and delivered consistently by all five QIOs so that all HHAs would be receiving the same messages and materials. We believe that this was key to the success of the training program. We recommend that this same formatted approach to the training be used by the QIOs undertaking OBQI training in Task 1.b.

The educational approach used was a train-the-trainer format and adult learning principles were employed throughout. HHAs differ greatly in their size, resources, and sophistication in quality assurance/quality improvement activities. Therefore, intention was that the HHA participants would return to their own agencies and conduct orientation and training so that the agency could then implement the OBQI process. The emphasis throughout the training was to encourage agencies to integrate OBQI as much as possible into their own current processes and procedures.

The training employed a variety teaching methods, including slide presentation, handouts, exercises for learner practice, and facilitated group discussion. Each module began with a slide and explanation of the objectives. These training goals were supported by providing the agencies with a comprehensive package of materials to use as they saw fit. While packaged differently by each QIO (e.g., notebooks, folders, etc.) the materials included:

- The manual, *Implementing Outcome-Based Quality Improvement in Home Health Agencies*
- Copies of all Power Point slides
- Speaker notes
- Handouts
- Exercises

All of the above was provided electronically, on CDs, and on the Home Health web site hosted by DF the HH QIO, as well as on individual QIO web sites.

The Training Content

The OBQI training is composed of nine modules as summarized in the table on the next page. Seven modules were initially developed by CHSR, based largely on their MEQA demonstration experiences and adapted for the pilot project. Modules 3 through 6 comprise the core of the OBQI process. Delmarva developed introductory and summary modules (1 and 9) that introduced the HHAs to the QIO and outlined the types of assistance the HHAs would receive from the by participating in the project.

Summary of OBQI Training Modules

Module	*Description*
Module 1 **Introduction to the QIO**	The roles, responsibilities, and expertise of the nationwide QIO network. Why CMS selected the PROs to design and implement the OBQI Pilot Project.
Module 2 **Overview of OBQI**	A basic understanding of OBQI, with emphasis on the "outcome enhancement" phase of the process. Defining a patient "outcome," and comparing and contrasting quality assurance, quality improvement, and OBQI.
Module 3 **Interpreting Outcome and Case Mix Reports and Selecting Target Outcomes**	How to interpret and use the various OASIS-derived reports and how to select target outcomes—those the agency will investigate further.
Module 4 **"Process of Care" Investigation**	The OBQI methods and tools for investigating and analyzing the care provided to patients that contributed to the outcome.
Module 5 **Summarizing Findings and Developing the Plan of Action**	How to incorporate results from the process of care investigation into a plan of action; how to identify problems or strengths and best clinical practices; characteristics of a successful plan of action.
Module 6 **Implementing and Monitoring the Plan of Action**	Steps (interventions) to move the written plan of action into changes in agency processes and in clinician behaviors that will positively impact patient care.
Module 7 **Teamwork**	The roles and responsibilities of agency staff members during the OBQI process, including the involvement of administrators and clinical staff.
Module 8 **Training Agency Staff**	Guidance on how to implement an effective and efficient training plan for agency staff.
Module 9 **What Home Health Agencies Can Expect from the QIO**	Specifics on the support and technical assistance the PROs can provide to participating home health agencies.

As mentioned earlier, the intent was that all of the states would deliver the training in a structured and consistent manner, ensuring the quality of the content and that each HHA across the five states would receive the same training. As a result, in the first round of training that occurred in early 2001, the pilot QIOs did not make changes to the modules or slides, with the exceptions of Modules 1 and 9, which were designed to be QIO-specific.

Ongoing Improvement of the Training Program

Subsequently, however, numerous changes have been made to the training modules and materials based on the experiences and the suggestions of the pilot QIOs. Some of these changes were based on discussions during ongoing pilot project conference calls. Others were included in the Pilot QIOs' Deliverable 4.1, After Action Report of the Implementation of the State Pilot HH OBQI System (April 2001).

Delmarva, as the lead, also submitted a separate after action report, Deliverable 7.1 (April 6, 2001). This report provided a detailed summary of the training initiative, including preparation and logistics of the training, a module-by-module critique and suggested changes, and lessons learned. This latter document has been used as the basis for providing background and lessons learned to the QIOs under Task 1.b of the 7th SOW.

One of the major changes made to the modules after the pilot training was streamlining them. All five pilot QIOs said that the modules were often redundant and contained too many Power Point slides, making the presentation of the material cumbersome. Some of the modules were reorganized and many slides deleted or combined, and text on the slides and in the slide notes was edited and/or updated. Overall, the intent was to improve the nine modules so that they flowed well and were easily understandable.

In addition to the streamlining and improvements made to the training program after the pilot initiative, Delmarva continued to refine the nine OBQI modules. Two other home health related but separate projects enabled Delmarva, as the Home Health QIO, to deliver the training to additional QIOs. In August 2001, four QIOs who were conducting home health related projects under Task 2.1 of the 6th SOW attended OBQI training. Subsequently, in March 2002, Delmarva provided OBQI training to the eight QIOs who were participating in the Home Health Communities of Practice group. This enabled the HH QIO to incorporate feedback from 12 more QIOs.

In addition, training these QIOs who by and large were unfamiliar with the HH setting required that the HH QIO update and develop further the modules related to the home health industry. This information had been delivered only once to the pilot QIOs. These modules would be particularly important if the OBQI program was to be incorporated into the 7th SOW. Delmarva turned to the experts at CMS and CHSR to provide this training to the 12 QIOs. Based on this presentation and QIO feedback, Delmarva developed new modules on the state of the home health industry, OASIS, the prospective payment system, and the OBQI Clearinghouse that can be used in the 7th SOW.

Lessons Learned

Lessons learned regarding the OBQI training program were gleaned as an ongoing part of the pilot project both from the QIOs and from the HHA participants. The lessons learned were captured via regular conference calls, monthly reports, and deliverables.

The Pilot QIO states represent a cross-section of different conditions in the home health industry--size and population, number of Medicare-certified HH agencies, very active and not-so-active home health associations, and different experiences with the introduction of OASIS, to name a few. Nonetheless, a number of common themes emerged from the pilot project experiences:

The Training Content

- The training materials were highly rated by both the QIOs and the HH participants. The organization of the materials depicted the Outcome Enhancement phase of OBQI very well. The step-by-step method achieved learning goals.

- The original materials were improved by incorporating feedback from both the QIOs and the home health agency participants.

- The large and small group exercises were key to a successful learning experience. The small group exercises enabled participants to experience and practice the activities involved in the Outcome Enhancement process.

- The participants benefited from sharing and critiquing each other's work.

- Having the QIOs deliver a consistent, structured training program ensured that the training content was of high quality and that all the HHAs were hearing a consistent message about how to implement the OBQI program.

Planning and Logistics

- Offering the agencies regional locations and a selection of dates was important to promoting attendance by as many HHAs as possible. There are not many opportunities for home health agencies to receive free training, free contact hours, or networking at a regional location at reasonable cost (i.e., transportation, lodging). This also promoted relationship building between the QIO and the agencies.

- The optimum number of participants for a training session is approximately 25, with an acceptable range of about 15-50. Too few participants dilutes the opportunity to share and learn from each other, too many participants degrades the quality of the group activities and the ability of the instructors to control the group. Restricting each HAA to only 2 attendees can help control the sizes of groups.

- The length of the OBQI training—12 hours over two days--proved to be optimal. Within that time frame, the QIOs can adapt to the needs of their HHAs by providing a day and a half of training, or splitting the hours evenly over the two days.

- Care should be taken in selecting appropriate training sites and in making arrangements well in advance of the proposed training dates to obtain maximum participation.

- Room sizes should accommodate the size of the groups and promote an environment conducive to learning. Rooms that are too small are uncomfortable, but when they are too large they hinder communication and the sharing of information.

- Small, inexpensive "rewards" (for example, candy), attendance certificates, and providing lunch are effective approaches to building rapport and "buy in" from participants.

Conducting the Training

- The QIO trainers should have experience as facilitators or as trainers if possible, and should be familiar with adult learning principles. They need to be flexible in adapting to circumstances and questions. The OBQI material is fact and content intensive, and all trainers should study the material and present it, preferably before a group, before training the HHAs.

- Modules 3, 4, and 5 contain the core content and exercises and are the most difficult to deliver. The presenters must be comfortable with facilitating and summarizing the group exercises.

- While delivering the structured and consistent training program is necessary, there are opportunities for the trainers to be creative (for example, ice breakers, anecdotes, jokes, etc.).

- All of the trainings should include an icebreaker. For example, a favorite used during the pilot was to ask the attendees from each agency to tell the group what animal their agency was most like and why. This type of icebreaker is relatively quick, and encourages the participants to laugh and relax.

- The small groups that work on the exercises should be pre-arranged by the QIO so members of the same agency are not sitting together and the members of the group represent a cross section of disciplines.

Each training session was adapted to meet the group's unique needs. Agencies were strongly encouraged to follow the steps of the outcome enhancement process as they were presented in training. They were also guided in how to incorporate CQI activities into their ongoing processes, rather than viewing participation in the pilot project as an additional burden.

IV. TECHNICAL ASSISTANCE

A primary focus of the OBQI pilot project was to provide support and technical assistance to the HHAs. A large proportion of home health agencies were not familiar with continuous quality improvement techniques, as they were largely practicing quality assurance. Until the advent of OASIS, agencies had no effective way to develop QI programs using patient level outcomes data. Therefore, translating OBQI reports into effective and ongoing actions to improve patient outcomes was a novel process that required not only the initial training, but also ongoing assistance for most of the participating agencies in order to be successful.

The QIOs provided technical assistance to the agencies throughout the project, from the period immediately after training in early 2001 through the agencies' receipt of their second outcome reports and efforts to develop a second plan of action. Interventions were developed and shared among the pilot QIOs under the guidance of Delmarva and CHSR. Successful strategies and materials used by CHSR in the MEQA and New York State demonstration projects were shared throughout the pilot project. Identified interventions were evaluated on the basis of their ability to support the goals of the pilot, cost effectiveness, and suitability to adaptation to a national OBQI program.

To promote communication with the HHAs, each QIO, identified specific personnel as contact points for the participating agencies and kept logs of their contacts with the agencies. Communication and support occurred in a variety of formats, including:

- One-on-one phone calls with agency staff
- Site visits when necessary
- Teleconference calls
- E-mail
- Newsletters and other written communication
- Workshops and formal presentations (e.g., NY provided three regional presentations for Directors and supervisory personnel of HHAs to review the OBQI methodology
- OBQI Clearinghouse

The following is an analysis and summary of the technical support provided to the HHAs, including common themes, barriers and lessons learned. It is formatted to relate to the time periods when the agencies required support that relate to steps in the OBQI process and the types of assistance provided.

More details on each QIO's technical support can be found in Deliverable 6.0, Report of Implementation Management, submitted by each pilot state in February 2002.

Post training

Immediately after training, the QIOs generally handled inquiries from the HHAs in two areas. As agency personnel reviewed the materials from the training program, some sought clarification on various topics. A few agencies had questions regarding the planning of their own in-house OBQI training. During the period the QIOs also initiated contact with the agencies to offer support and ensure that they were moving forward with OBQI activities.

Distribution of Reports

A process for distributing the risk adjusted outcome, case mix, and tally reports to participating HHAs was developed among the pilot QIOs, the HH QIO and CHSR. This enabled the QIOs to establish an internal plan for handling the reports. The risk adjusted outcome and case mix reports were produced for Delmarva by CHSR in May 2001; Delmarva then sent the reports to the pilot QIOs. The five pilot QIOs reviewed the reports for errors and data anomalies using a review tools provided by CHSR before distributing them to the individual HHAs (Guidelines for QIO Review of OBQI; Case Mix Review Form; Outcome Report Format Review Form). The Pilot QIOs reported that these forms were useful and easy to follow. (Note: In the 7th SOW National OBQI rollout, QIOs will not be distributing reports because agencies will have direct access to them.)

During the review, the QIOs found some anomalies that revealed problems with an agency's OASIS data collection. For example, one QIO investigated why an agency had a high rate of unusual contagious/communicable disease and found that the agency was using V codes on the OASIS, which were incorrectly read as infectious diseases. The QIOs brought these types of problems to the attention of agency administrators and provided appropriate education and/or support.

The QIOs provided each agency with both a hard copy and electronic version of its case mix and risk adjusted outcome reports, as well as an electronic version of the patient tally report. Shortly thereafter, the QIO contact person called to ensure that the reports had been received, and to offer support and encouragement to begin the OBQI process. This intervention proved effective for answering questions and establishing open communication between the QIO and HHA.

After the reports were distributed, the pilot QIOs reported many instances in which they had to replace lost reports or CDs, had to help an agency track down the package (especially hospital based HHAs where mail is processed through the "system") assist HHAs who did not know how or could not open CDs, or were having other computer-related issues. In the 7th SOW QIOs can expect to have to handle similar computer related issues because many HHAs are still not technologically sophisticated.

The patient tally report proved to be difficult for many HHA personnel to access and to interpret. This report provides descriptive information for each individual case included in the outcome report. Due to the large amount of data contained in these reports, they were formatted in Microsoft Excel 97 and provided on CDs. These modes of technology proved to be challenging to many HHAs, and concentrated effort on the part of the QIOs was devoted to assisting HHAs to open this report. Once the agency was able to open it, extensive time was spent educating the HHAs on using the data to select patients for the process of care investigation. We recommend that the patient tally report be further refined to make it easier to use and more useful to the home health agencies. Their problems accessing and using this report delayed their ability to quickly move forward with the care investigation that is a key part of the OBQI process, and required an inordinate amount of problem-solving time on the part of the QIOs.

Selecting the Target Outcome

Based on the logs kept by the pilot QIOs, interpreting the reports and selecting one or two target outcomes (TOs) on which to focus did not require as much assistance from the QIOs as subsequent steps in the OBQI process. However, this may understate some of the difficulties the agencies did experience, as an erroneous selection of a TO sometimes did not come to the QIO's attention until they received a Plan of Action from an agency. There are ways to avoid this problem. For example, New York, a large state, conducted four teleconference presentations to review the status of agencies' target outcome selection and to discuss issues and barriers encountered. The response was excellent as 259 people from 99 agencies participated in these calls. A small state like Rhode Island was able to contact each agency individually. The technical assistance provided in selecting a target outcome can avert problems down the road.

Below are some issues in selecting TOs that appeared to be common to all five pilot states and often required one-on-one discussions with the agencies:

- Generally, QIO assistance related to reminding and cajoling the agencies to select the target outcome(s) using the six criteria that they learned in the training.[*] Statistical significance is the number one criteria, and the QIOs reported that they received many questions asking for clarification of the meaning of this statistical term, even though it was explained in the training and in the OBQI Implementation Manual.

- In some cases, agency QI staff would seek the QIO's counsel because management wanted to choose a target outcome based on agency-specific criteria (for example, agency clinical priorities) even though the outcome did not meet the other five criteria. Several agencies with branches decided to have all the branches work on the same TO, ignoring the criteria altogether. Often the QIO's

[*] The six criteria, which should be applied in order when selecting a target outcome, are: 1) statistical significance, 2) magnitude of outcome differences, 3) adequate number of cases, 4) actual significance level of the differences, 5) relevance to agency's goals, and 6) clinical significance. Agencies often wanted to select a target outcome by applying numbers 5 and 6 first instead of last.

intervention was able to get the agencies back on track. A number of them, however, disregarded the QIO's advice, and while they were free to do so, these agencies will have difficulty identifying whether their activities to improve or reinforce the TO made a difference when they review their next Outcome Report.

- Agencies with a small Medicare patient base (and therefore low numbers of cases related to their outcomes) generally needed extra assistance from the QIO on which target outcome(s) to select.

- The QIOs responded to many questions about the relationship between OBQI target outcomes and JCAHO requirements.

- Agencies often needed an explanation of the different uses of the Adverse Event Report and the Risk Adjusted Outcome Report. Some agencies erroneously selected the TO from the adverse event report, while others wanted to combine OBQI efforts with their other OBQM or JCAHO activities.

Development of Plan of Action

The greatest demand for technical assistance came from the agencies as they were developing their Plans of Action (POA). In addition, the QIOs offered to review the plans before they were implemented, and almost all agencies took advantage of this opportunity. CHSR provided a review tool that enabled the QIOs to review the POAs consistently and thoroughly The critique and feedback required an intense period of activity on the part of the QIO staff, and often involved multiple phone conversation and at times site visits.

The following types of assistance were provided by all five QIOs fairly consistently as agencies developed their plans of action and the QIOs reviewed them and provided feedback:

- Assisting agencies to follow the POA format they had been encouraged to use (a template was provided as part of the training materials)
- Redirecting HHAs when OASIS data collection and other documentation issues became the focus of the POA, rather than patient care
- Helping them write good problem statements and care behaviors and in developing monitoring activities.
- Finding omissions and gaps in the POA and suggesting improvements, (e.g., many failed to include intervention actions for all the care behaviors and/or did not include monitoring and evaluation actions for all the proposed interventions).
- Providing varying amounts of refresher "training" because of the time lag between training and development of the POA.
- Explaining why a POA should address only one target outcome.

The experiences in the pilot demonstrated that the QIOs must be **proactive** to ensure that agencies complete their POAs in a timely fashion; this effort required a significant

amount of time on the part of QIO staff. The QIOs had to provide ongoing encouragement to HHA staff to complete the POA when barriers such as staff turnover and shortages, JCAHO surveys and unexpected state surveys, and other priorities (such as the implementation of PPS) interrupted and delayed the process.

In the pilot project, participating agencies were strongly encouraged to complete and implement a POA within 30 days after receiving their OBQI reports. The table below depicts the actual timeframes.

Plans of Action Received

ST	By Due Date	31-59 Days	60-89 Days	> 90 Days
MD	42%	36%	3%	3%
MI	35%	29%	14%	20%
NY	15%	49%	22%	14%
RI	63%	13%	26%	1%
VA	28%	52%	14%	4%

Percentages do not total 100% due to POAs never received and rounding.

Methods to solicit overdue POAs were the subject of many pilot conference calls, and input from CHSR's demonstration experiences were helpful in addressing this issue. The most effective intervention by far was one-on-one conversations with the appropriate HHA staff members, and multiple rounds of calls were needed. Sometimes a discussion with the administrator or a site visit convinced an overwhelmed agency to stay in the pilot project and complete their POA. Other methods used with varying success included:

- Teleconferences so HHAs could ask questions and hear what other agencies were doing. In general, the HHAs liked teleconferences because it was a cost effective use of their resources
- A fax back form requesting the status of POA development and the need for any assistance (useful in states with large number of participating agencies)
- E-mail messages and/or letters
- Offers to read and comment on what had been developed so far, even if the POA was not completed
- Monthly newsletters contained information about developing the POA and regularly offered QIO support
- Extending the 30-day "deadline" for submitting a POA, so agencies would not stop the process because they could not meet the QIO's requested time frame

In the end, QIO persistence paid off as greater than 90% of the agencies that attended the initial training submitted POAs and implemented OBQI.

Implementing and Monitoring the Plans of Action

At this phase in the project, QIOs needed to be proactive in communicating with the agencies to ensure that the POAs they had reviewed were actually implemented, and that the agencies followed through on the monitoring activities written into the plans. Technical assistance related to implementing and monitoring the POAs fell into several categories as listed below.

- Assistance for achieving staff buy-in when agencies reported that they were experiencing resistance from their staffs
- Advice on how to successfully implement the monitoring activities that had been written into the POA, and reminders that monitoring needed to occur more frequently at first, and regularly thereafter
- Surveying the HHAs on their OBQI experience and following up all concerns reported with phone calls (This approach indicates that QIO support did not end once the POA was written.)
- Including information about the monitoring process in newsletters
- In a small number of cases, site visits, including assistance with the agency's chart review
- Some states held conference calls to discuss monitoring activities

Technical Assistance not directly related to the steps of OBQI process were also provided by the QIOs:

- Teleconference calls and formal presentations to facilitate understanding of OBQI process among stakeholders in the state

- Information and direction for follow-up specific to the Adverse Outcome Reports included issues related to agency access to the report, report interpretation, follow up action required, and application to the survey process

- QIOs acted as a facilitator between HHAs and CHSR and/or the OASIS Education Coordinators when OASIS specific questions arose

- Answering technology related questions about using web sites, E-mail discussion lists, how to download instruction manuals, etc.

- Information and direction for agencies to access CMS satellite broadcasts related to OASIS, OBQM and OBQI

- Activities to target a particular type of agency. For example, New York conducted four teleconferences for long term care agencies, as their patient population and selection of target outcomes differed from the rest of the certified HHAs. Their functional status outcome case size was small due to the decreased frequency of

SOC/ROC dates. These agencies were encouraged to focus on the utilization outcomes as a choice for TO.

- One-on-one contact with agencies to clarify the expectations of the pilot project and/or to convince reluctant agencies or those with other priorities to remain with the project

- Calls for general assistance/refresher of topics covered in training. For example, Michigan reported that it received many calls asking for an explanation of statistical significance, even though the subject was covered in depth in training.

Lessons Learned

- The need for technical assistance occurs in peaks and valleys and the QIO must prepare for the intense periods that require more manpower.

- Written communication with HHAs is undependable and requires follow up. For example, a number of the initial recruitment letters never reached their intended recipients (administrators). Letters sent to participating agencies notifying them that there would be a delay in getting their reports from the original target date did not preclude many phone calls from agencies asking why they had not received their reports. When the reports were sent to agencies, some languished in the administrator's in box before it was forwarded to the person leading the OBQI initiative in the agency.

- QIOs need to be proactive in their ongoing communication and support of HHAs to keep them on track with the outcome enhancement process. Major challenges for the HHAs were related to the availability of staff and resources to facilitate the OBQI process, and agency administrators and staff are frequently overwhelmed by multiple demands on their time.

- Establish and follow a plan for regular checkpoints as the HHAs undertake the OBQI process to ensure that they are following the steps correctly and moving forward.

- Too much time between training and receipt of outcome reports. Three to four months allowed some enthusiasm to wane, and staff turnover required re-training.

- Many HHAs had staff that was not computer literate, had older computer hardware that could not handle CDs, or incompatible software (i.e, older versions) that required extra assistance on the part of the QIOs in a number of areas (particularly with the patient tally reports).

- HHAs were confused over the differences between Outcome-Based Quality Monitoring (OBQM), which uses the Adverse Event Report, and the OBQI process, which uses the Risk Adjusted Outcome Report.

- Communication is important during the phase when agencies are selecting their target outcomes to ensure that they are properly following the OBQI methodology. This could help to avert the dilemma of the QIO not discovering that an agency had selected an inappropriate TO until they received the plan of action. Agencies were understandably reluctant to repeat the entire process at that point in time.

Lessons learned from the pilot project are already being shared with the QIOs as they prepare for their 7th SOW activities. Attached is an example used at the 2002 Quality Net Conference.

Outcome	Total
Stabilization in Housekeeping	0
Improvement in Shopping	1
Stabilization in Shopping	1
Improvement in Phone Use	0
Stabilization in Phone Use	1
Improvement in Management of Oral Meds	17
Stabilization in Management of Oral Meds	9
Improvement in Speech or Language	4
Stabilization in Speech or Language	3
Improvement in Pain Interfering with Activity	23
Improvement in Number of Surgical Wounds	13
Improvement in Status of Surgical Wounds	27
Improvement in Dyspnea	17
Improvement in Urinary Tract Infection	4
Improvement in Urinary Incontinence	1
Improvement in Bowel Incontinence	1
Improvement in Grooming	6
Stabilization in Grooming	1
Improvement in Dressing Upper Body	5
Improvement in Dressing Lower Body	1
Improvement in Bathing	20
Stabilization in Bathing	11
Improvement in Toileting	0
Improvement in Transferring	21
Stabilization in Transferring	6
Improvement in Ambulation/Locomotion	6
Improvement in Eating	2
Improvement in Light Meal Preparation	1
Stabilization in Light Meal Preparation	1
Improvement in Laundry	0
Stabilization in Laundry	0
Improvement in Housekeeping	3
Stabilization in Housekeeping	1
Improvement in Cognitive Functioning	0
Stabilization in Cognitive Functioning	1
Improvement in Confusion Frequency	3
Improvement in Anxiety Level	8
Stabilization in Anxiety Level	6
Improvement in Behavioral Problem Frequency	1
Any Emergent Care Provided	22
Discharged to Community	2
Acute Care Hospitalization.	17

Technical Assistance
A Sample of the Lessons Learned
Prepared by Delmarva Foundation for Medical Care, Inc.
For discussion at the Home Health Communities of Practice Luncheon Meeting
2002 Quality Net Conference
September 12, 2002

Teleconferences
Two of the large states in the pilot chose to use teleconferences as a means of communicating information to groups of HHAs in their state.
Lessons learned:
Set up schedule in advance. Send out material to be covered in advance of conference. Offer two dates to accommodate HHA's needs.
Only four teleconferences were held and effort was successful. Goal was to review process covered in training to reinforce learning and understanding and offer HHAs an opportunity to interact with QIO and other HHAs.
Weekly teleconferences were not a part of the QIO interaction with the pilot HHAs as that level of support is not needed and may be viewed as intrusive and burdensome by the HHAs.

Obtaining OBQI Reports
Lessons learned:
The Tally Report is not useful to the providers without the built in macros.
(This problem should be resolved by IFMC before you train.)

Requesting multiple HHA reports is a time-consuming and tedious process.
(IFMC is designing a batch print process.)

Before training, providers are confused by the number of reports available to them.
(It is vital that, during training, you ensure that everyone in the room understands the difference between descriptive, risk-adjusted, case mix, OBQI and OBQM reports.)

Identifying Targeted Outcomes
Lessons learned:
If the administrator does not understand the process, they may select their Target Outcome based on agency goals, regardless of its statistical significance.
(Get the administrator to attend training and be prepared to support the individuals from the agency that attended your training.)

Administrators will downplay the importance of the IADL target outcomes, such as phone use or shopping.
(Explain the importance of these outcomes to a patient's ability to live independently.)

Review Plan of Action

Lessons learned:

If you can't understand the Plan of Action, then it's not clear enough.

(Is it logical? Is the terminology clear? Does it make sense? Can you see the link between the problem/strength and the care behaviors? Is there an intervention that will change clinician behavior?)

HHAs will make the care behaviors very high level and non-specific.

(The interventions need to be very specific. If you want to improve a patient's ability to eat, you cannot just instruct the clinician to include a care planning intervention that addresses eating. The plan must include a specific action such as teaching the patient to use adaptive eating utensils and observe a return demonstration.)

Monitoring Techniques

Lessons learned:

Some HHAs got confused about the difference between evaluating whether or not a plan was implemented successfully and whether or not the interventions are accomplishing the desired effect.

(Ensure that the plan evaluates whether or not each intervention action was completely implemented within a specific timeframe. Make sure the evaluation method chosen is realistic. Next, ensure that the monitoring plan is aimed at determining whether or not clinical behavior has changed.)

HHAs will not follow up with monitoring.

(Include this activity in your technical assistance plan.)

V. PROMOTING OBQI

Communication Network

Important to the development of the OBQI pilot project and a National OBQI System was the creation of a communication network. For the purposes of the pilot project, the network includes CMS, HHAs, State Agencies, CHSR, the lead QIO and the pilot QIOs. The communication system was designed to be the mechanism to move the pilot project forward, communicate information quickly and consistently to project participants, report on project status, issues, barriers, and accomplishments to CMS, and to provide timely access to project information to interested stakeholders.

The components of the communication network developed for the pilot project had a general application and therefore provide a template for the design and implementation of a National System. The pilot system was used to test out the design of the clearinghouse and allow for modifications as experienced dictated.

The goals of the communication network were to:

- Facilitate the implementation and adoption of OBQI
- Promote participation and adoption of OBQI
- Create efficiencies where ever possible that ultimately reduced costs and improved quality

The communication system for the pilot project contained the following components:

1. Public, non-secure web site
2. Internal (SDPS System) web site
3. A Project List Server
4. The TQIPS reporting module of SDPS
5. A National clearinghouse for HH OBQI information

Clearinghouse

The clearinghouse has been the central agency for the collection, classification, and distribution of information. The Home Health Clearinghouse has been essentially a collection of information resources and interactive services available through the project web server.

Types of information contained on the clearinghouse include:

- *Training Modules*

  Part of the OBQI training manual has been formatted to HTML and made available on the site. This has included self-tests with scoring available for users

to review information they had already learned in training and/or to train new employees within participating agencies.

- *List Serve*

In order to facilitate communication for project activities, a mail list server has been created. The mailing list was used to facilitate open discussion among list members. A complete set of directions for using and an explanation of uses were provided through the Help section of the web site.

- *Best Practices/Tips*

The site contains a large database of outcomes and suggested ways to possibly improve outcomes. Users can click on a specific outcome and find links to ideas, suggestions and articles they might use to improve their outcomes.

The clearinghouse also assisted in the collection of monthly activities, lessons learned, successes and barriers from all of the participating QIOs. The ability to collect this information in a consistent manner contributed to a successful evolution and development of the OBQI system.

As part of the ongoing development of the information clearinghouse a special study was implemented to develop and evaluate an information system designed to allow for rapid development of customized interventions. In this project the home health clearinghouse developed for HH OBQI System Pilot Project was integrated with an expert system based on behavioral change theory. Some basic information from the clearinghouse special study are as follows:

- 1387 HHA staff people registered to use the clearinghouse from all 50 states (719 of these were from the pilot states)
- Users were grouped by experimental versus control and pilot versus non-pilot
- Experimental and control subjects used the same resource, but experimental subjects received tailored communications
- Demonstrating subjects in the experimental group were significantly more likely than controls to the impact of custom communications via the clearinghouse
  - Actively use the clearinghouse
  - Complete the Plan of Action
  - Have a positive opinion of OBQI
  - Move to a more active profile
- Subjects from the Pilot states were significantly more than likely non-pilot state subjects to
  - Spend time on the clearinghouse
  - Log in to the system frequently
  - Be actively using OBQI
  - Describe themselves as ready to actively implement OBQI

A complete analysis of the findings from this special study is contained in the Clearinghouse Special Project Final Report.

Testimonials

One year after the start of the pilot project the lead HHQIO staff interviewed each of the individual pilot QIO staff from all of the 5 pilot states. Incorporated into those visits were interviews with 2 staff members from 2 participating HHA agencies staff in each state. We asked each group from the agencies a series of questions relating to the implementation of OBQI in their state. Each interview was videotaped with prior written permission obtained from each staff member interviewed. Those interviews were later used to develop a series of short video clips posted to the OBQI clearinghouse. The agency staff shared with us areas of the implementation that were successful and also offered suggestions for future improvements. A total of 10 interviews were done with 5 hours of videotape completed.

Some Quotes from the Field:
"The CQI team in our home health agency works on issues, but most of them were process related. We struggle to get to things that were more patient related. It's not that we didn't know it, but… OBQI helped us overcome that hurdle…so now we do both."
Jane Pike Benton, Executive Director of Memorial Hospital Home Care in Rhode Island

"What they see now with OBQI…us that [OASIS] does matter, and it matter for more than PPS, it matters for more than money, it matters for quality."
Ann Jaffe, North Shore Long Island Jewish Home Care Network, New York

"As a QI specialist, I really thought I was doing all of the right things, and you think you're doing quality improvement for patient outcomes…but after the OBQI training I realized that I needed to do some things differently."
Kay Satchell, Nurse/QI Specialist, Shore Home Care in Easton, MD

"The OBQI training was very good, very intense. The handouts were excellent, and we used them as a bible when we got back to our agency."
Cathy Bennett, Director of Clinical Services, Personal Touch Home Care, Baltimore, MD

Home Health Project
Delmarva Foundation for Medical Care

Promotional Items – Vendor Sources (Please make sure you add the red home health logo.)	
Stress Ball in House Shape	Connie King The Market Pro 1-800-905-0073 Please tell her Elaine Shortall referred you.
Target Outcome Selection Criteria pens – A multi-color pen that has six windows that show six criteria	Senator Pens www.senatorpen.com
Red Translucent pen with house logo	Best Impressions www.bestimpressions.com
Home Health Logo Lapel Pins	Recognition Products 8706 Commerce Drive, Easton, MD 21601 410-820-0022
CD cases	Best Impressions www.bestimpressions.com
Candy Bar Wrappers	www.obqi.org Marketing Materials
Brochures	Contact Elaine Shortall at DFMC eshortall@dfmc.org
House with clip (photo or business card holder) (Hip clip)	Best Impressions www.bestimpressions.com
Home Health Tote Bag	Connie King The Market Pro 1-800-905-0073 Please tell her Elaine Shortall referred you.

DELMARVA FOUNDATION
Improving Health Care Quality

List Serv 1

List Serve 2

VI. PROJECT RESULTS

Introduction

The main goal of the Home Health OBQI System Pilot Project was to determine if the QIO Program is the entity to facilitate the implementation of Outcome-Based Quality Improvement in home health agencies (HHAs). Dependent upon the success of the pilot project, the OBQI system would be incrementally extended nationwide to include all QIOs and the HHAs in their States.

As noted in the section on recruitment, the five QIOs were extremely successful in marketing the project to their HHAs with 68% of the HHAs in the five states volunteering to participate in the project. The feedback the QIOs have received via the evaluations of the training, comments made the HHA staff to the QIO HH coordinators as well as interviews conducted by Delmarva Foundation of HHA staff in each state, are testimonies for how the HHAs value the support of the QIO Program in their implementation of OBQI.

Outcome Analysis

The original contract for the HH OBQI System Pilot Project was for a two-year period (end date January 31, 2002). The contract was extended to the end of the Sixth Scope of Work, ending October 31, 2002. This extension enabled the participating HHAs to receive their second outcome reports in May 2002. These reports provided the HHAs their outcomes for calendar year 2001. However, these reports were limited in terms of indicating true quality improvement. The timeline for the pilot project initiated with the participating HHAs being trained January through the beginning of March. They received their outcome reports (calendar year 2000) in May 2001. For the majority of HHAs, the selection of their targeted outcomes, chart audits and development of their plans of action (POAs) occurred during the summer with their POAs being implemented anywhere from August through October. Thus, the outcome reports were not truly representative of improvement throughout the entire year. Due to the noted limitations of these reports, CHSR produced additional outcome reports that depicted the report period of 08/01/2001-12/31/2001. However, these reports also had limitations including a small number of HHAs (by states), small numerators, and for some the time period was not representative of the months they had implementation their POAs.

Delmarva analyzed the Maryland data and found that approximately 54% of the HHAs that received the 5-month outcome reports improved in their targeted outcomes. Of note, for those HHAs that selected surgical wounds (either number or status), 33% of them improved and 66% got worse. Upon further investigation by the HHAs themselves, it was determined that the OASIS assessment was not coded correctly where ostomies were being counted as open surgical wounds. This is a clear example of how the OBQI process can also benefit the accuracy of the OASIS data collection.

Delmarva plans to conduct additional analyses of all five states and in the aggregate. Due to the limitations of the reports noted above, CHSR is providing Delmarva with outcome data for these HHAs for the time period 10/01/2001 through 03/31/2002. An addendum report will be provided to CMS with the results of this analysis.

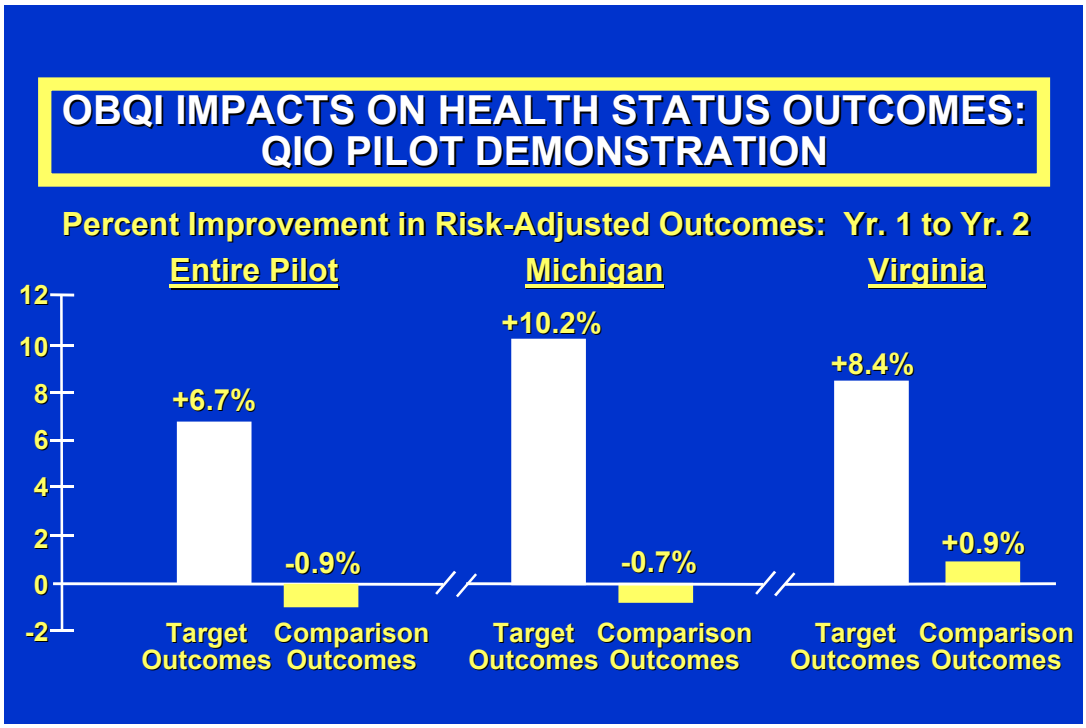
CHSR has conducted an analysis on the patient level that demonstrates the OBQI impact on health status outcomes. For the entire pilot, there was a 6.7% improvement in the risk-adjusted outcomes from year 1 to year 2. As noted in the following tables, the individual states ranged from 10.2 % to 2.8%. Rhode Island was not included as their numbers were so small.

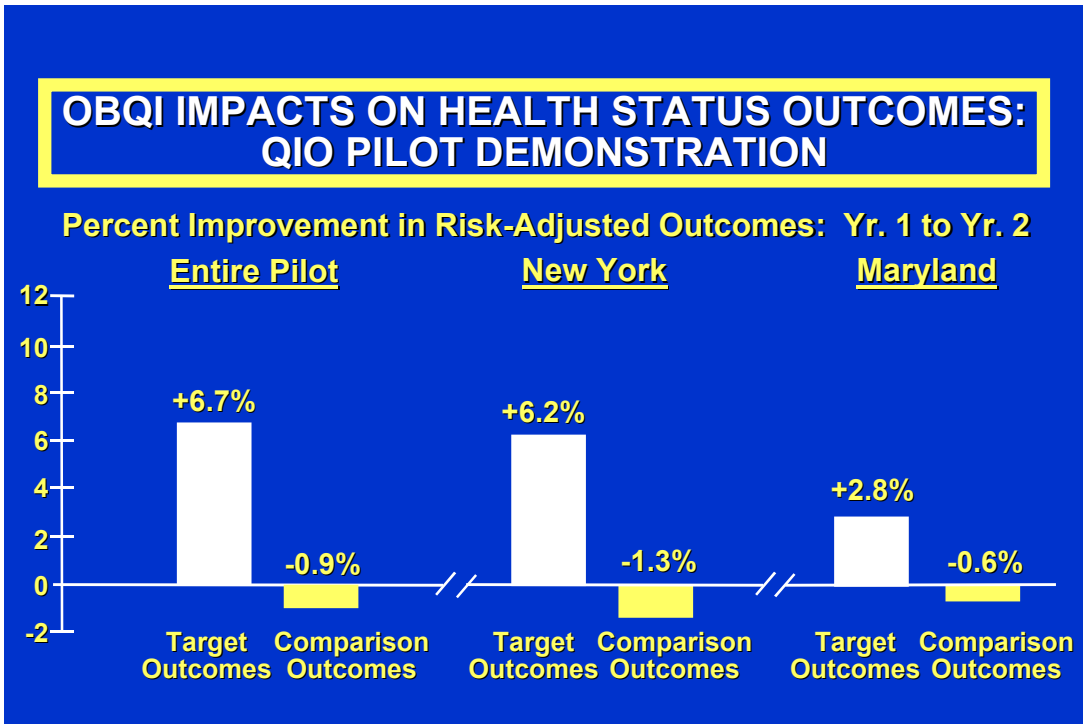
Presentations

Other successes of the pilot include multiple presentations that were on statewide and national levels. Attached is a listing of all presentations conducted throughout the entire pilot project. Delmarva has been notified of the acceptance of their abstract for the American Healthcare Quality Association's (AHQA) Technical Conference in February. This presentation will consist an overview of the pilot and the results as well as a panel of HHAs that successfully implemented OBQI. Of note, was an invitation by the Senate Finance Committee to present the project that was conducted on the Hill on April 12, 2002. In addition to the HH team, one of Maryland participating HHAs presented their experience in adapting OBQI in their agency. The testimonial of this HHA was the highlight of the presentation as the Committee had the opportunity to hear the voice of the provider. The handout from this presentation is attached.

Publications

Because Delmarva recognized the importance of sharing the success of the pilot project activities and results, a publication initiative was implemented mid-way through the project. This resulted in seven publications in two home health journals*: Home Healthcare Nurse* and *Home Health Care Management & Practice*. Delmarva is committed to continuing our publication initiative throughout the 7 Scope of Work. The implementation of OBQI nationwide will be rich in resources to continue this effort. A listing of the project's publications are attached.


OBQI IMPACTS ON HEALTH STATUS OUTCOMES:
QIO PILOT DEMONSTRATION
Percent Improvement in Risk-Adjusted Outcomes: Yr. 1 to Yr. 2
Entire Pilot
Michigan
Virginia
12
10
8
6
4
2
0
-2
+6.7%
-0.9%
+10.2%
-0.7%
+8.4%
+0.9%
Target Outcomes
Comparison Outcomes
Target Outcomes
Comparison Outcomes
Target Outcomes
Comparison Outcomes


OBQI IMPACTS ON HEALTH STATUS OUTCOMES:
QIO PILOT DEMONSTRATION
Percent Improvement in Risk-Adjusted Outcomes: Yr. 1 to Yr. 2
Entire Pilot
New York
Maryland
12
10
8
6
4
2
0
-2
+6.7%
-0.9%
+6.2%
-1.3%
+2.8%
-0.6%
Target Outcomes
Comparison Outcomes
Target Outcomes
Comparison Outcomes
Target Outcomes
Comparison Outcomes

Presentations

Date	Title	Organization/Event	Location
4/13-14/2000	OBQI Pilot Project Kick-Off Meeting	CMS Central Office	Baltimore, MD
6/16/2000	OBQI Pilot Project	Tri-Regional Conference	St. Pete Beach, FL
9/11-13/2000	OBQI Training – A&B	Pilot QIO Staff Training	Easton, MD
9/26/2000	The Role of the Peer Review Organization in Home Health OBQI	NAHC Annual Meeting	New Orleans, Louisiana
10/26/2000	QIOs and the Home Health OBQI Pilot Project	Maryland National Capital Homecare Association Annual Meeting	Baltimore, MD
11/16-17/2000	OBQI Training – C	Pilot QIO Staff Training	Annapolis, MD
6/16/2001	Implementation of the OBQI Pilot Project	Tri-Regional Conference	St. Pete Beach, FL
7/11-12/2001	OBQI Training – Part I	4 QIOs Staff Training	Easton, MD
10/?/2001	OBQI & Home Health Clearinghouse Project	NAHC Annual Meeting	Las Vegas, NV
11/7-8/2001	OBQI Training – Part II	4 QIOs Staff Training	Easton, MD
12/?/2001	OBQI Pilot Project Overview	OASIS Education Coordinator Training	Baltimore, MD
1/23/2002	OBQI Clearinghouse	NAHC National Conference Call	Easton, MD
1/30/2002	Home Health Agency QI Requirements, Data and Support	Technical Conference	Dallas, Texas
3/19-21/2002	OBQI Training	COP QIOs	Annapolis, MD
4/11/2002	OBQI Overview	NJ Hospital Association	Princeton, NJ
4/12/2002	OBQI Pilot Project Overview	Senate Finance Committee	Washington, DC
4/30/2002	A 7th SOW and OBQI Pilot Project Overview	NAHC DC Policy Meeting	Washington, DC
5/2/2002	The Concepts Behind OBQI.org	CMS Central Office	Baltimore, MD
5/28/2002	QIOs in Home Care: Can the Old PROs Help with OBQI?	SW/GFULF Coast Regional Home Care Conference	New Orleans, Louisiana
6/6/2002	The Gold Nugget: OBQI Reports	Associated Home Health Industries of	Orlando, FL

		Florida, Inc. Conference	
6/13/2002	Home Health Outcome Based Quality Improvement System Pilot	Tri-Regional Conference	St. Pete Beach, FL
8/27-29/2002	OBQI Training for 7SOW	Round I QIOs	Annapolis, MD
9/10/2002	OBQI Implementation &7 SOW	QualNet Training	Hunt Valley, MD
9/21-22/2002	Expert Meeting on Home Health Measures	AHQA	Rockville, MD
9/23/2002	Implementing a Home a Health Outcome Based Quality Improvement Pilot Project in Five States	National Association for Health Care Quality	Nashville, Tennessee
9/24-26/2002	OBQI Training for 7SOW	Round I QIOs	Annapolis, MD
10/28/2002	Overview of OBQI	Dallas Regional Office	Dallas, TX

Quality Improvement in Home Health

A Pilot Project to Implement the Outcome-Based Quality Improvement (OBQI) System

Pilot Summary:

Since April 2000, the Delmarva Foundation (DF), the Quality Improvement Organization (QIO), for the State of Maryland has worked with five states to explore the feasibility of using the QIO program to help home health agencies (HHAs) implement and maintain the OBQI system. This programmatic approach to quality improvement is based on outcome reports derived from OASIS data. Through funding by the Centers for Medicare & Medicaid Services (CMS), DF subcontracted with the University of Colorado, Center for Health Services Research (CHSR), for their expertise as the authors of the OASIS data set and OBQI. DF and CHSR trained the staff of the QIOs in OBQI, so that they in turn could train participating HHAs in their states. Due to the success of the pilot, OBQI will be implemented nationally by all the QIOs in their next scope of work.

Pilot Facts:

- Pilot Project Timeframe – April 2000 through October 2002
- Five states involved – Maryland, Michigan, New York, Rhode Island, and Virginia
- Number of HHA volunteers for project – 417 (68% recruitment)
- Number of training sessions held – 27; Number HHA staff trained - 877

Pilot Results:

- Retention rate of HHAs – greater than 90% implemented OBQI
- Presentations at national, local, and trade associations meetings/conferences
- Publications – *Home Health Nurse*, special issue on OBQI, July 2002
  Journal of Home Health Management and Practice, April 2002

Future:

- Remeasurement results – 2nd outcome reports due May 2002
- National implementation of OBQI via QIO Program, 7th Scope of Work contracts (August 2002)

Quotes from the Field:

"The CQI team in our home health agency works on issues, but most of them were process related. We struggled to get to things that were more patient related. It's not that we didn't know it, but...OBQI helped us overcome that hurdle...so now we do both."
Jane Pike Benton, Executive Director of Memorial Hospital Home Care in Rhode Island

"What they see now with OBQI...is that [OASIS] does matter, and it matters for more than PPS, it matters for more than money, it matters for quality."
Ann Jaffe, North Shore Long Island Jewish Home Care Network, New York.

Contacts:
Julie Crocker, MSN, RN, Project Director
Barbara Vencill, RN, Project Coordinator

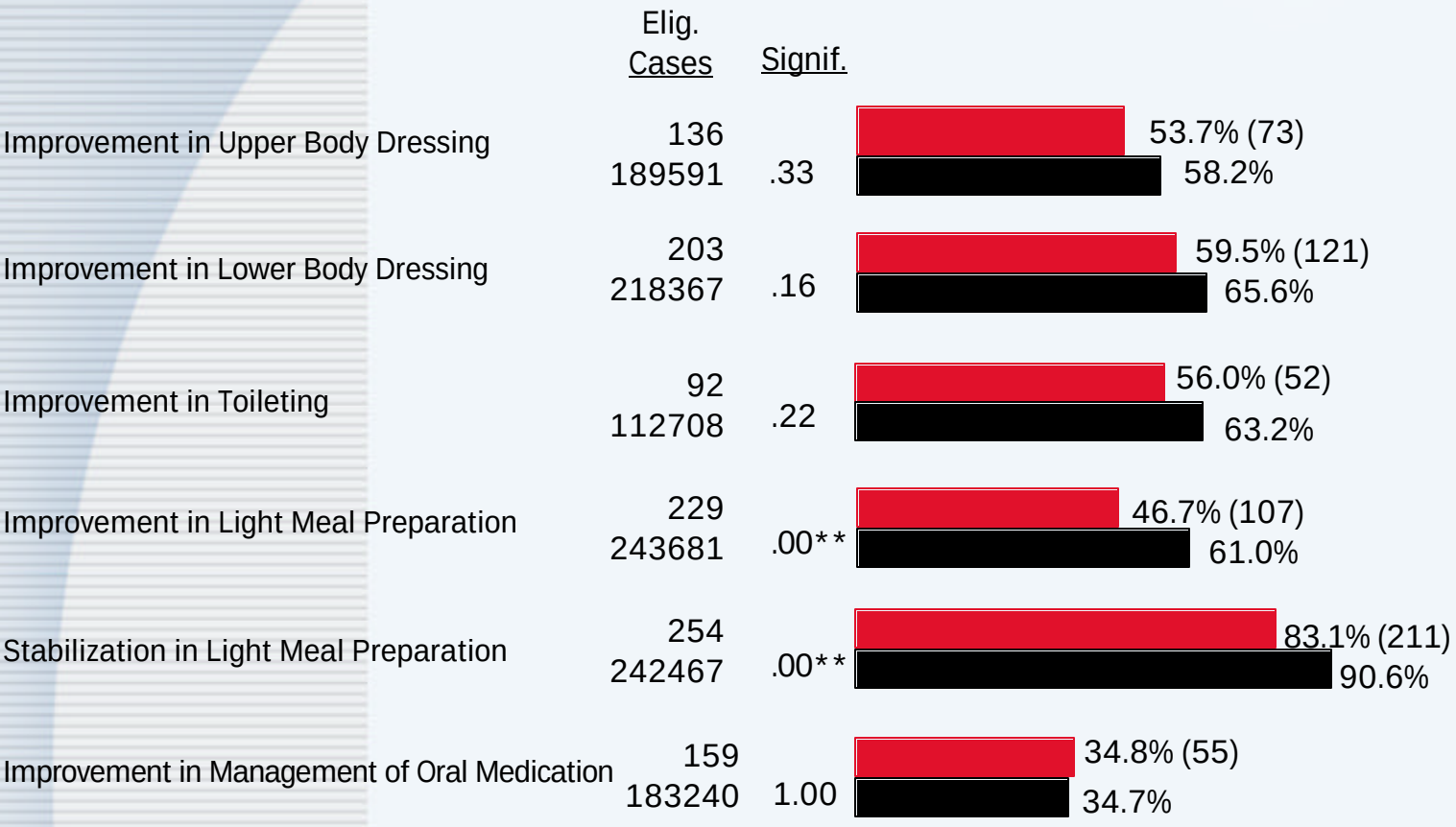
Pilot Pr

HOME HEALTH

Agency Name: Fair Care Home Health Services
Agency ID: HHA01
Location: Anytown, USA
Medicare Number: 00701
Medicaid Number: 999888001

Requested Current Period: 01/2001-12/2001
Actual Current Period: 01/2001-12/2001
Number of Cases in Current Period: 374
Number of Cases in Nat'l Ref Sample: 357978
Date Report Printed: 02/28/02

All Patients' Risk Adjusted Outcome Report



** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

HOME HEALTH

Agency Name: Fair Care Home Health Services
Number of Cases in Current Period: 599
Number of Cases in Prior Period: 374
Number of Cases in Reference Sample: 26044

Date Report Printed: 02/28/02
Current Period: 01/01/2000-12/31/2000
Prior Period: 01/01/1999-12/31/1999

All Patients' Risk Adjusted Outcome Report

	Elig. Cases	Signif.	
Improvement in Upper Body Dressing	203 136 11 326	 .02** .05**	64.5% 51.3% 57.7%
Improvement in Lower Body Dressing	327 203 13951	 .24 .43	66.1% 60.8% 68.1%
Improvement in Toileting	175 92 6202	 .57 .00**	52.0% 56.3% 70.2%
Improvement in Light Meal Preparation	474 229 15632	 .74 .00**	53.2% 51.5% 66.5%
Stabilization in Light Meal Preparation	336 254 19908	 .98 .00**	85.4% 85.9% 92.0%
Improvement in Management of Oral Medication	266 159 11085	 .48 .58	37.2% 33.5% 35.6%

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

Current Adjusted prior Reference

HOME HEALTH

Publications

Bennett, C. (2002) Outcome-Based Quality Improvement: The future of Home Care Quality Improvement Activities From an Agency Perspective. *Home Health Care Management & Practice, 21,209-213.* [Authored by one of Maryland's participating HHAs in the pilot project.]

Chisholm, D. & Murdock, K. (2002) The Outcome-Based Quality Improvement Pilot Project: A Perspective from Maryland. *Home Health Care Management & Practice, 21, 179-184.*

Crocker, J., Murdock, K. & Vencill, B. (2002) Implementing a Home Health Outcome-Based Quality Improvement Pilot Project. *Home Health Care Management & Practice, 21, 218-226.*

Murdock, K. Interpreting Outcome Reports – Practical Application. *Home Health Nurse, 20, 523-524.*

Murdock, K. Selecting Target Outcomes – Practical Application. *Home Health Nurse, 20, 529-530.*

Murdock, K. The Process of Care Investigation – Practical Application. *Home Health Nurse, 20. 593-595.*

Murdock, K. Developing and Implementing a Plan of Action to Improve Care – Practical Application. *Home Health Nurse, 20, 603-605.*

VII. IMPLICATIONS FOR 7TH SCOPE OF WORK

QIO Support to the HHAs

The success of the pilot project is attributable to many factors, both on the part of the QIOs that facilitated the HHAs' implementation of the OBQI process as well as the dedication of the HHAs that volunteered to adopt the OBQI system. The QIO Program and home health providers are new entities to each other. The concept of CQI, as well as the OBQI process, were new to those HHAs participating in the pilot project. The participating HHAs appreciated the support of the QIO in providing technical assistance in their implementation of OBQI. This external support system served as an unbiased, reliable resource for many of the HHAs.

While the HHAs had been trained by their OEC in OASIS and knew that at some point they would also receive OBQI training from the OEC, they were appreciative of intensive training and support provided by the QIO throughout the whole OBQI process (particularly at no cost to them). Those that participated in the pilot knew they were getting the training and their outcome reports a year ahead of the rest of the nation. This was used as a recruitment strategy in the pilot; however, it is a not a viable option in national implementation as HHAs nationally received their first outcome reports in February 2002, and can now access their OASIS-derived reports at any time.

HHA Administrative Support

In the pilot, one of the most critical aspects of a HHA successfully implementing OBQI was the buy-in and support from HHA administrative staff members. OBQI requires an agency-wide commitment to QI. If an HHA administrator is committed to the agency's adoption of OBQI, barriers are mitigated. Barriers encountered by HHAs included staff turnover, training new staff members, a lack of resources and multiple priorities. A HHA's commitment to CQI goes far beyond simply documenting improvement activities and statistics. Agencies that effectively implement OBQI can also maintain a CQI culture at all levels of the organization. Outcome information allows senior management to prioritize business development initiatives and allocate resources effectively. As OBQI is implemented nationally, the next initiative should focus on the cost effectiveness of OBQI. The next generation of OBQI and the applications that follow from it should target implementing improvements that minimize operational impacts while also maximizing returns.

OASIS Accuracy and Burden

For those HHAs that have successfully adopted CQI and implemented the OBQI process, their OASIS data collection is enhanced. Staff members trained in OBQI understand the rationale behind the collection and reporting of OASIS data. Chart audits frequently revealed inconsistencies in the OASIS assessments. Analysis of a HHA's outcome reports often triggers a search to determine whether or not certain OASIS data fields are

being coded correctly. The continual process of chart audits and review of outcome reports will indeed continue to improve the accuracy of OASIS data collection.

While the home health industry over the past few years has focused on what they consider to be the 'burden' of OASIS data collection, the evolution of OBQI greatly curtails this sentiment as more and more providers understand its use beyond payment purposes and are able to adopt OASIS into their current assessments. CMS has reacted to HH industry concerns and agreed to consider options to eliminating redundant and unnecessary OASIS data elements. The revised OASIS form is scheduled to be available later this year.

OBQM and OBQI

It is important for the HHAs to recognize that in addition to adopting OBQI, there continues to be value and a requirement, to also conduct quality assurance activities. The adverse event reports and case mix reports are vital quality assurance tools that among their other uses can enhance the OBQI process by providing agency-specific information that can assist in identifying appropriate outcomes to target. The adverse event outcome reports demonstrate the frequency a variety of untoward events occur (i.e. development of urinary tract infection, emergent care for wound infection, etc.). OASIS-derived reports can also be used by agency staff to monitor potential changes in case mix so that approaches can be altered to meet the changing needs of their patient population.

QIO Program

The success of implementing OBQI in the pilot project through the QIO Program can be attributed to two underlying principles: 1) the design of the project ensured that the OBQI system was provided to the HHAs in a consistent manner, and 2) encouragement of constant and effective exchange of knowledge among the QIOs as well as the HHAs.

As detailed earlier in this report, the OBQI training program presents a prescribed set of steps that the HHAs adopt to implement OBQI. Although HHAs differ greatly in size, resources and experience in quality assurance and quality improvement activities, agencies are strongly encouraged to follow the steps of the outcome enhancement process as they were presented in training. This standardized sequence of steps was developed and tested in the national demonstration projects as well as in the pilot project. Ensuring consistency in the training program will be a challenge as we move to national implementation. As the HH QIOSC, Delmarva will implement numerous activities to facilitate the QIOs' training programs and also to ensure the content is presented in a consistent format.

The backbone of the five QIOs working together in the pilot project was constant communication. After the initial kickoff meeting and two training sessions that were face-to-face, the QIOs conducted conference calls every Wednesday afternoon. These calls followed an agenda that addressed issues, barriers, and questions in accordance with the phase of the project. Because the home health setting was new to all the QIOs, these

calls often consisted of problem solving, sharing lessons learned – both successes and failures -- and developing specific products whether it be a participation form, data base to list participants, newsletter ideas, etc. In addition to the QIOs, our subcontractor, CHSR, and our CMS Government Task Leaders, were on the call weekly as well. These two entities were valuable resources to the QIOs. They were able to answer questions for the HH community brought up by the QIOs, clarify our roles and responsibilities and act as a sounding board for the next steps in the project. These calls enabled us to grow as a team and become much more effective in the work we were conducting.

Home Health Public Reported Measures

Modifications can be made to the national outcome reporting system to produce reports that are understandable and useful to the consumer. Currently CMS is working to identify those measures. The QIOs' trade association, the American Health Quality Association (AHQA), asked the pilot project QIOs to produce an opinion paper, "Public Reporting of Home Health Quality: Role for the PRO Program." The recommendations presented were as follows:

- Condense the 41 outcome measures to a manageable and understandable set
- Use consumer focus groups for indicator set selection
- Report card must be simple and streamlined
- QIOs have a role to play in dissemination of report card
- Geographical area of analysis should be regional not national

The Agency for Healthcare Research Quality (AHRQ) has convened a panel of experts to provide CMS with suggestions for the selection of the outcomes to be used. The public report for home health will be pilot tested in early 2003.

Conclusion

In conclusion, the pilot project did not experience any major barriers in implementing OBQI in the five states. The recruitment rate for HH participants, the stories of success from the HHAs in the pilot, and the high retention rate, all speak to the success of the pilot. As we move forward to the Seventh Scope of Work and national implementation of OBQI, there are overarching principles that need to be kept in mind to succeed.

For the QIOs:

- Be consistent in the training and the information provided to the HHAs
- Share your knowledge constantly
- Home health is a new provider setting and QIOs are viewed as very beneficial to QI initiatives
- Maintain a certain sense of flexibility, states vary greatly

For the HHAs:

- OASIS accuracy will improve with the implementation of OBQI
- Combine OBQM and OBQI to get a clear picture of patient care and outcomes

- Take ownership of OBQI, management involvement is critical
- OBQI should not be a burden, but a new way of doing business