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A New Process for Improving Quality of Care Centers for Medicare and Medicaid Services Home Health Care Quality Initiative

Elizabeth Ivie Sutton

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A NEW PROCESS FOR IMPROVING QUALITY OF CARE
CENTERS FOR MEDICARE AND MEDICAID SERVICES
HOME HEALTH CARE QUALITY INITIATIVE

Elizabeth Ivie Sutton

B.A., Quinnipiac University, 2001

A Thesis
Submitted in Partial Fulfillment of the
Requirements for the Degree of
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at the
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Introduction

On Monday, November 3, 2003, Department of Health and Human Services, Secretary Tommy Thompson announced the rollout of the home health care quality initiative (HHQI) across the United States by the Centers for Medicare and Medicaid Services (CMS). This program is part of recent political efforts to improve consumer access to health care quality information. Tommy Thompson stated that HHQI “is an effective approach to bringing about better quality care provided by our nation’s home health care agencies. Not only will consumers be better informed, but home health care agencies themselves will be able to see more clearly what they must do to improve their care” (FDCH, 2003).

Public health practice focuses on improving the health status of communities. An important aspect of improving health is public sector monitoring of the quality of care (formal care – provided in the community). HHQI aims to provide patients and families with the information necessary to choose the most appropriate health agency for care in a geographical area. In theory, the HHQI represents a reasonable approach to helping consumers optimize their choices when they or their relatives need home health care.

However, HHQI has stirred controversy among the industry, the government, and individual home health care agencies. Home health agencies were required by CMS to start collecting data on their clients in 1999. In 2001 CMS moved forward and began to train eight selected states agencies on the HHQI, in order to prepare agencies for the first release of OASIS data to consumers in the spring of 2003. Since that time the remaining state home health care agencies have been trained and the release of their data nationally occurred in November of 2003. Due to the rapid implementation of HHQI minimal
research exists documenting the opinions of home health care administrators on the
monitoring of outcome measures within home health care through this specific initiative.

The purpose of this study is to investigate the effect of publicly reporting health
information to consumers. Specifically, the study aims to: 1) determine Connecticut
home health care administrators’ views about the outcomes based quality improvement
initiative, 2) determine home health care administrators’ views on training received from
quality improvement organizations in the state of Connecticut, and 3) determine
Connecticut home health care administrators’ views on the concerns and opportunities of
the home health care quality initiative.

**Background**

Extensive research preceded the effort of the CMS to initiate HHQI nationally.
The nineteen-sixties allowed for much needed change in evaluating health care. A
significant contributor, Avedis Donabedian, laid the foundation for the development of a
In 1996, the New England Journal of Medicine published six consecutive articles
examining the conceptual framework of quality. The first article authored by David
Blumenthal stated, “the purpose of measuring quality, of course, is to lay the groundwork
for improving it” (Blumenthal, 1996). This follows the most widely used definition of
quality the Institute of Medicine coined: “the degree to which health services for
individuals and populations increase the likelihood of desired health outcomes and are
consistent with current professional knowledge” (Blumenthal, 1996). Donabedian defined
three approaches for assessing quality in health care, those being structure, process, and
outcome measures. Each measure “elevates the overall performance of our health care system” (Blumenthal, 1996).

**Measuring Quality of Care**

Structural measures of quality are typically defined as resources available to provide health care. Structural measures include licensure, types of staffing, specialty board certification, or private accreditation. Process measures of quality are the “components of the encounter between a physician or another health care professional and a patient” (Brook, 1996). These measures include tests ordered, medications prescribed, or care plans. The change in a patient’s condition and access to care are considered outcome measures, which include patient reports about their health, their ability to perform daily activities such as bathing, toileting, dressing or ambulation, and their patient experiences including experiences with physicians and staff (Donaldson, 1997). HHQI as well as other current efforts by CMS focus on outcomes measurement which “is in some ways the ultimate form of quality measurement because what interests most people is whether care has improved the patient's health” (Donaldson, 1997).

**Outcome Based Research**

Outcomes research is commonly defined as an output of data that explains individuals’ health status in relation to the care they are provided. Arnold Epstein of Harvard Medical College stated that “research on outcomes can tell us more about the effectiveness of different interventions and may help increase the efficiency of existing systems for monitoring quality of care” (Epstein, 1990). Epstein provided evidence of outcomes research in several aspects of health care in his 1990 journal article the
“Outcomes Movement—Will it get us where we want to go”. One specific factor Epstein outlined was that the development of outcomes measures lay within health maintenance organizations (HMOs). Epstein stated “Paul Ellwood, who popularized the concept of health maintenance organizations, has now called for a major initiative in what he terms ‘outcomes management,’ a national program in which clinical standards and guidelines are based systematically on patient outcomes” (Epstein, 1990).

During the 1990s most outcome based initiatives to monitor and improve health care quality, occurred in the private health care sector. HMOs and private insurance companies that insure the working population suggested that “outcomes research seeks to understand the end results of particular health care practices and interventions...by linking the care that people get to the outcomes they experience, outcomes research has become the key to developing better ways to monitor and improve the quality of care” (AHRQ, 2000). More recently, the federal government has more recently stepped into the outcomes movement. In particular CMS has taken the lead in developing public sector quality of care initiatives to monitor the health of older and disabled Americans. Chandra Branham states this public sector initiative “will provide agencies with tools to determine the degree patient outcomes are being achieved” (Branham, 2002). Currently, two CMS outcomes research initiatives are underway, the first focusing on nursing home quality and the second focusing on home health care quality. The main reason for the (CMS) interest in nursing home and home health care quality is that the federal Medicare program and the state and federal Medicaid program pay for both types of health care. “By 1996, there were 13,500 home health and hospice agencies in the United States. 88% were Medicare certified and 86% were Medicaid-certified” (Binstock, 2000). Medicare
spent approximately nine billion dollars on home health care for the 2001 fiscal year (Table 2) and is the “dominant payer for home health care services” (Shaughnessy, et. al., 2002). Additionally, the projections for expenditures for long term care for the elderly, which includes care in the home, is predicated to grow. The Congressional Budget Office “based on the projections made by the Lewin Group and researchers at Duke University, estimates that inflation-adjusted expenditures for long-term care for the elderly will grow annually by 2.6 percent between 2000 and 2040. Those expenditures are projected to reach $207 billion in 2020 and $346 billion in 2040” (CBO, 1999). This will in turn increase the amount of Medicare and Medicaid dollars spent on home care by 2040.

**Quality of Nursing Home Care**

The development of regulating nursing home care in the format of outcomes based measurement was initiated in 1986, when the Institute of Medicine “recommended that nursing home quality of care regulation for Medicare and Medicaid certification be reoriented from assessment of the process of care to a more resident-centered and outcome-oriented evaluation” (Mukamel, 1997). This recommendation led to the development of quality indicators (QIs) to evaluate nursing home quality of care. Researchers at the University of Wisconsin-Madison developed and tested quality indicators from the commonly known minimum data set. The process of development included several key steps before the final 14 quality measures were implemented. This implementation is known as “nursing home compare”. The process of determination included “extensive interdisciplinary clinical input, empirical analyses, and field testing” (CHRSA, 2002).
The 14 QIs are a source of information for consumers to determine quality of care nursing homes provide to their residents. These measures have four intended purposes: 1) to encourage caregivers to talk to nursing home staff about the quality of care, 2) to give data to the nursing home to help with quality improvement efforts, 3) to give consumers information about the care at a particular nursing home where family members already live, and 4) to give consumers information about the care at nursing homes to help in the decision making process (CMS, 2004). These data presented on the CMS website were developed over a period of several years with leading researchers arguing how effective the indicators were in determining the quality of care nursing homes provide. These quality measures are the “first known systematic attempt to longitudinally record the clinical and psycho-social profile of nursing home residents” (CHSRA, 2001). Researchers selected these measures because “they show ways in which nursing homes are different from one another...as this research continues, scientists will keep improving the quality measures” (CMS, 2004). The comparison of nursing homes is the first national implementation of “report cards” available to consumers. Following this initiative, the government wanted to implement the same “report card” system for home health care, using outcome measures to determine quality.

**Home Health Care**

Home health care allows individuals to remain in their own home while maintaining their independence and a sense of family. Though community care has existed for centuries, it was not until “the enactment of the Medicare and Medicaid programs in 1965 that made public funding available for professional home health services. This laid the foundation for increased use of formal, paid home care services”
(Binstock, 2000). As such, agencies providing home health care to individuals in the community have increased due to the ever-expanding amount of public funding available as well as the implementation of the prospective payment system and diagnostic related groups. During the mid-nineteen eighties hospitals introduced “the prospective payment system based on diagnosis-related groups (DRGs). This served as a catalyst for hospital patients to be discharged ‘quicker and sicker’ thereby increasing” the number of individuals using home health care and the number of agencies supplying care to individuals in communities (Shaughnessy, et al., 2002).

The 1998 Home and Hospice Care Survey findings indicate that 7.6 million individuals received formal home care services (NACH, 2001). The formal services Medicare covers under the home health care benefit must meet five criteria. “First, a physician must certify the need for services, and, second, the individual must remain under the care of a physician. Third, the person must be homebound, meaning that the individual is unable to leave the home because of illness or injury without considerable or taxing effort. Fourth, the individual must need part-time or intermittent skilled nursing care or physical therapy or speech therapy. Fifth, Medicare must certify the home health agency providing services” (Wacker, 1998). The services that Medicare helps pay for include skilled nursing care, rehabilitation therapies, home health aide services such as help with bathing or dressing, social services, medical supplies, and durable medical equipment. The demand for home health care will substantially increase as the baby boom cohort ages. By the year 2030 there will be 70 million people over the age of 65 (Binstock, 2000). In turn, the expectation to receive quality care from home health agencies will be at the forefront because individuals want to remain in a familiar setting
when ill and because informal care performed by family caregivers will decrease because
of the geographic separation of families across the country.

Policy Background of Home Health Care

Fifteen years following the development of Medicare and Medicaid, the Omnibus
Reconciliation Act of 1980 emerged, dramatically changing the home health care benefit.
The original benefit under the 1965 legislation allowed individuals to receive home
health care post hospitalization for a limited number of visits. In 1980, the Omnibus
Reconciliation Act eliminated the set number of visits allowed, which encouraged “home
health utilization and enabled more hospital-based and proprietary home health agencies
to participate in Medicare, resulting in an increase form 2,924 agencies in 1980 to 5,695
agencies in 1990 (Shaughnessy, et al., 2002).

It was not until the Balanced Budget Act (BBA) of 1997 that change was
introduced in the payment of home health care services. Originally, payment for home
health care was on a cost-based approach whereby agencies billed Medicare for the
amount spent on care. The more services an individual received the more the agency was
paid. The BBA of 1997 enacted predetermined rates or standard fees a home health care
agency could charge for conditions treated. The BBA legislation reduced the number of
visits, which in turn decreased Medicare expenditure on home health care. “Agency
closures and withdrawals from Medicare reduced the number of agencies by almost one-
third, to 7,146 by the end of 2000” (Shaughnessy, et al., 2002) This legislation is
considered one of the most significant changes to home health care since public sector
payment for care began in 1965.
Outcome and Assessment Information Set

Minimal research exists on characteristics of home care beneficiaries, the benefits home health care produces, or the quality of care a beneficiary receives. The Centers for Medicare and Medicaid Services in conjunction with some foundations piloted a program to “assess the feasibility and utilization of measuring the outcomes of home health care” known as outcomes-based quality improvement or OBQI (Shaughnessy, et al., 2002). This initiative has produced the assessment tool to obtain outcome information on home health care beneficiaries. The assessment tool titled OASIS---Outcome and Assessment Information Set-- established standard definitions and measurement methods to compile information on home health care agencies across the country.

The development of an assessment tool to evaluate outcomes was a benchmark to improve quality within the home health care industry. Two goals were established as part of the OBQI program. First, OBQI was to be implemented in every state and in every home health care agency. Every 60 days home health care agencies would collect information on 79 data elements every ranging from health status, socio-economic characteristics, functional abilities, to health service utilization. Secondly, the reports obtained from OASIS were to serve as the basis for “identifying strong home health care programs that need relatively little attention as well as programs in need of greater improvement” presently known as the home health care quality initiative (Shaughnessy, et al., 2002).

Implementation of OBQI

To implement OBQI in all Medicare certified home health care agencies, the Centers for Medicare and Medicaid Services united with quality improvement
organizations (QIOs) nationally. QIOs, previously known as Peer Review Organizations, are private organizations that contract with CMS to help improve quality in a variety of health care settings including hospitals, nursing homes, and home health care agencies. The national trade association representing QIOs in Washington D.C., the American Health Quality Association (AHQA) stated in April of 2003 that “research shows the training of home health agencies boosts the level of care” (AHQA, 2003). QIOs helped CMS test the OBQI training process in a demonstration project “with more than 400 home health agencies in five states…more than ninety-percent of the agencies participating in the OBQI training completed the training, and reported that targeted measures of patient care improved by an average of seven percentage points over a one year period” (AHQA, 2003). AHQA also published success stories from agencies in the five states that participated in the OBQI demonstration training project. In Baltimore, Maryland, a home health care administrator focusing on reducing emergency hospital admissions for patients with congestive heart failure said, “OBQI is a great way to get staff involved in gathering patient information. Staff can clearly see whether they are making a difference in a patient’s life. It really enhances professionalism. It’s a great thing for improving care and improving your operation. The staff really got into wanting to make improvements and their enthusiasm spilled over into a lot of other things” (AHQA, 2003).

In Connecticut OBQI training began after the demonstration project led to national implementation of OBQI in 2003. The state of Connecticut’s QIO, which contracted with CMS to train home health agencies in OBQI, is Qualidigm, a voluntary non-profit organization. Qualidigm's initiatives “reflect the belief that continuous...
evaluation and improvement of health care information, education, and delivery systems results in cost-effective, quality care and improved health status” (Qualidigm, 2004). The training of Connecticut’s home health care agencies on OBQI began in April of 2003 when they were invited to participate in a two-day workshop to familiarize themselves with the OBQI process, methods for implementing the process in their own agencies, the interpretation of target outcomes, and finally, ways to create, implement, monitor and evaluate plans of action for target outcomes. The OBQI process is a sequence of steps (Table 3) starting with the collection of OASIS data by staff and ending with monitoring a plan of action. This process allows agencies to target a specific outcome on the OASIS data set that may fall below the minimum standard. By following the outcome enhancement steps (Table 4) agencies may be able to improve outcomes, which in turn may improve the quality of care they are providing. The training of agencies across the country was the first of two steps to leading researcher Peter Shaughnessy’s goal of implementing the OASIS data instrument. The second step was to recognize nationally the agencies that perform above standard and those that fall below the threshold.

Home Health Care Quality Initiative

The first part of implementing the OASIS instrument was to train agencies. The second part of the OBQI intention was to implement the home health quality initiative in November of 2003. The two goals of HHQI were to “1) empower consumers with quality of care information to make more informed decisions about their health care and 2) to stimulate and support providers and clinicians, to improve the quality of health care” (CMS, 2003). CMS labeled the initiative as a four-pronged “effort that consists of 1) regulation and enforcement activities conducted by state survey agencies and CMS. 2)
Improved consumer information on the quality of care provided by home health agencies. 3) Continual, community-based quality improvement programs for home health agencies and 4) collaboration and partnership to leverage knowledge and resources” (CMS, 2003).

The first phase of the HHQI initiative included the release of eight states’ outcome measures in the spring of 2003. Each home health care agency collected its OASIS data as regulated by CMS. Eleven quality improvement measures extracted from the OASIS dataset (Table 5) were then published in a report card format on the CMS website and in newspapers across the country. The second phase of HHQI released the outcome measures in the remaining 42 states, the District of Columbia, and U.S. Territories in the fall of 2003. The rapid implementation of HHQI beginning with the development of the OASIS data to the release of national outcome measures on certified home health care agencies was less than five years. “In less than five years, the home health care industry has moved from an environment with extremely diverse data collection protocols and little or no dissemination of quality-related information” to electronically reporting quality indicators to consumers (Fortinsky & Madigan, 2004, in press).

The approach CMS has executed to monitor quality of care has not been a smooth transition for the home care industry, especially for staff and administrators collecting OASIS data. The omission of administrators’ opinions on the OBQI process to implement HHQI has been ignored to date. It is important to report publicly not only agencies’ quality measures but also their frustrations and dissatisfactions with OASIS, OBQI, and HHQI to enable a more sound approach to measuring quality within the home health care industry. The goal of QIOs training was to enable agencies to respond to
outcomes within their data set to improve quality of care. This research study will examine the satisfaction of Connecticut’s home health care administrators with the training they received from the QIO and determine what they believe are concerns and opportunities of HHQI.

**Methods**

*Study Objectives*

The objectives of this research study are to 1) determine Connecticut home health care administrators’ views on QBQI. 2) Determine home health care administrators’ views on training received from the quality improvement organization in the state of Connecticut. 3) Determine Connecticut home health care administrators views on the concerns and opportunities of the home health care quality initiative.

*Study Design*

This study is a cross-sectional design using random sampling to characterize the opinions of certified home health care administrators in the state of Connecticut one month following the national release of the home health care quality initiative. Using structured open-ended questions administrators were asked to reply to a series of 20 questions that addressed study objectives regarding agency characteristics, the outcomes based quality improvement initiative including how administrators prepared for the initiative, how their staff felt about the initiative, and the training they received from Connecticut’s QIO. Lastly, administrators were asked to comment on the implementation of HHQI nationally and what they see as concerns or opportunities of this initiative.
**Sampling Frame**

A list of (n=83) Connecticut home health care agencies was obtained from the Connecticut Department of Public Health and the Centers for Medicare and Medicaid Services using the following inclusion criteria: 1) home health care agencies geographically located in the state of Connecticut 2) the title of administrator or director of a home health care agency listed 3) Medicare certified in September 2003. For this study the following criteria were used to exclude participants: 1) home health care agencies located outside the state of Connecticut and 2) home health care agencies not Medicare certified in September 2003.

A random sample of 20 agencies was selected using a table of random numbers to receive the letter to participate (Appendix 1). Subjects then had the right to refuse participation via a written assent to the study coordinator prior to the start of the interview process. Participants were then called one week following the mailing of the letter to participate.

**Results of Sampling Method**

Of the initial sample two agencies selected had invalid contact information and were eliminated from the sample to receive the letter of invitation. Three agencies randomly sampled refused participation via a written assent to the study coordinator. The reasons for refusal included agency size (number of patients served per year) and population served (hospice patients). The third agency did not reveal to the study coordinator the reason for refusal.

To obtain a sample of twenty agencies, five additional agencies were randomly sampled and invited to participate as the study coordinator encountered the above refusals.
and invalid contact information. A total of twenty agencies were then contacted in the
months between November 2003 and April 2004. The study coordinator halted the
mailing of additional invitation letters and completed interviews by April of 2004.

**Questionnaire Design**

The questionnaire was developed with input from the primary thesis advisor and
the study coordinator (Appendix 2). The goal of the questionnaire was to obtain
quantifiable data directly related to the research objectives. After the development and
approval of the questionnaire it was then pilot tested with a selected home health care
agency in Connecticut. The goal of the pilot test was to determine the accuracy of the
questions, the content of answers received, and the length of the interview process. From
the pilot test a revision was made to Question 16 to ask the opinion the administrator had
on the subject of HHQI instead of the agency’s opinion on HHQI. The administrator
believed she could not answer the question in regards to the agency’s opinion however
she could answer the question using her own opinion. The question was changed to
reflect the administrator’s input and in November of 2003 the questionnaires were mailed
to the twenty agencies randomly selected. Each mailing was directed to the attention of
the current administrator listed on the Connecticut Department of Public Health licensure
Web site. The mailing included the invitation to participate and the questionnaire.

**Data Collection and Analysis**

The study coordinator began contacting administrators one week following the
invitation to participate in November of 2003. Each agency was telephoned to schedule
an interview time to complete the survey verbally and was then contacted on the
scheduled interview date. A total of fourteen administrators completed the structured open-ended questionnaire. The six administrators who did not complete the questionnaire were contacted five additional times via the telephone but were unavailable to complete the interview due to time constraints. After no further response from the administrators three additional attempts were made to contact the administrator via electronic mail. They were non responsive, resulting in a final completed sample of (n=14). Eleven administrators completed the survey telephonically and their answers were transcribed in print then were computerized. The three remaining administrators were unable to complete the telephone interview on the scheduled date and volunteered to self-administer the questionnaire and return via mail to the study coordinator. Self-administered questionnaires were subsequently added to the computerized transcription of the telephonic interviews.

Data analyzed for this report consisted of quotations from participants in response to the interview questions. For each question the study coordinator “coded quotations from the transcripts that exemplified a common concept using constant comparative methods” (Glaser & Strauss, 1967) to “capture thematic aspects of the interview data” (Carley, 1990). The codes were then carefully grouped “to identify recurrent themes” (Bradley, et. al., 2002) for example if the administrator could answer either positively or negatively to the question the coder located words or phrases that were similar in nature to exemplify those themes, the quotations were then grouped together accordingly. “To ensure that the analysis was systematic and verifiable” and to enhance the process of qualitative analysis, 1) the study coordinator had experience in telephonic interviewing and transcription, 2) all decisions revealing systematic responses in the code was
documented and, (Miles & Huberman, 1994) 3) the code was reexamined multiple times to ensure appropriate interpretation and classification (Patton, 1999). The Institutional Review Board (IRB) at the University of Connecticut approved the entire study protocol.

Results

Overview of Agency Characteristics

The overall representation of agencies (n=14) randomly selected in this research study was 71% voluntary non-profit and 21% proprietary. Of these agencies 57% were free standing (not affiliated with a larger health care system) while 43% were from either a national home health care agency chain, hospital affiliated, or town owned. The agencies service towns in seven of the eight counties in the state of Connecticut including metropolitan and non-metropolitan areas. Patients of the agencies selected were primarily white, female, and Medicare beneficiaries. The average age of patients served ranged from 70 to 85 years of age.

Objective 1: Connecticut Home Health Care on OBQI

1) What has your agency done to gear up for OBQI?

Administrators typically used the same themes to express their efforts to gear up for OBQI. The first common theme recognized was the participation in the QIO training in Connecticut during the spring of 2003. Administrators also commented on the development of an action plan, another common theme recognized in five of the thirteen agencies.

*We (the agency) have developed a plan of action to address an area we need to improve. We identified a problem, developed a plan and intervention to help improve the issue.*
Other administrators mentioned the education of staff, patient satisfaction surveys, and the use of an outside service to prepare for OBQI.

_We (the agency) purchased a service a year before OBQI and we send all of our data to that service. We did not want to get caught and we knew by the time the data was released where we stood as an agency._

2) **What has your agency done to gear up for OBQI?**

The federal government did not mandate OBQI and agencies had the choice to implement OBQI into their policies and procedures. Training was offered to agencies to educate their staff and develop plans of action for the public release of their OASIS data. Of the administrators questioned, 50% answered “no,” they would not have done more to prepare.

_No, our agency is committed to continuing to implement recommended processes for performance improvement. Recommendations from the CMS are a priority._

Of the remaining agencies 29% answered “yes,” they would have done more and 21% mentioned words such as “possibly,” “might have,” or “maybe.”

_Possibly. Home health care is currently over burdened with paperwork and putting people and processes in place to meet regulations and requirements. Even though this is to improve overall quality it is just another process to implement with no additional funding._

3) **What are your staff’s feelings about OBQI?**

When respondents were questioned about their staff’s feelings, five administrators responded positively while four agencies responded negatively, and five agencies responded in a neutral manner. Of the positive responses the following are excerpts:

_With frequent explanation and education, the clinical staff in general, has accepted their roles ensuring that our OBQI processes are accurately completed._

_The clinical staff feels it is necessary, something we have to do. Also, there is an unspoken communication among them, and from my perception they like the idea_
of aiming for good quality of care and having it show and then they can say I did that, I improved a patients quality of life.

Administrators who responded negatively used terms including “not useful,” “very defensive,” or “do not understand.”

_Our staff believes the whole concept bizarre. If you think about how the general population picks doctors and attorneys they try and receive recommendations from hospitals or communities. Our staff does not understand how having OASIS data available will encourage people to choose our agency. Most people do not use the computer as means to identify agencies._

_They do not like the report. It is one mean of measuring quality. They have become very defensive and consider it another burden on them._

_They really do not want to be bothered. They want to provide good care but don’t involve themselves in the outcomes data._

The administrators who responded in a more neutral fashion referred to their staff’s feelings with the following:

_I do not think they (staff) are very knowledgeable about the subject. At this time only supervisory staff directly involved are knowledgeable._

_The staff is for it, they support the outcomes, but at the same time more is being asked from them without proper reimbursement._

4) **How much do you think your clients are aware of OBQI?**

Four of the respondents answered they believe their clients are fully aware of OBQI and referred to their proactive approach taken to inform their patients and families about OBQI.

_Prior to the release of the home health compare reports on the CMS Web site, we provided each patient and new admission patients with a letter explaining, in general terms, what the HHC reports are, how to locate the site, and who they could contact with questions or concerns. We heard no feedback prior to or after the release of our data from our clients. I believe that our elderly clients may not be as interested in researching and comparing home care providers as do younger family members and future aging baby boomers._
Ten respondents answered they believe their clients are not at all aware of OBQI responded with the following:

*Our clients are not particularly aware of OBQI; most of our clients are elderly.*

*I do not think our clients are aware and we do not initiate the idea of OBQI. We look at the referrals and there have been no referrals coming in because of the computer. Most of our clients are referred by hospitals, insurance companies and from Infoline. We also have a lot of referrals from CCI and I know they do not use our outcome measures to refer clients to our agency.*

One of the ten who answered their clients are not at all aware of OBQI approaches quality on a micro level and responded with the following:

*Not at all, next to none. I think they (the patients) know they are involved with a quality agency and they have an expectation of care. If they are not receiving the care they call me. They do not feel like they have to investigate by using OBQI outcome measures.*

5) **How have the state public health surveyors used OBQI reports in your agency?**

Of the fourteen respondents 50% answered that the surveyors have not requested their reports. However, of those who answered the above, 29% indicated the state surveyors visited prior to the availability of the data. Administrators also commented that they are aware the state surveyors will be using their reports on their next visit and will expect answers as to how they have handled their outcomes. Administrators who answered yes explained the surveyors looked at the reports and investigated how events were handled.

*They (state surveyors) did in March of 2003 they addressed our unexpected discharge outcome. Three of our patients had adverse outcomes and they wanted to look at the changes we made.*
They (state surveyors) did use our reports in April 2003, they took a quick look and had a five-minute dialog and reviewed two quarters of reports. They did not have any questions.

Objective 2: Connecticut Home Health Care on OBQI Training

1) What is your opinion of Qualidigm's OBQI Training?

All fourteen administrators attended the QIO training and 70% of the administrators responded in a positive manner to describe the training.

Excellent job, they really tried to prepare us and gave us significant resources for quality. We also had media preparation in collaboration with CAHC.

Very good, I worked very closely with them (Qualidigm) and we have had teleconferencing with them as well. They really did a good job helping us through the process.

I think it was good. There were some areas that were confusing but they (Qualidigm) were readily available for any questions we had. Very receptive to any help they could provide.

2) How did the OBQI training help you as an administrator?

Of those questioned 71% replied that the training had helped them. The following are citations from their responses:

The training helped me understand OBQI. It meant nothing to me before the training. Now, I understand the process of analyzing the data and how to develop a plan.

The training helped me understand how to look at graphs and charts from OASIS and how to focus to better improve a specific outcome area.

I think the training helped select a target outcome to develop a plan of action and to me it was very helpful and very specific.

3) Have you implemented the training materials your QIO has supplied?

Of those who responded six administrators answered “no” to the question while the remaining eight agencies responded “yes.” From those who answered in the positive,
common themes emerged; the materials were used to help educate, develop a plan, or select target outcomes. The following are some of their comments:

Yes, the manual provided information for staff, patients, and the public. We trained staff and our hospital discharge planners with the manual.

I have used the worksheets from the manual to choose a measure to study. It helped a lot in getting started.

I have shared the materials with our performance improvement committee who had suggestions on what to follow and what issues to focus on.

Basically we followed the format they (Qualidigm) had given. We used their forms to develop an action plan and target outcomes.

4) Since training, did you seek further assistance from Qualidigm?

From the previous answers it appears that Qualidigm was readily available to help agencies across Connecticut. Eight administrators responded that they had contacted Qualidigm for further assistance while six agencies responded they did not. Of those who answered "yes" four agencies used the term "plan" in their response.

We submitted a plan for feedback. We had some frustrations actually beyond our control and they were very helpful.

We have sent them a plan following the training materials we received documenting how we were changing things to improve our measures.

Three agencies that responded that they had contact with Qualidigm but did not use the term "plan" in their response:

Yes, they (Qualidigm) helped us to look at all of our outcomes and helped narrow down the certain questions that we needed to work on. They were very helpful.

Yes, they (Qualidigm) helped us to access data via the computer and to get tally reports.

Yes, we wanted to make sure what we selected as best practices for our agency, and if it was what they (Qualidigm) were looking for.
5) *In your opinion, is participation by other agencies in Connecticut high?*

Forty-three percent of administrators believed participation by agencies in Connecticut was high and the remaining administrators commented either "probably high," "not high," or "did not know:"

*Yes, I don't think there was 100% participation but I think most of my peers are aware and attended the training.*

*I believe participation is high and from what I have heard from CAHC it is.*

**Objective 3: Connecticut Home Health Care on HHQI**

1) *What is your opinion about the report card system started in the fall of 2003?*

Administrators commented extensively when interviewed on their concerns and opportunities of HHQI. Of the fourteen agencies interviewed six answered in a positive manner, commenting the initiative is a good idea, worthwhile, and brings issues to the forefront.

*I think HHQI is a good idea and it was bound to happen. Mostly, I think other agencies are using it as a tool to compare themselves. I think a small amount of the public is using the Internet but it is a small percentage. It makes you take a step back and look to see what you are doing.*

*I think HHQI is a good start it brings issues to the forefront. It allows us to compare ourselves to other agencies, which is a very valuable tool.*

*I certainly makes agencies very aware of what we do or don't do in terms of quality.*

The remaining eight administrators used negative terminology to express their thoughts on HHQI. Their verbiage included "useless," "foolish," and "skewed" when expressing their opinions about the report card system.

*Foolish, I recently met with a professional advisory committee members include people from other agencies, doctors, and lawyers. I can answer that we believe the OASIS data can be falsified. There are ways an agency can come out with more productive answers. I can slant the data anyway I wish. Such as toileting,*
if you ask a clients family member if their toileting is better after a nurse as instituted a time void if they say I don't really know I can put the answer down as yes. I know of an agency in Connecticut who has been having a terrible time recruiting and keeping nurses and they came out with the best record in Connecticut. I believe this administrator was very clever, they had 92% approval with toileting. I really cannot imagine how that could be. I believe agencies can do anything they want, if I want to say that toileting has improved, who is going to visit our patients to see if that is the case, no one.

I think the data used is skewed. I have no problem with public reporting if the data were accurate. The outcomes are skewed, we have a large portion of long-term care patients and there is a difference between acute patients and chronic patients. That makes a difference in our data.

Rollout for live HHC reports began November 3, 2003. These reports contain data from OASIS tools and were not designed to be utilized for the purpose of public reporting. OASIS questions and the OASIS user manual instructions do provide guidelines to properly answer questions, however, interpretation differs at times, affecting potential patient outcomes. Reports also do not differentiate (in this state) outcomes from acute/short term cases to long-term maintenance home cases, which skew outcome data. Outcomes tell part of an agency’s story, there are many other performance improvement indicators that can be used to appropriately select a home care agency.

I believe most people do not understand the information and they will base their knowledge of an agency by its reputation in the community

2) What do you see as opportunities to your agency of public reporting your quality indicators?

Administrators responded with a wide variety of answers. Two administrators believe HHQI can be used as a marketing tool to sell an agency. Six agencies commented that HHQI was beneficial, that it improved care and performance of agencies.

HHQI is another report to monitor quality of care and target areas for improvement. It holds each Medicare-certified agency accountable to the public in those target areas. If I were a consumer I would see HHQI as beneficial to evaluate agencies.

HHQI will give us the opportunity to perform well on average across the state and that our outcomes are positive with agencies nationally.

One administrator responded she did not see HHQI as an opportunity.
None, if you look at the criteria of measurement I would not choose an agency on those measures. I would be looking to ask doctors, friends, and community agencies for their recommendations. If other people were satisfied then why would you want to look at measures on the computer to base your judgment?

The remaining two administrators questioned gave two answers distinct from those of the other administrators. One administrator indicated her agency would not be involved with reporting because of the agency’s small size. The other agency commented:

Some agencies within Connecticut appear to be superlative and others are not. I think agencies should stand together as a group licensed and Medicare certified. We need to support one another.

3) What are your major concerns about public reporting?

Thirteen administrators included one or more of the following themes: that data might be inaccurate, that HHQI is only one tool of measurement, and that there is room for misinterpretation of information by the consumer. The following are excerpts of these themes from administrators’ responses.

There are many factors that can skew the data so that in fact information does not accurately reflect what happened with the patient. In addition, the reports are only a small portion of what people should be inquiring about an agency.

OASIS is a very difficult tool to use. It is very subjective. And who’s to test our subjectivity. I do not believe the improvement in toileting defines the quality of care. We look at the responses of our clients at time of discharge and the opinions of doctors and how do they feel about our care. I believe that the VNA’s will have better outcomes than agencies like us. They have specific people working on quality assurance. I don't even read our OASIS data, I don't care what the measures say because I do not judge whether our agency is good or not by those measures. I will not white wash my data. There needs to be a factual honest tool to use. Eleven factors do not rate an agency.

The public may be misconstrued if they look at HHQI as the only method of evaluating an agency. They need to consider things like accreditation, status, reports from the state, and overall representation in the community. Good marks on the report can occur without an agency necessarily caring for the patient as best as they could.
The public may not understand how to properly evaluate the OASIS data it is only one measure. There are a lot of factors that go into having a quality agency. Smaller agencies are concerned because larger agencies have more resources.

I don’t want the data to be misconstrued. This is an ongoing process we are continually working with our outcomes especially hospitalization and I don’t think people are aware that the data is not final.

4) Who else is involved with your agency’s HHQI measures?

A wide variety of answers were given when administrators were asked the above question. Each agency had the opportunity to include whomever they wished to participate in the development and implementation of HHQI. Mostly the clinical and administrative staff was included. Some agencies developed performance improvement committees while others have a quality assurance team.

5) Has the agency received any inquiries from consumers, the press, or other sources about HHQI?

Administrators received either no inquires, received inquiries, or took proactive steps to be prepared for inquiries from the press, consumers, or other sources. Administrators who commented they received inquires from consumers or other sources as well as being proactive stated:

_We worked closely with Qualidigm to work with the press. A segment was filmed by Channel 8 news with the staff along with the Medicare director at Qualidigm. Also, our director of clinical services was interviewed by Connecticut public radio at the time of the HHQI rollout. We have had no public or patient inquires to date._

_No, we have received no inquiries from consumers. Our board has inquired and we have summarized and given updates on our reporting to them. With the press we have been proactive. We actually contacted them. We offered for a reporter to ride with one of our nurses for a day. Our measures were also published in the newspaper. One of our family members relayed a story on the rollout of HHQI._
We have had no direct inquires from our consumers. However, we did receive one inquiry from the press via Qualidigm. We made it possible for the press to go on visits with the nurses and we were available for comment for the TV station.

None at all, we were prepared. CAHC offered to educate agencies on what to say to the media and consumers. Such as what is our main point that we are trying to relay to the public? The training was very helpful.

Discussion

Objective 1: Connecticut Home Health on OBQI

In general administrators responded to the preparation of OBQI using similar strategies or approaches, including the participation in training and development of action plans following the OBQI process (Figure 2). The majority of administrators felt they had prepared well for OBQI by attending training sessions, developing action plans, or selecting their target outcomes. The responses varied from positive to negative with regards to how their staff has responded to the collection of OASIS data and the implementation of OBQI. Most administrators described their clients as being unaware of OBQI because their clients are elderly. The majority agreed state surveyors have yet to use their OASIS data during state surveys. However, administrators did comment they have been informed and are prepared for state surveyors to request agency outcome information.

Objective 2: Connecticut Home Health on OBQI Training

All fourteen agencies responded they attended the QIO training in Connecticut and the majority agreed the training was helpful. They also responded that the training helped to educate and prepare them for OBQI. Just over half of the administrators have implemented the OBQI process within their agency and the same number of
administrators have used the QIO in Connecticut since the initial training in the spring of 2003. Lastly, most of the administrators believed the participation of Connecticut home health care agencies in QIO training ranged between “probably high,” to “not high,” with some saying they “did not know.”

**Objective 3: Connecticut Home Health on HHQI**

The remaining series of questions asked administrators to comment on HHQI. Just under half of the administrators believed HHQI brings quality to the forefront, but eight of the fourteen administrators explained improvements with the collection and analysis of data must be worked out before HHQI can improve quality. They want their concerns about the potential falsification and skewing of data to be addressed before the data is used as a quality measure. Others commented that HHQI is useless and that consumers do not understand the information and will misinterpret the meaning of quality. The responses of administrators varied when asked about the opportunities of HHQI. Half of the respondents believe HHQI will improve care and only one administrator responded there were no opportunities for agencies with HHQI. Most administrators agreed there are concerns with HHQI including the inaccuracy of data, the misinterpretation of the data by consumers, and the limitation of having only one tool to measure quality within the industry. Overall, some administrators have prepared very well for HHQI, proactively educating consumers, the press, and other sources. However, as of the date of the interview the agencies had received no inquiries from consumers regarding HHQI.
Limitations

Limitations of this study include sample bias, social desirability, and the lack of automation of coding and multiple coders. First, the potential for sample bias was prominent. Administrators who had generally positive experiences with OBQI and HHQI may have been more inclined to consent to the interview. Administrators who possibly had negative experiences or were overloaded with work may have refused, thus resulting in sample bias and skewing data. To minimize the possibility of administrators’ refusal due to negative experiences the study coordinator assured administrators the lack of relationship with Qualidigm and clarified multiple times during the interview that responses were confidential and personal information was removed from all interviews. The administrators were also reassured that the information was kept in a locked file cabinet and only the study coordinator and thesis advisor had access to interview responses.

A second possible limitation of the research study was the possibility of social desirability of responses given. The participants may have been tempted to give responses on what they perceived the interviewer wanted to hear especially in regards to the question pertaining to the QIO training instead of describing what they actually thought about the training. Social desirability is in response to human nature and the need for approval by an individual or in this case the interviewer. To minimize social desirability telephone interviews were conducted instead of face-to-face interviews. In effect there was distance between the interviewer and research participant allowing for the participant to feel more comfortable and extend responses on what they actually believed.
Coding was performed by one coder with no additional input by other researchers in the field thus observation and analysis was limited by the perceptions of one individual. To minimize the effect of having one coder, the coder had experience in telephonic interviewing and transcription to accurately document interviews. Also, the coder examined the code multiple times to reexamine analysis and possible misinterpretation of themes. Finally, coding software, although not necessary, would have been of benefit to support the identification of common themes within the transcribed interviews. Although the study has limitations each limitation was appropriately minimized to avoid potential problems with the research study.

**Recommendations and Conclusions**

**1) The OBQI Process**

The process of OBQI (Figure 2) allows an agency to “begin the process of determining why things happen to particular populations of patients as care is provided” (Bennett, 2002). Administrators were given the opportunity to attend training presented by the QIO in Connecticut. During the course of the training, agencies were instructed to form multidisciplinary teams within their agencies to review their agency data, select a target outcome, and develop an improvement plan to implement and improve the target outcome selected. When administrators were asked what they had done to prepare for HHQI the results indicated that all fourteen agencies attended the QIO training. However, the study revealed agencies were at different points within the OBQI process (Figure 2). At the time of the study, not all agencies had selected a target outcome. Additionally, not all agencies had developed a plan and not all had implemented a plan to
improve their outcomes. Perhaps the volunteer nature of OBQI training may have eliminated the necessity to complete the OBQI process (Figure 2) before November 2003. Mandating OBQI training and the OBQI process would guarantee standards within the industry and would allow agencies to analyze their data proactively and implement processes to improve quality of care for their patients. Six months after the national rollout of OASIS data is too late to require agencies to complete the OBQI process because everything should have been in place prior to the release of their data. The following are two recommendations for improving agency satisfaction and implementation of HHQI:

- **Magnet Home Health Care Agencies**

  QIOs in each state should select three of those agencies that have completed the OBQI process successfully and identify them as magnet home health care agencies. The three agencies selected should vary in size from large, to mid-sized, to small based, for example, on the number of unduplicated clients served per year. QIOs could publish information on these magnet agencies including the make-up of an agency’s multidisciplinary team, the target outcomes they selected, and improvement plans they have developed. First, this would allow agencies that have not completed the OBQI process for various reasons to see what other agencies are doing to improve their quality of care. Creating contact with these magnet agencies would improve communication and create a bond between agencies across the state. Generally, agencies have both a cooperative and competitive relationship. Agencies are cooperative in terms of improving the quality of home care, but also have a competitive relationship to be outstanding in their community. The improvement of their outcomes using the guidance
of magnet agencies will enhance their competitiveness within their communities.

Secondly, magnet agencies based on agency size would eliminate the misconstrued beliefs that an agency’s performance with OBQI is based on size. It would provide an example of how different agencies have been successful with OBQI, no matter how large or small. Following the lead of magnet agencies in the OBQI process lifts the burden of going through the process blindly, thus making it a little easier. In turn this allows the administrators to see the benefits experienced by other agencies in using OBQI to improve patient care.

- **State Surveyors’ Influence**

   OBQI reports also serve as one of many sources of information state surveyors can use during surveys and certifications within the industry. State surveyors should be required to access, review, and use OBQI reports when assessing agencies. Currently, agencies are “not cited for noncompliance with a Medicare requirement if a surveyor reviews an OBQI report” (Krulish, 2002). Agencies should be accountable for the information in their OBQI reports, and potentially their Medicare certification, or their Medicare benefits, should be affected if they are non-compliant. The accountability would require the agencies to be informed of the health status of their patients. Requiring this responsibility would undoubtedly engage agencies that have not completed the process to use magnet agencies and their QIOs to complete the OBQI process.
2) Education of Staff and Clients

Administrators were given the necessary tools and educational materials to increase their staff’s knowledge of OBQI and promote the use of HHQI with current and future clients.

- **Education of Staff**

This research study revealed home health care staff feelings on OBQI as confused and defensive. If agency staff do not have the knowledge and willingness to complete OASIS data it will affect not only their agency’s care but the manner in which the initiative is promoted to their clients. The successful completion of the OBQI process cannot be achieved unless agency staff is informed and involved. Doris Mosocco, RN, who is the director for quality management at a home care agency in Virginia, said that one of the most important recommendations she can give to administrators is to “involve all staff in the OBQI process” and that even “though agencies vary in size and available resources…a key factor of OBQI success” is staff. Mosocco considers staff the “action” in “plan of action” and says that keeping them involved and educated will help to promote the effective use of OBQI as a tool to improve the care an agency provides (Mosocco, 2002).

- **Education of Clients**

The approach agencies take in educating clients is part of the circular process of OBQI. Informing current and prospective clients and families should have been mandated by CMS. Of those agencies surveyed, a small percentage used proactive measures like newsletters to disseminate information. Informing clients eliminates the
possibility of individuals questioning the care agencies provide. Education of clients and families can only promote, not hinder, use of an agency because the clients would better understand the information and OASIS data available to them.

CMS should also be accountable for providing understandable quality information to Medicare beneficiaries. A significant amount of literature has been documented analyzing the most efficient way to present data to the older population. Research shows that Medicare beneficiaries have an easier time reading bar charts versus star charts. CMS has followed research and publishes HHQI in bar chart format. However, CMS and home health care agencies need to continue to increase awareness of the existence of this information and educate beneficiaries about how this information can help in choosing a home health agency (Goldstein, 2001).

3) Opportunities to Agencies and the Value to Administrators

Julie Crocker believes “one of the most critical aspects of home health care successfully implementing OBQI is the buy-in and support from home health care administrative staff members” (Crocker, 2002). The concerns highlighted in the responses of this research study are mitigated if administrators are committed to the “adoption of OBQI and the barriers of staff turnover, lack of resources, and multiple priorities” (Crocker, 2002). Administrators specifically commented on three concerns that hinder their adoption of OBQI as a valuable tool to their agency.

- Data

The most common concern administrators voiced in their responses is that outcomes data can be skewed and misinterpreted. First, administrators believe outcomes
data is skewed and does not effectively analyze the differences in populations including
demographic characteristics of patients. Administrators feel the nature of data collection
is subjective, and enables differences in populations to affect data submitted, therefore
skewing the results. OBQI training educated administrators on risk adjustment and how
"raw OASIS data are risk adjusted with the intent to provide a level playing field or to
consider that patients with different diseases, conditions, demographic factors, and
histories are expected to consume higher or lower levels of home care services or achieve
differential types of outcomes" (Madigan, 2002). However, administrators still believe
if their agency has a higher proportion of chronic patients released from the hospital this
will affect their outcomes data. Continued education of the administrators regarding data
collection and interpretation is needed, and should be provided on an ongoing basis. The
QIO would be able to provide this ongoing education, which in the long run would
address the cynicism expressed by administrators. Education is the key to understanding
the nature of data collection and interpretation.

A common goal among home health care agencies is to provide quality care to
their patients. The cynicism currently expressed by administrators is a road block to
successfully serving patients and patient care. By improving administrators’
understanding regarding the data, and opening lines of communication via magnet home
health care agencies, they can work together to reach their common goal while
maintaining their unique identities within the community. Agencies need to understand
that OASIS, OBQI and HHQI are not perfect, but they need to be “committed and
unified” to make it essential that home care is part of healthcare in the future. “OASIS
and OBQI can provide great benefit to the work in helping patients and helping providers provide effective services (Wright, 2002).

Administrators are also concerned that consumers will misinterpret the publicly released reports (Figure 4). Administrators believe the general public is not savvy enough to analyze these reports (Figure 4) and in turn may misconstrue the data. However, if agencies inform and educate their clients and families on how to interpret the data that has been reported publicly, the level of understanding of the reports will increase. This education should be an ongoing process because outcome measures are constantly updated and changing, and the clients and families should be kept abreast of all changes. In addition, an agency would want to promote areas of improvement and also be able to show where they are making adjustments to their services.

- **Agency Size**

   Administrators of smaller agencies interviewed believe their larger competitors who have the funds to purchase an outside service or enough staff to dedicate a team of individuals to quality are at an advantage. However, if administrators use the tools given to them by the QIOs and adopt OBQI, they should be successful. They will also realize that it is the dedication of administrators and staff within an agency that matters the most, not the size of an agency. An agency’s ability to deliver quality care to its clients will be an output of its OASIS data.

   CMS is very aware of the burdens administrators and agencies face with the collection of OASIS data and the monitoring of OBQI reports. The above concerns noted in this research study might be alleviated if administrators were more aware of the resources available to them including the OASIS Web site and frequent satellite training
sessions. A resource center similar to the OASIS Web site should be created where questions may be asked and answers obtained, especially questions revolving around risk adjustment. Current publications that are received by home care agencies could be used to notify administrators of the availability of such a web site. If the industry continues to make a conscientious effort to make OASIS data meaningful administrators would see the value and opportunities OBQI can have on patient care and more enthusiastically adopt OBQI.

A resolution to alleviate concerns regarding agency size among home health care agencies would be to include patient satisfaction within OASIS data. Administrators expressed their opinions within this study that patient satisfaction would balance out and be another tool to measure quality within the industry. The inclusion of patient satisfaction is identified as “consumer focused information” by Fortinsky and Madigan in the Journal of Healthcare Quality. They state “consumer-focused information could be converted into quality indicators based on consensus ranges or thresholds of patient and family satisfaction” (Fortinsky & Madigan, 2004, in press). Thus implementing an alternative method of evaluating quality to increase the satisfaction of OASIS, OBQI, and HHQI within the industry.

4) Dissemination of Information Via the Internet

Administrators appear comfortable with their current method of micro-managing quality within their agencies. The rapport administrators have with physicians, hospitals, and communities continues to be influential in providing good quality care. However, HHQI and the Internet are also successful ways to promote the identities of quality agencies nationwide. Long distance caregivers, future clients of home care, and other
home health care agencies can log on to the CMS Web site and access an agency’s OBQI report (Figure 4). Administrators indicated they believe people are not using the Internet to access agency information and pointed out that elderly people are not Internet enthusiasts. However, administrators should be aware that access to the Internet by individuals over the age of fifty has been growing rapidly. Between 1998 and 2002 “the proportion of people aged fifty and older with Internet access increased from fifteen to forty-seven percent. For those aged fifty to sixty-four, Internet access has nearly tripled, from twenty-two percent to sixty percent; among those aged sixty-five and older it has grown six-fold, from just under five percent to nearly thirty percent.” (AARP, 2004). Agencies should not underestimate the public’s ability to obtain information, and administrators should be concerned with their reports and what they reveal about their agency because in the future, OBQI reports accessed via the Internet may become one of the primary tools individuals use to assess an agency.

5) Implications for Public Health Policy

This research study indicates the necessity of gaining insight into the behaviors of administrators concerning OASIS, OBQI, and HHQI. The outcomes movement that has developed to understand an individual’s health status based on the care that is received is here to stay. It is the most proficient way of evaluating data that has been otherwise unattainable. OBQI is not meant to hold agencies that participate to a higher standard; however, it does allow agencies to be prepared and knowledgeable about the care they are providing. Outcomes information will allow public health policy makers to use high quality instruments to protect and preserve the health of populations. Of the populations who use home care, 70% are over 65 and have severe chronic illnesses (NCHS, 2004).
Public health policy makers and researchers can obtain quality information on the improvement of health among older individuals and in turn use the information to examine the most efficient way to deliver care, programs, and services to all populations. For example, the future upgrades and success of programs such as service delivery of homebound nutrition programs for older individuals can be significantly impacted by public policy and the use of quality information.

Quality of care has become an important issue in our society with its aging baby-boomer population, and the issues associated with quality care will continue to be at the forefront of public health policy. Administrators in the home health care industry should perceive HHQI as a top priority even though it may require investments of time and money. If there is on-going refinement of outcome measures and continued education administrators will see the long-term benefit HHQI has on their clients. As a result, they may be more inclined to become an active participant in the OBQI process instead of remaining on the periphery.
Figure 1 – Medicare Claims Dollars, FY 2001

Where Medicare Claims Dollars Went, FY 2001

Total = 236 Billion Dollars

- Managed Care 18%
- Hospice 1%
- DME, Supplies, Independent Labs, and Other Services 7%
- Physicians 17%
- Inpatient Hospital 39%
- Hospital Outpatient and Other Outpatient Facilities 8%
- Skilled Nursing 6%
- Home Health 4%

Source: CMS, Office of the Actuary, 2002
Figure 2 – OBQI Process

The Outcome-Based Quality Improvement Process

Source: CMS, OBQI Training Manual
1. Obtain Outcome and Case Mix Reports
2. Interpret Outcome Report
3. Select Target Outcome(s)
4. Investigate Care that Contributed to Target Outcome
   - Specify the aspects of care to improve or reinforce
   - Identify what should be done
   - Determine what was actually done
5. Develop a Plan of Action
   - Identify problems or strengths
   - Develop best practices that apply
6. Implement Plan of Action
7. Monitor Plan of Action
8. Evaluate Plan of Action

Source: CMS, OBQI Training Manual
<table>
<thead>
<tr>
<th>Consumer Language</th>
<th>OASIS Outcome Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients who get better at getting dressed</td>
<td>Improvement in upper body dressing</td>
</tr>
<tr>
<td>Patients who get better at bathing</td>
<td>Improvement in bathing</td>
</tr>
<tr>
<td>Patients who stay the same (don’t get worse) at bathing</td>
<td>Stabilization in bathing</td>
</tr>
<tr>
<td>Patients who get better at getting to and from the toilet</td>
<td>Improvement in toileting</td>
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<tr>
<td>Patients who get better at moving or walking around</td>
<td>Improvement in ambulation/locomotion</td>
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<tr>
<td>Patients who get better at getting in and out of bed</td>
<td>Improvement in transferring</td>
</tr>
<tr>
<td>Patients who get better at taking their medicines correctly (by mouth)</td>
<td>Improvement in management of oral medication</td>
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<tr>
<td>Patients who are confused less often</td>
<td>Improvement in confusion frequency</td>
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<td>Improvement in pain interfering with activity</td>
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<td>Patients who had to be admitted to the hospital</td>
<td>Acute care hospitalization</td>
</tr>
<tr>
<td>Patients who need urgent, unplanned medical care</td>
<td>Any emergent care provided</td>
</tr>
</tbody>
</table>
Appendix 1 – Connecticut Home Health Care Letter to Participate

Dear Name of Administrator:

You are invited to participate in a research study to share your beliefs on the recent implementation of publicly reporting quality indicators among home health care agencies across the country. You were selected as a possible participant because the agency you are currently associated with was identified as a Medicare-certified agency by the Connecticut Department of Public Health.

The purpose of this study is to examine the beliefs of home health care administrators on the release of quality indicators to consumers. Specifically, we wish to learn about the preparation and training your agency has received to prepare for the home health care quality initiative, and your opinions about opportunities and concerns about publicly reporting quality measures. This study is conducted by Elizabeth Sutton, graduate student, Graduate Program in Public Health, University of Connecticut and Ms. Sutton’s thesis advisor Richard Fortinsky, Ph.D., Associate Professor, University of Connecticut Center on Aging.

If you agree to be in this study, please complete the attached questionnaire and return in the addressed stamped envelope. The questionnaire will approximately take twenty minutes to complete. Information that will make it possible to identify an agency or an individual participant will not be included when the data are summarized for Ms. Sutton’s thesis for the degree of masters in public health. Completed interviews will be kept in a locked file and only Ms. Sutton and Dr. Fortinsky will have access to these interviews. This study protocol has been approved by the Institutional Review Board at the University of Connecticut Health Center.

You have the right to refuse participation, if you choose not to participate please forward a refusal confirmation via e-mail to Sutton@mph.uchc.edu. Please feel free to contact Elizabeth Sutton, if you have questions or concerns either at the above e-mail address or 860-966-5630. Your efforts to assist in this research study are greatly appreciated. Thank you for your time.

Sincerely,

______________________________

Elizabeth I. Sutton
Graduate Student
Graduate Program in Public Health
University of Connecticut

______________________________

Richard Fortinsky, Ph.D.
Principal Investigator
Associate Professor
UConn Center on Aging
Appendix 2 – Connecticut Home Health Care Questionnaire

Agency Characteristics:

1. What is your agency’s type of ownership? For-profit or not-for profit?
2. Is the agency part of a larger health care system? If yes, what is the name of the health care system?
3. How large is your agency? How many clients do you serve?
4. What is the geographic area served?
5. What are the demographic characteristics of the area and population served?

OBQI Questions:

6. What has your agency done to gear up for OBQI?
7. I understand that OBQI is currently a voluntary program. In your opinion, if OBQI were mandatory would your agency have done more to prepare?
8. What are your staff’s feelings about OBQI?
9. How much do you think your clients are aware of OBQI?
10. What is your opinion of Qualidigm’s OBQI training?
11. How did the training help you as an administrator?
12. Have you implemented the training materials Qualidigm has supplied? If yes, can you give specific examples?
13. Since training, did you seek further assistance from Qualidigm, If yes, please explain?
14. In your opinion is participation by other agencies in Connecticut high?
15. How have the state public health surveyors used OBQI reports in your agency?

HHQI Questions:

16. What is your opinion about the report card system started in the fall of 2003?
17. What do you see as opportunities to your agency of public reporting of your quality indicators?
18. What are you major concerns about public reporting?
19. Who else in your home health agency will be involved with home health quality measures? Will it be restricted primarily to the homecare agency or are other administrators within the health system involved? If others are involved what department do they work for?
20. Has the agency received any inquiries from consumers, the press, other sources about the home health care quality initiative?
### Figure 4 - Outcomes Report

**Agency Name:** Faircare Home Health Services  
**Agency ID:** HHA01  
**Location:** Anytown, USA  
**Medicare Number:** 007001  
**Medicaid Number:** 999888001  
**Requested Current Period:** 01/2001-12/2001  
**Actual Current Period:** 01/2001-12/2001  
**No. Cases in Current Period:** 374  
**No. Cases in Nat'l Ref Sample:** 357978  
**Date Report Printed:** 02/28/2002

### All Patients' Risk Adjusted Outcome Report

<table>
<thead>
<tr>
<th>End Result Outcomes</th>
<th>Eligible Cases</th>
<th>Significance</th>
<th>Current</th>
<th>National Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement in Grooming</td>
<td>169</td>
<td>0.39</td>
<td>63.3%</td>
<td>66.7%</td>
</tr>
<tr>
<td>Stabilization in Grooming</td>
<td>353</td>
<td>0.05</td>
<td>89.8%</td>
<td>(317)</td>
</tr>
<tr>
<td>Improvement in Upper Body Dressing</td>
<td>136</td>
<td>0.33</td>
<td>53.7%</td>
<td>92.8%</td>
</tr>
<tr>
<td>Improvement in Lower Body Dressing</td>
<td>263</td>
<td>0.16</td>
<td>59.5%</td>
<td>(121)</td>
</tr>
<tr>
<td>Improvement in Bathing</td>
<td>262</td>
<td>0.23</td>
<td>59.5%</td>
<td>(158)</td>
</tr>
<tr>
<td>Stabilization in Bathing</td>
<td>249</td>
<td>0.40</td>
<td>88.8%</td>
<td>(310)</td>
</tr>
<tr>
<td>Improvement in toileting</td>
<td>92</td>
<td>0.22</td>
<td>56.0%</td>
<td>(52)</td>
</tr>
<tr>
<td>Improvement in Transferring</td>
<td>134</td>
<td>0.07</td>
<td>63.4%</td>
<td>(85)</td>
</tr>
<tr>
<td>Stabilization in Transferring</td>
<td>355</td>
<td>1.00</td>
<td>92.9%</td>
<td>(339)</td>
</tr>
<tr>
<td>Improvement in Ambulation/Location</td>
<td>234</td>
<td>0.08</td>
<td>43.1%</td>
<td>(101)</td>
</tr>
<tr>
<td>Improvement in Eating</td>
<td>76</td>
<td>0.85</td>
<td>57.1%</td>
<td>(40)</td>
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<tr>
<td>Improvement in Light Meal Preparation</td>
<td>459</td>
<td>0.00</td>
<td>46.7%</td>
<td>(107)</td>
</tr>
<tr>
<td>Stabilization in Light Meal Preparation</td>
<td>254</td>
<td>0.00</td>
<td>83.1%</td>
<td>(211)</td>
</tr>
<tr>
<td>Improvement in Laundry</td>
<td>346</td>
<td>0.01</td>
<td>20.8%</td>
<td>(13)</td>
</tr>
<tr>
<td>Stabilization in Laundry</td>
<td>424</td>
<td>0.00</td>
<td>96.0%</td>
<td>(95)</td>
</tr>
</tbody>
</table>

**Percent (No.) of Cases With Outcome**

*The probability is 90% that the difference is due to chance, and 90% that the difference is real. The probability is 95% that the difference is due to chance and 95% that the difference is real.*

References


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