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University of Colorado  
Anschutz Medical Campus  
Division of Health Care Policy  
& Research

## **Evaluation of the Medicare Home Health Pay-for-Performance Demonstration**

### **Comparison of Treatment vs. Control Pay-for-Performance Participant Home Health Agencies on Care Practices, Policies, and Staffing during CY2008**

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Prepared by:

Eugene J. Nuccio, PhD  
Angela A. Richard, MSN  
David F. Hittle, PhD

The Division of Health Care Policy and Research  
University of Colorado Denver  
13611 East Colfax Avenue, Suite 100  
Aurora, CO 80045-5701

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# 1. Background

The quality of care received by home health patients has come under increasing scrutiny during the past several years, particularly since the advent of the prospective payment system in 2001, even as the number of patients served by this provider group continues to increase. The Medicare Payment Advisory Commission (MedPAC) report, “A Data Book: Healthcare Spending and the Medicare Program, June 2009,” indicates that the number of beneficiaries using home health care services from 2002 to 2007 has increased by approximately 25% and the number of episodes of care delivered has increased by a similar amount during the same time period. Similarly, the number of visits that are delivered by skilled staff (e.g., registered nurses, physical therapists) has increased from 69% to 80%. The importance of the quality of care delivered by home health agencies is evidenced by the 2003 introduction of the Centers for Medicare and Medicaid Services (CMS) Web site entitled Home Health Compare where the consumer can compare home health agencies across multiple patient outcomes.

As part of the Medicare Pay-for-Performance Initiatives of 2005, CMS began an effort to test the effectiveness of a pay-for-performance (P4P) approach in a variety of health care settings. The Home Health Pay-for-Performance Demonstration (Demonstration) project sponsored by CMS and managed by its implementation contractor, Abt Associates, began in 2007. In the Demonstration volunteer home health agencies from seven states in four CMS regions were randomly assigned to either treatment or control groups using a matching algorithm to ensure that the two groups for each region were equivalent prior to the beginning of the Demonstration. Treatment agencies are eligible to share cost savings associated with the Demonstration based on either their absolute performance level on a quality measure or their substantial improvement on a quality measure. The evaluation of the Demonstration’s effectiveness, also sponsored by CMS and conducted by the University of Colorado Denver (Anschutz Medical Center), includes both an analysis of the costs associated with improved performance and collection of qualitative data to explore what agencies did to achieve higher (or where appropriate, lower) rates on patient outcomes. A core issue to be addressed in the evaluation is whether the quality-related activities home health agencies engaged in produce superior patient outcomes.

The effectiveness of pay-for-performance has been studied in a variety of health care delivery settings, but its study in the home health area is extremely limited. Rosenthal and Frank (2006) reviewed five studies from research literature prior to 2004 involving the application of pay-for-performance in the health care setting, specifically physicians and physician groups. The number of physicians in these studies varied from 15 to 60, and only one study involved physician groups. The research showed that pay-for-performance produced only minimal effects on quality. Proposed reasons why there were limited or no quality effects included poorly focused incentives, small numbers of physicians involved, and challenges of the inherently imbalance of power between physician information and client knowledge commonly found in health care situations. Petersen, et al. (2006) reviewed 17 studies on incentive payments. Thirteen of these studies focused on process of care (preventive care) measures. The majority of studies showed at least partial positive relationship between incentive payments and identified measures. Four studies displayed unintended (negative) effects of the incentive

payments. Most of the studies involved personal care physicians, both individual and groups, with the remaining studies taking place in institutional settings (e.g., nursing homes).

Other researchers have investigated whether pay-for-performance has differential effects in other health care settings. Chien, Chin, and Davis (2007) investigated the relationship among pay-for-performance, public reporting, and racial disparities. They reviewed approximately 14 hospital focused health care plans (national, state, and commercial) and found that pay-for-performance most commonly rewarded institutions in the areas of patient satisfaction, efficiency, and clinical access, and only rarely based on patient outcomes. These researchers found that in almost all cases where there were positive effects associated with pay-for-performance, there was a widening of the gap between “rich” and “poor,” and also cherry-picking by the institutions involved in the studies. The researchers suggest that there are problems in what health delivery systems are incentivized to improve or perform. They suggest adding an emphasis on reducing disparities across different patient populations.

Taking an economic theory approach to evaluating the effectiveness of pay-for-performance in health care delivery systems other than home health care, Bloche (2006) and Conrad and Perry (2009) each reported that pay-for-performance provides marginal or highly conditional benefits. Conrad and Perry (2009) state that pay-for-performance programs get better results when the quality-based incentive design includes:

- both rewards and penalties,
- individual and group rewards, and
- absolute vs. relative performance targets

Conrad and Perry (2009) noted a shift in performance criteria from process measures to outcome measures, but also identified an increase in extrinsic (monetary) orientation vs. intrinsic (patient care) orientation in health care decision-making by participants. Interestingly, incentive size, certainty, frequency, or duration did not produce consistent performance differences in the studies they reviewed.

What are the research literature findings with regard to pay-for-performance and home health agencies? Two studies provide empirical data on the topic. Boyce and Feldman (2007) evaluated the performance of 17 home health agencies (HHAs) that participated in the ReACH (Reduce Acute Care Hospitalization) demonstration project sponsored by CMS. To help HHAs, the demonstration uses a set of targeted, instruction/information-based strategies from Quality Improvement Organizations (QIOs) achieve a risk adjusted acute care hospitalization rate of 23% or less—a rate comparable to the top 25% of all HHAs nationally. The general strategies used in the ReACH program include:

1. Instituting a quality improvement process to reduce acute care hospitalizations for patients at risk,
2. Establishing explicit criteria for admitting patients from the hospital and improving their transition to home care,
3. Increasing capacity to appropriately screen and intervene for patients at risk of hospitalization,
4. Implementing targeted strategies and systems to support effective care management, and

## 5. Enhancing communication and coordination with primary care physicians and specialists (Boyce and Feldman, pg. 107)

Boyce and Feldman also report that successful reduction in acute care hospitalization was related to the availability of agency resources include staffing and time to devote to the project and the ability to make administrative changes including data management and transitioning to electronic-based systems. Making changes to these administrative, business, and clinical practices was facilitated by the availability of QIO support, ReACH resources, receipt of lessons learned and prior experience addressing acute care hospitalization, committed leadership, and buy-in from agency staff. In addition to using an assessment tool for identifying patients at risk for hospitalization, the 17 HHAs reported several specific strategies that they believed were most effective in reducing acute care hospitalization ordered by frequency of responses, including:

- Instituting risk-appropriate care plans (6 respondents)
- Front-loading visits for high risk patients (6 respondents)
- Establishing patient emergency response plans (4 respondents)
- Introducing disease management tools (4 respondents)
- Using nurse-physician scripts and educational tools (3 respondents) (Boyce and Feldman, pg. 114)

Boyce and Feldman (2007) state that HHAs found the benchmarking and timely feedback on their performance that is part of the ReACH intervention to be particularly useful in their improvement efforts. One benchmarking technique, front-loading visits for high-risk patients, was most often cited as the key to reducing acute care hospitalization rates. The researchers summarize their findings by reiterating the importance of embedding the performance improvement activities within a formal structure within the agency with committed and active senior leadership, as well as an external support system utilizing technology (virtual communities) and QIO technical assistance.

Schade, Esslinger, Anderson, Sun, and Knowles (2009) compared 294 matched home health agencies (147 target HHAs and 147 matching HHAs) involved in an intervention program focusing on reducing hospitalization rates. The interventions were available to both target and matching HHAs included public events, provision of educational packages and technical assistance, quality measure feedback, and program reminders. The intervention did succeed in reversing a negative trend in hospitalization rates for the HHAs in both groups of HHAs that adopted the strategies provided in the educational packages. The researchers concluded that merely agreeing to participate in the campaign did not improve performance, but effective participation through adoption of campaign methods did make a difference.

As stated previously, CMS initiated the public reporting of selected home health agency outcomes in 2003 on a Web site entitled Home Health Compare (HHC). The initiation of public reporting created the opportunity for a naturalistic experiment to see the effect of public report on these outcomes. Nuccio (2009) analyzed the national observed means for the 12 quality measures currently presented on HHC using quarterly data from the first quarter 2000 through the fourth quarter 2007. He found that there was a notable increase in improvement rates for End Result Outcomes (i.e., functional outcomes that describe a patient's capabilities in Activities of Daily Living (ADLs), Instrumental

Activities of Daily Living (IADLs), and physiological/psychological activities) such as Improvement in Ambulation/Locomotion, Improvement in Bathing, and Improvement in Oral Medication Management that coincides with the onset of public reporting in August 2003. This trend of virtually continuous improvement of the observed national values is strong through the end of the fourth quarter 2007. However, there is no discernable impact on Utilization Outcomes (i.e., health outcomes related to the use of health care institutional resources) that parallels the improvements found in End Result Outcomes. Acute Care Hospitalization shows a cyclical, quarterly pattern of increasing hospitalization rates between the 4<sup>th</sup> quarter 2000 and the 4<sup>th</sup> quarter 2007, with a net of about a 1% increase (i.e., worsening) during this period. The trend for two other Utilization Outcomes (i.e., Emergent Care and Discharged to the Community) is somewhat less cyclical, but relatively unchanged, during this same period. Public reporting of performance on HHC seems to have spurred reported improved performance on ADLs (e.g., bathing), IADLs (e.g., management of oral medications), and physiological measures (e.g., pain interfering with activities, dyspnea). However, public reporting has had no commensurate effect on health care utilization measures (e.g., acute care hospitalization).

Some authors have raised concerns about applying a pay-for-performance system on home health agencies. Twiss and Schwien (2008) writing in a journal sponsored by a national advocacy group for home health agencies and hospices recognized that pay-for-performance probably will become a reality for home health agencies. Their expressed concerns include how pay-for-performance will transition from Demonstration to national implementation, whether current risk adjustment techniques are sufficiently robust to create an “equal playing field,” whether the criteria for success will be both attainment of quality and quality improvement as it is in the Demonstration, and if (or when) the performance criteria will include process or patient satisfaction quality measures.

There are two core conclusions that can be derived from this brief review of research literature related to pay-for-performance as it relates to health care in general and home health agencies in particular:

1. Pay-for-performance systems can be effective in creating change in health care provider outcomes.
2. Pay-for-performance systems are most effective in creating and sustaining the necessary changes when support and assistance are available both internally from the health care provider (leadership and staff buy-in) and externally from national programs and organizations.

## **2. Instrument Development**

The evaluation of a diverse set of clinical practices, corporate policies, and external contingencies that affected the performance of HHAs participating in the P4P Demonstration project required the development of a survey instrument--the **Home Health Pay for Performance Demonstration Evaluation Survey**. Two versions of the Web-based survey instrument, one for the treatment agencies and a parallel one for the

control agencies, were developed in a multi-step process. The development process included multiple reviews from the Office of Management and Budget (OMB).

The development of the survey instruments occurred in two phases: Initial development and OMB review/revisions. The initial development phase included reviewing the literature on home health practices and policies that were related to improvements in quality measures/outcomes. Five areas of home health care activity were investigated in the survey questions: staffing, care practices, policies, external contingencies, and Demonstration impact. Survey questions were designed with multiple options to simplify the response demand on participants. One open-ended response question was added to the end of the survey. These questions were reviewed by research staff and experienced home health administrator/registered nurses. This effort allowed the researchers to test the construct validity and reliability of the respondent answers to these questions. All questions in the survey requested the respondents to describe HHA activities during the initial year of the Demonstration (i.e., calendar year 2008). This version of the Web-based survey was submitted to OMB for their review, approval, and issuance of a control number.

The OMB review/revision phase of survey development required multiple iterations. OMB requested “cognitive testing” of the survey items to identify the amount of cognitive burden imposed on the individual completing the survey for each of the survey questions. Cognitive testing has been used with other CMS assessment instruments. Levine, Fowler, and Brown (2005) describe how cognitive testing was used in the development of the Consumer Assessment of Health Providers Systems (CAHPS) hospital survey. These researchers found that many of their original items required modification because likely respondents either lacked the information necessary to complete the item or could not understand the item. Similarly, problems with construct validity and item reliability were identified. These authors used cognitive interviewing to detect respondent difficulties with individual items. Beatty and Willis (2007) in a synthesis of the research literature surrounding cognitive interviewing conclude that two paradigms—thinking aloud and probing—are best used in conjunction with each other. By using the combined approaches of thinking aloud and probing to conduct a cognitive interview, the limitations particular to each method (e.g., educational level of interviewee in the think aloud approach and missing a critical decision element in the probe approach) are minimized or eliminated.

The initial treatment and control surveys were reviewed using the combined thinking aloud and probing methodology of cognitive interviewing. The cognitive interviews included the use of a paper version of the instruments as well as the Web-based versions of the instruments. As the result of this testing, one question on the initial survey was split into two different questions, a second question was split into three different questions, and the wording on two other questions was modified. The final treatment survey contained a total of 19 questions from all 5 of the areas of home health care activity identified previously. The final control survey contained 15 questions from all of the areas of home health care activity identified previously except Demonstration impact. Copies of both instruments can be found in Appendix A of this document. There is no identification of whether the survey is a treatment or control survey on these documents.

The agency automatically receives the appropriate survey when the agency representative logs in with the agency's identification and password.

The Web-based surveys are located on the secure University of Colorado Denver (Anschutz Medical Center) computer system. Participants can access the survey using their own computer system and Internet connection at a time convenient for them. Where appropriate, item responses were pre-filled to further speed the completion of the survey instrument. The initial screen requires the respondent to enter an identification number and password supplied in a letter from the University of Colorado Denver (Anschutz Medical Center) researchers. The appropriate survey (treatment or control) is provided based on a look-up table that is not accessible to the respondents. Respondents have an option to print a hard copy of the survey either prior to or after completing the survey. Once the responses to the survey are entered, the participants can review their responses and submit the data. These data are automatically transferred to a separate, secured computer server within the research center for analysis. Simultaneously, the data on the survey form at the University's secure Internet portal are erased, thereby eliminating the possibility of inadvertent dissemination of these data.

### **3. Methodology**

A total of 570 home health agencies from 7 different states (MA, CT, AL, GA, TN, IL, and CA) volunteered to participate in the Home Health Pay-for-Performance Demonstration project. These volunteer agencies were randomly assigned, based on agency characteristics such as for profit status, to either the treatment or control groups for this Demonstration by Abt Associates, Inc. There were 281 treatment HHAs and 289 control HHAs in the Demonstration.

All 570 HHAs received an information packet by mail containing a cover letter from the CMS Project Officer, a cover letter from the University of Colorado Denver (Anschutz Medical Center) research group, and an information sheet (one for the treatment agencies and one for the control agencies) containing additional information about the items on the survey and the agency's identification and password information. Of the 570 packets that were mailed, 31 packets were returned due to incorrect mailing addresses. The correct addresses were identified either by an Internet search or telephone and re-mailed to these HHAs. None of these re-mailed packages were returned.

Approximately one month following the initial mailing, those HHAs that had not completed a Web-based survey in response to the initial mailing were contacted by email. This was the first in a series of continuing reminders to participating HHAs that their response to the brief survey (fewer than 20 items) is highly valued by CMS. Email reminders continued every other month until a final email blast was sent in January 2010 announcing that the final date for submitting responses would be January 31, 2010.

### **4. Results**

This final report is based on a total of 219 surveys (116 treatment and 103 control HHAs) utilizing surveys completed as of February 1, 2010. All results should be considered potentially representative of the home health activities that participated in the P4P Demonstration Project and that occurred in the HHAs during calendar year 2008.



Appendix B contains four tables that summarize the cross-tabulation comparison of treatment vs. control HHA responses to the survey items. The fifth table “Demonstration Impact” contains only information provided by treatment HHAs. Appendix C contains both summary and examples of the written comments provided by respondents to the Web-based survey. Each of the tables and comments will be summarized separately in this section.

Table 1, Staffing Results, highlights what is consistent through all four of the comparative tables—there are few statistically significant differences (Chi-Square) between treatment and control respondents to the Web-based survey items and their options. Instances where there is a statistically significant difference are footnoted for each table and the specific probability value is identified. There are only two statistically different responses across all of the 14 common item and their options.

As Table 1 displays, respondents were primarily senior management personnel, with QI / PI Coordinators completing the large majority of the remaining surveys. Staffing changes are displayed in aggregate (treatment and control combined) as there were no statistically significant difference for any of these staffing positions between the two groups for either increases in staffing or turnover in staffing. Not unexpectedly, the category registered nurses (RNs) had the highest percentage of increase (40.2%) and turnover (63.0%) for these agencies. Though not as extreme as RNs, the physical therapists (PTs) group showed relatively high rates of staffing increase and turnover (30.6% and 33.8% respectively). Occupational therapists (OTs) showed a higher rate of staffing increase (30.6%) than of turnover (17.6%). Conversely, clinical supervisors, home health aides, and administrative/staff positions all had turnover rates that were at least twice as high as their rates of staff position increases (33.8% vs. 13.2%; 21.5% vs. 9.6%, and 26.0% vs. 11.9% respectively). The only other staff group with a higher than 20% turnover rate was licensed practical nurses (22.8%). The final group in Table 1 presents data on staff functions that were added. Control HHAs were generally more likely to add staff functions than treatment HHAs. The most notable difference between control and treatment HHAs was for QI / PI (13.9% vs. 6.9% respectively). Given the high turnover rates identified in the previous sentences, minimizing the number of staff function additions seems to be a prudent approach. That is, HHAs appeared to focus on helping individuals who replaced former members of the organization who were lost to turnover. The HHAs focused on training the new employees to become productive and effective members of the organization.

Table 2, External Support Results, provides information about the support that participating HHAs received during calendar year 2008 from either QIOs or corporate support groups. As documented in the literature review, QIO support can be a valuable resource in helping HHAs improve their health care outcomes. The outcomes listed in Table 2 include all of the targeted quality measures in the Demonstration and upon which performance bonuses could be awarded. There are no statistically significant differences between the treatment and control groups on QIO assistance. More than half (50.0% vs. 55.3%, respectively) of the treatment and control HHAs received assistance in reducing acute care hospitalization from the QIOs. The other utilization outcome “Any Emergent Care” received nearly as much attention (40.5% vs. 44.7%, respectively). More than half of the responding HHAs are not part of a larger corporate group. Of those HHAs that

were part of a larger corporate organization, more than half had received additional corporate assistance with strategies to reduce acute care hospitalization and emergent care. Clearly, these percentages suggest that larger corporations focused on those outcomes that could generate the largest bonus amount in the Demonstration. Additionally, these outcomes are related to reducing overall Medicare costs. Both reasons are probably motivating the substantial attention given to them by HHAs with corporate affiliations. Staff training received a high amount of emphasis among the control HHAs, with 59.6% of control HHAs that were part of a larger corporation reporting corporate support in this area. The survey did not request identification of the focus of this training.

Table 3, Policies and Practices Results, displays information related to the specific clinical care strategies and organizational policies that could be related to improved performance on the targeted home health outcomes. The two statistically significant differences between treatment and control agencies occur in this two-page table. With regard to “New Policies”, control HHAs were significantly more likely to report (31.1%) a new policy that focused on changes in productivity requirements for their staff than treatment agencies (18.1%). While this was the only statistically significant difference within this group, other differences of note (7% or more) included the treatment HHAs reporting higher rates of:

- implementing care pathways (29.3% vs. 20.4%)
- patient communication (50.9% vs. 40.8%)
- telehealth programs (23.3% vs. 16.5%)
- falls prevention (56.0% vs. 48.5%)

The majority of both groups (treatment = 55.2%; control = 53.4%) reported making changes to care practices, including front-loading patient visits--a recommendation from the QIOs nationally for reducing acute care hospitalization.

There were also interesting differences and similarities between treatment and control HHAs with regard to “Staff Activities”. More than half of the treatment and control HHAs reported that they had initiated performance improvement programs during 2008. Treatment HHAs as compared with control HHAs were more likely to have initiated the following during 2008:

- new staff education (42.2% vs. 32.0%)
- additional record review activities (55.2% vs. 45.6%)

“Technological innovations” produced the other statistically significant difference between treatment and control HHAs. In this case, control HHAs were significantly more likely to use electronic information exchange with referral sources beginning in 2008 than treatment HHAs (19.4% vs. 8.6%). Some of the written comments from treatment HHAs suggest that many technological innovations were already in place by 2008 for these agencies. While no other difference between treatment and control HHAs approached the previously identified 7% threshold, some differences of 5% - 6% were identified including the use of telemonitoring equipment (17.2% vs. 11.7%, respectively) and the use of special dressings or therapies for wound care (41.4% vs. 35.9%, respectively). The increased use of technology to assist in patient care could become an

important strategy for some HHAs to distinguish themselves from other more typical HHAs.

There were fewer consistent differences between treatment and control HHAs displayed in the “Care practice changes” group than in the other groups that comprised Table 3. When compared with control HHAs in 2008, treatment HHAs reported higher rates of:

- changes in visit patterns,
- introduction of telemonitoring,
- increase in MD communication,
- increase care team communication,
- implementing screening assessments,
- implementing falls prevention programs, and
- improved vaccination rates

Conversely, when compared with treatment HHAs during 2008, control HHAs reported higher rates of:

- change in visit mix, and
- enhanced wound care protocols

Because the survey does not allow for indicating which of these programs were already implemented for either the treatment or control HHAs, comparisons of overall effectiveness due to care practice changes are problematic.

Table 4, Other Issues for All Participants Results, displays information related to external influence sources on HHA activities including local and regional variations in professional health care related resources, as well as support provided to the HHAs by the Demonstration implementation contractor, Abt Associates. Control HHAs generally reported higher rates of negative external influences on:

- # of home health agencies,
- availability of physical therapists locally, and
- availability of occupational therapists locally

when compared with treatment HHAs, although all of the reported rates showed a difference of less than 10%. “Feedback from Abt Associates” indicated that treatment HHAs are more likely to report that the information they received from Abt Associates was valuable, timely, easy to use, and accurate (16.4% - 19.0% vs. 8.7% - 12.6%). These results are somewhat confusing given that the majority of written comments from both the treatment and control groups (82.9% and 77.6%, respectively, of those HHAs providing comments) report that they had received no feedback from Abt Associates other than their assignment to either the treatment or control group. Abt Associates corroborated that no additional information had been provided to Demonstration participants during calendar year 2008. The impact of this lack of information could be substantial on the P4P Demonstration given the findings by Boyce and Feldman (2007) that feedback during the ReACH demonstration was highly valued by participants.

Table 5, Demonstration Impact on Cost, Quality, and Commitment Results (Treatment only), provides data from the 116 treatment HHAs who submitted Web-based surveys. Approximately 53.4% reported that participation in the Demonstration resulted in a less than 1% change in HHA costs, while 22.4% reported a 1% - 5% increase in HHA costs attributable to the Demonstration. The findings from “Quality Impact” show that these

HHAs believed that the Demonstration would have the greatest positive impact on acute care hospitalization (69.0%) and management of oral medications (72.4%). The estimated impact on four of the remaining five target outcomes was judged to be in the upper 50% to low 60% range. Even the lowest estimated impact (Improvement in Bathing) was estimated to be improved by more than 50% of the treatment group respondents. The overall impact of the P4P Demonstration as presented by the “Demonstration Impact” group showed that a substantial majority of the treatment HHAs believed that the demonstration would have a positive impact on the agency’s patient outcomes (67.2%) and quality of care provided by the agency (61.2%). Nearly half (46.6%) of the treatment agencies believed that the P4P Demonstration would have a positive impact on the quality of care statewide. Treatment HHAs’ self-report on commitment, readiness, and willingness to sustain the activities associated with the Demonstration also was very high. Not surprisingly, the respondents (most of whom were senior managers) rated themselves extremely high on all three characteristics (86.2%, 81.0%, and 85.3%, respectively) and rated their subordinated less committed, ready, or willing to sustain the P4P effort. However, their ratings for even the staff level indicated that typically more than 50% were committed, reading, and/or willing to sustain the effort. The results displayed on Table 5 appear to bode well for a national implementation of P4P for home health agencies.

As mentioned previously, the large majority of treatment and control HHAs that provided comments identified the lack of feedback from Abt Associates during the first year of the Demonstration as an issue worthy of comment (see Appendix C). A total of 65.5% of the treatment HHAs and 47.6% of the control HHAs provided written summary comments as part of the Web-based survey. After excluding the specific “no feedback” comments (by far the largest category), the remaining comments could be divided into two categories: positive and negative. Virtually all of the other comments from the treatment HHAs could be classified as positive, whereas virtually all of the remaining comments from the control HHAs were split between positive and negative comments. One theme common to these latter comments focused on the fairness of the comparison between agencies given case mix differences and data collection/analysis issues. Perhaps the negativity stems from the Demonstration requirement that control HHAs, who are aware of their status as control HHAs, are not eligible to receive any bonus money for their P4P performance regardless of whether any cost savings is demonstrated.

## **5. Discussion**

The results presented in this report represent information from nearly 40% of the HHAs participating in the P4P Demonstration. While these 40% include agencies from all seven states and approximately equal numbers of treatment and control HHAs, the sample is self-selected and is not random. Hence, the results, while intriguing, are not necessarily representative of all HHAs participating in the Demonstration.

The lack of statistically significant difference across the large majority of these survey item options for treatment and control HHA responses may or may not have an impact on the effectiveness of the P4P Demonstration. However, clear patterns did emerge between treatment and control HHAs based on instances where large percentage differences occurred, although they did not attain statistical significance. Treatment HHAs seemed

to emphasize enhanced communications among patients/physicians/staff, prevention and screening programs, telehealth/telemedicine approaches, and changes in visit patterns. Control HHAs emphasized staff productivity, changes to the patient visit mix, wound care protocols, and electronic communication with discharge planners. Control HHAs are more likely to report challenges in their care practice area including staffing difficulties and competition from neighboring HHAs.

The interpretation of care cost differences based on claims data between treatment and control HHAs could be challenging given the similarity of the self-reports by these two groups of HHAs. Differences in P4P performance on the targeted home health outcomes may be related to differences in implementation of particular clinical care or organizational policies regardless of whether these HHAs were part of the control or treatment groups. That is, a reasonable P4P performance comparison would be those HHAs that reported introducing policy or practice interventions during 2008 vs. those HHAs that did not report policy or practice interventions regardless of their *a priori* designation as either treatment or control HHAs. A variation of this P4P performance comparison would be to compare treatment HHAs that did implement substantial numbers of improvement activities vs. treatment HHAs who were less aggressive in implementing changes. If there were differences in P4P performance, then the efficacy of clinical care and policy changes would be demonstrated. As Schade, Esslinger, Anderson, Sun, and Knowles (2009) pointed out, those HHAs that actually participated in the activities of their program, regardless of whether they were part of the target or comparison group, produced documentable changes in outcomes. In a similar fashion, a comparison of health care costs/savings could be made using these same groupings of those HHAs that did claim to implement changes vs. those that reported no similar changes in policies and practices. If there was a difference in costs/savings with this comparison, then the P4P Demonstration could be characterized as a success, even if the strict, experimental comparison of treatment vs. control results did not show a statistically significant difference in costs/savings. These comparative analyses of P4P Performance, self-reported improvement-related activities, and costs/savings for treatment vs. control HHAs as well as implementers vs. non-implementers will be presented in subsequent project reports.

The respondent HHAs did provide some insight into what agency activities and policies may be the primary targets for intervention. There was a clear emphasis on acute care hospitalization rates and any emergent care utilizing primarily enhanced clinical care practices and a few strategic policy changes, such as front loading patient visits. These efforts were supported both externally (QIOs and corporate) and internally (commitment and readiness of staff). There was a notable difference between treatment and control utilization of electronic technology to support clinical practices by these HHAs. While both used electronic technology, control HHAs seemed to focus on communication with discharge planners while treatment HHAs seemed to use electronic technology to monitor the progress of their patients. This difference may be evidence of a sequencing of activities wherein the use of technology is first introduced for administration and then clinically. A previous report by Nuccio and Richard (2009) describing the results of several focus groups from high performing HHAs reported that the decision to implement and to utilize electronic technology is largely a resource issue—both in terms of staff (training and expertise) and financial return on investment. Similarly, these researchers

report that high performing HHAs emphasize patient communication as well as the use of high-end wound care products to reduce overall costs. Treatment HHAs seemed to make more frequent use of these types of wound care products while control HHAs strengthened their wound care protocols. Control HHAs seemed more likely to emphasize staff training and greater specification of staff performance expectations than did the treatment HHAs. The reason for this difference may be an indicator that control HHAs are less satisfied with current performance levels than the treatment HHAs, although the exact reason is not apparent from the survey data.

The treatment HHAs appear to be overwhelmingly supportive of the P4P initiative. The P4P effort is reported to have minimal impact on the finances of the organization, while providing an energizing effect on the agency's efforts to improve performance on the targeted outcomes. Although there are perceived differences among staff members with regard to commitment, readiness, and willingness to sustain the P4P style efforts, there were no reported "rocks in the road" that are blocking progress among the staff groups. If CMS chooses to implement the P4P initiative nationally where all HHAs can complete for some portion of the cost savings, the experiences of the treatment group regarding the financial impact of improving quality and performance will be instructive.

## **6. Conclusion**

A convenience sample of 219 HHAs representing approximately 40% of the Demonstration HHAs from all seven participating states and with approximately equal numbers of both treatment and control HHAs provided a useful picture of what policies and practices were implemented during the first year of the Demonstration. The policy and practices primarily emphasized reducing acute care hospitalization rates which is both an emphasis of the Demonstration based on the monetary rewards associated with this outcome and an on-going emphasis for both CMS and its QIO organizations. There were few statistically significant differences in the responses between the treatment and control HHAs. However, there were substantial differences within these groups in terms of clinical care practices and the focus of how technology is used. Policy differences were also noted between treatment and control HHAs. Alternative evaluation strategies (i.e., treatment vs. control, and implementers vs. non-implementers) were discussed and the investigation of these alternative evaluation strategies will be presented in future reports.

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# Appendices

## ***Appendix A: Survey Instrument***

**[Note: This is a text version of the on-line survey, with no graphic elements such as radio buttons, check boxes, and text boxes. It is presented in this form for accessibility.]**

OMB Control No.: 0938-1064  
Expiration Date: 06/30/2012

### **The Division of Health Care Policy and Research and Centers for Medicare & Medicaid Services**

#### **Home Health Pay for Performance Demonstration Evaluation Survey**

The purpose of this survey is to gather information from home health agencies participating in the Centers for Medicare & Medicaid Services (CMS) Home Health Pay for Performance (P4P) Demonstration. The questions that follow focus on Policy or practice changes in your agency that may have occurred during the timeframe of the demonstration. These questions focus on information about your agency that is generally not available via other data sources.

The “correct answers” are simply what occurred at your agency during Calendar Year (cy) 2008.

#### Tracking Information:

1. Enter the Name of Agency : \_\_\_\_\_
  - 1a. [OPTIONAL] Email address of Agency or person completing survey:  
\_\_\_\_\_
2. Enter Agency 's CMS Certification Number (formerly Provider Number): \_\_\_\_\_
3. Title of person completing form: \_\_\_\_\_



4. Which of the following describes the changes in the number of your staff (i.e., increase = the position was vacant, requested, or created and was filled, or additional (new) staff were hired; decrease = a position was filled, but now is vacant) during C Y 2008? Indicate change for each-- if any.

**[Note: rb indicates radio button]**

Job Category	Decreased Staffing	No Change	Increased Staffing
a. Senior Management (CEO, DON, etc.)	rb	rb	rb
b. QI / PI Coordinator	rb	rb	rb
c. Clinical Supervisor Positions	rb	rb	rb
d. Registered Nurse	rb	rb	rb
e. Registered Nurse with specialty license/ certification (e.g., wound, psychiatric)	rb	rb	rb
f. Licensed Practical Nurse	rb	rb	rb
g. Respiratory Therapist	rb	rb	rb
h. Physical Therapist	rb	rb	rb
i. Occupational Therapist	rb	rb	rb
j. Medical Social Worker	rb	rb	rb
k. Home Health Aide	rb	rb	rb
l. Administrative/Support	rb	rb	rb
m. Other (specify _____)	rb	rb	rb

5. Which of the following describes the turnover in your staff (e.g., a staff member left and was replaced by a new or another staff member in that position) during C Y 2008? Indicate change for each -- if any. [Note: Do not include "Contract" staff.]

**[Note: rb indicates radio button]**

Job Category	No Turnover	Staffing change occurred
a. Senior Management (CEO, DON, etc.)	rb	rb
b. QI / PI Coordinator	rb	rb
c. Clinical Supervisor Positions	rb	rb
d. Registered Nurse	rb	rb
e. Registered Nurse with specialty license/ certification (e.g., wound, psychiatric)	rb	rb
f. Licensed Practical Nurse	rb	rb
g. Respiratory Therapist	rb	rb
h. Physical Therapist	rb	rb
i. Occupational Therapist	rb	rb
j. Medical Social Worker	rb	rb
k. Home Health Aide	rb	rb
l. Administrative/Support	rb	rb
m. Other (specify _____)	rb	rb

6. Have you added any new positions/functions during C Y 2008 specifically because of your participation in the demonstration?  
**[Note: rb indicates radio button]**

<b>Job Function</b>	<b>Already Existed</b>	<b>Added Position/Function</b>	<b>Does Not Exist</b>
a. Quality improvement (QI) or performance improvement (PI) coordination	rb	rb	rb
b. Documentation quality assurance or OASIS accuracy	rb	rb	rb
c. Staff Education	rb	rb	rb
d. Outcome Analysis	rb	rb	rb
e. Utilization Review	rb	rb	rb
f. "Combination" position(s) that includes two or more of the "a - e" functions	rb	rb	rb
g. Other (specify _____)	rb	rb	rb

7. Which of the following outcome measures have you targeted with the help of your Medicare Quality Improvement Organization (QIO)?  
**[Note: rb indicates radio button]**

<b>Outcome Measure</b>	<b>Pre-2008</b>	<b>2008 (only)</b>	<b>Pre &amp; During 2008</b>	<b>Did not work with QIO</b>
a. Acute Care Hospitalization	rb	rb	rb	rb
b. Any Emergent Care	rb	rb	rb	rb
c. Improvement in Bathing	rb	rb	rb	rb
d. Improvement in Ambulation/Locomotion	rb	rb	rb	rb
e. Improvement in Transferring	rb	rb	rb	rb
f. Improvement in Status of Surgical Wounds	rb	rb	rb	rb
g. Improvement in Management of Oral Medications	rb	rb	rb	rb
h. Improvement in Pain Interfering with Activity	rb	rb	rb	rb
i. Other measure(s)	rb	rb	rb	rb

8. What new policy changes has your agency implemented during C Y 2008? Policies related to...(Check all that apply)

[Note: **cb** indicates check box]

- cb** a. Changes in care practices (e.g., “front-loaded” visits)
- cb** b. Implementation of care pathways/standardized care plans
- cb** c. Decrease in time between referral and admission visit
- cb** d. Communication with patient (quantity and/or quality)
- cb** e. Communication with physician (quantity and/or quality)
- cb** f. Disease management programs
- cb** g. Telehealth programs
- cb** h. Falls prevention programs
- cb** i. Patient infection control programs
- cb** j. New clinical specialties programs (specify): \_\_\_\_\_
- cb** k. Change in on-call staff for non-business hours
- cb** l. Expanded business hours
- cb** m. Changes in productivity requirements for staff
- cb** n. Changes in qualifications for hiring staff
- cb** o. Other (specify): \_\_\_\_\_

9. What activities directed toward agency employees or contract staff and intended to increase quality of care has your agency implemented during C Y 2008? (Check all that apply)

[Note: **cb** indicates check box]

- cb** a. New staff education programs and/or changes in requirements for number of educational hours
- cb** b. Performance improvement programs
- cb** c. Mentoring programs
- cb** d. Additional clinical team meetings
- cb** e. Additional record review activities
- cb** f. New staff competencies
- cb** g. Change in staff evaluation criteria
- cb** h. Employee incentives for performance improvement
- cb** i. Changes in staff management practices of nursing or therapy staff (e.g., increased oversight, etc.)
- cb** j. Changes in home health aide supervisory practices
- cb** k. Additional clinical resources for field staff (e.g., consultation; new specialty care staff; Web access to best practices, etc.)
- cb** l. Other (specify): \_\_\_\_\_

10. What new technological innovations designed to improve the quality of patient care has your agency implemented during C Y 2008? (Check all that apply)

[Note: **cb** indicates check box]

- cb** a. Telemonitoring equipment
- cb** b. Electronic medical records
- cb** c. Electronic information exchange with referral sources (e.g., hospital)
- cb** d. Electronic information exchange with physicians
- cb** e. Secure electronic messaging systems for agency care team members
- cb** f. New infusion devices
- cb** g. New respiratory equipment (e.g., ventilators, etc.)
- cb** h. Physiologic monitoring equipment (e.g., blood glucose monitors, prothrombin monitors, etc.)
- cb** i. Inflatable mattresses or similar equipment to reduce incidence of pressure ulcers
- cb** j. Special dressings or therapies for wound care
- cb** k. Medication reminder systems
- cb** l. Medication dispensing systems
- cb** m. Implementation of medication checking/reconciliation software
- cb** n. Personal emergency response systems
- cb** o. Electronic access to policies, procedures, best practices, etc.
- cb** p. Other (specify): \_\_\_\_\_

11. What new care practice changes designed to improve the specific clinical outcomes has your agency implemented during C Y 2008? (Check all that apply)

[Note: **cb** indicates check box]

- cb** a. Changes in visit patterns (e.g., front-loading; increased number of visits for specific diagnoses)
- cb** b. Introduction of telemonitoring
- cb** c. Changes in visit mix (e.g., increased use of PT, etc.)
- cb** d. Introduction of disease management programs
- cb** e. Introduction and/or increased use of clinical pathways
- cb** f. Changes in patient teaching plans
- cb** g. Increased communication with MD
- cb** h. Inclusion on POC of specific parameters for when to call physician (e.g., call MD for BS > 150)
- cb** i. Increased care team communication (e.g., team meetings, etc.)
- cb** j. Implementation of screening assessments (e.g., falls risk)
- cb** k. Implementation of falls prevention programs
- cb** l. Enhanced wound care protocols
- cb** m. Increased efforts to improve vaccination rates (e.g., flu and pneumococcus)
- cb** n. Use of medication reminder or dispensing systems
- cb** o. Other (specify): \_\_\_\_\_

12. Identify any corporate initiatives that have been implemented during C Y 2008. (Indicate change for each--if any)

[Note: **cb** indicates check box]

**cb NA, Not Part of Chain/Corporation**

[Note: **rb** indicates radio button]

<b>Corporate Initiative Focus</b>	<b>No Change or Program</b>	<b>Modified Existing Program</b>	<b>Implemented New Program</b>
a. Reducing potentially avoidable hospitalizations	<b>rb</b>	<b>rb</b>	<b>rb</b>
b. Reducing potentially avoidable emergency care	<b>rb</b>	<b>rb</b>	<b>rb</b>
c. Improving rehabilitation outcomes	<b>rb</b>	<b>rb</b>	<b>rb</b>
d. Pressure ulcer treatment	<b>rb</b>	<b>rb</b>	<b>rb</b>
e. Use of technology to support patient care	<b>rb</b>	<b>rb</b>	<b>rb</b>
f. Staff training	<b>rb</b>	<b>rb</b>	<b>rb</b>
g. Participation in QIO quality initiatives	<b>rb</b>	<b>rb</b>	<b>rb</b>
h. Performance incentive program (monetary)	<b>rb</b>	<b>rb</b>	<b>rb</b>
i. Enhanced corporate communications	<b>rb</b>	<b>rb</b>	<b>rb</b>
j. Other (specify)_____	<b>rb</b>	<b>rb</b>	<b>rb</b>

13. Identify any impact on your agency that occurred during C Y 2008 that may have been the result of local/regional issues or situations. (Indicate impact for each--if any)

[Note: **rb** indicates radio button]

<b>Type of Local/Regional Change</b>	<b>Type of Impact</b>			
	<b>No Impact</b>	<b>Negative</b>	<b>Both + / -</b>	<b>Positive</b>
a. # of community hospitals (or hospital beds)	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
b. # of skilled nursing facilities (or SNF beds)	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
c. # of urgent/emergency care facilities	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
d. # of home health agencies	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
e. Availability of nurses locally	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
f. Availability of physical therapists locally	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
g. Availability of occupational therapists locally	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
h. Availability of home health aides locally	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
i. Changes in population demographics	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
j. Informal local health care practice patterns	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
k. Change in available community resources (e.g., Assisted living facilities, adult day care, transportation programs, meal programs, respite care providers, etc.)	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
l. Natural disaster (e.g., flood, fire, etc.)	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
m. State health care Policy (e.g., Medicaid funding)	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>

**[Note: Treatment agencies complete items 14-17. Control agencies skip to item 18.]**

14. What is your best estimate of how the P4P Demonstration will have on the cost of providing care to your patients?

**[Note: rb indicates radio button]**

Decrease by > 10%	Decrease by 5 – 10%	Decrease by 1 – 5%	Less than 1% change	Increase by 1 – 5%	Increase by 5 – 10%	Increase by > 10%
<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>

15. How much of an impact do you think your quality improvement activities will have on the outcomes targeted in the P4P Demonstration?

**[Note: rb indicates radio button]**

Outcome Measure	Probable impact of QI on outcomes		
	No Impact	Modest Improvement	Substantial Improvement
a. Acute Care Hospitalization	<b>rb</b>	<b>rb</b>	<b>rb</b>
b. Any Emergent Care	<b>rb</b>	<b>rb</b>	<b>rb</b>
c. Improvement in Bathing	<b>rb</b>	<b>rb</b>	<b>rb</b>
d. Improvement in Ambulation/Locomotion	<b>rb</b>	<b>rb</b>	<b>rb</b>
e. Improvement in Transferring	<b>rb</b>	<b>rb</b>	<b>rb</b>
f. Improvement in Status of Surgical Wounds	<b>rb</b>	<b>rb</b>	<b>rb</b>
g. Improvement in Management of Oral Medications	<b>rb</b>	<b>rb</b>	<b>rb</b>

16. What effect do you think the demonstration will have on the following?

**[Note: rb indicates radio button]**

Effect on...	Very Negative	Slightly Negative	No Impact	Slightly Positive	Very Positive
a. My agency 's patient outcomes	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
b. Quality of care at my agency	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
c. Quality of care statewide	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
d. Access to care for Medicare beneficiaries	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
e. Cost of providing home health care	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
f. Financial solvency of my agency	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
g. Financial solvency of home health agencies statewide	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
h. Profitability of my agency	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
i. Profitability of home health agencies statewide	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>

17a. Rate each of the following groups/individuals as demonstrating Low/No, Moderate, or High levels of Commitment to the P4P Demonstration. (Mark “NA” if position/function doesn’t exist)

[Note: rb indicates radio button]

<b>Groups/Individuals</b>	<b>Commitment to the P4P Demonstration</b>			
	<b>Low / No</b>	<b>Moderate</b>	<b>High</b>	<b>N/A</b>
a. Administrator/Owner/CEO	rb	rb	rb	rb
b. Senior Clinical (Physician, DON)	rb	rb	rb	rb
c. Clinical Managers/Supervisors	rb	rb	rb	rb
d. QI / PI Coordinator	rb	rb	rb	rb
e. RNs (Case manager)	rb	rb	rb	rb
f. PTs, OTs, Social Workers, etc.	rb	rb	rb	rb
g. Administrative Staff	rb	rb	rb	rb

17b. Rate each of the following groups/individuals as demonstrating Low/No, Moderate, or High levels of Readiness for the P4P Demonstration. (Mark “NA” if position/function doesn’t exist)

[Note: rb indicates radio button]

<b>Groups/Individuals</b>	<b>Readiness for the P4P Demonstration</b>			
	<b>Low / No</b>	<b>Moderate</b>	<b>High</b>	<b>N/A</b>
a. Administrator/Owner/CEO	rb	rb	rb	rb
b. Senior Clinical (Physician, DON)	rb	rb	rb	rb
c. Clinical Managers/Supervisors	rb	rb	rb	rb
d. QI / PI Coordinator	rb	rb	rb	rb
e. RNs (Case manager)	rb	rb	rb	rb
f. PTs, OTs, Social Workers, etc.	rb	rb	rb	rb
g. Administrative staff	rb	rb	rb	rb

17c. Rate each of the following groups/individuals as demonstrating Low/No, Moderate, or High levels of Willingness to Sustain Beyond the P4P Demonstration. (Mark “NA” if position/function doesn’t exist)

[Note: rb indicates radio button]

<b>Groups/Individuals</b>	<b>Willingness to Sustain Beyond the Demonstration</b>			
	<b>Low / No</b>	<b>Moderate</b>	<b>High</b>	<b>N/A</b>
a. Administrator/Owner/CEO	rb	rb	rb	rb
b. Senior Clinical (Physician, DON)	rb	rb	rb	rb
c. Clinical Managers/Supervisors	rb	rb	rb	rb
d. QI / PI Coordinator	rb	rb	rb	rb
e. RNs (Case manager)	rb	rb	rb	rb
f. PTs, OTs, Social Workers, etc.	rb	rb	rb	rb
g. Administrative staff	rb	rb	rb	rb

18. Please rate the feedback on your agency 's performance provided to you by the demonstration implementation contractor (Abt Associates).

**[Note: rb indicates radio button]**

<b>Feedback</b>	<b>Disagree Strongly</b>	<b>Disagree Somewhat</b>	<b>Agree Somewhat</b>	<b>Agree Strongly</b>	<b>N/A</b>
a. The information is useful to my agency for quality improvement purposes.	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
b. The information is presented in a manner that is easy to understand.	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
c. The information is delivered to our agency in a timely manner.	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>
d. The reports are accurate and complete	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>	<b>rb</b>

19. Please use the space below to provide any other comments on the demonstration and any suggestions you have for the implementation of home health pay for performance. Please limit your response to about 250 words. (optional)

Please review all of your answers prior to submitting this information.

When ready to submit, please check the 'Yes' button below and then click the 'Submit' button.

**[Note: rb indicates radio button]**

**Ready to Submit?      Yes  No**

Thank you for completing this evaluation survey. If you would like a copy of your responses, go to the top of this survey page and click on the 'Printer Friendly Version" and print out a copy of your answers. You can then go back to the bottom of the survey, click the 'Yes' button and then 'Submit' this evaluation.



## Appendix B: Tables

**Table 1: Staffing Results.**

<u>Title of person completing form:</u>	<u>Treatment Percentage</u>	<u>Control Percentage</u>
Senior Management (CEO, DON, etc.)	74.1	76.7
QI / PI Coordinator	19.0	11.7
Administrative/Support	1.7	6.8
Clinical Supervisor Positions	2.6	2.9
Registered Nurse	0.9	1.0
Licensed Practical Nurse	0.0	1.0
Other	1.7	0.0
<u>Staffing Changes:</u>	<u>Increase Combined %</u>	<u>Turnover Combined %</u>
a. Senior Management (CEO, DON, etc.)	3.7	16.4
b. QI / PI Coordinator	13.2	18.3
c. Clinical Supervisor Positions	13.2	33.8
d. Registered Nurse	40.2	63.0
e. Registered Nurse with specialty license	15.1	13.2
f. Licensed Practical Nurse	20.5	22.8
g. Respiratory Therapist	0.0	1.8
h. Physical Therapist	30.6	33.8
i. Occupational Therapist	30.6	17.8
j. Medical Social Worker	16.9	15.5
k. Home Health Aide	9.6	21.5
l. Administrative/Support	11.9	26.0
m. Other (specify)	13.7	0.5
<u>Staff Functions:</u>	<u>Treatment Percentage Added</u>	<u>Control Percentage Added</u>
a. QI / PI	6.9	13.6
b. Qual Assurance / OASIS Accuracy	14.7	13.6
c. Staff Education	6.9	9.7
d. Outcome Analysis	8.6	8.7
e. Utilization Review	9.5	10.7
f. "Combination" position(s)	9.5	12.6
g. Other (specify)	1.7	0.0

Distributions and comparisons based on respondents to Web-based Survey as of 02/01/2010 (N = 219); Treatment HHAs: n = 116 (53.0%); Control HHAs: n = 103 (47.0%).

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**Table 2: External Support Results.**

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<b><u>QIO Involvement</u></b>	<b><u>Treatment Percentage<sup>1</sup></u></b>	<b><u>Control Percentage<sup>1</sup></u></b>
a. Acute Care Hospitalization	50.0	55.3
b. Any Emergent Care	40.5	44.7
c. Improvement in Bathing	11.2	19.4
d. Improvement in Ambulation/Locomotion	21.6	24.3
e. Improvement in Transferring	19.8	20.4
f. Improvement in Status of Surgical Wounds	16.4	25.2
g. Improvement in Management of Oral Meds	35.3	37.9
h. Improvement in Pain Interfering with Activity	20.7	22.3
i. Other measure(s)	21.6	17.5

  

	<b><u>Treatment Percentage "Yes"<sup>2</sup></u></b>	<b><u>Control Percentage "Yes"<sup>2</sup></u></b>
( ) Not Applicable "NA"	58.6	54.4
a. Reducing potentially avoidable hospitalizations	58.3	66.0
b. Reducing potentially avoidable ER	52.1	51.1
c. Improving rehabilitation outcomes	35.4	31.9
d. Pressure ulcer treatment	20.8	21.3
e. Use of technology to support patient care	18.8	19.1
f. Staff training	43.8	59.6
g. Participation in QIO quality initiatives	22.9	21.3
h. Performance incentive program (monetary)	8.3	2.1
i. Enhanced corporate communications	29.2	36.2
j. Other (specify)	4.2	0.0

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Distributions and comparisons based on respondents to Web-based Survey as of 02/01/2010 (N = 219); Treatment HHAs: n = 116 (53.0%);Control HHAs: n = 103 (47.0%).

<sup>1</sup> Received support during 2008.

<sup>2</sup> For a - j, this is the percent of those that did not mark "NA."

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**Table 3: Policies and Practices Results.**

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	<b>Treatment Percentage "Yes"</b>	<b>Control Percentage "Yes"</b>
<b><u>New Policies</u></b>		
a. Changes in care practices (e.g., "front-loaded visits")	55.2	53.4
b. Implementation of care pathways/standardized care plans	29.3	20.4
c. Decrease in time between referral and admission visit	19.8	18.4
d. Communication with patient (quantity and/or quality)	50.9	40.8
e. Communication with physician (quantity and/or quality)	41.4	38.8
f. Disease management programs	29.3	29.1
g. Telehealth programs	23.3	16.5
h. Falls prevention programs	56.0	48.5
i. Patient infection control programs	20.7	20.4
j. New clinical specialties programs (specify):	14.7	11.7
k. Change in on-call staff for non-business hours	13.8	13.6
l. Expanded business hours	5.2	1.0
m. Changes in productivity requirements for staff	18.1	31.1 <sup>2</sup>
n. Changes in qualifications for hiring staff	11.2	13.6
o. Other (specify):	2.6	4.9
	<b>Treatment Percentage "Yes"</b>	<b>Control Percentage "Yes"</b>
<b><u>Staff Activities</u></b>		
a. New staff education programs	42.2	32.0
b. Performance improvement programs	58.6	56.3
c. Mentoring programs	24.1	23.3
d. Additional clinical team meetings	41.4	39.8
e. Additional record review activities	55.2	45.6
f. New staff competencies	40.5	35.9
g. Change in staff evaluation criteria	14.7	19.4
h. Employee incentives for performance improvement	12.9	10.7
i. Staff management	37.9	39.8
j. Changes in home health aide supervisory practices	13.8	10.7
k. Additional clinical resources	31.9	35.0
l. Other (specify):	1.7	2.9

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**Table 3: Policies and Practices Results. (cont'd)**

	<b>Treatment Percentage "Yes"</b>	<b>Control Percentage "Yes"</b>
<b><u>Technological innovations</u></b>		
a. Telemonitoring equipment	17.2	11.7
b. Electronic medical records	14.7	16.5
c. Electronic information exchange with referral sources	8.6	19.4 **
d. Electronic information exchange with physicians	6.9	11.7
e. Electronic messaging systems for agency care team	14.7	12.6
f. New infusion devices	3.4	6.8
g. New respiratory equipment (e.g., ventilators, etc.)	0.0	0.0
h. Physiologic monitoring equipment	24.1	23.3
i. Technology to reduce incidence of pressure ulcers	11.2	5.8
j. Special dressings or therapies for wound care	41.4	35.9
k. Medication reminder systems	8.6	7.8
l. Medication dispensing systems	6.0	4.9
m. Impl. medication checking/reconciliation software	8.6	8.7
n. Personal emergency response systems	2.6	4.9
o. Electronic access policies, procedures, best practices, etc.	23.3	27.2
p. Other (specify):	2.6	1.9
	<b>Treatment Percentage "Yes"</b>	<b>Control Percentage "Yes"</b>
<b><u>Care practice changes</u></b>		
a. Changes in visit patterns	56.9	54.1
b. Introduction of telemonitoring	18.1	11.7
c. Changes in visit mix (e.g., increase use of PT, etc.)	29.3	35.9
d. Introduction of disease management programs	21.6	20.4
e. Introduction and/or increased use of clinical pathways	19.8	22.3
f. Changes in patient teaching plans	35.3	38.8
g. Increased communication with MD	39.7	35.9
h. Specific parameters for physician contact	32.8	34.0
i. Increased care team communication	43.1	36.9
j. Implementation of screening assessments (e.g., falls risk)	44.8	39.8
k. Implementation of falls prevention programs	45.7	41.7
l. Enhanced wound care protocols	37.9	43.7
m. Improve vaccination rates (e.g., flu and pneumococcus)	32.8	23.3
n. Use of medication reminder or dispensing systems	8.6	10.7
p. Other (specify):	4.3	1.9

Distributions and comparisons based on respondents to Web-based Survey as of 02/01/2010 (N = 219); Treatment HHAs: n = 116 (53.0%); Control HHAs: n = 103 (47.0%).

\* p = 0.025

\*\* p = 0.020

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**Table 4: Other Issues for All Participants Results.**

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<b><u>Local/Regional Issues</u></b>	<b><u>Treatment Percentage "Negative"</u></b>	<b><u>Control Percentage "Negative"</u></b>
a. # of community hospitals	4.3	1.9
b. # of skilled nursing facilities	0.9	1.9
c. # of urgent/emergency care facilities	0.9	3.9
d. # of home health agencies	27.6	33.0
e. Availability of nurses locally	19.8	22.3
f. Availability of physical therapists locally	33.6	41.7
g. Availability of occupational therapists locally	29.3	35.0
h. Availability of home health aides locally	6.0	8.7
i. Changes in population demographics	1.7	4.9
j. Informal local health care practice patterns	6.0	5.8
k. Change in available community resources	10.3	6.8
l. Natural disaster,	0.9	2.9
m. State health care policy	25.0	28.2

  

<b><u>Feedback from Abt Associates:</u></b>	<b><u>Treatment Percentage "Agree"</u></b>	<b><u>Control Percentage "Agree"</u></b>
a. QI info valuable	16.4	12.6
b. Easy to use	19.0	10.7
c. Timely	19.0	8.7
d. Accurate and complete	17.2	9.7

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Distributions and comparisons based on respondents to Web-based Survey as of 02/01/2010 (N = 219); Treatment HHAs: n = 116 (53.0%); Control HHAs: n = 103 (47.0%).

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**Table 5: Demonstration Impact on Cost, Quality, and Commitment Results (Treatment only).**

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<b><u>Cost Impact</u></b>	<b><u>Percentage Response</u></b>		
Decrease by > 10%	1.7		
Decrease by 5 - 10%	2.6		
Decrease by 1 - 5%	6.9		
Less than 1% change	53.4		
Increase by 1 - 5%	22.4		
Increase by 5 - 10%	10.3		
Increase by > 10%	2.6		

  

<b><u>Quality Impact</u></b>	<b><u>Percentage "Improvement"</u></b>		
a. Acute Care Hospitalization	69.0		
b. Any Emergent Care	59.5		
c. Improvement in Bathing	53.4		
d. Improvement in Ambulation - Locomotion	63.8		
e. Improvement in Transferring	63.8		
f. Improvement in Status of Surgical Wounds	62.9		
g. Improvement in Management of Oral Meds	72.4		

  

<b><u>Demonstration Impact</u></b>	<b><u>Percentage "Positive"</u></b>		
a. My agency's patient outcomes	67.2		
b. Quality of care at my agency	61.2		
c. Quality of care statewide	46.6		
d. Access to care for Medicare beneficiaries	19.0		
e. Cost of providing home health care	18.1		
f. Financial solvency of my agency	14.7		
g. Financial solvency of home health agencies statewide	12.1		
h. Profitability of my agency	19.8		
i. Profitability of home health agencies statewide	11.2		

  

<b><u>HHA Staff</u></b>	<b><u>Commitment</u></b>	<b><u>Readiness</u></b>	<b><u>Willingness to Sustain</u></b>
a. Administrator/Owner/CEO	86.2	81.0	85.3
b. Senior Clinical (Physician, DON)	68.1	66.4	67.2
c. Clinical Managers/Supervisors	81.0	72.4	80.2
d. QI/PI Coordinator	74.1	69.8	70.7
e. RN's (case managers)	69.8	55.2	69.0
f. PT's, OT's, Social Workers, etc.	60.3	48.3	62.9
g. Administrative Staff	51.7	46.6	56.0

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Distributions and comparisons based on respondents to Web-based Survey for Treatment HHAs only: n = 116 (53.0%).

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## *Appendix C: Summary of Comments*

**Table C.1: Comments by Category, Treatment and Control Groups**

<b>Group</b>	<b>N of Surveys</b>	<b>Number with Comments</b>	<b>% with Comments</b>	<b>No Feedback Comments</b>	<b>Positive Comments</b>	<b>Negative Comments</b>
Treatment	116	76	65.5%	82.9%	15.8%	1.3%
Control	103	49	47.6%	77.6%	10.2%	12.2%

### **Example “No Feedback” Comments**

Control: “We have not received any feedback from the demonstration. We would like to have some feedback or learn where to go to review it.”

Treatment: “We have not received any feedback yet on the P4P demonstration. We would like to receive some in order to know what we need to do to continue to prepare for the implementation of P4P.”

### **All “Positive” Comments** [note: minor grammatical changes were made to original quotes]

Control: “VNA Northwest Inc. believes in a pay-for-performance system for all providers on the healthcare continuum. VNA Northwest inc. employs many of the best practices above.”

"On question #6 , we only added job functions to specific supervisors on section A, B and D. On question #7 we always base our targeted quality improvement on the report ""All Patients Risk Adjusted Report"" from CMS QIO. Thank you.”

"The management at Metropolitan Home Health Care, Inc. ispleased with it's inclusion in this study and is hoping to see the outcome of its performance during the study period in the near future."

"The CEO retired in June 2008. The new CEO has resigned effective 8.1.09 and the old CEO returned temporarily. Some greater computerization of data was initiated but otherwise, agency policies and practices seem to have remained about the same as previously. McKesson care paths are being implemented to standardize documentation. Otherwise, the agency remains about the same as in 2008."

"Many of the changes we did happened before 2008 in preparation for P4P."

Treatment: "The direct financial impact of P4P is difficult to estimate. However, the focus by CMS on P4P helps to motivate clinicians to implement QI on clinical activities in the agency. "

"Our agency has been using policies mentioned on item 7 and 8 prior to 2008. Lumetra [note: CA contractor company focusing on quality and effectiveness] has been a big part of our success.we have been using front loading visits, clinical pathways, zones, home phone monitoring, risk assessment tools prior to 2008 and have been existing to our agency since

2005 to reduce acute hospitalization. Recommendation: continue LUMETRA to have programs that are very helpful to home health agencies."

"It might have been more effective to break the 2 years up and pay for the first year at the end of it and then continue for the 2nd year.....I think many are surprised that there actually WERE dollars awarded at the end."

"I would like to see the QIO's back to help us in home care to achieve some higher outcomes."

"Our agency implemented several new policy changes prior to 2008 including the implementation of care pathways, telehealth, and falls prevention programs. Prior to 2008, our agency implemented the use of telemonitoring equipment and send trend reports to MD's on a routine basis. Prior to 2008, we implemented new wound protocols and the use of wound-vacs on eligible patients. We are continually updating as wound protocols. "

"Participation in this demonstration has helped the agency to focus on ways to improve patient outcomes. We also looked at areas of improvement for the agency staff."

"We started the project hopeful that we could positively impact our patients. We were quick to learn that in spite of our best efforts, little, if any change, was done. It became a frustrating experience as no matter how hard we tried, we still received negative outcomes. Lesson learned: You simply "can not make a silk purse out of a sow's ear."

"P4P demonstration helps to measure the quality of care being rendered to client of every homehealth agency."

Question #8, A-F and I existed prior to 2008

"We believe that this program will benefit the patients we serve and it is a good thing. On the other hand agencies like ours who is small and is only meeting sustainability, it will have a big financial burden to implement technology that other agencies are able to provide. If the program would give tools to agencies willing to improve the care provided, it would be a big relief. Smaller agency staffs have the burden of wearing multiple hats and with the lack of technology it is really difficult. We like to be competitive and show that our 15 years of service is a proof to it, we want to benefit from doing an excellent job and is proud to be in the business we're in."

"Lumetra provided/made available a lot of training and tools to help agencies develop improvement plans than we in California are not getting now. There is a lot of information available, but it is scattered and difficult to pull together into a comprehensive plan. The advent of OASIS-C and the training involved will make it difficult to focus on other activities for the next few months. My personal opinion is that CMS will pay us whatever they want to and that P4P will not make a major positive impact for the agencies. I think it is one more process that will further complicate the already complicated process of providing home care to patients in need. I would really like to see someone look into opportunities to simplify the process, reduce the number of layers and consider the purpose of the Paperwork Reduction Act as a means to control costs while continuing to provide quality care. Thank you."

"Thank you for giving us the opportunity to participate in this survey."



### **All “Negative” Comments**

**Control:** "P4P would not be fair in our area because we are a rural agency with a lot of chronic disease patients. Our patients do not have access to the health care facilities and specialists that non-rural agencies have. We are a not for profit, government [agency]."

"PTHC is a small HHA with only 25% of our client population Medicare participants. It didn't seem to me as if the results were accurate or ""adjusted"" to our smaller client population. Our agency has a large behavioral health program."

"The CEO retired in June 2008. The new CEO has resigned effective 8.1.09 and the old CEO returned temporarily. Some greater computerization of data was initiated but otherwise, agency policies and practices seem to have remained about the same."

"The current system does not encourage nor force health care providers to work together for the common well being and improved outcomes of the patients. P4P will never be successful until physicians, facilities and ancillary providers [are all involved]."

"There were too many gray areas of inconsistency via the written information. We did not receive a live demonstration about the P4P implementation."

"There are many flaws in HOW the data is collected. The responses are subjective and depend largely upon the clinician who is answering. For instance, there is a difference between the way a physical therapist would answer vs. a registered nurse."

"The larger, national home health agencies have been able to pull more resources for marketing and make it harder to compete for Medicare patients in our community. This seems to allow these companies to get the non-chronic patients which helps with their outcomes. Being a small, local, non-profit agency, we take all patients including Medicaid chronic patients that make our outcomes look less desirable."

"This did not precede the use of the OASIS tool, those inconsistencies will remain. The training tool came out years too late."

**Treatment:** "The OASIS outcome measures are a poor tool to measure the performance of an agency. The risk adjustment is too highly skewed to acute patients and does not provide for the complexity and risk for re-hospitalization of the frail elder who is referred."