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Evaluation of the Home Health Pay-for-Performance Demonstration

Contract # HHSM-500-2005-000221,  
Task Order 0001

Comparison of Treatment vs. Control Pay-for-Performance Participant Home Health Agencies on Care Practices, Policies, and Staffing during CY2009:  
Final Report

Deliverable Task 3b: Conduct Evaluation Survey

February 2012

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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 increased by approximately 25% and the number of episodes of care delivered increased by a similar percentage during the same time period. Similarly, the number of visits that are delivered by skilled staff (e.g., registered nurses, physical therapists) 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 were 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 was whether the quality-related activities that Demonstration 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 has been 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 inherent 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).

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 used a set of targeted, instruction/information-based strategies from Quality Improvement Organizations (QIOs) and achieved 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 reported 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) stated that HHAs found the benchmarking and timely feedback on their performance that was 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 summarized their findings by reiterating the importance of embedding the performance improvement activities within the agency's formal structure with committed and active senior leadership, as well as an external support system utilizing technology (virtual communities) and QIO technical assistance.

Schade and colleagues (2009) compared 294 matched home health agencies (147 target HHAs and 147 matching HHAs) involved in an intervention program focused on reducing hospitalization rates. The interventions 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 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.

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 included 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 HHP4P 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. Summary of Year 1 (CY2008) Findings**

Year 1 activities in the Home Health Pay-for-Performance (HHP4P) Demonstration Evaluation included the development and approval of the Home Health Pay-for-Performance Demonstration Evaluation Survey by the Office of Management and Budget (OMB), and administration of these instruments using a Web-based secure platform, and analyzing the results from 219 respondents to the survey.

*Instrumentation:* After several reviews, OMB approved two survey instruments, one for the treatment agencies and a parallel one for the control agencies. These instruments covered five areas of home health care activity: 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 to ensure the construct validity and reliability of the respondent answers to these questions. OMB requested, and the University of Colorado Denver complete cognitive testing of the survey items to identify the amount of cognitive burden imposed on the individual for each of the survey questions.

As a result of these instrument development activities, the final treatment survey contained a total of 19 questions from all 5 of the areas of home health care activity identified previously, while the final control survey contained 15 questions from all of the areas of home health care activity identified previously except HHP4P Demonstration impact. Participants accessed the

Web-based surveys that were housed on a secure University of Colorado Denver computer system, using their own computer system and Internet connection. Data (participant responses) were automatically transferred to a separate, secured computer server within the University of Colorado for analysis.

*Administration:* All 570 HHAs that were voluntary participants in the HHP4P Demonstration were invited multiple times via multiple modalities to complete the Web-based survey. These multiple contacts continued for more than a 30-day period that ended in January 2010. HHAs that completed the survey received a recognition certificate.

*Findings:* Based on a total of 219 completed surveys (116 treatment and 103 control HHAs) that focused on HHP4P Demonstration activities during calendar year 2008, the following differences or similarities between the treatment and control HHAs were identified:

- Respondents were primarily senior management personnel, with QI / PI Coordinators completing the large majority of the remaining surveys;
- There were no statistically significant differences for either increases or turnover in staffing;
- Registered nurses (RNs) had the highest percentage of personnel increase (40.2%) and turnover (63.0%) for these agencies;
- Control HHAs were generally more likely to add staff functions than treatment HHAs;
- HHAs appeared to focus on training the new employees to become productive and effective members of the organization;
- Most HHAs received support from either QIOs or corporate support groups during calendar year 2008;
- More than half of the responding HHAs are not part of a larger corporate group;
- Larger corporations focused on those outcomes that could generate the largest bonus amount in the Demonstration;
- Control HHAs were significantly more likely (31.1%) to report a new policy that focused on changes in productivity requirements for their staff than treatment agencies (18.1%);
- The majority of both groups (treatment = 55.2%; control = 53.4%) reported making changes to care practices, including front-loading patient visits;
- Treatment HHAs as compared with control HHAs were more likely to have initiated new staff education (42.2% vs. 32.0%) and additional record review activities (55.2% vs. 45.6%);
- 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%);
- Treatment HHAs reported higher rates of changes in visit patterns, introduction of telemonitoring, increased MD communication, increased care team communication, implementation of screening assessments and falls prevention programs, and improved vaccination rates;
- Control HHAs reported higher rates of change in visit mix, and enhanced wound care protocols;
- Control HHAs generally reported higher rates of negative external influences on the number of home health agencies, availability of physical therapists locally, and availability of occupational therapists locally;

- 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;
- 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 HHP4P Demonstration as an issue worthy of comment; and
- 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 (the latter primarily focused on the fairness of the comparison between agencies given case mix differences and data collection/analysis issues).

As stated previously, only the Treatment HHAs received questions regarding how the HHP4P Demonstration affected costs, quality, and their overall commitment to sustaining results beyond the end of the HHP4P Demonstration. The following are some highlights from their reports on the survey:

- The majority of HHAs (53.4%) reported that participation in the HHP4P 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;
- HHAs believed that the HHP4P Demonstration would have the greatest positive impact on acute care hospitalization (69.0%) and management of oral medications (72.4%);
- 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%);
- Treatment HHAs' self-report on commitment, readiness, and willingness to sustain the activities as very high (86.2%, 81.0%, and 85.3%, respectively);

*Summary:* A convenience sample of 219 HHAs representing approximately 40% of the HHP4P 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 HHP4P Demonstration. The policy and practices primarily emphasized reducing acute care hospitalization rates, which is both an emphasis of the HHP4P 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 was used. Policy differences also were noted between treatment and control HHAs.

### 3. **Year 2 Methodology**

*Instrumentation changes:* Prior to administering the Web-based surveys, several changes were made to the two survey instruments. The Treatment instrument was split into two forms: one for Winners during Year 1 (CY2008) and one for Non-Winners during Year 1. This allowed the inclusion of questions for how the Winners notified staff, their patient population, and the general community about their success, as well as how the monetary awards were used. Both

Treatment instrument forms requested the HHAs to predict how they would do in Year 2 of the demonstration. The Control instrument was expanded to include cost of implementation items and impact on performance items. The total number of questions in each instrument varied slightly: “Winners” = 22 items, “Non-Winners” = 20 items; and “Control” = 20 items.

For all forms of the survey instrument, one item was significantly revised and two new items were created. The “Staff Turnover” item was significantly revised to capture the amount of turnover using numerically-based, qualitative descriptions of the amount of turnover. For example, turnover that was “0 – 5%” described “No/Low” turnover, “6-20%” described “Small”, “21-40%” described “Moderate,” etc. A new multiple option item that identified several possible support activities for HHAs that participate in P4P (e.g., regular updates or reminders about the program, best practices newsletters, renewed QIO involvement with HHAs) were rated by the HHAs on their anticipated effectiveness. Additionally, all forms of the survey instrument added an open-ended item requesting the HHAs to share advice for other HHAs who will participate in P4P in the future. Copies of all three forms of the instrument can be found in Appendix A.

*Methodological changes:* As in Year 1, all HHAs participating in the Demonstration were invited via letter and email to participate in the Year 2. The survey was available to HHAs from October 2010 through the end of January 2011. Biweekly email reminders were sent to all HHAs that had not completed the survey. HHAs that completed the survey received a certificate of recognition and a copy of a summary of the findings from the Year 1 Report on the Evaluation of the Demonstration. Table 1 provides the distribution by region and state of the number of previous Winners, Non-Winners, and Control agencies that participated in the Year 2 Web-based survey. Interestingly, nearly 58% of the Year 1 respondents to the Web-based survey also submitted responses on the Year 2 surveys.

**Table 1: Distribution by Region and State of Winners, Non-Winners, and Control Agencies that Participated both in the Year 1 and Year 2 Web-based Survey.**

| Region               | State | Total | Treatment   |                 | Control |
|----------------------|-------|-------|-------------|-----------------|---------|
|                      |       |       | Yr1 Winners | Yr1 Non-Winners |         |
| NE                   | CT    | 10    | 8           |                 | 2       |
| NE                   | MA    | 12    | 4           |                 | 8       |
| SE                   | AL    | 13    | 6           |                 | 7       |
| SE                   | GA    | 8     | 4           |                 | 4       |
| SE                   | TN    | 12    | 7           | 1               | 4       |
| MW                   | IL    | 36    | 16          | 6               | 14      |
| W                    | CA    | 34    | 15          | 4               | 15      |
| <b>Totals</b>        |       | 125   | 60          | 11              | 54      |
| <b>Year 2 Totals</b> |       | 217   | 108         | 15              | 94      |
| <b>% Repeat</b>      |       | 57.6% | 55.6%       | 73.3%           | 57.4%   |

## 4. Results

### 4a. **Regional Cross-tabulations**

*Overview:* Cross-tabulations for each item, except for Survey Item #4, were computed for the three Treatment groups (Winners, Non-Winners, and Control), for four regions (Northeast, Southeast, Midwest, and West), and for the seven states (MA, CT, TN, AL, GA, IL, and CA). Cross-tabulations using multiple stratification variables (region by treatment) also were computed for each question. Chi-square analyses were computed on each of these cross-tabulations. Three levels of significance are reported on the accompanying tables: high ( $p < 0.01$ ); moderate ( $p < 0.05$ ); and slight ( $p < 0.10$ ). These cross-tabulations can be found in Appendix B.

The results are displayed by survey question, with the completed question and response options (where appropriate) presented as the title for the accompanying table. The number of statistically significant results differed by question. The lowest numbers of significant relationships were for Survey Items #3 (preparer) (two significant relationships) and Survey Item #8 (staff positions/functions) (three significant relationships). At the other end of the spectrum, several items had at least 10 statistically significant relationships identified:

- Survey Item #5 (CY2009 performance—17),
- Survey Item #6 (change in staff positions—10),
- Survey Item #14 (local/regional impact—14),
- Survey Item #18 (impact on QI/PI—10), and
- Survey Item #19 (impact on outcomes, cost/finances—31)

A few other survey items fell just below the 10 statistically significant values criterion.

*Discussion of Selected Specific Results:* Survey Item #5 (CY2009 performance) produced a large number of statistically significant differences by treatment group. In general, Control HHAs viewed their CY2009 performance as better than their CY2008 performance while the Winning HHAs reported no change in performance, and Non-Winners reported either the same or worse performance. There were some differences by region/state with HHAs from GA and TN more likely to indicate substantial improvement in Acute Care Hospitalization and Any Emergent Care. Control HHAs in IL were more likely to report high performance in the improvement in Activities of Daily Living (ADL) outcomes than other treatment groups, while Winner HHAs in IL were more likely to report substantial improvement in these ADL outcomes.

Survey Item #6 (Staff changes) showed strong regional and/or state differences. The notable disciplines, not surprisingly, are registered nurse (RN), licensed practical nurse (LPN), medical social worker (MSW), and home health aide (HH Aide). Typically, the states in the Southeast (SE) region reported a higher percentage of decreases or no changes in these positions, whereas the other regions notably the Northeast (NE) and West, reported increases in staff in these positions during CY2009.

Survey Item #7 (Turnover rates) showed few differences across all of the comparisons. The Midwest (MW) and West regions reported slightly higher turnover rates for RNs than did the other two regions. Given that these two regions are single states, the differences were

specifically related to IL and CA. Approximately 20% of the HHAs from these states reported a moderate (<40%) turnover rate and between 30% and 40% of HHAs from these states report a small (<20%) turnover rate. For most regions the large majority of HHAs reported no/low (<5%) turnover rate for RNs.

For Survey Item #8 (Staff positions/functions) only staff education produced statistically significant results. In the NE and West regions, Winner HHAs were more likely to already have this position and Control HHAs were more likely to add this position during CY2009.

Regional differences were also identified for Survey Item #9 (Policy changes). Policies related to patient infection control, new clinical specialties, and on-call staff changes were more likely to occur in the West (CA) than for the other regions. Staff hiring practices produced multiple statistically significant differences. Again, the West (CA) was more likely as a region to implement hiring practice changes. However, in the NE region, Control and Non-Winner HHAs were more likely to implement this policy change than the Winner HHAs. Perhaps these latter HHAs already have the policy in place.

State and regional differences also were identified for Survey Item #10 (Care provider/QI practices). Regions other than the SE were more likely to institute changes in staff competencies and staff evaluation criteria than the SE. Employee incentive and management practice changes were more likely to occur in the MW and West than in the other two regions involved in the Demonstration.

Survey Item #11 (Technology innovations) produced mixed results. Electronic access to HHA policies resulted in statistically significant differences for treatment group (Non-Winners had the highest rates), with similar results within regions. Changes in the use and/or selection of wound care materials were more likely to occur in the MW and West regions.

Survey Item #13 (Corporate initiatives) differences were more likely to occur in the SE than in other regions. This is not surprising given the high percentage of HHAs under corporate sponsorship in this region. In general, Control HHAs from the SE region were more likely than their counterparts to modify an existing corporate program that focused on reducing Acute Care Hospitalization, Any Emergent Care, and the number of patient falls. Similarly, Control HHAs from the SE region also increased attention on staff training when compared with their counterparts from that region.

Regional differences for Survey Item #14 (Local/regional issues) reached a level of statistical significance for several elements measured by this item. HHAs reported that the lack of available professional staff (RNs, physical therapists (PTs), occupational therapists (OTs) and HH Aides) had a negative impact. In particular, a higher percentage of HHAs in the NE region reported availability problems for RNs, HH Aides, and PTs, while HHAs in the MW region cited difficulty in obtaining PT services. The MW region also found the availability of OTs to be problematic—and to a slightly less extent, the West also found OT services difficult to obtain. HHAs in the SE region viewed other health care providers as a mixed bag. In some cases, Control HHAs viewed the number of hospitals as having both a positive and negative impact, while in other cases Winner HHAs viewed the number of urgent care facilities as either positive

or negative. The interpretation of these results is not clear, except that other health care providers in the SE region do have an effect (positive, negative, or both) on the different treatment groups from this region.

Survey Item #17 (Estimated cost impact) produced some statistically significant results. Control HHAs estimated that their cost of delivering care either was much more costly or much less costly than before their P4P Demonstration when compared with the Winner HHAs. Of the Winner HHAs, 60% estimated that there was a less than 1% change (60%), and 31% estimated that there was a slight increase of 1-5% in the cost of delivering care due to the HHP4P Demonstration. Approximately 25% of the Control HHAs estimated that their costs had increased by more than 5% as a result of the HHP4P Demonstration. Perhaps the Winner HHAs were already spending more on the delivery of care and hence, did not identify any increase in costs to maintain their high level of performance.

The HHP4P Demonstration's perceived impact on target outcomes is captured in Survey Item #18 (Target outcome impact). Winner HHAs are slightly more positive about the Demonstration's impact on Improvement in Management of Oral Medications than Control HHAs. State differences on this item are varied. All states, except AL, believe that the HHP4P Demonstration will result in at least modest reduction in Acute Care Hospitalization rates and an increase in Improvement in the Status of Surgical Wounds. IL, CT, and AL all have lower expectations regarding reducing Any Emergent Care than the other four states. Improvement in Management of Oral Medications is very likely to see at least a modest improvement according to nearly 80% of HHAs from TN. Winner and Control HHAs were both optimistic about Improvement in Management of Oral Medications, with Winner HHAs in the West (CA) Region reporting slightly more positive results than Control HHAs.

Survey Item #19 (Demonstration impact on quality and finances) produced the largest number of statistically significant differences. Treatment group differences, 60% of Control HHAs and 80% of the Winner HHAs, indicate that the HHP4P Demonstration had a positive impact (slight or very) on the quality of care provided by the HHA, while no Non-Winner HHAs reported a positive impact (all reported "no impact"). Conversely, about 40% of the Control HHAs responded that the HHP4P Demonstration had a negative impact on statewide HHA solvency and profitability and profitability of their HHA, whereas only about 10% of the Winner HHAs responded in this manner. On a positive note, 40% of the Control HHAs and 60% of the Winner HHAs thought that the HHP4P Demonstration had a positive impact on referral source satisfaction with the quality of care.

There were also regional and state-to-state differences on Survey Item #19. Approximately 60% of the HHAs in the NE and MW reported a positive effect on the quality of care provided by the HHA, and a surprisingly high 80% of the HHAs from the SE and West also reported a positive effect. No agencies completing the survey expected a negative impact on the quality of care provided by the HHA. The SE region viewed the impact as spreading statewide (70%), whereas 40% of the HHAs in the NE viewed the demonstration as having a statewide effect on quality of care. The NE region was generally more positive about how the HHP4P Demonstration would impact financial solvency and the profitability of their HHA and HHAs in the state, especially compared with HHAs from the SE region that typically were much more negative on all four of

these elements. Patient satisfaction varied by region from MW  $\approx$  40% to SE  $\approx$  70%; the MW was also lowest in its rating of staff satisfaction ( $\approx$  30%); whereas all other regions reported about 50% staff satisfaction. Perhaps the fact that the HHAs in the MW did not receive a monetary bonus would explain part of this difference in staff satisfaction.

*Discussion of General Findings:* These findings can be combined into two groups that are not necessarily mutually exclusive: regional differences and positive impact of the HHP4P Demonstration. Highlights of each set of findings will be presented separately.

There were clear regional differences among the 219 HHAs that participated in the Year 2 Web-based survey. In general, HHAs from the NE region were much more positive about their experiences and the expected impact than HHAs from the SE. HHAs from the MW were much more likely to report more negative about financial issues than HHAs from other regions. The HHAs from the MW and West reported higher turnover rates than other regions for skilled health care professionals. The SE did expect greater positive results from the HHP4P Demonstration in the areas of patient satisfaction and statewide improvement in patient care than the other regions.

The HHAs responding to the Year 2 Web-based survey were generally positive about the effect of the HHP4P Demonstration. This was highlighted by all HHAs reporting either neutral or positive effects on the quality of care provided to patients, and in the positive impacts on a number of patient outcomes including Acute Care Hospitalization, Any Emergent Care, and Improvement in Management in Oral Medications. Even the cost of impact of the HHP4P Demonstration was minimal as evidenced by more than 90% of the Winner HHAs reporting either no increase or less than a 5% increase in costs for providing care to patients.

Differences among treatment groups (Winners, Non-Winners, and Control HHAs) were largely restricted to perceptions about improvements or performance on the target outcomes and the impact on financial solvency and profitability. In general, Winner HHAs expressed more positive views than the Control HHAs on these measures.

*Conclusion:* The findings from the Year 2 Web-based survey were similar to the Year 1 results. There were a larger number of statistically significant differences in the Year 2 results than in the previous year. However, the findings of a generally positive view of effect of the HHP4P Demonstration across all treatment groups, and regional differences in staffing and perceptions of the financial impact of the HHP4P Demonstration are consistent with the Year 1 findings.

#### **4b. Chi-Square Summaries**

Appendix C provides a summarization of the statistically significant Chi-square result by item across each of the dimensions that were analyzed (region, state, treatment/control) for the Web-based survey items. These tables provide the statistically significant relationships discussed in detail in the previous section into single tables for each item.

#### 4c. Winners, Non-Winner, and Control Comparisons

Appendix D provides cross-tabulation for selected items on the Web-based survey comparing Winner, Non-Winner, and Control HHA responses. No Chi-square values for these tables were computed as the number of Non-Winner participants is quite small, so the number of empty cells might contribute to false positive (or false negative) results. Interesting findings were that Control HHAs in the Southeast and Midwest were more likely to anticipate higher performance in Year 2 while Winner HHAs in these same regions characterized this change as “improved performance.” There were few meaningful differences in staff turnover—most (>80%) rating the problem as “no/low” in all areas except for RNs where about 50% rated the turnover as “no/low” and 30% rated the problem as “small”. About 54% of Winners and Control HHAs viewed virtually no change in costs (“less than a 1% change”) while approximately 24% reported a slight (<5%) increase.

#### 4d. Regression Models for Demonstration Target Outcomes

*Background/Overview:* “Regression Model Summaries” (Appendix E) contains several sets of tables that provide statistical information for prediction models on selected “outcome” items using the Year 2 Web-based Survey, computed for three groups of home health agencies: “All” HHAs, “Control” HHAs, and “Winner” HHAs. The “outcome” items are based on Survey Items #17 – 19 that ask the participating HHAs to rate what the expected impact of the Demonstration was on a variety of financial and patient outcome items. The independent variables used to develop the prediction models were response elements from Survey Items #7 – 12.

The tables for each set of prediction models “All” HHAs, “Control” HHAs, and “Winner” HHAs provide the following statistical information:

- Name of the independent variable,
- Bivariate correlation between the independent variable and the dependent variable,
- Regression coefficient for the independent variable in the prediction model,
- Statistical significance level of the independent variable in the prediction model,
- A model summary that includes:
  - the multiple R value for the prediction equation,
  - the R-squared value for the prediction equation,
  - ANOVA F value for model fit, and
  - the statistical significance of the F value for the model.

The three groups----“All” HHAs, “Control” HHAs, and “Winner” HHAs—are expected to have some overlap in the independent variables that are included in the prediction models. However, differences in the set of independent variables for the prediction models may point to differences in the strategies used by Control vs. Winner HHAs to address (create change in) particular health care outcomes. The differences in these independent variable groups may provide additional insight into how Control and Winner HHAs differ. The independent variables that are in common between Control and Winner HHAs—or found in all three models reflect the core set of prediction variables for the outcome (dependent measure).

*Methodology:* The methodology used to construct the prediction models was as follows:

- Create three data sets:
  - All HHAs that completed the Year 2 Web-based Survey;
  - All Control HHAs that completed the Year 2 Web-based Survey; and
  - All Winner HHAs that completed the Year 2 Web-based Survey.
- Identify “outcome” type survey items and options (elements) within these items. The following is a list of the “outcomes” for which prediction models were created:
  - Cost of Participating in Demonstration (Item #17)
  - QI Impact on Acute Care Hospitalization (Item #18 a)
  - QI Impact on Any Emergent Care (Item #18 b)
  - QI Impact on Improvement in Bathing (Item #18 c)
  - QI Impact on Improvement in Ambulation/Locomotion (Item #18 d)
  - QI Impact on Improvement in Transferring (Item #18 e)
  - QI Impact on Improvement in Status of Surgical Wounds (Item #18 f)
  - QI Impact on Improvement in Management of Oral Medications (Item #18 g)
  - Demonstration’s Impact on Patient Outcomes (Item #19 a)
  - Demonstration’s Impact on Quality of Care (Item #19 b)
  - Demonstration’s Impact on HHA’s Cost of Providing Care (Item #19 e)
  - Demonstration’s Impact on HHA’s Financial Solvency (Item #19 f)
  - Demonstration’s Impact on HHA’s Profitability (Item #19 i)
  - Demonstration’s Impact on Patient Satisfaction (Item #19 j)
  - Demonstration’s Impact on Staff Satisfaction (Item #19 k)
- Calculate bivariate correlations between the 65 independent variables taken from Survey Items #7 – 12 and the 15 dependent measures identified as “outcome” items.
- Select all independent variables that have a bivariate correlation where  $p < 0.05$  to use in a fixed Ordinary Least Squares (OLS) regression model.
- Compute a fixed OLS regression model using the selected independent variables associated with each dependent (“outcome”) variable. Note: because there was no attempt to further reduce the number of independent variables in the final models based on the p-value of the coefficient, some redundancy of independent variables that are included in the models is expected.

*Discussion of Individual Outcome Models:* The tables Appendix E (pp. E.1 – E.27) use a coding system to assist the reader identifying which variables are in common for all three models (superscript 1), which are in common for the “All” and “Control” models (superscript 2), and which are in common for the “All” and “Winner” models (superscript 3). If there is no superscript value in the cell with the variable name, then the variable is unique to that model.

*Cost of Participating in Demonstration:* Only a small number of independent variables (five to seven) showed strong bivariate correlations with this dependent variable across the three data sets. There were no independent variables in common among all three models. The “All” and “Control” models shared two variables: Staff education and Wound care protocols (superscript 2). The “All” and “Winner” models shared two variables: Management practices and Hiring requirement (superscript 3). “Control” and “Winner” models share no variables. This suggests that Control and Winner HHAs differed greatly in how they approached dealing with costs associated with the P4P Demonstration. Control HHAs targeted specific activities (e.g., staff

education, care protocols, materials) whereas Winner HHAs used more global strategies (e.g., staff competencies, management practices, and hiring requirements). The R-squared values for the models ranged from 0.094 for “All” to 0.281 for “Control.” Each model was statistically significant based on its F-value at  $p < 0.01$ .

*Quality Improvement Impact on Acute Care Hospitalization:* Reducing the need for home health patients to receive additional Acute Care Hospitalization was clearly a major goal for the Home Health P4P Demonstration project. The prediction models created included more independent variables than the “Cost of Participation” models and varied from 9 (“Control”) to 15 (“All”). Three independent variables—Employee incentives, Clinical pathways, and Communication with the physician—were shared by all three models (superscript 1). Additionally, the “All” and “Control” models share three other variables—Plan of Care specific parameters, Vaccination focus, and Care plans—while “All” and “Winner” models share five different variables: Clinical team meetings, Disease management program, Patient teaching, Medication dispensing systems, and Disease management. As with the “Cost of Participation” models, the differences between the Control HHA approach and the Winner HHA approach can be characterized as “specific” (Control) versus “strategic” (Winner). The R-squared values for the models ranged from 0.130 for “Winner” to 0.258 for “Control.” The “All” and “Control” models were statistically significant based on its F-value at  $p < 0.01$ . The “Winner” model was not statistically significant.

*Quality Improvement Impact on Any Emergent Care:* Reducing the need for Any Emergent Care for HHA patients is also an important goal of the HH P4P Demonstration as the use of emergency departments by home health patients leads to increased medical care costs for Medicare. The number of independent variables used in these three models varied from 14 (“Control”) to 28 (“All”). As expected, the number of shared independent variables increased from the previous models to five: Staff evaluation criteria, Communication with physician, Plan of Care specific parameters, Physician communication, and Electronic access to policies. The “All” and “Control” models shared an additional five independent variables, while the “All” and “Winner” models shared a different, additional 15 independent variables. The additional variables for Control HHAs focused on care plans, record reviews, and changes to and faster visits. Conversely, the Winner HHAs focused on management practices (including employee incentives and business hours, supervision), both direct and telemonitoring, patient teaching, and disease and medication control programs. The Winner HHAs strategy seemed to be focused on activities that affect the patient care (e.g., education, disease and medication control programs) versus the Control HHAs’ focus on record review and faster intervention. The R-squared values for the models ranged from 0.268 for “All” to 0.442 for “Control.” The “All” and “Control” models were statistically significant based on its F-value at  $p < 0.01$ , while the “Winner” model was statistically significant at the  $p < 0.05$  level.

*Quality Improvement Impact on Improvement in Bathing:* There were only three independent variables common to all three models for this dependent measure: Employee incentives, Patient infection control, and Hiring requirements. The number of independent measures for the three models varied from 17 (“Winners”) to 32 (“All”). There were 11 uniquely shared variables between the “All” and “Control” models that focus on communication (e.g., clinical team meetings, patient teaching, communication with physician) and management (e.g., practices,

supervision of HH Aides, visit pattern changes). The “All” and “Winner” models shared a different 10 variables that focus on staff competencies and evaluation, as well as communication-related variables (e.g., patient and physician communication, and e-messaging with staff). The R-squared values for the models ranged from 0.237 for “All” to 0.427 for “Control.” Each model was statistically significant based on its F-value at  $p < 0.01$ .

*Quality Improvement Impact on Improvement in Ambulation / Locomotion:* Five independent variables were shared among the three models: Staff competencies, Employee incentives, Care team communication, Patient infection control, and e-messaging with staff. The number of independent variables for the models ranged from 12 (“Winner”) to 32 (“All”). The 14 uniquely shared variables between the “All” and “Control” models were a rather eclectic group including management practices such as record reviews, PI programs, visit pattern management, and hiring practices, as well as patient care related initiatives such as screening assessments, medication dispensing systems, disease management, and falls prevention. The “All” and “Winner” models shared seven unique variables including mentoring programs, staff evaluation, visit mix and clinical resources, as well as two business practices—on-call staff changes and expanded business hours. The R-squared values for the models ranged from 0.224 for “All” to 0.481 for “Control.” The “Control” and “Winner” models were statistically significant based on its F-value at  $p < 0.01$ , while the “All” model was statistically significant at the  $p < 0.05$  level.

*Quality Improvement Impact on Improvement in Transferring:* The number of independent variables for the models ranged from 12 (“Winner”) to 32 (“All”) with only 3 independent variables common to all three models: Reduced time from referral to admissions, Physician communication, and Disease management. Eighteen independent variables were in common between the “All” and “Control” models. These variables covered a myriad of areas including management practices (e.g., PI programs, record review, visit pattern changes, HH Aide supervision, hiring requirements), communication (with patients and physicians), and care practices (e.g., wound care protocols, medication dispensing, falls prevention, infection control). Eight variables were unique to the “All” and “Winner” models. The themes represented in these variables were programmatic (e.g., mentoring, evaluation criteria, visit mix) and business-related (e.g., on-call staff changes, expanded business hours). The R-squared values for the models ranged from 0.192 for “Winner” to 0.485 for “Control.” The “All” and “Winner” models were statistically significant based on its F-value at  $p < 0.05$ , while only the “Control” model was statistically significant at the  $p < 0.01$  level.

*Quality Improvement Impact on Improvement in Status of Surgical Wounds:* The number of independent variables that showed strong bivariate correlations with this dependent variable ranged from 9 (“Winner”) to 23 (“All”) for the three models. There were five independent variables in common among all three models: Communication with physician, Care team communication, Wound care protocols, Disease management, and Hiring practices. These five variables seem to be quite consistent with what would influence the outcome being predicted. The “All” and “Control” models shared eight variables. These variables appear to supplement or reinforce the five variables that are in common among the models. The “All” and “Winner” models shared three variables: Staff evaluation criteria, Patient teaching, and Medication checking software. This suggests that Control and Winner HHAs differed in their approach to

improving the status of surgical wounds. Control HHAs targeted specific activities (e.g., record review, wound materials) whereas Winner HHAs used more global strategies (e.g., patient teaching, staff evaluation criteria). The R-squared values for the models ranged from 0.190 for “All” to 0.318 for “Control.” The “All” and “Winner” models were statistically significant based on its F-value at  $p < 0.01$ , while the “Control” model was significant at the  $p < 0.05$  level.

*Quality Improvement Impact on Improvement in Management of Oral Medications:*

Given the number of medications taken by home health patients, this outcome is also an important goal for the Home Health P4P Demonstration project. As with the prediction models created for the “Cost of Participation” outcome, there were no independent variables shared by all three models. The number of independent variables in the models varied from 8 (“Control”) to 13 (“All”), which is one of the lower totals from among the models presented. The “All” and “Control” models share six variables, while the “All” and “Winner” models share seven different variables. As has been the pattern with the other models, the Control HHAs focused on specific interventions (e.g., Plan-of-Care specific parameters, Screening assessments, and Medication dispensing systems). Winner HHAs emphasized staff competencies and evaluations, patient teaching, and some unexpected variables (Falls prevention and expanded business hours). The R-squared values for the models ranged from 0.149 for “All” to 0.237 for “Control.” Each of the models were statistically significant based on its F-value at  $p < 0.01$ .

*Demonstration’s Impact on Patient Outcomes:* Unlike the preceding seven models that addressed each of the seven targeted and publicly-reported Outcome Based Quality Improvement (OBQI) outcomes, this outcome and the ones that follow are based on Survey Item #19. The responding agencies were asked to provide a more global assessment of the impact of the HH P4P Demonstration Project on a variety of patient care-related outcomes and institutional (home health agency) outcomes. The number of independent variables used in these three models varied from 9 (“Control”) to 26 (“All”). The number of shared independent variables for all models was three: Communication with physician, Patient communication, and Patient infection control. The “All” and “Control” models shared an additional three independent variables, while the “All” and “Winner” models shared a different, additional 12 independent variables. The additional variables for Control HHAs were Change in visit mix, Screening assessment, and Pressure ulcer reduction equipment. Conversely, the Winner HHAs focused on management practices, including staff competencies and electronic access to policies, clinical staff meetings/communication, and attention to clinical pathways, and programmatic interventions (disease management, reducing time between referral and patient admission, and electronic medical records). Winner HHAs also focused on patient training. The R-squared values for the models ranged from 0.195 for “All” to 0.314 for “Winner.” The “All” and “Winner” models were statistically significant based on its F-value at  $p < 0.05$ , while the “Control” model was statistically significant at the  $p < 0.01$  level.

*Demonstration’s Impact on HHA’s Quality of Care:* There were only three independent variables common to all three models for this dependent measure: Communication with physician, Patient infection control, and Hiring requirements. The number of independent measures for the three models varied from 10 (“Control”) to 25 (“All”). There were six uniquely shared variables between the “All” and “Control” models that focused primarily on management (e.g., screening assessment, visit pattern/mix changes, reducing referral to patient admission

time). The “All” and “Winner” models shared a different 10 variables that focus on patient teaching, care team coordination, and particular systems such as wound care and medications. The R-squared values for the models ranged from 0.186 for “All” to 0.276 for “Winner.” Each model was statistically significant based on its F-value at  $p < 0.05$ .

*Demonstration’s Impact on HHA’s Cost of Providing Care:* This outcome produced the model with the fewest independent variables (three for “Control”) for any of the models created in this analysis. The “All” model was the largest for this group and had 11 variables. Not unexpectedly given the topic and the few independent variables in the “Control” model, there were no shared variables among the three models. The “All” and “Control” models shared one variable: Process Improvement programs. The “All” and “Winner” models shared four unique variables: Patient teaching, Screening assessments, Wound care protocols, and Patient infection control. The R-squared values for the models ranged from 0.125 for “All” to 0.173 for “Winner.” Interestingly, all three models were statistically significant based on its F-value at  $p < 0.01$ .

*Demonstration’s Impact on HHA’s Financial Solvency:* The number of independent variables for the models ranged from six (“Control”) to 10 (“All”) with only one independent variable common to all three models: Plan-of-Care specific parameters. Four independent variables were in common between the “All” and “Control” models, including Process Improvement programs, Communication with the physician, Other staff turnover, and Physician communication. How these four variables relate to the home health agency’s financial solvency is not intuitively obvious. Only one of the remaining eight variables in the “Winner” model was also included in the “All” model: Patient teaching. Why so few of the other variables in the “Winner” model were in the “All” model was not explored. The R-squared values for the models ranged from 0.104 for “All” to 0.200 for “Winner.” All three models were statistically significant based on its F-value at the  $p < 0.01$  level.

*Demonstration’s Impact on HHA’s Profitability:* There were four independent variables common to all three models for this dependent measure: Communication with physician, Plan-of-Care specific parameters, Physician communication, and Emergency response. This was the only time that “Emergency response” was in any of the models computed for this analysis. The number of independent measures for the three models varied from seven (“Control”) to 16 (“All”). There were three uniquely shared variables between the “All” and “Control” models: Change to visit mix, Other staff turnover, and Patient communication. The “All” and “Winner” models shared a different five variables that focused on patient teaching, care team coordination, screening, wound care, and hiring practices. The R-squared values for the models ranged from 0.165 for “All” to 0.284 for “Winner.” Each model was statistically significant based on its F-value at  $p < 0.01$ .

*Demonstration’s Impact on HHA’s Cost of Providing Care:* This outcome produced the model with the fewest independent variables (three for “Control”) for any of the models created in this analysis. The “All” model was the largest for this group and had 11 variables. Not unexpectedly given the topic and the few independent variables in the “Control” model, there were no shared variables among the three models. The “All” and “Control” models shared one variable: Process Improvement programs. The “All” and “Winner” models shared four unique

variables: Patient teaching, Screening assessments, Wound care protocols, and Patient infection control. The R-squared values for the models ranged from 0.125 for “All” to 0.173 for “Winner.” Interestingly, all three models were statistically significant based on its F-value at  $p < 0.01$ .

*Demonstration’s Impact on HHA’s Patient Satisfaction:* Home health patient satisfaction will begin to be formally measured for all HHAs beginning in October 2011. HHAs are always acutely aware of how satisfied their patients are with the quality and timeliness of the services provided by the HHA. Because HHA patients often return to the same agency or refer their peers to a particular HHA, patient satisfaction is an important indicator of the quality of an HHA. The number of independent variables for the models ranged from 15 (“Control”) to 33 (“All”), the most for any of the constructed models. There were eight variables that were common to all three models. These include many of the “in-common” variables previously identified, such as communication with physician and patient, reducing time between referral and patient admission, patient infection control, and hiring practices. Four independent variables were in common between the “All” and “Control” models: Clinical resources, Change in visit mix, Other staff turnover, and Screening assessments. Ten variables in the “Winner” model were also included in the “All” model. These included staff-related variables such as mentoring, team meetings, and record review, and management variables such as disease management and expanded business hours. The R-squared values for the models ranged from 0.291 for “Winner” to 0.352 for “Control.” Only the “All” and “Control” models were statistically significant based on its F-value at the  $p < 0.01$  level.

*Demonstration’s Impact on HHA’s Staff Satisfaction:* The culture of an organization plays an important role in the organization’s ability to provide high quality services. This is especially true in home health agencies where staff satisfaction is a key indicator of a healthy culture. This outcome produced the model with the second fewest independent variables (four for “Control”) for any of the models created in this analysis. The “Winner” model was the largest for this group and had 24 variables. This is the only case in these analyses where the “All” model did not contain the largest number of independent variables. Two independent variables, Reducing time between referral and patient admission and Patient communication, were common among the three models. The “All” and “Control” models shared two variables: Screening assessments and Physician communication. The “All” and “Winner” models shared 12 unique variables including patient-related (e.g., Patient teaching and Plan-of-Care specific parameters), clinician-related (e.g., mentoring, team meetings/communication, physician communication), and management-related (e.g., change in visit mix, productivity, hiring requirements). The R-squared values for the models ranged from 0.125 for “Control” to 0.312 for “Winner.” Interestingly, the “All” model was statistically significant based on its F-value at  $p < 0.01$ , while the “Control” model—using the F-value—was significant at the  $p < 0.05$  level.

*Summary of Models and Independent Variables:* Several independent variables were found in multiple models including: Communication with physician (seven models), Patient infection control (five models), Hiring requirements and Patient communication (four models). There were four other variables that were in common on three models including Reducing the time from referral to patient admissions, Plan of Care specific parameters, and Employee incentives.

These would represent home health care core strategies for creating an effective and efficient organization that could provide quality care to its patients.

As noted previously, there are differences between the variables in the “Control” HHA models versus those more typically found in the “Winner” HHAs. Screening assessments (eight) and Change in visit patterns (seven) were most often unique to the “Control” HHAs. Other variables more commonly associated with “Control” HHAs were Medication dispensing systems and Process Improvement programs (five) and Record review (four). Conversely, “Winner” HHAs were strongly characterized by Patient teaching, which was unique to “Winner” HHAs in 11 models. Clinical team meetings and Staff evaluation criteria each occurred in five models, while Disease management program and Expanded business hours were unique in four models.

*Conclusion:* Reviewing these regression models in aggregate, there is a core set of variables/strategies used by home health agencies to address the needs of its patients while maintaining a fiscally viable organization. Similarly, while few differences were seen with the cross-tabulation comparison of Control versus Winner HHAs on an item-by-item basis, the regression analyses suggest that there are consistent differences between the two groups. The Control HHAs approach many of the outcomes using a structural solution, whereas Winner HHAs approach their outcomes using a patient and staff-centered approach.

## **5. Discussion**

The findings for these four analyses have been presented in detail in the prior sections. They will be summarized here in outline form for ease of reference.

### *Regional Cross-tabulations (Appendix B)*

- These comparisons focus on Regional and Experimental (Treatment Winners, Treatment Non-Winners, and Control HHAs) Group differences for Items 7, 8, 17, 18, and 19.
- Item #7 (Table B.2) focuses on Staff Turnover using a rating scale of Low/No (<5%), Small (6-20%), Moderate (21-40%), High (41-75%), and Very High (>75%).
- Table B.2 (Item #7) showed that across Regions and across Experimental groups the large majority (>70%) reported Low/No turnover in Senior Management, QI/PI Coordinator, Clinical Supervisor, Physical Therapist, Occupational Therapist, Medical Social Worker, RN with Specialty, Licensed Practical Nurse, Home Health Aide, Administrative Staff, and Other staff.
- For Registered Nurses, Item #7 showed that the turnover rate was reported as Low/No in about 50% of the Regions and across Experimental groups; about 30% reported Small turnover, and about 15% reported a Moderate turnover in this professional group.
- Item #8 (Table B.3, pp. B.6-7) focuses on added new positions due to the Demonstration with three options—already existed, added, and does not exist.
- For Item #8 the QI/PI Coordinator position was most likely to already exist (about 65%), whereas a combination position for improving quality was least likely to already exist (about 47%).
- As reported in Item #8, Control agencies were more likely than Treatment agencies to add the following positions: QI/PI Coordinator, Documentation Quality Assurance, Staff Education, Outcome Analysis, and Combination position.

- As reported in Item #8, the Midwest was most likely to add QI/PI Coordinator, Documentation Quality Assurance, Staff Education, and Utilization/Resource Review positions.
- As reported in Item #8, the Southeast was most likely to add an Outcome Analysis position, while the West was most likely to add a Combination position.
- Item #17 (Table B.4. p. B.8) asked the agencies to estimate the Demonstration's impact on the cost of providing care using a seven-option scale from >10% decrease to a >10% increase with "<1% change" as the midpoint in the scale.
- Nearly 54% of all HHAs reported <1% change (positive or negative) in the cost of providing care.
- About 24%, based on their Item #17 response, reported a 1-5% increase in the cost of providing care, while about 10% reported a 5-10% increase.
- About 5% reported a 1-5% decrease in their costs based on Item #17.
- Item #18 (Table B.5, pp. B.9-12) asked the agencies to estimate the impact of their QI activities on the seven target outcomes, rating the impact as no impact, modest, or substantial.
- Approximately 64 – 67% of agencies rated the impact as "Modest" or "Substantial" for three outcomes: Acute Care Hospitalization, Improvement in Ambulation/Locomotion, and Improvement in Management in Oral Medications.
- As reported on Item #18, only about 55% of agencies rated the impact as "Modest" or "Substantial" for Any Emergent Care and Improvement in Bathing.
- Treatment agencies reported a larger impact than Control agencies for Any Emergent Care and Improvement in Management of Oral Medications; whereas the reverse was true for Acute Care Hospitalization, Improvement in Bathing, and Improvement in Ambulation/Locomotion.
- As reported on Item #18, the West agencies reported a greater impact than the other regions on Acute Care Hospitalization, Improvement in Ambulation/Locomotion, and Improvement in Status of Surgical Wounds.
- The Northeast agencies reported a greater impact ("modest" or "substantial" combined) on Improvement in Management of Oral Medications, while the Southeast agencies reported a greater impact on Improvement in Transferring, and the Midwest agencies reported greater impact on Improvement in Bathing.
- Item #19 (Table 6, pp. B.13-17) requested assessments of the overall impact of the Demonstration on several patient and organization changes including Patient Outcomes, Quality of Care, and Cost of Care using a five-point scale Very Negative, Slightly Negative, No Impact, Slightly Positive, and Very Positive.
- Based on Item #19, most agencies rated the impact on Patient Outcomes as either Slightly Positive (44%) or Very Positive (26%) with virtually all of the remaining rating the Demonstration as having No Impact (30%).
- Treatment agencies were slightly more positive than Control agencies about Patient Outcomes, and the West agencies had the highest overall rating for this item when compared with the other regions.
- Based on Item #19, most agencies rated the impact on Quality of Care as either Slightly Positive (45%) or Very Positive (28%) with all of the remaining rating the Demonstration as having No Impact (27%).

- Treatment agencies were slightly more positive than Control agencies about Quality of Care, and the West agencies had the highest overall rating for this item when compared with the other regions.
- Based on Item #19, most agencies rated the impact on Cost of Care as either having No Impact (46%) or Slightly Negative (30%); approximately 21% rated the Cost of Care as either Slightly Positive (13%) or Very Positive (8%).

#### *Chi-Square Summaries (Appendix C)*

- This section provides a more complex analysis of both main effects (i.e., Regional or Experimental (Treatment Winners, Treatment Non-Winners, and Control HHAs) differences) as well as interactions between Regions and Experimental groups using a Chi-Square analysis to determine statistical significance between or among the stratification variables.
- The items reviewed in this section are #3, 5 – 14, and 17 – 20.
- There were some differences between the regions and across the states in who completed the survey answers by functional level (Item 3, Table C.1, p. C.1).
- Item #5 (Table C.2, p. C.1) focused on expected CY2009 performance levels (i.e., high performance or high improvement) across the seven target outcome measures.
- There were statistically significant differences among the Winners, Non-Winners, and Control agencies across all seven target outcome measures.
- There were differences among the states for Acute Care Hospitalization and Any Emergent Care.
- Regional differences by Experimental group interactions varied for two to four outcome measures in all regions except the West, where there were no differences between the Experimental groups for any of the outcome measures.
- Item #6 (Table C.3, p. C.2) focused on changes in the number of different professional personnel during CY2009 using the following options: increase, decrease, or no change.
- There were regional and state differences for Registered Nurses, Licensed Practical Nurses, Medical Social Worker, and Home Health Aide.
- Item #7 (Table C.4, p. C.2) focuses on Staff Turnover using a rating scale of Low/No (<5%), Small (6-20%), Moderate (21-40%), High (41-75%), and Very High (>75%).
- There were regional and state differences in turnover rates for Registered Nurses and both the Southeast and Midwest Experimental comparisons showed statistically significant differences in Senior Management turnover.
- Item #8 (Table C.5, p. C.3) focuses on added new positions due to the Demonstration with three options—already exists, added, and does not exist.
- Statistically significant differences in staff education were found among the Experimental groups, and specifically in the Northeast and West agencies.
- Item #9 (Table C.6, p. C.3) asks agencies to report any policy changes that occurred in CY2009.
- The Chi-Square analysis showed statistically significant differences across Regions for policies related to Patient Infection Control, New Clinical Specialties, On-Call Staff Changes, and Hiring Requirements.
- Hiring Requirements were also statistically different among states and between the Northeast Experimental groups based on Item 9 responses.

- Item #10 (Table C.7, p. C.4) asks agencies to report any activities intended to improve the quality of care that occurred in CY2009.
- The Chi-Square analysis showed statistically significant differences across Regions for activities intended to improve the quality of care that were related to Staff competencies, Management practices, Staff evaluation criteria, and Employee incentives, with the latter two activities also being statistically significant across the states.
- Item #11 (Table C.8, p. C.4) asks agencies to report any technology innovations intended to improve the quality of care that occurred in CY2009.
- There was little consensus across Regions, states, and Experimental groups.
- Regions and states did show statistically significant differences on the choice and use of wound care materials.
- Experimental groups showed differences regarding the electronic access to policies, especially in the Southeast and Midwest.
- Item #12 (Table C.9, p. C.5) asks agencies to report any care practices intended to improve the specific clinical outcomes that occurred in CY2009.
- There were only five statistically significant differences either by Experimental group, Region, among states, or within specific Regional-by-Experimental groups combinations, with no obvious pattern.
- Item #13 (Table C.10, p. C.6) focuses on corporate support for health care initiatives that occurred in CY2009.
- The Southeast agencies were most likely to show statistically significant differences across Experimental groups, notably for reducing hospitalization, reducing emergency department use, falls risk reduction, and staff training.
- Falls risk reduction was statistically significant for the Northeast region Experimental groups, and there were overall Regional differences for staff training.
- Item #14 (Table C.11, p. C.6) requests agencies to evaluate the impact of local and regional issues on their operations using a four-option scale (no impact, negative impact, both positive and negative impact, positive impact).
- Four staffing availability issues (i.e., Registered Nurses, Physical Therapists, Occupational Therapists, and Home Health Aides) showed Regional differences, and all except Physical Therapists show statistically significant differences at the state level.
- Four competitor or other health care provider issues (i.e., # hospitals, # of skilled nursing facilities, # urgent care facilities, and # of home health agencies) locally showed statistically significant differences between Experimental groups only in the Southeast region.
- Item #17 (Table C.12, p. C.7) asked the agencies to estimate the Demonstration's impact on the cost of providing care using a seven-option scale from >10% decrease to a >10% increase with "<1% change" as the midpoint in the scale.
- Statistically significant Experimental group and Regional differences were identified, especially for the Midwest and West regions.
- Item #18 (Table C.13, p. C.7) asked the agencies to estimate the impact of their QI activities on the seven target outcomes, rating the impact as no impact, modest, or substantial.

- The largest number of statistically significant differences were found among the states with Any Emergent Care also showing statistically significant differences between Experimental groups and in the Midwest agencies.
- Item #19 (Table C.14, p. C.8) requested assessments of the overall impact of the Demonstration on several patient and organization changes including Patient Outcomes, Quality of Care, and Cost of Care using a five-point scale Very Negative, Slightly Negative, No Impact, Slightly Positive, and Very Positive.
- This item produced a very large number (31) of statistically significant differences either among Regions, between Experimental groups, or between Experimental groups within specific Regions.
- Seven items:
  - Quality of Care provided by the home health agency
  - Quality of Care provide home health agencies in the state
  - Financial solvency of the home health agency
  - Financial solvency of home health agencies in the state
  - Profitability of the home health agency
  - Profitability of home health agencies in the state
  - Patient satisfaction with the home health agency
 all showed statistically significant differences at the Regional and state levels.
- Five items:
  - Quality of Care provided by the home health agency
  - Financial solvency of home health agencies in the state
  - Profitability of the home health
  - Profitability of home health agencies in the state
  - Referral satisfaction
 all showed statistically significant differences across Experimental groups.
- Each Region showed at least one statistically significant difference among its Experimental groups, with the Southeast identifying four—mostly financial-related issues.
- Item #20 (Table C.15, p. C.8) requested agency feedback on the utility of various support activities that might enhance the productivity of the P4P agencies.
- There was strong support for many support activities (i.e., high frequencies), but few statistical differences between Experimental groups or across Regions.

*Winners, Non-Winners, and Control Comparisons (Appendix D)*

- The tables in this section provide cross-tabulations for Treatment Winners, Treatment Non-Winners, and Control agencies across selected items.
- The number of Treatment Non-Winning agencies completing the survey (15) was much smaller than either of the other two groups (100 Treatment Winners; 94 Control).
- Item #3 (Table D.1, p. D.1) contains information about the position of the person in the agency who completed the Web-based survey.
- The majority of preparers were Senior Management (65%) with most of the remaining surveys completed by the QI/PI Coordinator (23%).
- Item #5 (Table D.2, pp. D.1-4) compares the three groups of agencies on expected CY2009 performance levels (i.e., high performance or high improvement) across the seven target outcome measures.

- Typically between 40 – 50% of the agencies reported that they expected no change in their performance between the first year and the second year of the P4P Demonstration.
- In general, between 30 – 34% of the agencies reported that they expected to win “High Performance” awards across each of the seven target outcome measures.
- Conversely, with the exception of Improvement in Management of Oral Medications that reported 30%, between 20—24% of agencies indicated that they expected to win a “Substantial Improvement” award for the target outcomes.
- Item #7 (Table D.3, p. D.4-8) focuses on Staff Turnover using a rating scale of Low/No (<5%), Small (6-20%), Moderate (21-40%), High (41-75%), and Very High (>75%).
- Most positions were reported as having No/Low turnover, and there were no obvious differences among the Treatment Winners, Treatment Non-Winners, and Control agencies responses.
- Registered Nurse turnover (p. D.5) was the highest among professional positions; Control agencies reported slightly higher turnover rates than either of the other two Experimental groups—except in the Southeast agencies.
- Item #15 (Table D.4, p. D.9) asked the agencies to estimate the Demonstration’s impact on the cost of providing care using a seven-option scale from >10% decrease to a >10% increase with “<1% change” as the midpoint in the scale.
- Control agencies were more likely to report larger increases in costs due to the P4P Demonstration than either of the other groups in the Northeast, Southeast, and Midwest; West Control and Treatment Winners were equally likely to report higher costs of care.

#### *Regression Models for Target Outcomes (Appendix E)*

- Ordinary Least Square (OLS) regression models for key cost and patient outcome items were computed using the target item response as the dependent measure and all other survey item responses (the response option for the item was turned into a dichotomous variable).
- Three tables are provided for each model and are differentiated by the population included in the regression model—all Control and Treatment Winner agencies (“All HHAs”) that responded to the survey; only Control agencies (“Control HHAs”) that responded; and only Treatment Winner agencies (“Winning HHAs”) that responded.
- The first two columns identify the bivariate correlation between the predictor variable and the dependent measure as well as the statistical significance for this correlation; typically all of the identified independent variables have a bivariate correlation of  $p < 0.05$ .
- These prediction variables were included into the OLS equation and the coefficients for each prediction variable and the significance level in the regression equation are presented in the last two columns in the table.
- The model summary for each model is presented in the lines that follow the model and contain the R,  $R^2$ , F, and statistical significance.
- For the Cost of Participating in the Demonstration (Table E.1, p. E.1)—survey item #17, each of the three regression models were significant at  $p < 0.01$ , albeit for different independent variables in the Control and Treatment Winner models.
- For the Impact on Acute Care Hospitalization (Table E.2, pp. E.2-3)—survey item #18, two of the three regression models were significant at  $p < 0.01$ , albeit with three common independent variables in the Control and Treatment Winner models, but six (Control) or

seven (Treatment Winner) other independent variables used in each model to achieve the model quality.

- For the Impact on Any Emergent Care (Table E.3, pp. E.4-5)—survey item #18, two of the three regression models were significant at  $p < 0.01$ , albeit with five common independent variables in the Control and Treatment Winner models, but nine (Control) or sixteen (Treatment Winner) other independent variables used in each model to achieve the model quality.
- For the Impact on Improvement in Bathing (Table E.4, pp. E.6-7)—survey item #18, each of the three regression models were significant at  $p < 0.01$ , albeit with three common independent variables in the Control and Treatment Winner models, but sixteen (Control) or fourteen (Treatment Winner) other independent variables used in each model to achieve the model quality.
- For the Impact on Improvement in Ambulation/Locomotion (Table E.5, pp. E.8-9)—survey item #18, two of the three regression models were significant at  $p < 0.01$ , albeit with five common independent variables in the Control and Treatment Winner models, but nineteen (Control) or seven (Treatment Winner) other independent variables used in each model to achieve the model quality.
- For the Impact on Improvement in Transferring (Table E.6, pp. E.10-11)—survey item #18, two of the three regression models were significant at  $p < 0.02$ , albeit with three common independent variables in the Control and Treatment Winner models, but twenty-two (Control) or nine (Treatment Winner) other independent variables used in each model to achieve the model quality.
- For the Impact on Improvement in Status of Surgical Wounds (Table E.7, pp. E.12-13)—survey item #18, each of the three regression models were significant at  $p < 0.02$ , albeit with five common independent variables in the Control and Treatment Winner models, but twelve (Control) or four (Treatment Winner) other independent variables used in each model to achieve the model quality.
- For the Impact on Improvement in Management in Oral Medications (Table E.8, pp. E.14-15)—survey item #18, each of the three regression models were significant at  $p < 0.01$ , albeit for different independent variables in the Control and Treatment Winner models.
- For the survey item #19 impact globally on Patient Outcomes (Table E.9, pp. E.16-17), two of the three regression models were significant at  $p < 0.02$ , albeit with three common independent variables in the Control and Treatment Winner models, but six (Control) or nineteen (Treatment Winner) other independent variables used in each model to achieve the model quality.
- For the survey item #19 impact globally on HHA's Quality of Care (Table E.10, pp. E.18-19), two of the three regression models were significant at  $p < 0.02$ , albeit with three common independent variables in the Control and Treatment Winner models, but sixteen (Control) or nineteen (Treatment Winner) other independent variables used in each model to achieve the model quality.
- For the survey item #19 impact globally on HHA's Cost of Providing Care (Table E.11, pp. E.20), each of the three regression models were significant at  $p < 0.01$ , albeit for different independent variables in the Control and Treatment Winner models.
- For the survey item #19 impact globally on HHA's Financial Solvency (Table E.12, pp. E.21), each of the three regression models were significant at  $p < 0.01$ , albeit with one

common independent variable in the Control and Treatment Winner models, but five (Control) or eight (Treatment Winner) other independent variables used in each model to achieve the model quality.

- For the survey item #19 impact globally on HHA's Profitability (Table E.13, pp. E.22-23), each of the three regression models were significant at  $p < 0.02$ , albeit with four common independent variables in the Control and Treatment Winner models, but three (Control) or eleven (Treatment Winner) other independent variables used in each model to achieve the model quality.
- For the survey item #19 impact globally on HHA's Patient Satisfaction (Table E.14, pp. E.24-25), each of the three regression models were significant at  $p < 0.02$ , albeit with seven common independent variables in the Control and Treatment Winner models, but three (Control) or fourteen (Treatment Winner) other independent variables used in each model to achieve the model quality.
- For the survey item #19 impact globally on HHA's Staff Satisfaction (Table E.15, pp. E.26-27), each of the three regression models were significant at  $p < 0.02$ , albeit with two common independent variables in the Control and Treatment Winner models, but two (Control) or twenty-two (Treatment Winner) other independent variables used in each model to achieve the model quality.

## **6. Conclusion**

Based on the Regional cross-tabulation, Chi-square Summary, and Winners/Non-Winners/Control analyses, there were some differences by Region and by State. These were both the areas of perception of costs and the availability of professional staff. The Southeast was more likely to report financial concerns than the other areas. Among the Experimental groups, Control agencies were more likely to add staff, have slightly higher turnover rates among Registered Nurses, be concerned about financial issues, and be slightly more pessimistic than the Treatment agencies. Based on the Regression models, there were very distinct approaches how Treatment Winners vs. Control agencies addressed each of the desired outcomes. Some of these differences are also reflected in the tone and approaches to patient care that are found in the narrative comments for these two groups that are presented in Appendix F.

## 7. References

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## Appendix A: Survey Instruments

**[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 - rb indicates radio button; cb indicates checkbox.]**

### **Treatment (Winner) Survey Instrument**

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

Thank you again for your willingness to complete the Year 2 Home Health Pay for Performance (P4P) Demonstration Survey. The purpose of this survey is to gather information from home health agencies participating in the (P4P) Demonstration that is generally not available via other data sources.

For this survey we would like you to focus your attention on what your agency did during Calendar Year (CY) 2009.

We estimate that the survey will take less than 15 minutes to complete.

#### **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: [Pull down menu list = Senior Management (CEO, DON, etc.), QI / PI Coordinator; Administrative/Support; Clinical Supervisor Position; Other]

*(Name of Agency = 50 characters; [OPTIONAL] Email address = 50 characters; Provider Number = 6 characters; Title = per list)*

4. Congratulations on receiving recognition based on your Year 1 (CY2008) performance in the Home Health P4P Demonstration. Please indicate which of the following awards you received for Year 1.

If you do not know the outcome measures for which you received your award(s), check this box. [cb] **[indicates check box]**

If known, check all that apply. (*N/A is pre-filled*) **[Note: rb indicates radio button]**

| Outcome Measure                               | N/A | High Performance | Substantial Improvement |
|---|-----|------------------|-------------------------|
| Acute Care Hospitalization                    | rb  | rb               | rb                      |
| Any Emergent Care                             | rb  | rb               | rb                      |
| Improvement in Bathing                        | rb  | rb               | rb                      |
| Improvement in Ambulation/Locomotion          | rb  | rb               | rb                      |
| Improvement in Transferring                   | rb  | rb               | rb                      |
| Improvement in Status of Surgical Wounds      | rb  | rb               | rb                      |
| Improvement in Management of Oral Medications | rb  | rb               | rb                      |

5. Based on your understanding of your agency's performance during Year 2 (CY2009), please indicate which of the following awards you think you might receive for Year 2 (CY2009). (check all that apply—maximum is seven awards) (*N/A is pre-filled*) **[Note: rb indicates radio button]**

| Outcome Measure                               | N/A | High Performance | Substantial Improvement |
|---|-----|------------------|-------------------------|
| Acute Care Hospitalization                    | rb  | rb               | rb                      |
| Any Emergent Care                             | rb  | rb               | rb                      |
| Improvement in Bathing                        | rb  | rb               | rb                      |
| Improvement in Ambulation/Locomotion          | rb  | rb               | rb                      |
| Improvement in Transferring                   | rb  | rb               | rb                      |
| Improvement in Status of Surgical Wounds      | rb  | rb               | rb                      |
| Improvement in Management of Oral Medications | rb  | rb               | rb                      |

6. Which of the following describes any 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) that occurred during CY2009? Indicate change for each--if any. (*Radio button w/ "No Change" as default*) [Note: rb indicates radio button]

| Job Category  | Decreased Staffing | No Change | Increased Staffing |
|---|--------------------|-----------|--------------------|
| a. Senior management (CEO, DON, etc.)   | rb                 | rb        | rb                 |
| b. Quality improvement or performance improvement coordinator                       | rb                 | rb        | rb                 |
| c. Clinical supervisory 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. Physical therapist   | rb                 | rb        | rb                 |
| h. Occupational therapist   | rb                 | rb        | rb                 |
| i. Medical social worker  | rb                 | rb        | rb                 |
| j. Home health aide   | rb                 | rb        | rb                 |
| k. Administrative/support   | rb                 | rb        | rb                 |
| l. Other (specify ___25 characters_____)  | rb                 | rb        | rb                 |

7. 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) that occurred during CY2009? (*Radio button w/ "No/Low" as default*) [Note: rb indicates radio button]

| Job Category   | No/Low<br>(0-5%) | Small<br>(6-20%) | Moderate<br>(21-40%) | High<br>(41-75%) | Very high<br>(>75%) |
|--|------------------|------------------|----------------------|------------------|---------------------|
| a. Senior management (CEO, DON, etc.)  | rb               | rb               | rb                   | rb               | rb                  |
| b. Quality improvement or performance improvement coordinator                        | rb               | rb               | rb                   | rb               | rb                  |
| c. Clinical supervisory positions  | rb               | rb               | rb                   | rb               | rb                  |
| d. Registered nurse  | rb               | rb               | rb                   | rb               | rb                  |
| e. Registered nurse with specialty license/ certification (e.g., wound, psychiatric) | rb               | rb               | rb                   | rb               | rb                  |
| f. Licensed practical nurse  | rb               | rb               | rb                   | rb               | rb                  |
| g. Physical therapist  | rb               | rb               | rb                   | rb               | rb                  |
| h. Occupational therapist  | rb               | rb               | rb                   | rb               | rb                  |
| i. Medical social worker   | rb               | rb               | rb                   | rb               | rb                  |
| j. Home health aide  | rb               | rb               | rb                   | rb               | rb                  |
| k. Administrative/support  | rb               | rb               | rb                   | rb               | rb                  |

8. Did you add any new positions/functions during CY2009 specifically because of your participation in the demonstration?  
*(Radio button w/ "Does Not Exist" as default) [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/Resource 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                    |

9. What policy changes did your agency implemented during CY2009? Policies related to...(Check all that apply)  
*(Check box; no pre-fill) [Note: cb indicates check box]*

- [cb] a. Changes in care practices (e.g., "front-loading" visits, medicine reconciliation)
- [cb] b. Implementation of care pathways/standardized care plans
- [cb] c. Reduction 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 staff hiring requirements
- [cb] o. Other (specify): \_\_\_\_\_

10. What activities directed toward care providers and intended to improve quality of care did your agency implemented during CY2009? (Check all that apply)  
(Check box; no pre-fill) [Note: **cb** indicates check box]

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

11. What technological innovations designed to improve the quality of patient care did your agency implemented during CY2009? (Check all that apply)  
(Check box; no pre-fill) [Note: **cb** indicates check box]

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

12. What care practice changes designed to improve the specific clinical outcomes did your agency implemented during CY2009? (Check all that apply)  
 (Check box; no pre-fill) **[Note: cb indicates check box]**

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

13. Identify any corporate initiatives that were implemented during CY2009. (Indicate change for each-if any) (Radio button w/ "No Change" pre-filled) **[Note: rb indicates radio button]**

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

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

14. Identify any impact on your agency that occurred during CY2009 that may have been the result of local/regional issues or situations. (Indicate impact for each--if any)  
*(Radio button w/ "No Impact" pre-filled)* [Note: **rb** indicates radio button]

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

15. With whom did you share the news that you had received a P4P Award? (Check all that apply)  
*(Radio button w/ "Did not share" pre-filled)* [Note: **rb** indicates radio button]

| Group                             | Communication |             |
|-----------------------------------|---------------|-------------|
|                                   | Did not share | Shared news |
| a. Management Team                | rb            | rb          |
| b. Clinical Staff                 | rb            | rb          |
| c. Administrative Staff           | rb            | rb          |
| d. Corporate board/parent company | rb            | rb          |
| e. Local community                | rb            | rb          |
| f. Referral sources               | rb            | rb          |
| g. Other (specify): _____         | rb            | rb          |

16. How was the Year 1 (CY2008) P4P Award money shared? (Check all that apply)  
*(Radio button w/ "N/A" pre-filled)* [Note: rb indicates radio button]

| Action                                    | Distribution |     |
|---|--------------|-----|
|   | N/A          | Yes |
| a. Bonuses awarded to corporate staff     | rb           | rb  |
| b. Bonuses awarded to senior HHA staff    | rb           | rb  |
| c. Bonuses awarded across HHA staff       | rb           | rb  |
| d. Special event/celebration for HHA      | rb           | rb  |
| e. Purchased new equipment/materials      | rb           | rb  |
| f. Hired new staff                        | rb           | rb  |
| g. Provided additional training for staff | rb           | rb  |
| h. Other (specify): _____                 | rb           | rb  |

17. What is your best estimate of the effects of activities related to the pay for performance demonstration during Year 2 (CY2009) on the cost of providing care to your patients?  
*(Radio button w/ "Less than 1% change" pre-filled)* [Note: rb indicates radio button]

|                      |                        |                       |                        |                       |                        |                      |
|----------------------|------------------------|-----------------------|------------------------|-----------------------|------------------------|----------------------|
| Decrease by<br>> 10% | Decrease by<br>5 – 10% | Decrease by<br>1 – 5% | Less than<br>1% change | Increase by<br>1 – 5% | Increase by<br>5 – 10% | Increase by<br>> 10% |
| rb                   | rb                     | rb                    | rb                     | rb                    | rb                     | rb                   |

18. How much of an impact on your patients do you think your quality improvement activities have had on the outcomes targeted during Year 2 (CY2009) of the demonstration?  
*(Radio button w/ "No Impact" pre-filled)* [Note: rb indicates radio button]

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

19. What effect do you think the demonstration will have on the following?  
*(Radio button w/ "No Impact" pre-filled)* [Note: rb indicates radio button]

| Focus of Effect   | Very Negative | Slightly Negative | No Impact | Slightly Positive | Very Positive |
|---|---------------|-------------------|-----------|-------------------|---------------|
| a. My agency's patient outcomes                         | rb            | rb                | rb        | rb                | rb            |
| b. Quality of care at my agency                         | rb            | rb                | rb        | rb                | rb            |
| c. Quality of care statewide                            | rb            | rb                | rb        | rb                | rb            |
| d. Access to care for Medicare beneficiaries            | rb            | rb                | rb        | rb                | rb            |
| e. Cost of providing home health care                   | rb            | rb                | rb        | rb                | rb            |
| f. Financial solvency of my agency                      | rb            | rb                | rb        | rb                | rb            |
| g. Financial solvency of home health agencies statewide | rb            | rb                | rb        | rb                | rb            |
| h. Profitability of my agency                           | rb            | rb                | rb        | rb                | rb            |
| i. Profitability of home health agencies statewide      | rb            | rb                | rb        | rb                | rb            |
| j. Patient satisfaction w/ agency                       | rb            | rb                | rb        | rb                | rb            |
| k. Staff satisfaction at agency                         | rb            | rb                | rb        | rb                | rb            |
| l. Referral source satisfaction w/ agency               | rb            | rb                | rb        | rb                | rb            |

20. Rate each of the following actions/reports in terms of how useful they would be if Home Health P4P is implemented:  
*(Radio button w/ "N/A" pre-filled)* [Note: rb indicates radio button]

| Report or Activity  | Not Useful | Useful | Very Useful | Extremely Useful | N/A |
|---|------------|--------|-------------|------------------|-----|
| a. Publish regular (monthly or quarterly) updates or reminders about the P4P program  | rb         | rb     | rb          | rb               | rb  |
| b. Publish monthly "best practices" (2 – 4 items) that are related to the target outcomes   | rb         | rb     | rb          | rb               | rb  |
| c. Make home health P4P support an element in QIO Statement of Work   | rb         | rb     | rb          | rb               | rb  |
| d. Identify available online workshops sponsored by professional organizations that have specific themes (e.g., implementation of telehealth systems; wound care protocols) | rb         | rb     | rb          | rb               | rb  |
| e. Each month publish/highlight the activities of one high performing HHA (each region should have at least one annually)   | rb         | rb     | rb          | rb               | rb  |
| f. Publish targeted, effective intervention strategies for different HHA groups (e.g., rural vs. urban; large vs. small; non-profit vs. for profit)                         | rb         | rb     | rb          | rb               | rb  |
| g. Provide certificates of recognition to high performing HHAs  | rb         | rb     | rb          | rb               | rb  |
| h. Publish information on high performing HHAs to the public (e.g., list agencies on Home Health Compare)   | rb         | rb     | rb          | rb               | rb  |

21. Please use the space below to provide any other comments what your agency learned by participating in the P4P Demonstration during Calendar Years 2008 and 2009. (optional)  
*(There will be a 500-word limit on this box with automatic word count)*

22. Please use the space below to provide specific advice that you would share with other HHAs on how to be successful if P4P becomes an implemented program in CY2012. (Optional)  
*(There will be a 500-word limit on this box with automatic word count)*

Thank you very much for providing your feedback. Please review your answers prior to pressing the "Send" button.

**Treatment Non-Winners Instrument**

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

Thank you again for your willingness to complete the Year 2 Home Health Pay for Performance (P4P) Demonstration Survey. The purpose of this survey is to gather information from home health agencies participating in the (P4P) Demonstration that is generally not available via other data sources.

For this survey we would like you to focus your attention on what your agency did during Calendar Year (CY) 2009.

We estimate that the survey will take less than 15 minutes to complete.

**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: [Pull down menu list = Senior Management (CEO, DON, etc.), QI / PI Coordinator; Administrative/Support; Clinical Supervisor Position; Other]

*(Name of Agency = 50 characters; [OPTIONAL] Email address = 50 characters; Provider Number = 6 characters; Title = per list)*

*(Note: HHAs that received an award based on their Year 1 performance would receive the “Treatment winner” survey. HHAs that were in the “Treatment” group but did not receive any awards in Year 1 would receive the “Treatment non-winner” survey. HHAs that are part of the “Control” group will automatically receive the “Control” survey.)*

4. Given that you did not win any performance awards in Year 1 (CY2008), please indicate if your agency focused on any of the following during Year 2 (CY2009) of the demonstration. (check all that apply) (*N/A is pre-filled*) ) **[Note: rb indicates radio button]**

| <b>Outcome Measure</b>                        | <b>N/A</b> | <b>Changed HHA policies</b> | <b>Changed HHA practices</b> | <b>Increased training</b> | <b>Other</b> |
|---|------------|-----------------------------|------------------------------|---------------------------|--------------|
| Acute Care Hospitalization                    | rb         | rb                          | rb                           | rb                        | rb           |
| Any Emergent Care                             | rb         | rb                          | rb                           | rb                        | rb           |
| Improvement in Bathing                        | rb         | rb                          | rb                           | rb                        | rb           |
| Improvement in Ambulation/Locomotion          | rb         | rb                          | rb                           | rb                        | rb           |
| Improvement in Transferring                   | rb         | rb                          | rb                           | rb                        | rb           |
| Improvement in Status of Surgical Wounds      | rb         | rb                          | rb                           | rb                        | rb           |
| Improvement in Management of Oral Medications | rb         | rb                          | rb                           | rb                        | rb           |

5. Based on your understanding of your agency's performance during Year 2 (CY2009), please indicate which of the following awards you think you might receive for Year 2 (CY2009). (check all that apply—maximum is seven awards) (*N/A is pre-filled*) **[Note: rb indicates radio button]**

| <b>Outcome Measure</b>                        | <b>N/A</b> | <b>High Performance</b> | <b>Substantial Improvement</b> |
|---|------------|-------------------------|--------------------------------|
| Acute Care Hospitalization                    | rb         | rb                      | rb                             |
| Any Emergent Care                             | rb         | rb                      | rb                             |
| Improvement in Bathing                        | rb         | rb                      | rb                             |
| Improvement in Ambulation/Locomotion          | rb         | rb                      | rb                             |
| Improvement in Transferring                   | rb         | rb                      | rb                             |
| Improvement in Status of Surgical Wounds      | rb         | rb                      | rb                             |
| Improvement in Management of Oral Medications | rb         | rb                      | rb                             |

6. Which of the following describes any 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) that occurred during CY2009? Indicate change for each--if any. (Radio button w/ "No Change" as default) [Note: rb indicates radio button]

| Job Category  | Decreased Staffing | No Change | Increased Staffing |
|---|--------------------|-----------|--------------------|
| a. Senior management (CEO, DON, etc.)   | rb                 | rb        | rb                 |
| b. Quality improvement or performance improvement coordinator                       | rb                 | rb        | rb                 |
| c. Clinical supervisory 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. Physical therapist   | rb                 | rb        | rb                 |
| h. Occupational therapist   | rb                 | rb        | rb                 |
| i. Medical social worker  | rb                 | rb        | rb                 |
| j. Home health aide   | rb                 | rb        | rb                 |
| k. Administrative/support   | rb                 | rb        | rb                 |
| l. Other (specify ___25 characters_____)  | rb                 | rb        | rb                 |

7. 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) that occurred during CY2009? (Radio button w/ "No/Low" as default) [Note: rb indicates radio button]

| Job Category  | No/Low (0-5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very high (>75%) |
|---|---------------|---------------|-------------------|---------------|------------------|
| a. Senior management (CEO, DON, etc.)   | rb            | rb            | rb                | rb            | rb               |
| b. Quality improvement or performance improvement coordinator                       | rb            | rb            | rb                | rb            | rb               |
| c. Clinical supervisory positions   | rb            | rb            | rb                | rb            | rb               |
| d. Registered nurse   | rb            | rb            | rb                | rb            | rb               |
| e. Registered nurse with specialty license/certification (e.g., wound, psychiatric) | rb            | rb            | rb                | rb            | rb               |
| f. Licensed practical nurse   | rb            | rb            | rb                | rb            | rb               |
| g. Physical therapist   | rb            | rb            | rb                | rb            | rb               |
| h. Occupational therapist   | rb            | rb            | rb                | rb            | rb               |
| i. Medical social worker  | rb            | rb            | rb                | rb            | rb               |
| j. Home health aide   | rb            | rb            | rb                | rb            | rb               |
| k. Administrative/support   | rb            | rb            | rb                | rb            | rb               |
| l. Other (specify 25 characters)  | rb            | rb            | rb                | rb            | rb               |

8.. Did you add any new positions/functions during CY2009 specifically because of your participation in the demonstration?

(Radio button w/ "Does Not Exist" as default) [Note: rb indicates radio button]

| Job Function  | Already Existed | Added Position/Function | Does Not Exist |
|---|-----------------|-------------------------|----------------|
| 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/Resource 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             |

9. What policy changes did your agency implemented during CY2009? Policies related to...(Check all that apply)

(Check box; no pre-fill) [Note: cb indicates check box]

- [cb] a. Changes in care practices (e.g., "front-loading" visits, medicine reconciliation)
- [cb] b. Implementation of care pathways/standardized care plans
- [cb] c. Reduction 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 staff hiring requirements
- [cb] o. Other (specify): \_\_\_\_\_

10. What activities directed toward care providers and intended to improve quality of care did your agency implemented during CY2009? (Check all that apply)  
(Check box; no pre-fill)

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

11. What technological innovations designed to improve the quality of patient care did your agency implemented during CY2009? (Check all that apply)  
(Check box; no pre-fill) [Note: **cb** indicates check box]

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

12. What care practice changes designed to improve the specific clinical outcomes did your agency implemented during CY2009? (Check all that apply)  
 (Check box; no pre-fill) **[Note: cb indicates check box]**

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

13. Identify any corporate initiatives that were implemented during CY2009. (Indicate change for each-if any) (Radio button w/ "No Change" pre-filled) **[Note: rb indicates radio button]**

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

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

14. Identify any impact on your agency that occurred during CY2009 that may have been the result of local/regional issues or situations. (Indicate impact for each--if any)  
*(Radio button w/ "No Impact" pre-filled)* [Note: rb indicates radio button]

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

15. What is your best estimate of the effects of activities related to the pay for performance demonstration during Year 2 (CY2009) on the cost of providing care to your patients?  
*(Radio button w/ "Less than 1% change" pre-filled)* [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% |
| rb                | rb                  | rb                 | rb                  | rb                 | rb                  | rb                |

16. How much of an impact on your patients do you think your quality improvement activities have had on the outcomes targeted during Year 2 (CY2009) of the demonstration?  
*(Radio button w/ "No Impact" pre-filled)* [Note: rb indicates radio button]

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

17. What effect do you think the demonstration will have on the following?  
*(Radio button w/ "No Impact" pre-filled)* [Note: rb indicates radio button]

| Focus of Effect   | Very Negative | Slightly Negative | No Impact | Slightly Positive | Very Positive |
|---|---------------|-------------------|-----------|-------------------|---------------|
| a. My agency's patient outcomes                         | rb            | rb                | rb        | rb                | rb            |
| b. Quality of care at my agency                         | rb            | rb                | rb        | rb                | rb            |
| c. Quality of care statewide                            | rb            | rb                | rb        | rb                | rb            |
| d. Access to care for Medicare beneficiaries            | rb            | rb                | rb        | rb                | rb            |
| e. Cost of providing home health care                   | rb            | rb                | rb        | rb                | rb            |
| f. Financial solvency of my agency                      | rb            | rb                | rb        | rb                | rb            |
| g. Financial solvency of home health agencies statewide | rb            | rb                | rb        | rb                | rb            |
| h. Profitability of my agency                           | rb            | rb                | rb        | rb                | rb            |
| i. Profitability of home health agencies statewide      | rb            | rb                | rb        | rb                | rb            |
| j. Patient satisfaction w/ agency                       | rb            | rb                | rb        | rb                | rb            |
| k. Staff satisfaction at agency                         | rb            | rb                | rb        | rb                | rb            |
| l. Referral source satisfaction w/ agency               | rb            | rb                | rb        | rb                | rb            |

18. Rate each of the following actions/reports in terms of how useful they would be if Home Health P4P is implemented:  
*(Radio button w/ "N/A" pre-filled)* [Note: rb indicates radio button]

| Report or Activity  | Not Useful | Useful | Very Useful | Extremely Useful | N/A |
|---|------------|--------|-------------|------------------|-----|
| a. Publish regular (monthly or quarterly) updates or reminders about the P4P program  | rb         | rb     | rb          | rb               | rb  |
| b. Publish monthly "best practices" (2 – 4 items) that are related to the target outcomes   | rb         | rb     | rb          | rb               | rb  |
| c. Make home health P4P support an element in QIO Statement of Work   | rb         | rb     | rb          | rb               | rb  |
| d. Identify available online workshops sponsored by professional organizations that have specific themes (e.g., implementation of telehealth systems; wound care protocols) | rb         | rb     | rb          | rb               | rb  |
| e. Each month publish/highlight the activities of one high performing HHA (each region should have at least one annually)   | rb         | rb     | rb          | rb               | rb  |
| f. Publish targeted, effective intervention strategies for different HHA groups (e.g., rural vs. urban; large vs. small; non-profit vs. for profit)                         | rb         | rb     | rb          | rb               | rb  |
| g. Provide certificates of recognition to high performing HHAs  | rb         | rb     | rb          | rb               | rb  |
| h. Publish information on high performing HHAs to the public (e.g., list agencies on Home Health Compare)   | rb         | rb     | rb          | rb               | rb  |

19. Please use the space below to provide any other comments what your agency learned by participating in the P4P Demonstration during Calendar Years 2008 and 2009. (optional)  
*(There will be a 500-word limit on this box with automatic word count)*
  
20. Please use the space below to provide specific advice that you would share with other HHAs on how to be successful if P4P becomes an implemented program in CY2012. (Optional)  
*(There will be a 500-word limit on this box with automatic word count)*

Thank you very much for providing your feedback. Please review your answers prior to pressing the "Send" button.

**Control Instrument**

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

Thank you again for your willingness to complete the Year 2 Home Health Pay for Performance (P4P) Demonstration Survey. The purpose of this survey is to gather information from home health agencies participating in the (P4P) Demonstration that is generally not available via other data sources.

For this survey we would like you to focus your attention on what your agency did during Calendar Year (CY) 2009.

We estimate that the survey will take less than 15 minutes to complete.

**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: [Pull down menu list = Senior Management (CEO, DON, etc.), QI / PI Coordinator; Administrative/Support; Clinical Supervisor Position; Other]

*(Name of Agency = 50 characters; [OPTIONAL] Email address = 50 characters; Provider Number = 6 characters; Title = per list)*

*(Note: HHAs that received an award based on their Year 1 performance would receive the "Treatment winner" survey. HHAs that were in the "Treatment" group but did not receive any awards in Year 1 would receive the "Treatment non-winner" survey. HHAs that are part of the "Control" group will automatically receive the "Control" survey.)*

4. Please indicate if your agency focused on any of the following during Year 2 (CY2009) of the demonstration. (check all that apply) (*N/A is pre-filled*) [**Note: rb indicates radio button**]

| Outcome Measure                               | N/A | Changed HHA policies | Changed HHA practices | Increased training | Other |
|---|-----|----------------------|-----------------------|--------------------|-------|
| Acute Care Hospitalization                    | rb  | rb                   | rb                    | rb                 | rb    |
| Any Emergent Care                             | rb  | rb                   | rb                    | rb                 | rb    |
| Improvement in Bathing                        | rb  | rb                   | rb                    | rb                 | rb    |
| Improvement in Ambulation/Locomotion          | rb  | rb                   | rb                    | rb                 | rb    |
| Improvement in Transferring                   | rb  | rb                   | rb                    | rb                 | rb    |
| Improvement in Status of Surgical Wounds      | rb  | rb                   | rb                    | rb                 | rb    |
| Improvement in Management of Oral Medications | rb  | rb                   | rb                    | rb                 | rb    |

5. Based on your understanding of your agency's performance during Year 2 (CY2009), please indicate how much you improved on each of the following outcomes during Year 2 (CY2009). (check all that apply) (*'None' is pre-filled*) [**Note: rb indicates radio button**]

| Outcome Measure                               | None | Modest (1-2%) | Substantial (>2%) |
|---|------|---------------|-------------------|
| Acute Care Hospitalization                    | rb   | rb            | rb                |
| Any Emergent Care                             | rb   | rb            | rb                |
| Improvement in Bathing                        | rb   | rb            | rb                |
| Improvement in Ambulation/Locomotion          | rb   | rb            | rb                |
| Improvement in Transferring                   | rb   | rb            | rb                |
| Improvement in Status of Surgical Wounds      | rb   | rb            | rb                |
| Improvement in Management of Oral Medications | rb   | rb            | rb                |

6. Which of the following describes any 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) that occurred during CY2009? Indicate change for each--if any.

(Radio button w/ "No Change" as default) [Note: rb indicates radio button]

| Job Category  | Decreased Staffing | No Change | Increased Staffing |
|---|--------------------|-----------|--------------------|
| a. Senior management (CEO, DON, etc.)   | rb                 | rb        | rb                 |
| b. Quality improvement or performance improvement coordinator                       | rb                 | rb        | rb                 |
| c. Clinical supervisory 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. Physical therapist   | rb                 | rb        | rb                 |
| h. Occupational therapist   | rb                 | rb        | rb                 |
| i. Medical social worker  | rb                 | rb        | rb                 |
| j. Home health aide   | rb                 | rb        | rb                 |
| k. Administrative/support   | rb                 | rb        | rb                 |
| l. Other (specify ___25 characters_____)  | rb                 | rb        | rb                 |

7. 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) that occurred during CY2009?

(Radio button w/ "No/Low" as default) [Note: rb indicates radio button]

| Job Category  | No/Low (0-5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very high (>75%) |
|---|---------------|---------------|-------------------|---------------|------------------|
| a. Senior management (CEO, DON, etc.)   | rb            | rb            | rb                | rb            | rb               |
| b. Quality improvement or performance improvement coordinator                       | rb            | rb            | rb                | rb            | rb               |
| c. Clinical supervisory positions   | rb            | rb            | rb                | rb            | rb               |
| d. Registered nurse   | rb            | rb            | rb                | rb            | rb               |
| e. Registered nurse with specialty license/certification (e.g., wound, psychiatric) | rb            | rb            | rb                | rb            | rb               |
| f. Licensed practical nurse   | rb            | rb            | rb                | rb            | rb               |
| g. Physical therapist   | rb            | rb            | rb                | rb            | rb               |
| h. Occupational therapist   | rb            | rb            | rb                | rb            | rb               |
| i. Medical social worker  | rb            | rb            | rb                | rb            | rb               |
| j. Home health aide   | rb            | rb            | rb                | rb            | rb               |
| k. Administrative/support   | rb            | rb            | rb                | rb            | rb               |
| l. Other (specify 25 characters)  | rb            | rb            | rb                | rb            | rb               |

8. Did you add any new positions/functions during CY2009 specifically because of your participation in the demonstration?  
*(Radio button w/ "Does Not Exist" as default)* [Note: rb indicates radio button]

| Job Function  | Already Existed | Added Position/Function | Does Not Exist |
|---|-----------------|-------------------------|----------------|
| 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/Resource 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             |

9. What policy changes did your agency implemented during CY2009? Policies related to...(Check all that apply)  
*(Check box; no pre-fill)* [Note: cb indicates check box]

- [cb] a. Changes in care practices (e.g., "front-loading" visits, medicine reconciliation)
- [cb] b. Implementation of care pathways/standardized care plans
- [cb] c. Reduction 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 staff hiring requirements
- [cb] o. Other (specify): \_\_\_\_\_

10. What activities directed toward care providers and intended to improve quality of care did your agency implemented during CY2009? (Check all that apply)  
(Check box; no pre-fill) [Note: **cb** indicates check box]

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

11. What technological innovations designed to improve the quality of patient care did your agency implemented during CY2009? (Check all that apply)  
(Check box; no pre-fill) [Note: **cb** indicates check box]

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

12. What care practice changes designed to improve the specific clinical outcomes did your agency implemented during CY2009? (Check all that apply)  
*(Check box; no pre-fill)* [Note: **cb** indicates check box]

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

13. Identify any corporate initiatives that were implemented during CY2009. (Indicate change for each--if any) *(Radio button w/ "No Change" pre-filled)* [Note: **rb** indicates radio button]

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

| Corporate Initiative Focus                         | No Change | Modified Existing Program | Implemented New Program |
|--|-----------|---------------------------|-------------------------|
| a. Reducing potentially avoidable hospitalizations | rb        | rb                        | rb                      |
| b. Reducing potentially avoidable emergency care   | rb        | rb                        | rb                      |
| c. Improving rehabilitation outcomes               | rb        | rb                        | rb                      |
| d. Pressure ulcer treatment                        | rb        | rb                        | rb                      |
| e. Falls risk reduction programs                   | rb        | rb                        | rb                      |
| f. Medication management programs                  | rb        | rb                        | rb                      |
| g. Use of technology to support patient care       | rb        | rb                        | rb                      |
| h. Staff training                                  | rb        | rb                        | rb                      |
| i. Participation in QIO quality initiatives        | rb        | rb                        | rb                      |
| j. Performance incentive program (monetary)        | rb        | rb                        | rb                      |
| k. Enhanced corporate communications               | rb        | rb                        | rb                      |
| l. Other (specify): _____                          | rb        | rb                        | rb                      |

14. Identify any impact on your agency that occurred during CY2009 that may have been the result of local/regional issues or situations. (Indicate impact for each--if any)  
*(Radio button w/ "No Impact" pre-filled)* [Note: rb indicates radio button]

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

15. What is your best estimate of the effects of activities related to the pay for performance demonstration during Year 2 (CY2009) on the cost of providing care to your patients?  
*(Radio button w/ "Less than 1% change" pre-filled)* [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% |
| rb                | rb                  | rb                 | rb                  | rb                 | rb                  | rb                |

16. How much of an impact on your patients do you think your quality improvement activities have had on the outcomes targeted during Year 2 (CY2009) of the demonstration?  
*(Radio button w/ "No Impact" pre-filled)* [Note: rb indicates radio button]

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

17. What effect do you think the demonstration will have on the following?  
*(Radio button w/ "No Impact" pre-filled)* [Note: rb indicates radio button]

| Focus of Effect   | Very Negative | Slightly Negative | No Impact | Slightly Positive | Very Positive |
|---|---------------|-------------------|-----------|-------------------|---------------|
| a. My agency's patient outcomes                         | rb            | rb                | rb        | rb                | rb            |
| b. Quality of care at my agency                         | rb            | rb                | rb        | rb                | rb            |
| c. Quality of care statewide                            | rb            | rb                | rb        | rb                | rb            |
| d. Access to care for Medicare beneficiaries            | rb            | rb                | rb        | rb                | rb            |
| e. Cost of providing home health care                   | rb            | rb                | rb        | rb                | rb            |
| f. Financial solvency of my agency                      | rb            | rb                | rb        | rb                | rb            |
| g. Financial solvency of home health agencies statewide | rb            | rb                | rb        | rb                | rb            |
| h. Profitability of my agency                           | rb            | rb                | rb        | rb                | rb            |
| i. Profitability of home health agencies statewide      | rb            | rb                | rb        | rb                | rb            |
| j. Patient satisfaction w/ agency                       | rb            | rb                | rb        | rb                | rb            |
| k. Staff satisfaction at agency                         | rb            | rb                | rb        | rb                | rb            |
| l. Referral source satisfaction w/ agency               | rb            | rb                | rb        | rb                | rb            |

18. Rate each of the following actions/reports in terms of how useful they would be if Home Health P4P is implemented:  
*(Radio button w/ "N/A" pre-filled)* [Note: rb indicates radio button]

| Report or Activity  | Not Useful | Useful | Very Useful | Extremely Useful | N/A |
|---|------------|--------|-------------|------------------|-----|
| a. Publish regular (monthly or quarterly) updates or reminders about the P4P program  | rb         | rb     | rb          | rb               | rb  |
| b. Publish monthly "best practices" (2 – 4 items) that are related to the target outcomes   | rb         | rb     | rb          | rb               | rb  |
| c. Make home health P4P support an element in QIO Statement of Work   | rb         | rb     | rb          | rb               | rb  |
| d. Identify available online workshops sponsored by professional organizations that have specific themes (e.g., implementation of telehealth systems; wound care protocols) | rb         | rb     | rb          | rb               | rb  |
| e. Each month publish/highlight the activities of one high performing HHA (each region should have at least one annually)   | rb         | rb     | rb          | rb               | rb  |
| f. Publish targeted, effective intervention strategies for different HHA groups (e.g., rural vs. urban; large vs. small; non-profit vs. for profit)                         | rb         | rb     | rb          | rb               | rb  |
| g. Provide certificates of recognition to high performing HHAs  | rb         | rb     | rb          | rb               | rb  |
| h. Publish information on high performing HHAs to the public (e.g., list agencies on Home Health Compare)   | rb         | rb     | rb          | rb               | rb  |

- 19 Please use the space below to provide any other comments what your agency learned by participating in the P4P Demonstration during Calendar Years 2008 and 2009. (optional)  
*(There will be a 500-word limit on this box with automatic word count)*
20. Please use the space below to provide specific advice that you would share with other HHAs on how to be successful if P4P becomes an implemented program in CY2012. (Optional)  
*(There will be a 500-word limit on this box with automatic word count)*

Thank you very much for providing your feedback. Please review your answers prior to pressing the "Send" button.

## Appendix B: Year 2 Intervention and Regional Cross-Tabulations

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**Table B.1: Year 2 Home Health P4P Demonstration Evaluation Survey Participants.**

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**Repeat Responder Survey Participants by Control and Treatment Group.**

| Group                | Participant Group |              |            |              | Total      | Signif. |
|----------------------|-------------------|--------------|------------|--------------|------------|---------|
|                      | No                |              | Yes        |              |            |         |
|                      | Count             | %            | Count      | %            |            |         |
| Control              | 40                | 42.6%        | 54         | 57.4%        | <b>94</b>  | ns      |
| Treatment            | 53                | 42.4%        | 72         | 57.6%        | <b>125</b> |         |
| <b>Total/Average</b> | <b>93</b>         | <b>42.5%</b> | <b>126</b> | <b>57.5%</b> | <b>219</b> |         |

**Survey Participants by Region, Control, and Treatment Group.**

| Regions                | Participant Group |              |            |              | Total      | Signif. |
|------------------------|-------------------|--------------|------------|--------------|------------|---------|
|                        | Control           |              | Treatment  |              |            |         |
|                        | Count             | %            | Count      | %            |            |         |
| Northeast (MA, CT)     | 17                | 40.5%        | 25         | 59.5%        | <b>42</b>  | ns      |
| Southeast (TN, AL, GA) | 28                | 41.8%        | 39         | 58.2%        | <b>67</b>  |         |
| Midwest (IL)           | 25                | 49.0%        | 26         | 51.0%        | <b>51</b>  |         |
| West (CA)              | 24                | 40.7%        | 35         | 59.3%        | <b>59</b>  |         |
| <b>Total/Average</b>   | <b>94</b>         | <b>42.9%</b> | <b>125</b> | <b>57.1%</b> | <b>219</b> |         |

**Repeat Responder Survey Participants by Region, Control, and Treatment Group.**

| Regions                | Participant Group |              |            |              | Total      | Signif. |
|------------------------|-------------------|--------------|------------|--------------|------------|---------|
|                        | No                |              | Yes        |              |            |         |
|                        | Count             | %            | Count      | %            |            |         |
| Northeast (MA, CT)     | 19                | 45.2%        | 23         | 54.8%        | <b>42</b>  | ns      |
| Southeast (TN, AL, GA) | 34                | 50.7%        | 33         | 49.3%        | <b>67</b>  |         |
| Midwest (IL)           | 15                | 29.4%        | 36         | 70.6%        | <b>51</b>  |         |
| West (CA)              | 25                | 42.4%        | 34         | 57.6%        | <b>59</b>  |         |
| <b>Total/Average</b>   | <b>93</b>         | <b>42.5%</b> | <b>126</b> | <b>57.5%</b> | <b>219</b> |         |

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**Table B.2: Frequency Distributions by Treatment Group and by Region for Survey Item 7: ...turnover in your staff (e.g., a staff member left and was replaced by a new or another staff member in that position)**

**Turnover – Senior Management**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 94.7%        | 2.1%          | 2.1%              | 1.1%          | 0.0%             | ns      |
| Treatment (n=125) | 91.2%        | 5.6%          | 1.6%              | 0.8%          | 0.8%             |         |
| Total (n=219)     | 92.7%        | 4.1%          | 1.8%              | 0.9%          | 0.5%             |         |

| Region                        |       |      |      |      |      | Signif. |
|-------------------------------|-------|------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 95.2% | 2.4% | 2.4% | 0.0% | 0.0% | ns      |
| Southeast (TN, AL, GA) (n=67) | 89.6% | 7.5% | 1.5% | 0.0% | 1.5% |         |
| Midwest (IL) (n=51)           | 96.1% | 2.0% | 2.0% | 0.0% | 0.0% |         |
| West (CA) (n=59)              | 91.5% | 3.4% | 1.7% | 3.4% | 0.0% |         |
| Total (n=219)                 | 92.7% | 4.1% | 1.8% | 0.9% | 0.5% |         |

**Turnover – QI/PI Coordinator**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 92.6%        | 5.3%          | 1.1%              | 1.1%          | 0.0%             | ns      |
| Treatment (n=125) | 84.8%        | 9.6%          | 1.6%              | 0.8%          | 3.2%             |         |
| Total (n=219)     | 88.1%        | 7.8%          | 1.4%              | 0.9%          | 1.8%             |         |

| Region                        |       |       |      |      |      | Signif. |
|-------------------------------|-------|-------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 85.7% | 7.1%  | 2.4% | 0.0% | 4.8% | ns      |
| Southeast (TN, AL, GA) (n=67) | 86.6% | 10.4% | 0.0% | 1.5% | 1.5% |         |
| Midwest (IL) (n=51)           | 94.1% | 3.9%  | 2.0% | 0.0% | 0.0% |         |
| West (CA) (n=59)              | 86.4% | 8.5%  | 1.7% | 1.7% | 1.7% |         |
| Total (n=219)                 | 88.1% | 7.8%  | 1.4% | 0.9% | 1.8% |         |

**Turnover – Clinical Supervisor**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 76.6%        | 13.8%         | 7.4%              | 2.1%          | 0.0%             | ns      |
| Treatment (n=125) | 84.8%        | 8.8%          | 4.0%              | 1.6%          | 0.8%             |         |
| Total (n=219)     | 81.3%        | 11.0%         | 5.5%              | 1.8%          | 0.5%             |         |

| Region                        |       |       |      |      |      | Signif. |
|-------------------------------|-------|-------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 81.0% | 11.9% | 2.4% | 2.4% | 2.4% | ns      |
| Southeast (TN, AL, GA) (n=67) | 76.1% | 13.4% | 9.0% | 1.5% | 0.0% |         |
| Midwest (IL) (n=51)           | 82.4% | 11.8% | 5.9% | 0.0% | 0.0% |         |
| West (CA) (n=59)              | 86.4% | 6.8%  | 3.4% | 3.4% | 0.0% |         |
| Total (n=219)                 | 81.3% | 11.0% | 5.5% | 1.8% | 0.5% |         |

**Table B.2: Frequency Distributions by Treatment Group and by Region for Survey Item 7: ...turnover in your staff (e.g., a staff member left and was replaced by a new or another staff member in that position). (cont'd)**

**Turnover – RN**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 52.1%        | 30.9%         | 13.8%             | 2.1%          | 1.1%             | ns      |
| Treatment (n=125) | 49.6%        | 29.6%         | 16.0%             | 3.2%          | 1.6%             |         |
| Total (n=219)     | 50.7%        | 30.1%         | 15.1%             | 2.7%          | 1.4%             |         |

| Region                        |       |       |       |      |      | Signif. |
|-------------------------------|-------|-------|-------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 50.0% | 42.9% | 2.4%  | 2.4% | 2.4% | 0.028   |
| Southeast (TN, AL, GA) (n=67) | 41.8% | 26.9% | 23.9% | 6.0% | 1.5% |         |
| Midwest (IL) (n=51)           | 66.7% | 17.6% | 13.7% | .0%  | 2.0% |         |
| West (CA) (n=59)              | 47.5% | 35.6% | 15.3% | 1.7% | .0%  |         |
| Total (n=219)                 | 50.7% | 30.1% | 15.1% | 2.7% | 1.4% |         |

**Turnover – RN with specialty license/certification**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 93.6%        | 4.3%          | 2.1%              | .0%           | .0%              | ns      |
| Treatment (n=125) | 95.2%        | 2.4%          | .0%               | .8%           | 1.6%             |         |
| Total (n=219)     | 94.5%        | 3.2%          | .9%               | .5%           | .9%              |         |

| Region                        |        |      |      |      |      | Signif. |
|-------------------------------|--------|------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 95.2%  | 4.8% | 0.0% | 0.0% | 0.0% | ns      |
| Southeast (TN, AL, GA) (n=67) | 92.5%  | 3.0% | 1.5% | 1.5% | 1.5% |         |
| Midwest (IL) (n=51)           | 100.0% | 0.0% | .0%  | 0.0% | 0.0% |         |
| West (CA) (n=59)              | 91.5%  | 5.1% | 1.7% | 0.0% | 1.7% |         |
| Total (n=219)                 | 94.5%  | 3.2% | 0.9% | 0.5% | 0.9% |         |

**Turnover – LPN**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 81.9%        | 12.8%         | 4.3%              | 1.1%          | .0%              | ns      |
| Treatment (n=125) | 88.8%        | 6.4%          | 4.0%              | .8%           | .0%              |         |
| Total (n=219)     | 85.8%        | 9.1%          | 4.1%              | .9%           | .0%              |         |

| Region                        |       |       |      |      |      | Signif. |
|-------------------------------|-------|-------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 90.5% | 9.5%  | 0.0% | 0.0% | 0.0% | ns      |
| Southeast (TN, AL, GA) (n=67) | 76.1% | 16.4% | 6.0% | 1.5% | 0.0% |         |
| Midwest (IL) (n=51)           | 94.1% | 2.0%  | 3.9% | 0.0% | 0.0% |         |
| West (CA) (n=59)              | 86.4% | 6.8%  | 5.1% | 1.7% | 0.0% |         |
| Total (n=219)                 | 85.8% | 9.1%  | 4.1% | 0.9% | 0.0% |         |

**Table B.2: Frequency Distributions by Treatment Group and by Region for Survey Item 7: ...turnover in your staff (e.g., a staff member left and was replaced by a new or another staff member in that position). (cont'd)**

**Turnover –Physical Therapist**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 78.7%        | 14.9%         | 4.3%              | 1.1%          | 1.1%             | ns      |
| Treatment (n=125) | 79.2%        | 16.8%         | 3.2%              | 0.0%          | 0.8%             |         |
| Total (n=219)     | 79.0%        | 16.0%         | 3.7%              | 0.5%          | 0.9%             |         |

| Region                        |       |       |      |      |      | Signif. |
|-------------------------------|-------|-------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 81.0% | 16.7% | 0.0% | 2.4% | 0.0% | ns      |
| Southeast (TN, AL, GA) (n=67) | 77.6% | 14.9% | 7.5% | 0.0% | 0.0% |         |
| Midwest (IL) (n=51)           | 82.4% | 15.7% | .0%  | 0.0% | 2.0% |         |
| West (CA) (n=59)              | 76.3% | 16.9% | 5.1% | 0.0% | 1.7% |         |
| Total (n=219)                 | 79.0% | 16.0% | 3.7% | 0.5% | 0.9% |         |

**Turnover – Occupational Therapist**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 80.9%        | 16.0%         | 2.1%              | 0.0%          | 1.1%             | 0.086   |
| Treatment (n=125) | 91.2%        | 5.6%          | 1.6%              | 0.0%          | 1.6%             |         |
| Total (n=219)     | 86.8%        | 10.0%         | 1.8%              | 0.0%          | 1.4%             |         |

| Region                        |       |       |      |      |      | Signif. |
|-------------------------------|-------|-------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 85.7% | 11.9% | 2.4% | 0.0% | 0.0% | ns      |
| Southeast (TN, AL, GA) (n=67) | 82.1% | 11.9% | 4.5% | 0.0% | 1.5% |         |
| Midwest (IL) (n=51)           | 90.2% | 7.8%  | .0%  | 0.0% | 2.0% |         |
| West (CA) (n=59)              | 89.8% | 8.5%  | .0%  | 0.0% | 1.7% |         |
| Total (n=219)                 | 86.8% | 10.0% | 1.8% | 0.0% | 1.4% |         |

**Turnover – Medical Social Worker**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 91.5%        | 8.5%          | 0.0%              | 0.0%          | 0.0%             | ns      |
| Treatment (n=125) | 94.4%        | 3.2%          | 0.8%              | 0.0%          | 1.6%             |         |
| Total (n=219)     | 93.2%        | 5.5%          | 0.5%              | 0.0%          | 0.9%             |         |

| Region                        |       |      |      |      |      | Signif. |
|-------------------------------|-------|------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 90.5% | 9.5% | 0.0% | 0.0% | 0.0% | ns      |
| Southeast (TN, AL, GA) (n=67) | 92.5% | 4.5% | 1.5% | 0.0% | 1.5% |         |
| Midwest (IL) (n=51)           | 98.0% | 2.0% | 0.0% | 0.0% | 0.0% |         |
| West (CA) (n=59)              | 91.5% | 6.8% | 0.0% | 0.0% | 1.7% |         |
| Total (n=219)                 | 93.2% | 5.5% | 0.5% | 0.0% | 0.9% |         |

**Table B.2: Frequency Distributions by Treatment Group and by Region for Survey Item 7: ...turnover in your staff (e.g., a staff member left and was replaced by a new or another staff member in that position). (cont'd)**

**Turnover – Home Health Aide**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 84.0%        | 10.6%         | 4.3%              | 1.1%          | 0.0%             | ns      |
| Treatment (n=125) | 85.6%        | 10.4%         | 1.6%              | 2.4%          | 0.0%             |         |
| Total (n=219)     | 84.9%        | 10.5%         | 2.7%              | 1.8%          | 0.0%             |         |

| Region                        |       |       |      |      |      | Signif. |
|-------------------------------|-------|-------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 73.8% | 19.0% | 7.1% | 0.0% | 0.0% | ns      |
| Southeast (TN, AL, GA) (n=67) | 86.6% | 9.0%  | 1.5% | 3.0% | 0.0% |         |
| Midwest (IL) (n=51)           | 88.2% | 9.8%  | 2.0% | 0.0% | 0.0% |         |
| West (CA) (n=59)              | 88.1% | 6.8%  | 1.7% | 3.4% | 0.0% |         |
| Total (n=219)                 | 84.9% | 10.5% | 2.7% | 1.8% | 0.0% |         |

**Turnover – Administrative Support**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 86.2%        | 9.6%          | 4.3%              | 0.0%          | 0.0%             | ns      |
| Treatment (n=125) | 83.2%        | 12.8%         | 4.0%              | 0.0%          | 0.0%             |         |
| Total (n=219)     | 84.5%        | 11.4%         | 4.1%              | 0.0%          | 0.0%             |         |

| Region                        |       |       |      |      |      | Signif. |
|-------------------------------|-------|-------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 81.0% | 16.7% | 2.4% | 0.0% | 0.0% | ns      |
| Southeast (TN, AL, GA) (n=67) | 82.1% | 10.4% | 7.5% | 0.0% | 0.0% |         |
| Midwest (IL) (n=51)           | 94.1% | 5.9%  | 0.0% | 0.0% | 0.0% |         |
| West (CA) (n=59)              | 81.4% | 13.6% | 5.1% | 0.0% | 0.0% |         |
| Total (n=219)                 | 84.5% | 11.4% | 4.1% | 0.0% | 0.0% |         |

**Turnover – Other**

| Group             | Low/No (<5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) | Signif. |
|-------------------|--------------|---------------|-------------------|---------------|------------------|---------|
| Control (n=94)    | 97.9%        | 1.1%          | 1.1%              | 0.0%          | 0.0%             | ns      |
| Treatment (n=125) | 100.0%       | 0.0%          | 0.0%              | 0.0%          | 0.0%             |         |
| Total (n=219)     | 99.1%        | 0.5%          | 0.5%              | 0.0%          | 0.0%             |         |

| Region                        |        |      |      |      |      | Signif. |
|-------------------------------|--------|------|------|------|------|---------|
| Northeast (MA, CT) (n=42)     | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% | ns      |
| Southeast (TN, AL, GA) (n=67) | 98.5%  | 0.0% | 1.5% | 0.0% | 0.0% |         |
| Midwest (IL) (n=51)           | 100.0% | 0.0% | 0.0% | 0.0% | 0.0% |         |
| West (CA) (n=59)              | 98.3%  | 1.7% | 0.0% | 0.0% | 0.0% |         |
| Total (n=219)                 | 99.1%  | 0.5% | 0.5% | 0.0% | 0.0% |         |

**Table B.3: Frequency Distributions by Treatment Group and by Region for Survey Item 8: Did you add any new positions/functions during CY2009 specifically because of your participation in the demonstration?**

**QI/PI Coordinator**

| Group             | Already Existed | Added | Does not Exist | Signif. |
|-------------------|-----------------|-------|----------------|---------|
| Control (n=94)    | 68.1%           | 10.6% | 21.3%          | ns      |
| Treatment (n=125) | 63.2%           | 8.8%  | 28.0%          |         |
| Total (n=219)     | 65.3%           | 9.6%  | 25.1%          |         |

| Region                        |       |       |       | Signif. |
|-------------------------------|-------|-------|-------|---------|
| Northeast (MA, CT) (n=42)     | 73.8% | 9.5%  | 16.7% | ns      |
| Southeast (TN, AL, GA) (n=67) | 68.7% | 6.0%  | 25.4% |         |
| Midwest (IL) (n=51)           | 54.9% | 13.7% | 31.4% |         |
| West (CA) (n=59)              | 64.4% | 10.2% | 25.4% |         |
| Total (n=219)                 | 65.3% | 9.6%  | 25.1% |         |

**Documentation quality assurance or OASIS accuracy**

| Group             | Already Existed | Added | Does not Exist | Signif. |
|-------------------|-----------------|-------|----------------|---------|
| Control (n=94)    | 52.1%           | 17.0% | 30.9%          | ns      |
| Treatment (n=125) | 54.4%           | 11.2% | 34.4%          |         |
| Total (n=219)     | 53.4%           | 13.7% | 32.9%          |         |

| Region                        |       |       |       | Signif. |
|-------------------------------|-------|-------|-------|---------|
| Northeast (MA, CT) (n=42)     | 57.1% | 9.5%  | 33.3% | ns      |
| Southeast (TN, AL, GA) (n=67) | 58.2% | 10.4% | 31.3% |         |
| Midwest (IL) (n=51)           | 43.1% | 19.6% | 37.3% |         |
| West (CA) (n=59)              | 54.2% | 15.3% | 30.5% |         |
| Total (n=219)                 | 53.4% | 13.7% | 32.9% |         |

**Staff Education**

| Group             | Already Existed | Added | Does not Exist | Signif. |
|-------------------|-----------------|-------|----------------|---------|
| Control (n=94)    | 55.3%           | 13.8% | 30.9%          | ns      |
| Treatment (n=125) | 56.0%           | 7.2%  | 36.8%          |         |
| Total (n=219)     | 55.7%           | 10.0% | 34.2%          |         |

| Region                        |       |       |       | Signif. |
|-------------------------------|-------|-------|-------|---------|
| Northeast (MA, CT) (n=42)     | 54.8% | 9.5%  | 35.7% | ns      |
| Southeast (TN, AL, GA) (n=67) | 64.2% | 6.0%  | 29.9% |         |
| Midwest (IL) (n=51)           | 51.0% | 15.7% | 33.3% |         |
| West (CA) (n=59)              | 50.8% | 10.2% | 39.0% |         |
| Total (n=219)                 | 55.7% | 10.0% | 34.2% |         |

**Table B.3: Frequency Distributions by Treatment Group and by Region for Survey Item 8: Did you add any new positions/functions during CY2009 specifically because of your participation in the demonstration? (cont'd)**

**Outcome Analysis**

| Group             | Already Existed | Added | Does not Exist | Signif. |
|-------------------|-----------------|-------|----------------|---------|
| Control (n=94)    | 51.1%           | 9.6%  | 39.4%          | ns      |
| Treatment (n=125) | 48.8%           | 6.4%  | 44.8%          |         |
| Total (n=219)     | 49.8%           | 7.8%  | 42.5%          |         |

| Region                        | Already Existed | Added | Does not Exist | Signif. |
|-------------------------------|-----------------|-------|----------------|---------|
| Northeast (MA, CT) (n=42)     | 42.9%           | 7.1%  | 50.0%          | ns      |
| Southeast (TN, AL, GA) (n=67) | 56.7%           | 9.0%  | 34.3%          |         |
| Midwest (IL) (n=51)           | 45.1%           | 7.8%  | 47.1%          |         |
| West (CA) (n=59)              | 50.8%           | 6.8%  | 42.4%          |         |
| Total (n=219)                 | 49.8%           | 7.8%  | 42.5%          |         |

**Utilization/Resource Review**

| Group             | Already Existed | Added | Does not Exist | Signif. |
|-------------------|-----------------|-------|----------------|---------|
| Control (n=94)    | 57.4%           | 2.1%  | 40.4%          | ns      |
| Treatment (n=125) | 54.4%           | 2.4%  | 43.2%          |         |
| Total (n=219)     | 55.7%           | 2.3%  | 42.0%          |         |

| Region                        | Already Existed | Added | Does not Exist | Signif. |
|-------------------------------|-----------------|-------|----------------|---------|
| Northeast (MA, CT) (n=42)     | 52.4%           | .0%   | 47.6%          | ns      |
| Southeast (TN, AL, GA) (n=67) | 64.2%           | 1.5%  | 34.3%          |         |
| Midwest (IL) (n=51)           | 45.1%           | 3.9%  | 51.0%          |         |
| West (CA) (n=59)              | 57.6%           | 3.4%  | 39.0%          |         |
| Total (n=219)                 | 55.7%           | 2.3%  | 42.0%          |         |

**“Combination” position(s) that includes two or more of the above position/functions**

| Group             | Already Existed | Added | Does not Exist | Signif. |
|-------------------|-----------------|-------|----------------|---------|
| Control (n=94)    | 45.7%           | 11.7% | 42.6%          | ns      |
| Treatment (n=125) | 48.8%           | 8.0%  | 43.2%          |         |
| Total (n=219)     | 47.5%           | 9.6%  | 42.9%          |         |

| Region                        | Already Existed | Added | Does not Exist | Signif. |
|-------------------------------|-----------------|-------|----------------|---------|
| Northeast (MA, CT) (n=42)     | 38.1%           | 7.1%  | 54.8%          | ns      |
| Southeast (TN, AL, GA) (n=67) | 49.3%           | 7.5%  | 43.3%          |         |
| Midwest (IL) (n=51)           | 60.8%           | 7.8%  | 31.4%          |         |
| West (CA) (n=59)              | 40.7%           | 15.3% | 44.1%          |         |
| Total (n=219)                 | 47.5%           | 9.6%  | 42.9%          |         |

**Table B.4: Frequency Distributions by Treatment Group and by Region for Survey Item 17: What is your best estimate of the Demonstration's impact on cost of providing care?**

|                      | >10% decrease |             | 5-10% decrease |             | 1-5% decrease |             | <1% change |              | 1-5% increase |              | 5-10% increase |              | >10% increase |             |              |                |
|----------------------|---------------|-------------|----------------|-------------|---------------|-------------|------------|--------------|---------------|--------------|----------------|--------------|---------------|-------------|--------------|----------------|
| <b>Group</b>         | Count         | %           | Count          | %           | Count         | %           | Count      | %            | Count         | %            | Count          | %            | Count         | %           | <b>Total</b> | <b>Signif.</b> |
| Control              | 1             | 1.1%        | 3              | 3.2%        | 7             | 7.4%        | 43         | 45.7%        | 17            | 18.1%        | 16             | 17.0%        | 7             | 7.4%        | <b>94</b>    | 0.002          |
| Treatment            | 0             | 0.0%        | 1              | 0.8%        | 4             | 3.2%        | 75         | 60.0%        | 36            | 28.8%        | 6              | 4.8%         | 3             | 2.4%        | <b>125</b>   |                |
| <b>Total/Average</b> | <b>1</b>      | <b>0.5%</b> | <b>4</b>       | <b>1.8%</b> | <b>11</b>     | <b>5.0%</b> | <b>118</b> | <b>53.9%</b> | <b>53</b>     | <b>24.2%</b> | <b>22</b>      | <b>10.0%</b> | <b>10</b>     | <b>4.6%</b> | <b>219</b>   |                |

|                      | >10% decrease |             | 5-10% decrease |             | 1-5% decrease |             | <1% change |              | 1-5% increase |              | 5-10% increase |              | >10% increase |             |              |                |
|----------------------|---------------|-------------|----------------|-------------|---------------|-------------|------------|--------------|---------------|--------------|----------------|--------------|---------------|-------------|--------------|----------------|
| <b>Region</b>        | Count         | %           | Count          | %           | Count         | %           | Count      | %            | Count         | %            | Count          | %            | Count         | %           | <b>Total</b> | <b>Signif.</b> |
| Northeast (MA, CT)   | 0             | 0.0%        | 0              | 0.0%        | 3             | 7.1%        | 27         | 64.3%        | 8             | 19.0%        | 3              | 7.1%         | 1             | 2.4%        | <b>42</b>    | 0.045          |
| Southeast (TN,AL,GA) | 0             | 0.0%        | 3              | 4.5%        | 5             | 7.5%        | 36         | 53.7%        | 20            | 29.9%        | 2              | 3.0%         | 1             | 1.5%        | <b>67</b>    |                |
| Midwest (IL)         | 0             | 0.0%        | 1              | 2.0%        | 3             | 5.9%        | 29         | 56.9%        | 10            | 19.6%        | 6              | 11.8%        | 2             | 3.9%        | <b>51</b>    |                |
| West (CA)            | 1             | 1.7%        | 0              | 0.0%        | 0             | 0.0%        | 26         | 44.1%        | 15            | 25.4%        | 11             | 18.6%        | 6             | 10.2%       | <b>59</b>    |                |
| <b>Total/Average</b> | <b>1</b>      | <b>0.5%</b> | <b>4</b>       | <b>1.8%</b> | <b>11</b>     | <b>5.0%</b> | <b>118</b> | <b>53.9%</b> | <b>53</b>     | <b>24.2%</b> | <b>22</b>      | <b>10.0%</b> | <b>10</b>     | <b>4.6%</b> | <b>219</b>   |                |

**Table B.5: Frequency Distributions by Treatment Group and by Region for Survey Item 18: What impact did your QI activities have on the outcomes targeted during Year 2 (CY2009)?**

**Acute Care Hospitalization?**

| Group                | Improvement |              |            |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|------------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest     |              | Substantial |              |            |         |
|                      | Count       | %            | Count      | %            | Count       | %            |            |         |
| Control              | 35          | 37.2%        | 41         | 43.6%        | 18          | 19.1%        | <b>94</b>  | ns      |
| Treatment            | 44          | 35.2%        | 65         | 52.0%        | 16          | 12.8%        | <b>125</b> |         |
| <b>Total/Average</b> | <b>79</b>   | <b>36.1%</b> | <b>106</b> | <b>48.4%</b> | <b>34</b>   | <b>15.5%</b> | <b>219</b> |         |

| Region               | Improvement |              |            |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|------------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest     |              | Substantial |              |            |         |
|                      | Count       | %            | Count      | %            | Count       | %            |            |         |
| Northeast (MA, CT)   | 14          | 33.3%        | 21         | 50.0%        | 7           | 16.7%        | <b>42</b>  | ns      |
| Southeast (TN,AL,GA) | 26          | 38.8%        | 31         | 46.3%        | 10          | 14.9%        | <b>67</b>  |         |
| Midwest (IL)         | 22          | 43.1%        | 22         | 43.1%        | 7           | 13.7%        | <b>51</b>  |         |
| West (CA)            | 17          | 28.8%        | 32         | 54.2%        | 10          | 16.9%        | <b>59</b>  |         |
| <b>Total/Average</b> | <b>79</b>   | <b>36.1%</b> | <b>106</b> | <b>48.4%</b> | <b>34</b>   | <b>15.5%</b> | <b>219</b> |         |

**Any Emergent Care?**

| Group                | Improvement |              |           |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|-----------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest    |              | Substantial |              |            |         |
|                      | Count       | %            | Count     | %            | Count       | %            |            |         |
| Control              | 45          | 47.9%        | 38        | 40.4%        | 11          | 11.7%        | <b>94</b>  | ns      |
| Treatment            | 54          | 43.2%        | 57        | 45.6%        | 14          | 11.2%        | <b>125</b> |         |
| <b>Total/Average</b> | <b>99</b>   | <b>45.2%</b> | <b>95</b> | <b>43.4%</b> | <b>25</b>   | <b>11.4%</b> | <b>219</b> |         |

| Region               | Improvement |              |           |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|-----------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest    |              | Substantial |              |            |         |
|                      | Count       | %            | Count     | %            | Count       | %            |            |         |
| Northeast (MA, CT)   | 20          | 47.6%        | 16        | 38.1%        | 6           | 14.3%        | <b>42</b>  | ns      |
| Southeast (TN,AL,GA) | 27          | 40.3%        | 34        | 50.7%        | 6           | 9.0%         | <b>67</b>  |         |
| Midwest (IL)         | 28          | 54.9%        | 17        | 33.3%        | 6           | 11.8%        | <b>51</b>  |         |
| West (CA)            | 24          | 40.7%        | 28        | 47.5%        | 7           | 11.9%        | <b>59</b>  |         |
| <b>Total/Average</b> | <b>99</b>   | <b>45.2%</b> | <b>95</b> | <b>43.4%</b> | <b>25</b>   | <b>11.4%</b> | <b>219</b> |         |

**Table B.5: Frequency Distributions by Treatment Group and by Region for Survey Item 18: What impact did your QI activities have on the outcomes targeted during Year 2 (CY2009)? (cont'd)**

**Improvement in Bathing?**

| Group                | Improvement |              |            |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|------------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest     |              | Substantial |              |            |         |
|                      | Count       | %            | Count      | %            | Count       | %            |            |         |
| Control              | 39          | 41.5%        | 45         | 47.9%        | 10          | 10.6%        | <b>94</b>  | ns      |
| Treatment            | 60          | 48.0%        | 52         | 41.6%        | 13          | 10.4%        | <b>125</b> |         |
| <b>Total/Average</b> | <b>99</b>   | <b>45.2%</b> | <b>397</b> | <b>44.3%</b> | <b>23</b>   | <b>10.5%</b> | <b>219</b> |         |

| Region               | Improvement |              |           |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|-----------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest    |              | Substantial |              |            |         |
|                      | Count       | %            | Count     | %            | Count       | %            |            |         |
| Northeast (MA, CT)   | 21          | 50.0%        | 19        | 45.2%        | 2           | 4.8%         | <b>42</b>  | ns      |
| Southeast (TN,AL,GA) | 30          | 44.8%        | 29        | 43.3%        | 8           | 11.9%        | <b>67</b>  |         |
| Midwest (IL)         | 21          | 41.2%        | 26        | 51.0%        | 4           | 7.8%         | <b>51</b>  |         |
| West (CA)            | 27          | 45.8%        | 23        | 39.0%        | 9           | 15.3%        | <b>59</b>  |         |
| <b>Total/Average</b> | <b>99</b>   | <b>45.2%</b> | <b>97</b> | <b>44.3%</b> | <b>23</b>   | <b>10.5%</b> | <b>219</b> |         |

**Improvement in Ambulation/Locomotion?**

| Group                | Improvement |              |            |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|------------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest     |              | Substantial |              |            |         |
|                      | Count       | %            | Count      | %            | Count       | %            |            |         |
| Control              | 29          | 30.9%        | 51         | 54.3%        | 14          | 14.9%        | <b>94</b>  | ns      |
| Treatment            | 50          | 40.0%        | 51         | 40.8%        | 24          | 19.2%        | <b>125</b> |         |
| <b>Total/Average</b> | <b>79</b>   | <b>36.1%</b> | <b>102</b> | <b>46.6%</b> | <b>38</b>   | <b>17.4%</b> | <b>219</b> |         |

| Region               | Improvement |              |            |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|------------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest     |              | Substantial |              |            |         |
|                      | Count       | %            | Count      | %            | Count       | %            |            |         |
| Northeast (MA, CT)   | 17          | 40.5%        | 17         | 40.0%        | 8           | 19.0%        | <b>42</b>  | ns      |
| Southeast (TN,AL,GA) | 27          | 40.3%        | 32         | 47.8%        | 8           | 11.9%        | <b>67</b>  |         |
| Midwest (IL)         | 18          | 35.3%        | 26         | 51.0%        | 7           | 13.7%        | <b>51</b>  |         |
| West (CA)            | 17          | 28.8%        | 27         | 45.8%        | 15          | 25.4%        | <b>59</b>  |         |
| <b>Total/Average</b> | <b>79</b>   | <b>36.1%</b> | <b>102</b> | <b>46.6%</b> | <b>38</b>   | <b>17.4%</b> | <b>219</b> |         |

**Table B.5: Frequency Distributions by Treatment Group and by Region for Survey Item 18: What impact did your QI activities have on the outcomes targeted during Year 2 (CY2009)? (cont'd)**

**Improvement in Transferring?**

| Group                | Improvement |              |           |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|-----------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest    |              | Substantial |              |            |         |
|                      | Count       | %            | Count     | %            | Count       | %            |            |         |
| Control              | 38          | 40.4%        | 43        | 45.7%        | 13          | 13.8%        | <b>94</b>  | ns      |
| Treatment            | 51          | 40.8%        | 54        | 43.2%        | 20          | 16.0%        | <b>125</b> |         |
| <b>Total/Average</b> | <b>89</b>   | <b>40.6%</b> | <b>97</b> | <b>44.3%</b> | <b>33</b>   | <b>15.1%</b> | <b>219</b> |         |

| Region               | Improvement |              |           |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|-----------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest    |              | Substantial |              |            |         |
|                      | Count       | %            | Count     | %            | Count       | %            |            |         |
| Northeast (MA, CT)   | 18          | 42.9%        | 18        | 42.9%        | 6           | 14.3%        | <b>42</b>  | ns      |
| Southeast (TN,AL,GA) | 23          | 34.3%        | 36        | 53.7%        | 8           | 11.9%        | <b>67</b>  |         |
| Midwest (IL)         | 24          | 47.1%        | 22        | 43.1%        | 5           | 9.8%         | <b>51</b>  |         |
| West (CA)            | 24          | 40.7%        | 21        | 35.6%        | 14          | 23.7%        | <b>59</b>  |         |
| <b>Total/Average</b> | <b>89</b>   | <b>40.6%</b> | <b>97</b> | <b>44.3%</b> | <b>33</b>   | <b>15.1%</b> | <b>219</b> |         |

**Improvement in Status of Surgical Wounds?**

| Group                | Improvement |              |           |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|-----------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest    |              | Substantial |              |            |         |
|                      | Count       | %            | Count     | %            | Count       | %            |            |         |
| Control              | 35          | 37.2%        | 41        | 43.6%        | 18          | 19.1%        | <b>94</b>  | ns      |
| Treatment            | 46          | 36.8%        | 52        | 41.6%        | 27          | 21.6%        | <b>125</b> |         |
| <b>Total/Average</b> | <b>81</b>   | <b>37.0%</b> | <b>93</b> | <b>42.5%</b> | <b>45</b>   | <b>20.5%</b> | <b>219</b> |         |

| Region               | Improvement |              |           |              |             |              | Total      | Signif. |
|----------------------|-------------|--------------|-----------|--------------|-------------|--------------|------------|---------|
|                      | No Impact   |              | Modest    |              | Substantial |              |            |         |
|                      | Count       | %            | Count     | %            | Count       | %            |            |         |
| Northeast (MA, CT)   | 13          | 31.0%        | 18        | 42.9%        | 11          | 26.2%        | <b>42</b>  | 0.58    |
| Southeast (TN,AL,GA) | 33          | 49.3%        | 25        | 37.3%        | 9           | 13.4%        | <b>67</b>  |         |
| Midwest (IL)         | 17          | 33.3%        | 27        | 52.9%        | 7           | 13.7%        | <b>51</b>  |         |
| West (CA)            | 18          | 30.5%        | 23        | 39.0%        | 18          | 30.5%        | <b>59</b>  |         |
| <b>Total/Average</b> | <b>81</b>   | <b>37.0%</b> | <b>93</b> | <b>42.5%</b> | <b>45</b>   | <b>20.5%</b> | <b>219</b> |         |

**Table B.5: Frequency Distributions by Treatment Group and by Region for Survey Item 18: What impact did your QI activities have on the outcomes targeted during Year 2 (CY2009)? (cont'd)**

**Improvement in Management of Oral Medications?**

| <b>Group</b>         | <b>Improvement</b> |              |               |              |                    |              | <b>Total</b> | <b>Signif.</b> |
|----------------------|--------------------|--------------|---------------|--------------|--------------------|--------------|--------------|----------------|
|                      | <b>No Impact</b>   |              | <b>Modest</b> |              | <b>Substantial</b> |              |              |                |
|                      | Count              | %            | Count         | %            | Count              | %            |              |                |
| Control              | 33                 | 35.1%        | 47            | 50.0%        | 14                 | 14.9%        | <b>94</b>    | ns             |
| Treatment            | 39                 | 31.2%        | 64            | 51.2%        | 22                 | 17.6%        | <b>125</b>   |                |
| <b>Total/Average</b> | <b>72</b>          | <b>32.9%</b> | <b>111</b>    | <b>50.7%</b> | <b>36</b>          | <b>16.4%</b> | <b>219</b>   |                |

| <b>Region</b>        | <b>Improvement</b> |              |               |              |                    |              | <b>Total</b> | <b>Signif.</b> |
|----------------------|--------------------|--------------|---------------|--------------|--------------------|--------------|--------------|----------------|
|                      | <b>No Impact</b>   |              | <b>Modest</b> |              | <b>Substantial</b> |              |              |                |
|                      | Count              | %            | Count         | %            | Count              | %            |              |                |
| Northeast (MA, CT)   | 12                 | 28.6%        | 22            | 52.4%        | 8                  | 19.0%        | <b>42</b>    | Ns             |
| Southeast (TN,AL,GA) | 24                 | 35.8%        | 34            | 50.7%        | 9                  | 13.4%        | <b>67</b>    |                |
| Midwest (IL)         | 17                 | 33.3%        | 25            | 49.0%        | 9                  | 17.6%        | <b>51</b>    |                |
| West (CA)            | 19                 | 32.2%        | 30            | 50.8%        | 10                 | 16.9%        | <b>59</b>    |                |
| <b>Total/Average</b> | <b>72</b>          | <b>32.9%</b> | <b>111</b>    | <b>50.7%</b> | <b>36</b>          | <b>16.4%</b> | <b>219</b>   |                |

**Table B.6: Frequency Distributions by Treatment Group and by Region for Survey Item 19: What effect do you think the Demonstration will have on the following?**

**Patient Outcomes**

| Group                | Very Negative |             | Slightly Negative |             | No Impact |              | Slightly Positive |              | Very Positive |              | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|-------------|-----------|--------------|-------------------|--------------|---------------|--------------|------------|---------|
|                      | Count         | %           | Count             | %           | Count     | %            | Count             | %            | Count         | %            |            |         |
| Control              | 0             | 0.0%        | 1                 | 1.1%        | 31        | 33.0%        | 41                | 43.6%        | 21            | 22.3%        | 94         | ns      |
| Treatment            | 0             | 0.0%        | 0                 | 0.0%        | 34        | 27.2%        | 56                | 44.8%        | 35            | 28.0%        | 125        |         |
| <b>Total/Average</b> | <b>0</b>      | <b>0.0%</b> | <b>1</b>          | <b>0.5%</b> | <b>65</b> | <b>29.7%</b> | <b>97</b>         | <b>44.3%</b> | <b>56</b>     | <b>25.6%</b> | <b>219</b> |         |

| Region               | Very Negative |             | Slightly Negative |             | No Impact |              | Slightly Positive |              | Very Positive |              | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|-------------|-----------|--------------|-------------------|--------------|---------------|--------------|------------|---------|
|                      | Count         | %           | Count             | %           | Count     | %            | Count             | %            | Count         | %            |            |         |
| Northeast (MA, CT)   | 0             | 0.0%        | 0                 | 0.0%        | 16        | 38.1%        | 17                | 40.5%        | 9             | 21.4%        | 42         | ns      |
| Southeast (TN,AL,GA) | 0             | 0.0%        | 1                 | 1.5%        | 17        | 25.4%        | 32                | 47.8%        | 17            | 25.4%        | 67         |         |
| Midwest (IL)         | 0             | 0.0%        | 0                 | 0.0%        | 19        | 37.3%        | 23                | 45.1%        | 9             | 17.6%        | 51         |         |
| West (CA)            | 0             | 0.0%        | 0                 | 0.0%        | 13        | 22.0%        | 25                | 42.4%        | 21            | 35.6%        | 59         |         |
| <b>Total/Average</b> | <b>0</b>      | <b>0.0%</b> | <b>1</b>          | <b>0.5%</b> | <b>65</b> | <b>29.7%</b> | <b>97</b>         | <b>44.3%</b> | <b>56</b>     | <b>25.6%</b> | <b>219</b> |         |

**Quality of Care?**

| Group                | Very Negative |             | Slightly Negative |             | No Impact |              | Slightly Positive |              | Very Positive |              | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|-------------|-----------|--------------|-------------------|--------------|---------------|--------------|------------|---------|
|                      | Count         | %           | Count             | %           | Count     | %            | Count             | %            | Count         | %            |            |         |
| Control              | 0             | 0.0%        | 0                 | 0.0%        | 30        | 31.9%        | 41                | 43.6%        | 23            | 24.5%        | 94         | ns      |
| Treatment            | 0             | 0.0%        | 0                 | 0.0%        | 30        | 24.0%        | 57                | 45.6%        | 38            | 30.4%        | 125        |         |
| <b>Total/Average</b> | <b>0</b>      | <b>0.0%</b> | <b>0</b>          | <b>0.0%</b> | <b>60</b> | <b>27.4%</b> | <b>98</b>         | <b>44.7%</b> | <b>61</b>     | <b>27.9%</b> | <b>219</b> |         |

| Region               | Very Negative |             | Slightly Negative |             | No Impact |              | Slightly Positive |              | Very Positive |              | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|-------------|-----------|--------------|-------------------|--------------|---------------|--------------|------------|---------|
|                      | Count         | %           | Count             | %           | Count     | %            | Count             | %            | Count         | %            |            |         |
| Northeast (MA, CT)   | 0             | 0.0%        | 0                 | 0.0%        | 17        | 40.5%        | 18                | 42.9%        | 7             | 16.7%        | 42         | ns      |
| Southeast (TN,AL,GA) | 0             | 0.0%        | 0                 | 0.0%        | 13        | 19.4%        | 32                | 47.9%        | 22            | 32.8%        | 67         |         |
| Midwest (IL)         | 0             | 0.0%        | 0                 | 0.0%        | 18        | 35.3%        | 22                | 43.1%        | 11            | 21.6%        | 51         |         |
| West (CA)            | 0             | 0.0%        | 0                 | 0.0%        | 12        | 20.3%        | 26                | 44.1%        | 21            | 35.6%        | 59         |         |
| <b>Total/Average</b> | <b>0</b>      | <b>0.0%</b> | <b>0</b>          | <b>0.0%</b> | <b>60</b> | <b>27.4%</b> | <b>98</b>         | <b>44.7%</b> | <b>61</b>     | <b>27.9%</b> | <b>219</b> |         |

**Table B.6: Frequency Distributions by Treatment Group and by Region for Survey Item 19: What effect do you think the Demonstration will have on the following? (cont'd)**

**Cost of Care?**

| Group                | Very Negative |             | Slightly Negative |              | No Impact  |              | Slightly Positive |              | Very Positive |             | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|--------------|------------|--------------|-------------------|--------------|---------------|-------------|------------|---------|
|                      | Count         | %           | Count             | %            | Count      | %            | Count             | %            | Count         | %           |            |         |
| Control              | 6             | 6.4%        | 32                | 34.0%        | 40         | 42.6%        | 8                 | 8.5%         | 8             | 8.5%        | 94         | 0.051   |
| Treatment            | 1             | 0.8%        | 33                | 26.4%        | 60         | 48.0%        | 21                | 16.8%        | 10            | 8.0%        | 125        |         |
| <b>Total/Average</b> | <b>7</b>      | <b>3.2%</b> | <b>65</b>         | <b>29.7%</b> | <b>100</b> | <b>45.7%</b> | <b>29</b>         | <b>13.2%</b> | <b>18</b>     | <b>8.2%</b> | <b>219</b> |         |

| Region               | Very Negative |             | Slightly Negative |              | No Impact  |              | Slightly Positive |              | Very Positive |             | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|--------------|------------|--------------|-------------------|--------------|---------------|-------------|------------|---------|
|                      | Count         | %           | Count             | %            | Count      | %            | Count             | %            | Count         | %           |            |         |
| Northeast (MA, CT)   | 1             | 2.4%        | 9                 | 21.4%        | 22         | 52.4%        | 10                | 23.8%        | 0             | 0.0%        | 42         | 0.015   |
| Southeast (TN,AL,GA) | 1             | 1.5%        | 2                 | 31.3%        | 27         | 40.3%        | 12                | 17.9%        | 6             | 9.0%        | 67         |         |
| Midwest (IL)         | 4             | 7.8%        | 13                | 25.5%        | 27         | 52.9%        | 4                 | 7.8          | 3             | 5.9%        | 51         |         |
| West (CA)            | 1             | 1.7%        | 22                | 37.3%        | 24         | 40.7%        | 3                 | 5.1%         | 9             | 15.3%       | 59         |         |
| <b>Total/Average</b> | <b>7</b>      | <b>3.2%</b> | <b>65</b>         | <b>29.7%</b> | <b>100</b> | <b>45.7%</b> | <b>29</b>         | <b>13.2%</b> | <b>18</b>     | <b>8.2%</b> | <b>219</b> |         |

**HHA's Financial Solvency?**

| Group                | Very Negative |             | Slightly Negative |              | No Impact  |              | Slightly Positive |              | Very Positive |             | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|--------------|------------|--------------|-------------------|--------------|---------------|-------------|------------|---------|
|                      | Count         | %           | Count             | %            | Count      | %            | Count             | %            | Count         | %           |            |         |
| Control              | 3             | 3.2%        | 25                | 26.6%        | 52         | 55.3%        | 6                 | 6.4%         | 8             | 8.5%        | 94         | 0.004   |
| Treatment            | 1             | 0.8%        | 16                | 12.8%        | 72         | 57.6%        | 27                | 21.6%        | 9             | 7.2%        | 125        |         |
| <b>Total/Average</b> | <b>4</b>      | <b>1.8%</b> | <b>41</b>         | <b>18.7%</b> | <b>124</b> | <b>56.6%</b> | <b>33</b>         | <b>15.1%</b> | <b>17</b>     | <b>7.8%</b> | <b>219</b> |         |

| Region               | Very Negative |             | Slightly Negative |              | No Impact  |              | Slightly Positive |              | Very Positive |             | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|--------------|------------|--------------|-------------------|--------------|---------------|-------------|------------|---------|
|                      | Count         | %           | Count             | %            | Count      | %            | Count             | %            | Count         | %           |            |         |
| Northeast (MA, CT)   | 1             | 2.4%        | 3                 | 7.1%         | 32         | 76.2%        | 6                 | 14.3%        | 0             | 0.0%        | 42         | 0.050   |
| Southeast (TN,AL,GA) | 1             | 1.5%        | 19                | 28.4%        | 28         | 41.8%        | 10                | 14.9%        | 9             | 13.4%       | 67         |         |
| Midwest (IL)         | 1             | 2.0%        | 10                | 19.6%        | 32         | 62.7%        | 6                 | 11.8%        | 2             | 3.9%        | 51         |         |
| West (CA)            | 1             | 1.7%        | 9                 | 15.3%        | 32         | 54.2%        | 11                | 18.6%        | 6             | 10.2%       | 59         |         |
| <b>Total/Average</b> | <b>4</b>      | <b>1.8%</b> | <b>41</b>         | <b>18.7%</b> | <b>124</b> | <b>56.6%</b> | <b>33</b>         | <b>15.1%</b> | <b>17</b>     | <b>7.8%</b> | <b>219</b> |         |

**Table B.6: Frequency Distributions by Treatment Group and by Region for Survey Item 19: What effect do you think the Demonstration will have on the following? (cont'd)**

**HHA's Profitability?**

| Group                | Very Negative |             | Slightly Negative |              | No Impact  |              | Slightly Positive |              | Very Positive |             | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|--------------|------------|--------------|-------------------|--------------|---------------|-------------|------------|---------|
|                      | Count         | %           | Count             | %            | Count      | %            | Count             | %            | Count         | %           |            |         |
| Control              | 5             | 5.3%        | 26                | 27.7%        | 43         | 45.7%        | 13                | 13.8%        | 7             | 7.4%        | <b>94</b>  | 0.011   |
| Treatment            | 1             | 0.8%        | 18                | 14.4%        | 62         | 49.6%        | 33                | 26.4%        | 11            | 8.8%        | <b>125</b> |         |
| <b>Total/Average</b> | <b>6</b>      | <b>2.7%</b> | <b>44</b>         | <b>20.1%</b> | <b>105</b> | <b>47.9%</b> | <b>46</b>         | <b>21.0%</b> | <b>18</b>     | <b>8.2%</b> | <b>219</b> |         |

| Region               | Very Negative |             | Slightly Negative |              | No Impact  |              | Slightly Positive |              | Very Positive |             | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|--------------|------------|--------------|-------------------|--------------|---------------|-------------|------------|---------|
|                      | Count         | %           | Count             | %            | Count      | %            | Count             | %            | Count         | %           |            |         |
| Northeast (MA, CT)   | 1             | 2.4%        | 5                 | 11.9%        | 25         | 59.5%        | 11                | 26.2%        | 0             | 0.0%        | <b>42</b>  | 0.012   |
| Southeast (TN,AL,GA) | 1             | 1.5%        | 19                | 28.4%        | 26         | 38.8%        | 13                | 19.4%        | 8             | 11.9%       | <b>67</b>  |         |
| Midwest (IL)         | 4             | 7.8%        | 11                | 21.6%        | 28         | 54.9%        | 5                 | 9.8%         | 3             | 5.9%        | <b>51</b>  |         |
| West (CA)            | 0             | 0.0%        | 9                 | 15.3%        | 26         | 44.1%        | 17                | 28.8%        | 7             | 11.9%       | <b>59</b>  |         |
| <b>Total/Average</b> | <b>6</b>      | <b>2.7%</b> | <b>44</b>         | <b>20.1%</b> | <b>105</b> | <b>47.9%</b> | <b>46</b>         | <b>21.0%</b> | <b>18</b>     | <b>8.2%</b> | <b>219</b> |         |

**HHA's Patient Satisfaction?**

| Group                | Very Negative |             | Slightly Negative |             | No Impact |              | Slightly Positive |              | Very Positive |              | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|-------------|-----------|--------------|-------------------|--------------|---------------|--------------|------------|---------|
|                      | Count         | %           | Count             | %           | Count     | %            | Count             | %            | Count         | %            |            |         |
| Control              | 0             | 0.0%        | 3                 | 3.2%        | 44        | 46.8%        | 26                | 27.7%        | 21            | 22.3%        | <b>94</b>  | 0.042   |
| Treatment            | 0             | 0.0%        | 0                 | 0.0%        | 45        | 36.0%        | 51                | 40.8%        | 29            | 23.2%        | <b>125</b> |         |
| <b>Total/Average</b> | <b>0</b>      | <b>0.0%</b> | <b>3</b>          | <b>1.4%</b> | <b>89</b> | <b>40.6%</b> | <b>77</b>         | <b>35.2%</b> | <b>50</b>     | <b>22.8%</b> | <b>219</b> |         |

| Region               | Very Negative |             | Slightly Negative |             | No Impact |              | Slightly Positive |              | Very Positive |              | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|-------------|-----------|--------------|-------------------|--------------|---------------|--------------|------------|---------|
|                      | Count         | %           | Count             | %           | Count     | %            | Count             | %            | Count         | %            |            |         |
| Northeast (MA, CT)   | 0             | 0.0%        | 0                 | 0.0%        | 21        | 50.0%        | 17                | 40.5%        | 4             | 9.5%         | <b>42</b>  | 0.020   |
| Southeast (TN,AL,GA) | 0             | 0.0%        | 0                 | 0.0%        | 22        | 32.8%        | 26                | 38.8%        | 19            | 28.4%        | <b>67</b>  |         |
| Midwest (IL)         | 0             | 0.0%        | 1                 | 2.0%        | 28        | 54.9%        | 15                | 29.4%        | 7             | 13.7%        | <b>51</b>  |         |
| West (CA)            | 0             | 0.0%        | 1                 | 3.4%        | 18        | 30.5%        | 19                | 32.2%        | 20            | 33.9%        | <b>59</b>  |         |
| <b>Total/Average</b> | <b>0</b>      | <b>0.0%</b> | <b>3</b>          | <b>1.4%</b> | <b>89</b> | <b>40.6%</b> | <b>77</b>         | <b>35.2%</b> | <b>50</b>     | <b>22.8%</b> | <b>219</b> |         |

**Table B.6: Frequency Distributions by Treatment Group and by Region for Survey Item 19: What effect do you think the Demonstration will have on the following? (cont'd)**

**HHA's Staff Satisfaction?**

| Group                | Very Negative |             | Slightly Negative |             | No Impact  |              | Slightly Positive |              | Very Positive |              | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|-------------|------------|--------------|-------------------|--------------|---------------|--------------|------------|---------|
|                      | Count         | %           | Count             | %           | Count      | %            | Count             | %            | Count         | %            |            |         |
| Control              | 2             | 2.1%        | 8                 | 8.5%        | 49         | 51.1%        | 21                | 22.3%        | 15            | 16.0%        | <b>94</b>  | 0.031   |
| Treatment            | 0             | 0.0%        | 3                 | 2.4%        | 54         | 43.2%        | 44                | 35.2%        | 24            | 19.2%        | <b>125</b> |         |
| <b>Total/Average</b> | <b>2</b>      | <b>0.9%</b> | <b>11</b>         | <b>5.0%</b> | <b>102</b> | <b>46.6%</b> | <b>65</b>         | <b>29.7%</b> | <b>39</b>     | <b>17.8%</b> | <b>219</b> |         |

| Region               | Very Negative |             | Slightly Negative |             | No Impact  |              | Slightly Positive |              | Very Positive |              | Total      | Signif. |
|----------------------|---------------|-------------|-------------------|-------------|------------|--------------|-------------------|--------------|---------------|--------------|------------|---------|
|                      | Count         | %           | Count             | %           | Count      | %            | Count             | %            | Count         | %            |            |         |
| Northeast (MA, CT)   | 0             | 0.0%        | 2                 | 4.8%        | 20         | 47.6%        | 17                | 40.5%        | 3             | 7.1%         | <b>42</b>  | 0.052   |
| Southeast (TN,AL,GA) | 0             | 0.0%        | 2                 | 3.0%        | 31         | 46.3%        | 18                | 26.9%        | 16            | 23.9%        | <b>67</b>  |         |
| Midwest (IL)         | 2             | 3.9%        | 2                 | 3.9%        | 30         | 58.8%        | 10                | 19.6%        | 7             | 13.7%        | <b>51</b>  |         |
| West (CA)            | 0             | 0.0%        | 5                 | 8.5%        | 21         | 35.6%        | 20                | 33.9%        | 13            | 22.0%        | <b>59</b>  |         |
| <b>Total/Average</b> | <b>2</b>      | <b>0.9%</b> | <b>11</b>         | <b>5.0%</b> | <b>102</b> | <b>46.6%</b> | <b>65</b>         | <b>29.7%</b> | <b>39</b>     | <b>17.8%</b> | <b>219</b> |         |

## Appendix C: Summary Tables of Chi-Square Values from Cross-Tabulation

**Table C.1: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 3: Who completed the survey for the agency?**

| Q3 Item Elements                     | Statistically Significant Differences Among...       |                        |                                    |                                |                                |                                |                               |
|--------------------------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                                      | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Who completed survey for the agency? |  | p< 0.01                | p< 0.01                            |                                |                                |                                |                               |

**Table C.2: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 5: Based on your CY2009 performance, are you expecting to show higher performance, substantial improvement, or no change for each of the following outcomes.**

| Q5 Item Elements                              | Statistically Significant Differences Among...       |                        |                                    |                                |                                |                                |                               |
|---|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|   | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Acute Care Hospitalization                    | p< 0.05  |                        | p< 0.10                            |                                | p< 0.10                        |                                |                               |
| Any Emergent Care                             | p< 0.01  |                        | p< 0.10                            | p< 0.05                        | p< 0.01                        |                                |                               |
| Improvement in Bathing                        | p< 0.01  |                        |                                    |                                |                                | p< 0.05                        |                               |
| Improvement in Ambulation/Locomotion          | p< 0.01  |                        |                                    | p< 0.10                        |                                | p< 0.05                        |                               |
| Improvement in Transferring                   | p< 0.05  |                        |                                    |                                |                                |                                |                               |
| Improvement in Status of Surgical Wound       | p< 0.01  |                        |                                    |                                |                                | p< 0.05                        |                               |
| Improvement in Management of Oral Medications | p< 0.05  |                        |                                    |                                |                                | p< 0.05                        |                               |

**Table C.3: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 6: ... changes in the number of your staff (i.e., increased staffing, decreased staffing).**

| Q6 Item Elements | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                  | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Sr Management    |  |                        |                                    |                                |                                |                                |                               |
| QI/PI Coord      |  |                        |                                    |                                |                                |                                |                               |
| Clinical Suprv.  | p< 0.05  |                        |                                    |                                |                                |                                | p< 0.05                       |
| RN               |  | p< 0.01                | p< 0.01                            |                                |                                |                                |                               |
| RN w/ specialty  |  |                        |                                    |                                |                                |                                |                               |
| LPN              |  | p< 0.01                | p< 0.01                            |                                |                                |                                |                               |
| PT               |  |                        |                                    |                                |                                |                                |                               |
| OT               |  |                        |                                    |                                |                                |                                |                               |
| MSW              |  | p< 0.05                | p< 0.10                            |                                |                                |                                |                               |
| HH Aide          |  | p< 0.05                | p< 0.05                            |                                |                                |                                |                               |
| Admin. Support   |  |                        |                                    |                                |                                |                                |                               |

**Table C.4: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 7: ... turnover in your staff (Options = No/Low (0-5%); Small (6-20%); Moderate (21-40%); High (41-75%); Very High (>75%).**

| Q7 Item Elements | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                  | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Sr Management    |  |                        |                                    |                                | p< 0.05                        | p< 0.10                        |                               |
| QI/PI Coord      |  |                        |                                    |                                |                                |                                | p< 0.10                       |
| Clinical Suprv.  |  |                        |                                    |                                |                                |                                |                               |
| RN               |  | p< 0.05                | p< 0.01                            |                                |                                |                                |                               |
| RN w/ specialty  |  |                        |                                    |                                |                                |                                |                               |
| LPN              |  |                        |                                    |                                |                                |                                |                               |
| PT               |  |                        |                                    |                                |                                |                                |                               |
| OT               |  |                        |                                    |                                |                                |                                |                               |
| MSW              |  |                        |                                    |                                |                                |                                |                               |
| HH Aide          |  |                        |                                    |                                |                                |                                |                               |
| Admin. Support.  |  |                        |                                    |                                |                                |                                |                               |

**Table C.5: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 8: Did you add any new positions/functions during CY2009 specifically because of your participation in the demonstration (Options = Already Existed, Added, Does Not Exist).**

| Q8 Item Elements     | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|----------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                      | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| QI/PI Coord          |  |                        |                                    |                                |                                |                                |                               |
| Doc quality/accuracy |  |                        |                                    |                                |                                |                                |                               |
| Staff Education      | p< 0.05  |                        |                                    | p< 0.10                        |                                |                                | p< 0.05                       |
| Outcome Analysis     |  |                        |                                    |                                |                                |                                |                               |
| Resource Utilization |  |                        |                                    |                                |                                |                                |                               |
| Combination pos.     |  |                        |                                    |                                |                                |                                |                               |

**Table C.6: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 9: What policy changes did your agency implement during CY2009?**

| Q9 Item Elements          | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|---------------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                           | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Care practice             |  |                        |                                    |                                |                                |                                |                               |
| Care plans                |  |                        |                                    |                                |                                |                                |                               |
| Reduce time ref/adms      |  |                        |                                    | p< 0.05                        |                                |                                |                               |
| Pt communication          |  |                        |                                    |                                |                                |                                |                               |
| Physician comm.           |  |                        |                                    |                                |                                |                                |                               |
| Disease mgmt.             |  |                        |                                    |                                |                                |                                |                               |
| Telehealth                |  |                        |                                    |                                |                                |                                |                               |
| Falls prevention          |  |                        | p< 0.10                            |                                |                                |                                |                               |
| Patient infection cntrl   |  | p< 0.10                |                                    |                                |                                |                                |                               |
| New clinical splty.       |  | p< 0.05                |                                    |                                |                                |                                |                               |
| On-call staff change      |  | p< 0.05                |                                    |                                |                                |                                |                               |
| Expand business hrs       |  |                        |                                    |                                |                                |                                |                               |
| Productivity requirements |  |                        |                                    |                                |                                |                                |                               |
| Hiring requirements       |  | p< 0.01                | p< 0.05                            | p< 0.05                        |                                |                                |                               |

**Table C.7: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 10: What activities directed toward care providers and intended to improve quality of care did your agency implement during CY2009?**

| Q10 Item Elements         | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|---------------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                           | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Staff education           |  |                        |                                    |                                |                                |                                |                               |
| PI programs               |  |                        |                                    |                                |                                |                                |                               |
| Mentoring programs        |  |                        |                                    |                                |                                |                                |                               |
| Clinical team meetings    |  |                        |                                    |                                |                                |                                |                               |
| Record review             |  |                        |                                    |                                |                                |                                |                               |
| Staff competencies        |  | p< 0.05                |                                    |                                |                                |                                |                               |
| Staff evaluation criteria |  | p< 0.05                | p< 0.10                            |                                |                                |                                |                               |
| Employee incentives       |  | p< 0.05                | p< 0.10                            |                                |                                |                                |                               |
| Mgmt practices            |  | p< 0.10                |                                    | p< 0.05                        |                                |                                |                               |
| HH Aide supervision       |  |                        |                                    |                                |                                |                                |                               |
| Clinical resources        |  |                        |                                    |                                |                                |                                |                               |

**Table C.8: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 11: What technological innovations designed to improve the quality of care did your agency implement during CY2009?**

| Q11 Item Elements            | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|------------------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                              | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Telemonitoring equip.        |  |                        |                                    |                                |                                |                                |                               |
| EMRs                         |  |                        |                                    |                                |                                |                                |                               |
| E Info exchnng referrals     |  |                        |                                    |                                |                                |                                |                               |
| E Info exchnng MDs           |  |                        |                                    |                                |                                |                                |                               |
| E messaging staff            |  |                        |                                    |                                |                                | p< 0.05                        |                               |
| Infusion devices             |  | p< 0.10                |                                    |                                |                                |                                |                               |
| Respiratory equip.           |  |                        |                                    |                                |                                |                                |                               |
| Physiological monitor equip. |  |                        |                                    |                                | p< 0.05                        |                                |                               |
| PU reduction equip.          |  |                        |                                    |                                |                                |                                |                               |
| Wound care materials         |  | p< 0.05                | p< 0.05                            |                                |                                |                                |                               |
| Med reminder sys             |  |                        |                                    |                                |                                |                                |                               |
| Med dispense sys             |  |                        |                                    |                                |                                |                                |                               |
| Med check software           |  |                        |                                    |                                |                                |                                |                               |
| Emergency response           |  |                        |                                    |                                |                                | p< 0.05                        |                               |
| E access to policies         | p< 0.05  |                        |                                    |                                | p< 0.10                        | p< 0.05                        |                               |

**Table C.9: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 12: What care practice changes designed to improve specific clinical outcomes did your agency implement during CY2009?**

| Q12 Item Elements       | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|-------------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                         | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Changing visit patterns | p< 0.10  |                        |                                    |                                |                                | p< 0.01                        |                               |
| Telemonitoring          |  |                        |                                    |                                |                                |                                |                               |
| Changing visit mix      |  |                        |                                    |                                |                                |                                |                               |
| Disease mgmt prog.      |  |                        |                                    |                                |                                |                                |                               |
| Clinical pathways       |  |                        |                                    |                                |                                |                                |                               |
| Patient teaching        |  |                        |                                    | p< 0.10                        |                                |                                |                               |
| Communication w/MD      | p< 0.10  |                        |                                    |                                |                                |                                |                               |
| POC specific parameters |  |                        |                                    |                                |                                |                                |                               |
| Care team comm.         |  |                        |                                    |                                |                                |                                |                               |
| Screening assessment    |  |                        |                                    |                                |                                |                                |                               |
| Falls prevention prog.  |  |                        |                                    |                                |                                |                                |                               |
| Wound care protocols    |  |                        |                                    |                                |                                |                                |                               |
| Vaccination focus       |  | p< 0.10                |                                    |                                |                                |                                |                               |
| Med dispense sys        |  |                        |                                    |                                | p< 0.01                        |                                |                               |

**Table C.10: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 13: Identify any corporate initiatives that were implemented during CY2009. (Note: if HHA was not part of a chain, they skipped this item.)**

| Q13 Item Elements      | Statistically Significant Differences Among...       |                        |                                    |                                |                                |                                |                               |
|------------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                        | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Part of Chain?         | p< 0.10  |                        |                                    |                                |                                |                                |                               |
| Reduce hospitalization |  |                        |                                    |                                | p< 0.01                        |                                |                               |
| Reduce ER use          |  |                        |                                    |                                | p< 0.05                        |                                |                               |
| Rehab outcomes         |  |                        |                                    |                                |                                |                                |                               |
| PU treatments          |  |                        |                                    |                                |                                |                                |                               |
| Falls risk reduction   |  |                        |                                    | p< 0.05                        | p< 0.01                        |                                |                               |
| Med mgmt program       |  |                        |                                    |                                |                                |                                |                               |
| Tech. for patient      |  |                        |                                    |                                |                                |                                |                               |
| Staff training         |  | p< 0.10                |                                    |                                | p< 0.05                        |                                |                               |
| QIO participation      |  |                        |                                    |                                |                                |                                |                               |
| Performance incentive  |  |                        |                                    |                                |                                |                                |                               |
| Corp communication     |  |                        |                                    |                                |                                |                                |                               |

**Table C.11: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 14: Identify any impact on your agency that occurred during CY2009 that may have been the result of local / regional issues or situations.**

| Q14 Item Elements     | Statistically Significant Differences Among...       |                        |                                    |                                |                                |                                |                               |
|-----------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                       | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| # hospitals           |  |                        |                                    |                                | p< 0.01                        |                                |                               |
| # SNFs                |  |                        |                                    |                                | p< 0.01                        |                                |                               |
| # Urgent Care         |  |                        |                                    |                                | p< 0.01                        |                                |                               |
| # HHAs                |  |                        |                                    |                                | p< 0.01                        |                                |                               |
| Availability RNs      |  | p< 0.01                | p< 0.05                            |                                |                                |                                |                               |
| Availability PTs      |  | p< 0.05                |                                    |                                |                                |                                |                               |
| Availability OTs      |  | p< 0.05                | p< 0.05                            |                                |                                |                                |                               |
| Availability HH Aides |  | p< 0.01                | p< 0.05                            |                                |                                |                                |                               |
| Demographics          |  |                        |                                    |                                |                                |                                |                               |
| Local care practices  |  |                        |                                    | p< 0.10                        |                                |                                |                               |
| Community resources   |  |                        |                                    |                                | p< 0.01                        |                                |                               |
| Natural disaster      |  |                        |                                    |                                |                                |                                |                               |
| State health policies |  | p< 0.10                |                                    |                                |                                |                                |                               |

**Table C.12: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 17: What is your best estimate of how changes related to the P4P Demo changed the cost of providing care to your patients? (Options: >10% Decrease; 5-10% Decrease; 1-5% Decrease; Less than 1% Change; 1-5% Increase; 5-10% Increase; >10% Increase).**

| Q17 Item Elements | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|-------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                   | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Cost impact       | p< 0.01  | p< 0.05                |                                    |                                |                                | p< 0.10                        | p< 0.10                       |

**Table C.13: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for Survey Item 18: How much of an impact on your patients do you think your quality improvement activities have had on the outcomes targeted during Year 2 (CY2009)? (Options: No Impact; Modest Improvement; Substantial Improvement)**

| Q18 Item Elements                             | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|---|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|   | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Acute Care Hospitalization                    |  |                        | p< 0.10                            |                                |                                |                                |                               |
| Any Emergent Care                             | p< 0.05  |                        | p< 0.10                            |                                |                                | p< 0.05                        |                               |
| Improvement in Bathing                        |  |                        |                                    |                                |                                |                                |                               |
| Improvement in Ambulation/ Locomotion         |  |                        |                                    | p< 0.10                        |                                |                                |                               |
| Improvement in Transferring                   |  |                        |                                    |                                |                                |                                |                               |
| Improvement in Status of Surgical Wound       |  | p< 0.10                | p< 0.10                            |                                |                                |                                |                               |
| Improvement in Management of Oral Medications | p< 0.01  |                        | p< 0.10                            |                                |                                |                                | p< 0.01                       |

**Table C.14: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for: Survey Item 19: What effect do you think the demonstration will have on the following? (Options: Very Negative; Slightly Negative; No Impact; Slightly Positive; Very Positive)**

| Q19 Item Elements                  | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|------------------------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                                    | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Patient outcomes                   |  |                        | p< 0.10                            |                                |                                |                                |                               |
| Quality of care HHA                | p< 0.05  | p< 0.10                | p< 0.10                            |                                |                                |                                |                               |
| Quality of care--state             |  | p< 0.10                | p< 0.05                            |                                |                                |                                |                               |
| Access to care                     |  | p< 0.05                |                                    |                                |                                |                                |                               |
| Cost of care                       |  |                        | p< 0.10                            |                                |                                |                                |                               |
| Financial solvency                 |  | p< 0.05                | p< 0.10                            |                                |                                |                                | p< 0.10                       |
| Financial solvency--HHAs-statewide | p< 0.05  | p< 0.05                | p< 0.10                            | p< 0.05                        | p< 0.10                        |                                |                               |
| Profitability HHA                  | p< 0.05  | p< 0.05                | p< 0.05                            |                                |                                | p< 0.10                        |                               |
| Profitability--state               | p< 0.10  | p< 0.05                | p< 0.05                            |                                | p< 0.10                        | p< 0.10                        |                               |
| Patient satisfaction               |  | p< 0.05                | p< 0.05                            |                                | p< 0.05                        |                                |                               |
| Staff satisfaction                 |  | p< 0.10                |                                    |                                |                                |                                |                               |
| Referral satisfaction              | p< 0.05  |                        |                                    |                                | p< 0.01                        |                                |                               |

**Table C.15: Cross tabulations (Chi-Square) Results for Year 2 Web Survey of Home Health P4P Participating HHAs by Treatment Group and Regions for: Survey Item 20: Rate each of the following actions/reports in terms of how useful it would be if Home Health P4P is implemented. (Options: Not Useful; Useful; Very Useful; Extremely Useful; N/A)**

| Q20 Item Elements              | Statistically Significant Differences Among....      |                        |                                    |                                |                                |                                |                               |
|--------------------------------|--|------------------------|------------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|
|                                | Experimental Groups: Control / Winners / Non-Winners | Region (NE, SE, MW, W) | State (MA, CT, TN, AL, GA, IL, CA) | Region (NE) by Treatment Group | Region (SE) by Treatment Group | Region (MW) by Treatment Group | Region (W) by Treatment Group |
| Regular updates                |  |                        |                                    |                                |                                | p< 0.05                        |                               |
| Best practices                 |  |                        |                                    |                                |                                | p< 0.05                        |                               |
| QIO SOW                        | p< 0.10  |                        |                                    |                                |                                |                                |                               |
| Online workshops               |  |                        |                                    |                                |                                |                                |                               |
| Highlight high performing HHA  |  |                        |                                    |                                |                                |                                |                               |
| Intervention strategies        |  |                        |                                    |                                |                                |                                |                               |
| Certificates of recognition    |  |                        |                                    |                                |                                |                                |                               |
| Publicize high performance HHA |  |                        |                                    |                                |                                |                                |                               |

## Appendix D: Cross-Tabulation by Region and Winners, Non-Winner, and Control Comparisons

**Table D.1: Selected Cross-Tabulation Results by Region and Treatment Group by Survey Item 3: Who completed the survey for the agency? (Options = Senior Management; QI/PI Coordinator; Other Staff).**

| REGION                  | GROUP   | Total | Administrative/<br>Support | Clinical<br>Supervisory<br>Positions | Other       | QI / PI<br>Coordinator | Senior Mgmt<br>(CEO, DON,<br>etc) |
|-------------------------|---------|-------|----------------------------|--------------------------------------|-------------|------------------------|-----------------------------------|
| Northeast               | Control | 17    | 1                          |                                      |             | 6                      | 10                                |
|                         | NonWin  | 2     |                            |                                      |             | 1                      | 1                                 |
|                         | Winner  | 23    |                            |                                      | 1           | 2                      | 20                                |
| Southeast               | Control | 28    |                            |                                      | 2           | 13                     | 13                                |
|                         | NonWin  | 1     |                            |                                      |             | 1                      |                                   |
|                         | Winner  | 38    | 1                          | 2                                    | 1           | 12                     | 22                                |
| Midwest                 | Control | 25    |                            | 4                                    | 1           | 5                      | 15                                |
|                         | NonWin  | 7     |                            |                                      |             | 1                      | 6                                 |
|                         | Winner  | 19    | 1                          | 1                                    | 1           | 3                      | 13                                |
| West                    | Control | 24    | 3                          |                                      |             | 2                      | 19                                |
|                         | NonWin  | 5     | 2                          |                                      |             |                        | 3                                 |
|                         | Winner  | 30    | 2                          | 1                                    | 1           | 5                      | 21                                |
| <b>Percent of Total</b> |         |       | <b>4.6%</b>                | <b>3.7%</b>                          | <b>3.2%</b> | <b>23.3%</b>           | <b>65.3%</b>                      |

**Table D.2: Selected Cross-Tabulation Results by Region and Treatment Group by Survey Item 5: Based on your CY2009 performance, are you expecting to show higher performance, substantial improvement, or no change for each of the following:**

### Acute Care Hospitalization

| REGION                  | GROUP   | Total | N/A          | High<br>Performance | Substantial<br>Improvement |
|-------------------------|---------|-------|--------------|---------------------|----------------------------|
| Northeast               | Control | 17    | 3            | 9                   | 5                          |
|                         | NonWin  | 2     | 1            |                     | 1                          |
|                         | Winner  | 23    | 10           | 7                   | 6                          |
| Southeast               | Control | 28    | 9            | 14                  | 5                          |
|                         | NonWin  | 1     | 1            |                     |                            |
|                         | Winner  | 38    | 17           | 7                   | 14                         |
| Midwest                 | Control | 25    | 11           | 6                   | 8                          |
|                         | NonWin  | 7     | 5            |                     | 2                          |
|                         | Winner  | 19    | 13           | 3                   | 3                          |
| West                    | Control | 24    | 8            | 9                   | 7                          |
|                         | NonWin  | 5     | 3            |                     | 2                          |
|                         | Winner  | 30    | 10           | 14                  | 6                          |
| <b>Percent of Total</b> |         |       | <b>41.6%</b> | <b>31.5%</b>        | <b>26.9%</b>               |

**Table D.2: Selected Cross-Tabulation Results by Region and Treatment Group for Survey Item 5: Based on your CY2009 performance, are you expecting to show higher performance, substantial improvement, or no change for each of the following: (cont'd)**

**Any Emergent Care**

| REGION                  | GROUP   | Total | N/A          | High Performance | Substantial Improvement |
|-------------------------|---------|-------|--------------|------------------|-------------------------|
| Northeast               | Control | 17    | 2            | 11               | 4                       |
|                         | NonWin  | 2     | 1            |                  | 1                       |
|                         | Winner  | 23    | 13           | 6                | 4                       |
| Southeast               | Control | 28    | 6            | 17               | 5                       |
|                         | NonWin  | 1     | 1            |                  |                         |
|                         | Winner  | 38    | 22           | 6                | 10                      |
| Midwest                 | Control | 25    | 13           | 7                | 5                       |
|                         | NonWin  | 7     | 5            |                  | 2                       |
|                         | Winner  | 19    | 10           | 4                | 5                       |
| West                    | Control | 24    | 8            | 7                | 9                       |
|                         | NonWin  | 5     | 4            |                  | 1                       |
|                         | Winner  | 30    | 14           | 9                | 7                       |
| <b>Percent of Total</b> |         |       | <b>45.2%</b> | <b>30.6%</b>     | <b>24.2%</b>            |

**Improvement in Bathing**

| REGION                  | GROUP   | Total | N/A          | High Performance | Substantial Improvement |
|-------------------------|---------|-------|--------------|------------------|-------------------------|
| Northeast               | Control | 17    | 6            | 8                | 3                       |
|                         | NonWin  | 2     | 2            |                  |                         |
|                         | Winner  | 23    | 15           | 3                | 5                       |
| Southeast               | Control | 28    | 11           | 13               | 4                       |
|                         | NonWin  | 1     | 1            |                  |                         |
|                         | Winner  | 38    | 19           | 8                | 11                      |
| Midwest                 | Control | 25    | 6            | 14               | 5                       |
|                         | NonWin  | 7     | 5            | 1                | 1                       |
|                         | Winner  | 19    | 11           | 3                | 5                       |
| West                    | Control | 24    | 11           | 6                | 7                       |
|                         | NonWin  | 5     | 3            |                  | 2                       |
|                         | Winner  | 30    | 13           | 7                | 10                      |
| <b>Percent of Total</b> |         |       | <b>47.0%</b> | <b>28.8%</b>     | <b>24.2%</b>            |

**Improvement in Ambulation/Locomotion**

| REGION                  | GROUP   | Total | N/A          | High Performance | Substantial Improvement |
|-------------------------|---------|-------|--------------|------------------|-------------------------|
| Northeast               | Control | 17    | 5            | 8                | 4                       |
|                         | NonWin  | 2     | 2            |                  |                         |
|                         | Winner  | 23    | 14           | 3                | 6                       |
| Southeast               | Control | 28    | 10           | 12               | 6                       |
|                         | NonWin  | 1     | 1            |                  |                         |
|                         | Winner  | 38    | 18           | 9                | 11                      |
| Midwest                 | Control | 25    | 6            | 15               | 4                       |
|                         | NonWin  | 7     | 5            | 1                | 1                       |
|                         | Winner  | 19    | 11           | 3                | 5                       |
| West                    | Control | 24    | 8            | 9                | 7                       |
|                         | NonWin  | 5     | 1            | 1                | 3                       |
|                         | Winner  | 30    | 12           | 12               | 6                       |
| <b>Percent of Total</b> |         |       | <b>42.5%</b> | <b>33.3%</b>     | <b>24.2%</b>            |

**Table D.2: Selected Cross-Tabulation Results by Region and Treatment Group for Survey Item 5: Based on your CY2009 performance, are you expecting to show higher performance, substantial improvement, or no change for each of the following: (cont'd)**

**Improvement in Transferring**

| REGION                  | GROUP   | Total | N/A          | High Performance | Substantial Improvement |
|-------------------------|---------|-------|--------------|------------------|-------------------------|
| Northeast               | Control | 17    | 5            | 8                | 4                       |
|                         | NonWin  | 2     | 2            |                  |                         |
|                         | Winner  | 23    | 14           | 4                | 5                       |
| Southeast               | Control | 28    | 10           | 14               | 4                       |
|                         | NonWin  | 1     | 1            |                  |                         |
|                         | Winner  | 38    | 18           | 10               | 10                      |
| Midwest                 | Control | 25    | 10           | 13               | 2                       |
|                         | NonWin  | 7     | 5            | 1                | 1                       |
|                         | Winner  | 19    | 13           | 3                | 3                       |
| West                    | Control | 24    | 9            | 8                | 7                       |
|                         | NonWin  | 5     | 2            | 1                | 2                       |
|                         | Winner  | 30    | 11           | 11               | 8                       |
| <b>Percent of Total</b> |         |       | <b>45.7%</b> | <b>33.3%</b>     | <b>21.0%</b>            |

**Improvement in Status of Surgical Wounds**

| REGION                  | GROUP   | Total | N/A          | High Performance | Substantial Improvement |
|-------------------------|---------|-------|--------------|------------------|-------------------------|
| Northeast               | Control | 17    | 4            | 9                | 4                       |
|                         | NonWin  | 2     | 2            |                  |                         |
|                         | Winner  | 23    | 10           | 5                | 8                       |
| Southeast               | Control | 28    | 11           | 13               | 4                       |
|                         | NonWin  | 1     | 1            |                  |                         |
|                         | Winner  | 38    | 16           | 9                | 13                      |
| Midwest                 | Control | 25    | 6            | 13               | 6                       |
|                         | NonWin  | 7     | 4            |                  | 3                       |
|                         | Winner  | 19    | 10           | 2                | 7                       |
| West                    | Control | 24    | 8            | 7                | 9                       |
|                         | NonWin  | 5     | 2            | 1                | 2                       |
|                         | Winner  | 30    | 12           | 12               | 6                       |
| <b>Percent of Total</b> |         |       | <b>39.3%</b> | <b>32.4%</b>     | <b>28.3%</b>            |

**Table D.2: Selected Cross-Tabulation Results by Region and Treatment Group for Survey Item 5: Based on your CY2009 performance, are you expecting to show higher performance, substantial improvement, or no change for each of the following: (cont'd)**

**Improvement in Management of Oral Medications**

| REGION                  | GROUP   | Total | N/A          | High Performance | Substantial Improvement |
|-------------------------|---------|-------|--------------|------------------|-------------------------|
| Northeast               | Control | 17    | 3            | 9                | 5                       |
|                         | NonWin  | 2     | 1            | 1                |                         |
|                         | Winner  | 23    | 10           | 6                | 7                       |
| Southeast               | Control | 28    | 10           | 9                | 9                       |
|                         | NonWin  | 1     |              |                  | 1                       |
|                         | Winner  | 38    | 13           | 13               | 12                      |
| Midwest                 | Control | 25    | 4            | 15               | 6                       |
|                         | NonWin  | 7     | 4            | 2                | 1                       |
|                         | Winner  | 19    | 9            | 3                | 7                       |
| West                    | Control | 24    | 9            | 9                | 6                       |
|                         | NonWin  | 5     | 4            |                  | 1                       |
|                         | Winner  | 30    | 12           | 7                | 11                      |
| <b>Percent of Total</b> |         |       | <b>36.1%</b> | <b>33.8%</b>     | <b>30.1%</b>            |

**Table D.3: Selected Cross-Tabulation Results by Region and Treatment Group for Survey Item 7: turnover in your staff (e.g., a staff member left and was replaced by a new or another staff member in that position)**

**Staff Turnover--Senior Management**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 17            |               |                   |               |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 21            | 1             | 1                 |               |                  |
| Southeast               | Control | 28    | 26            | 1             | 1                 |               |                  |
|                         | NonWin  | 1     |               | 1             |                   |               |                  |
|                         | Winner  | 38    | 34            | 3             |                   |               | 1                |
| Midwest                 | Control | 25    | 25            |               |                   |               |                  |
|                         | NonWin  | 7     | 6             | 1             |                   |               |                  |
|                         | Winner  | 19    | 18            |               | 1                 |               |                  |
| West                    | Control | 24    | 21            | 1             | 1                 | 1             |                  |
|                         | NonWin  | 5     | 4             | 1             |                   |               |                  |
|                         | Winner  | 30    | 29            |               |                   | 1             |                  |
| <b>Percent of Total</b> |         |       | <b>92.7%</b>  | <b>4.1%</b>   | <b>1.8%</b>       | <b>0.9%</b>   | <b>0.5%</b>      |

**Table D.3: Selected Cross-Tabulation Results by Region and Treatment Group for Survey Item 7: turnover in your staff (e.g., a staff member left and was replaced by a new or another staff member in that position) (cont'd)**

**Staff Turnover--QI / PI Coordinator**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 15            | 1             | 1                 |               |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 19            | 2             |                   |               | 2                |
| Southeast               | Control | 28    | 26            | 2             |                   |               |                  |
|                         | NonWin  | 1     | 1             |               |                   |               |                  |
|                         | Winner  | 38    | 31            | 5             |                   | 1             | 1                |
| Midwest                 | Control | 25    | 24            | 1             |                   |               |                  |
|                         | NonWin  | 7     | 7             |               |                   |               |                  |
|                         | Winner  | 19    | 17            | 1             | 1                 |               |                  |
| West                    | Control | 24    | 22            | 1             |                   | 1             |                  |
|                         | NonWin  | 5     | 4             |               | 1                 |               |                  |
|                         | Winner  | 30    | 25            | 4             |                   |               | 1                |
| <b>Percent of Total</b> |         |       | <b>88.1%</b>  | <b>7.8%</b>   | <b>1.4%</b>       | <b>0.9%</b>   | <b>1.8%</b>      |

**Staff Turnover--Clinical Supervisors**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 13            | 3             | 1                 |               |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 19            | 2             |                   | 1             | 1                |
| Southeast               | Control | 28    | 20            | 4             | 4                 |               |                  |
|                         | NonWin  | 1     | 1             |               |                   |               |                  |
|                         | Winner  | 38    | 30            | 5             | 2                 | 1             |                  |
| Midwest                 | Control | 25    | 21            | 3             | 1                 |               |                  |
|                         | NonWin  | 7     | 7             |               |                   |               |                  |
|                         | Winner  | 19    | 14            | 3             | 2                 |               |                  |
| West                    | Control | 24    | 18            | 3             | 1                 | 2             |                  |
|                         | NonWin  | 5     | 5             |               |                   |               |                  |
|                         | Winner  | 30    | 28            | 1             | 1                 |               |                  |
| <b>Percent of Total</b> |         |       | <b>81.3%</b>  | <b>11.0%</b>  | <b>5.5%</b>       | <b>1.8%</b>   | <b>0.5%</b>      |

**Staff Turnover--RNs**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 9             | 7             |                   | 1             |                  |
|                         | NonWin  | 2     |               | 2             |                   |               |                  |
|                         | Winner  | 23    | 12            | 9             | 1                 |               | 1                |
| Southeast               | Control | 28    | 14            | 8             | 5                 | 1             |                  |
|                         | NonWin  | 1     |               | 1             |                   |               |                  |
|                         | Winner  | 38    | 14            | 9             | 11                | 3             | 1                |
| Midwest                 | Control | 25    | 17            | 4             | 3                 |               | 1                |
|                         | NonWin  | 7     | 5             |               | 2                 |               |                  |
|                         | Winner  | 19    | 12            | 5             | 2                 |               |                  |
| West                    | Control | 24    | 9             | 10            | 5                 |               |                  |
|                         | NonWin  | 5     | 2             | 1             | 2                 |               |                  |
|                         | Winner  | 30    | 17            | 10            | 2                 | 1             |                  |
| <b>Percent of Total</b> |         |       | <b>50.7%</b>  | <b>30.1%</b>  | <b>15.1%</b>      | <b>2.7%</b>   | <b>1.4%</b>      |

**Table D.3: Selected Cross-Tabulation Results by Region and Treatment Group for Survey Item 7: turnover in your staff (e.g., a staff member left and was replaced by a new or another staff member in that position) (cont'd)**

**Staff Turnover--RNs with Specialty License**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 15            | 2             |                   |               |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 23            |               |                   |               |                  |
| Southeast               | Control | 28    | 26            | 1             | 1                 |               |                  |
|                         | NonWin  | 1     | 1             |               |                   |               |                  |
|                         | Winner  | 38    | 35            | 1             |                   | 1             | 1                |
| Midwest                 | Control | 25    | 25            |               |                   |               |                  |
|                         | NonWin  | 7     | 7             |               |                   |               |                  |
|                         | Winner  | 19    | 19            |               |                   |               |                  |
| West                    | Control | 24    | 22            | 1             | 1                 |               |                  |
|                         | NonWin  | 5     | 5             |               |                   |               |                  |
|                         | Winner  | 30    | 27            | 2             |                   |               | 1                |
| <b>Percent of Total</b> |         |       | <b>94.5%</b>  | <b>3.2%</b>   | <b>0.9%</b>       | <b>0.5%</b>   | <b>0.9%</b>      |

**Staff Turnover--LPNs**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 15            | 2             |                   |               |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 21            | 2             |                   |               |                  |
| Southeast               | Control | 28    | 19            | 7             | 1                 | 1             |                  |
|                         | NonWin  | 1     | 1             |               |                   |               |                  |
|                         | Winner  | 38    | 31            | 4             | 3                 |               |                  |
| Midwest                 | Control | 25    | 24            |               | 1                 |               |                  |
|                         | NonWin  | 7     | 6             |               | 1                 |               |                  |
|                         | Winner  | 19    | 18            | 1             |                   |               |                  |
| West                    | Control | 24    | 19            | 3             | 2                 |               |                  |
|                         | NonWin  | 5     | 5             |               |                   |               |                  |
|                         | Winner  | 30    | 27            | 1             | 1                 | 1             |                  |
| <b>Percent of Total</b> |         |       | <b>85.8%</b>  | <b>9.1%</b>   | <b>4.1%</b>       | <b>0.9%</b>   | <b>0.0%</b>      |

**Staff Turnover--PTs**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 13            | 3             |                   | 1             |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 19            | 4             |                   |               |                  |
| Southeast               | Control | 28    | 22            | 4             | 2                 |               |                  |
|                         | NonWin  | 1     | 1             |               |                   |               |                  |
|                         | Winner  | 38    | 29            | 6             | 3                 |               |                  |
| Midwest                 | Control | 25    | 20            | 4             |                   |               | 1                |
|                         | NonWin  | 7     | 6             | 1             |                   |               |                  |
|                         | Winner  | 19    | 16            | 3             |                   |               |                  |
| West                    | Control | 24    | 19            | 3             | 2                 |               |                  |
|                         | NonWin  | 5     | 5             |               |                   |               |                  |
|                         | Winner  | 30    | 21            | 7             | 1                 |               | 1                |
| <b>Percent of Total</b> |         |       | <b>79.0%</b>  | <b>16.0%</b>  | <b>3.7%</b>       | <b>0.5%</b>   | <b>0.9%</b>      |

**Table D.3: Selected Cross-Tabulation Results by Region and Treatment Group for Survey Item 7: turnover in your staff (e.g., a staff member left and was replaced by a new or another staff member in that position) (cont'd)**

**Staff Turnover--OTs**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 12            | 4             | 1                 |               |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 22            | 1             |                   |               |                  |
| Southeast               | Control | 28    | 21            | 6             | 1                 |               |                  |
|                         | NonWin  | 1     | 1             |               |                   |               |                  |
|                         | Winner  | 38    | 33            | 2             | 2                 |               | 1                |
| Midwest                 | Control | 25    | 22            | 2             |                   |               | 1                |
|                         | NonWin  | 7     | 7             |               |                   |               |                  |
|                         | Winner  | 19    | 17            | 2             |                   |               |                  |
| West                    | Control | 24    | 21            | 3             |                   |               |                  |
|                         | NonWin  | 5     | 5             |               |                   |               |                  |
|                         | Winner  | 30    | 27            | 2             |                   |               | 1                |
| <b>Percent of Total</b> |         |       | <b>86.8%</b>  | <b>10.0%</b>  | <b>1.8%</b>       | <b>0.0%</b>   | <b>1.4%</b>      |

**Staff Turnover--Medical Social Worker**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 14            | 3             |                   |               |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 22            | 1             |                   |               |                  |
| Southeast               | Control | 28    | 26            | 2             |                   |               |                  |
|                         | NonWin  | 1     | 1             |               |                   |               |                  |
|                         | Winner  | 38    | 35            | 1             | 1                 |               | 1                |
| Midwest                 | Control | 25    | 24            | 1             |                   |               |                  |
|                         | NonWin  | 7     | 7             |               |                   |               |                  |
|                         | Winner  | 19    | 19            |               |                   |               |                  |
| West                    | Control | 24    | 22            | 2             |                   |               |                  |
|                         | NonWin  | 5     | 5             |               |                   |               |                  |
|                         | Winner  | 30    | 27            | 2             |                   |               | 1                |
| <b>Percent of Total</b> |         |       | <b>93.2%</b>  | <b>5.5%</b>   | <b>0.5%</b>       | <b>0.0%</b>   | <b>0.9%</b>      |

**Staff Turnover--Home Health Aide**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 12            | 4             | 1                 |               |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 17            | 4             | 2                 |               |                  |
| Southeast               | Control | 28    | 25            | 2             | 1                 |               |                  |
|                         | NonWin  | 1     | 1             |               |                   |               |                  |
|                         | Winner  | 38    | 32            | 4             |                   | 2             |                  |
| Midwest                 | Control | 25    | 22            | 2             | 1                 |               |                  |
|                         | NonWin  | 7     | 6             | 1             |                   |               |                  |
|                         | Winner  | 19    | 17            | 2             |                   |               |                  |
| West                    | Control | 24    | 20            | 2             | 1                 | 1             |                  |
|                         | NonWin  | 5     | 5             |               |                   |               |                  |
|                         | Winner  | 30    | 27            | 2             |                   | 1             |                  |
| <b>Percent of Total</b> |         |       | <b>84.9%</b>  | <b>10.5%</b>  | <b>2.7%</b>       | <b>1.8%</b>   | <b>0.0%</b>      |

**Table D.3: Selected Cross-Tabulation Results by Region and Treatment Group for Survey Item 7: turnover in your staff (e.g., a staff member left and was replaced by a new or another staff member in that position) (cont'd)**

**Staff Turnover--Administrative Support**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 13            | 3             | 1                 |               |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 19            | 4             |                   |               |                  |
| Southeast               | Control | 28    | 24            | 2             | 2                 |               |                  |
|                         | NonWin  | 1     | 1             |               |                   |               |                  |
|                         | Winner  | 38    | 30            | 5             | 3                 |               |                  |
| Midwest                 | Control | 25    | 23            | 2             |                   |               |                  |
|                         | NonWin  | 7     | 6             | 1             |                   |               |                  |
|                         | Winner  | 19    | 19            |               |                   |               |                  |
| West                    | Control | 24    | 21            | 2             | 1                 |               |                  |
|                         | NonWin  | 5     | 4             |               | 1                 |               |                  |
|                         | Winner  | 30    | 23            | 6             | 1                 |               |                  |
| <b>Percent of Total</b> |         |       | <b>84.5%</b>  | <b>11.4%</b>  | <b>4.1%</b>       | <b>0.0%</b>   | <b>0.0%</b>      |

**Staff Turnover--Other**

| REGION                  | GROUP   | Total | No/Low (<=5%) | Small (6-20%) | Moderate (21-40%) | High (41-75%) | Very High (>75%) |
|-------------------------|---------|-------|---------------|---------------|-------------------|---------------|------------------|
| Northeast               | Control | 17    | 17            |               |                   |               |                  |
|                         | NonWin  | 2     | 2             |               |                   |               |                  |
|                         | Winner  | 23    | 23            |               |                   |               |                  |
| Southeast               | Control | 28    | 27            |               | 1                 |               |                  |
|                         | NonWin  | 1     | 1             |               |                   |               |                  |
|                         | Winner  | 38    | 38            |               |                   |               |                  |
| Midwest                 | Control | 25    | 25            |               |                   |               |                  |
|                         | NonWin  | 7     | 7             |               |                   |               |                  |
|                         | Winner  | 19    | 19            |               |                   |               |                  |
| West                    | Control | 24    | 23            | 1             |                   |               |                  |
|                         | NonWin  | 5     | 5             |               |                   |               |                  |
|                         | Winner  | 30    | 30            |               |                   |               |                  |
| <b>Percent of Total</b> |         |       | <b>99.1%</b>  | <b>0.5%</b>   | <b>0.5%</b>       | <b>0.0%</b>   | <b>0.0%</b>      |

**Table D.4: Selected Cross-Tabulation Results by Region and Treatment Group for Survey Item 15: What is your best estimate of the effects of activities related to the pay for performance demonstration during Year 2 on the cost of providing care to your patients?**

| REGION                  | GROUP   | Total | Decreased >10% | Decreased 5-10% | Decreased 1-5% | Less than 1% Change | Increased 1-5% | Increased 5-10% | Increased >10% |
|-------------------------|---------|-------|----------------|-----------------|----------------|---------------------|----------------|-----------------|----------------|
| Northeast               | Control | 17    |                |                 | 2              | 8                   | 3              | 3               | 1              |
|                         | NonWin  | 2     |                |                 |                | 2                   |                |                 |                |
|                         | Winner  | 23    |                |                 | 1              | 17                  | 5              |                 |                |
| Southeast               | Control | 28    |                | 3               | 3              | 14                  | 6              | 1               | 1              |
|                         | NonWin  | 1     |                |                 |                | 1                   |                |                 |                |
|                         | Winner  | 38    |                |                 | 2              | 21                  | 14             | 1               |                |
| Midwest                 | Control | 25    |                |                 | 2              | 12                  | 4              | 6               | 1              |
|                         | NonWin  | 7     |                |                 | 1              | 5                   |                |                 | 1              |
|                         | Winner  | 19    |                | 1               |                | 12                  | 6              |                 |                |
| West                    | Control | 24    | 1              |                 |                | 9                   | 4              | 6               | 4              |
|                         | NonWin  | 5     |                |                 |                | 2                   |                | 3               |                |
|                         | Winner  | 30    |                |                 |                | 15                  | 11             | 2               | 2              |
| <b>Percent of Total</b> |         |       | <b>0.5%</b>    | <b>1.8%</b>     | <b>5.0%</b>    | <b>53.9%</b>        | <b>24.2%</b>   | <b>10.0%</b>    | <b>4.6%</b>    |

## Appendix E: Regression Models for Demonstration Target Outcomes

Regression Models for Demonstration "Outcomes" for All, Control-only, and Winners-only HHAs Using Web Survey Items

**Table E.1: Models for Cost of Participating in Demonstration.**

**Model for All HHAs**

| Independent Variables             | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|-----------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                        |                       |                     | 4.121             | .000             |
| Staff education <sup>2</sup>      | .146                  | .015                | .138              | .312             |
| Wound care protocols <sup>2</sup> | .172                  | .005                | .100              | .510             |
| Wound care materials <sup>2</sup> | .194                  | .002                | .224              | .156             |
| Management practices <sup>3</sup> | .228                  | .000                | .325              | .037             |
| Hiring requirements <sup>3</sup>  | .168                  | .006                | .139              | .518             |
| Patient teaching                  | .164                  | .008                | .103              | .496             |
| Physiological monitor equip.      | .135                  | .023                | .070              | .696             |
| <b>Model Summary</b>              | <b>R</b>              | <b>R Square</b>     | <b>F</b>          | <b>Sig.</b>      |
|                                   | 0.306                 | 0.094               | 3.114             | 0.004            |

**Model for Control HHAs**

| Independent Variables             | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|-----------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                        |                       |                     | 4.671             | .000             |
| Staff education <sup>2</sup>      | .237                  | .011                | .596              | .012             |
| Wound care protocols <sup>2</sup> | .232                  | .012                | .382              | .138             |
| Wound care materials <sup>2</sup> | .256                  | .006                | .443              | .112             |
| RN w/ specialty turnover          | -.240                 | .010                | -1.254            | .000             |
| HH Aide turnover                  | .259                  | .006                | .489              | .016             |
| <b>Model Summary</b>              | <b>R</b>              | <b>R Square</b>     | <b>F</b>          | <b>Sig.</b>      |
|                                   | 0.531                 | 0.281               | 6.895             | 0.000            |

**Model for Winning HHAs**

| Independent Variables             | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|-----------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                        |                       |                     | 3.864             | .000             |
| Management practices <sup>3</sup> | .279                  | .002                | .320              | .046             |
| Hiring requirements <sup>3</sup>  | .211                  | .013                | .064              | .773             |
| Staff competencies                | .195                  | .021                | .124              | .392             |
| Admin. Support Turnover           | .261                  | .003                | .299              | .033             |
| On-call staff change              | .211                  | .013                | .217              | .311             |
| <b>Model Summary</b>              | <b>R</b>              | <b>R Square</b>     | <b>F</b>          | <b>Sig.</b>      |
|                                   | 0.390                 | 0.152               | 3.736             | 0.004            |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.2: Models for Quality Improvement Impact on Acute Care Hospitalization.**

**Model for All HHAs**

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 1.526             | .000             |
| Employee incentives <sup>1</sup>        | .214                  | .001                | .218              | .143             |
| Clinical pathways <sup>1</sup>          | .241                  | .000                | .164              | .246             |
| Communication w/ MD <sup>1</sup>        | .216                  | .001                | .194              | .102             |
| POC specific parameters <sup>2</sup>    | .154                  | .011                | .051              | .616             |
| Vaccination focus <sup>2</sup>          | .135                  | .023                | .041              | .681             |
| Care plans <sup>2</sup>                 | .213                  | .001                | .089              | .489             |
| Clinical team meetings <sup>3</sup>     | .170                  | .006                | .028              | .796             |
| Disease management program <sup>3</sup> | .215                  | .001                | .091              | .504             |
| Patient teaching <sup>3</sup>           | .141                  | .018                | -.021             | .849             |
| Med dispense sys <sup>3</sup>           | .130                  | .027                | .025              | .868             |
| Disease management. <sup>3</sup>        | .213                  | .001                | .049              | .724             |
| Staff evaluation criteria               | .150                  | .013                | .106              | .397             |
| Management practices                    | .141                  | .019                | -.032             | .784             |
| Telemonitoring                          | .151                  | .013                | .232              | .105             |
| Physician comm.                         | .143                  | .017                | -.074             | .530             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.371 | 0.137    | 2.156 | 0.009 |

**Model for Control HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 1.903             | .000             |
| Employee incentives <sup>1</sup>     | .275                  | .004                | .449              | .066             |
| Clinical pathways <sup>1</sup>       | .269                  | .004                | .260              | .253             |
| Communication w/ MD <sup>1</sup>     | .218                  | .017                | .254              | .114             |
| POC specific parameters <sup>2</sup> | .283                  | .003                | .130              | .448             |
| Vaccination focus <sup>2</sup>       | .228                  | .014                | .086              | .607             |
| Care plans <sup>2</sup>              | .271                  | .004                | .063              | .749             |
| PT turnover                          | -.266                 | .005                | -.222             | .107             |
| OT turnover                          | -.241                 | .010                | -.107             | .490             |
| Physiological monitor equip.         | .212                  | .020                | .020              | .914             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.508 | 0.258    | 3.243 | 0.002 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.2: Models for Quality Improvement Impact on Acute Care Hospitalization. (cont'd)**

**Model for Winning HHAs**

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 1.609             | .000             |
| Employee incentives <sup>1</sup>        | .197                  | .019                | .115              | .559             |
| Clinical pathways <sup>1</sup>          | .203                  | .017                | .086              | .588             |
| Communication w/ MD <sup>1</sup>        | .199                  | .018                | -.011             | .943             |
| Clinical team meetings <sup>3</sup>     | .214                  | .013                | .077              | .610             |
| Disease management program <sup>3</sup> | .199                  | .018                | .029              | .871             |
| Patient teaching <sup>3</sup>           | .195                  | .020                | .023              | .886             |
| Med dispense sys <sup>3</sup>           | .193                  | .022                | .168              | .392             |
| Disease management. <sup>3</sup>        | .292                  | .001                | .267              | .175             |
| Patient communication                   | .195                  | .021                | .046              | .750             |
| On-call staff change                    | .191                  | .023                | .110              | .592             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.360 | 0.130    | 1.474 | 0.160 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.3: Models for Quality Improvement Impact on Any Emergent Care.**

Model for All HHAs

| Independent Variables                     | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                                |                       |                     | 1.304             | .000             |
| Staff evaluation criteria <sup>1</sup>    | .269                  | .000                | .194              | .135             |
| Communication w/ MD <sup>1</sup>          | .294                  | .000                | .245              | .031             |
| POC specific parameters <sup>1</sup>      | .275                  | .000                | .201              | .042             |
| Physician comm. <sup>1</sup>              | .225                  | .000                | -.037             | .746             |
| E access to policies <sup>1</sup>         | .172                  | .005                | .130              | .278             |
| Record review <sup>2</sup>                | .171                  | .006                | -.015             | .881             |
| Changing visit patterns <sup>2</sup>      | .192                  | .002                | .057              | .582             |
| Vaccination focus <sup>2</sup>            | .164                  | .007                | .021              | .820             |
| Care plans <sup>2</sup>                   | .216                  | .001                | .103              | .424             |
| Reduce time ref/adms <sup>2</sup>         | .161                  | .009                | .050              | .656             |
| Physiological monitor equip. <sup>2</sup> | .192                  | .002                | .084              | .470             |
| Employee incentives <sup>3</sup>          | .256                  | .000                | .207              | .157             |
| Management practices <sup>3</sup>         | .201                  | .001                | .033              | .765             |
| HH Aide supervision <sup>3</sup>          | .141                  | .018                | .131              | .484             |
| Telemonitoring <sup>3</sup>               | .163                  | .008                | .107              | .649             |
| Disease management program <sup>3</sup>   | .176                  | .005                | .013              | .920             |
| Clinical pathways <sup>3</sup>            | .257                  | .000                | .121              | .383             |
| Patient teaching <sup>3</sup>             | .208                  | .001                | .005              | .964             |
| Care team comm. <sup>3</sup>              | .161                  | .009                | -.028             | .814             |
| Med dispense sys <sup>3</sup>             | .205                  | .001                | .211              | .219             |
| Disease management. <sup>3</sup>          | .186                  | .003                | -.073             | .591             |
| Expand business hrs <sup>3</sup>          | .221                  | .001                | .652              | .074             |
| Telemonitoring equip. <sup>3</sup>        | .159                  | .009                | .205              | .391             |
| Med reminder sys <sup>3</sup>             | .150                  | .013                | -.208             | .287             |
| Med dispense sys <sup>3</sup>             | .169                  | .006                | .279              | .305             |
| Med check software <sup>3</sup>           | .155                  | .011                | -.002             | .994             |
| Clinical team meetings                    | .143                  | .017                | -.108             | .355             |
| Wound care protocols                      | .135                  | .023                | -.116             | .265             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.518 | 0.268    | 2.490 | 0.000 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.3: Models for Quality Improvement Impact on Any Emergent Care. (cont'd)**

**Model for Control HHAs**

| Independent Variables                     | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                                |                       |                     | 1.535             | .000             |
| Staff evaluation criteria <sup>1</sup>    | .314                  | .001                | .215              | .197             |
| Communication w/ MD <sup>1</sup>          | .278                  | .003                | .262              | .116             |
| POC specific parameters <sup>1</sup>      | .355                  | .000                | .128              | .415             |
| Physician comm. <sup>1</sup>              | .278                  | .003                | .014              | .935             |
| E access to policies <sup>1</sup>         | .240                  | .010                | .412              | .013             |
| Record review <sup>2</sup>                | .218                  | .017                | .054              | .689             |
| Changing visit patterns <sup>2</sup>      | .249                  | .008                | .076              | .598             |
| Vaccination focus <sup>2</sup>            | .205                  | .024                | .021              | .890             |
| Care plans <sup>2</sup>                   | .348                  | .000                | .144              | .384             |
| Reduce time ref/adms <sup>2</sup>         | .292                  | .002                | -.001             | .993             |
| Physiological monitor equip. <sup>2</sup> | .275                  | .004                | .200              | .181             |
| PI programs                               | .256                  | .006                | .232              | .085             |
| PT turnover                               | -.323                 | .001                | -.343             | .003             |
| MSW turnover                              | -.230                 | .013                | -.081             | .763             |
| <b>Model Summary</b>                      | <b>R</b>              | <b>R Square</b>     | <b>F</b>          | <b>Sig.</b>      |
|   | 0.665                 | 0.442               | 4.467             | 0.000            |

**Model for Winning HHAs**

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 1.420             | .000             |
| Staff evaluation criteria <sup>1</sup>  | .230                  | .008                | -.110             | .594             |
| Communication w/ MD <sup>1</sup>        | .294                  | .001                | .119              | .486             |
| POC specific parameters <sup>1</sup>    | .272                  | .002                | .181              | .227             |
| Physician comm. <sup>1</sup>            | .212                  | .013                | -.025             | .894             |
| E access to policies <sup>1</sup>       | .225                  | .009                | .035              | .850             |
| Employee incentives <sup>3</sup>        | .314                  | .000                | .265              | .231             |
| Management practices <sup>3</sup>       | .259                  | .003                | .012              | .950             |
| HH Aide supervision <sup>3</sup>        | .214                  | .012                | -.296             | .491             |
| Telemonitoring <sup>3</sup>             | .191                  | .023                | -.074             | .829             |
| Disease management program <sup>3</sup> | .198                  | .019                | .074              | .702             |
| Clinical pathways <sup>3</sup>          | .264                  | .003                | .123              | .459             |
| Patient teaching <sup>3</sup>           | .266                  | .002                | .020              | .901             |
| Care team comm. <sup>3</sup>            | .204                  | .016                | -.020             | .896             |
| Med dispense sys <sup>3</sup>           | .271                  | .002                | .264              | .296             |
| Disease management. <sup>3</sup>        | .223                  | .010                | .045              | .837             |
| Expand business hrs <sup>3</sup>        | .293                  | .001                | .742              | .101             |
| Telemonitoring equip. <sup>3</sup>      | .228                  | .008                | .518              | .159             |
| Med reminder sys <sup>3</sup>           | .263                  | .003                | -.191             | .550             |
| Med dispense sys <sup>3</sup>           | .220                  | .010                | .612              | .107             |
| Med check software <sup>3</sup>         | .263                  | .003                | .182              | .530             |
| Patient communication                   | .205                  | .016                | -.002             | .992             |
| <b>Model Summary</b>                    | <b>R</b>              | <b>R Square</b>     | <b>F</b>          | <b>Sig.</b>      |
|   | 0.546                 | 0.298               | 1.780             | 0.033            |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.4: Models for Quality Improvement Impact on Improvement in Bathing.**

Model for All HHAs

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | 1.226             | .000             |
| Employee incentives <sup>1</sup>       | .226                  | .000                | .222              | .130             |
| Patient infection cntrl <sup>1</sup>   | .328                  | .000                | .339              | .010             |
| Hiring requirements. <sup>1</sup>      | .229                  | .000                | .074              | .656             |
| PI programs <sup>2</sup>               | .165                  | .007                | .116              | .267             |
| Clinical team meetings <sup>2</sup>    | .144                  | .017                | -.089             | .451             |
| Management practices <sup>2</sup>      | .214                  | .001                | .170              | .138             |
| HH Aide supervision <sup>2</sup>       | .201                  | .001                | .204              | .282             |
| Changing visit patterns <sup>2</sup>   | .142                  | .018                | .033              | .757             |
| Patient teaching <sup>2</sup>          | .193                  | .002                | -.024             | .831             |
| Communication w/ MD <sup>2</sup>       | .200                  | .002                | .026              | .824             |
| POC specific parameters <sup>2</sup>   | .153                  | .012                | .041              | .681             |
| Care team comm. <sup>2</sup>           | .177                  | .004                | -.047             | .688             |
| Wound care protocols <sup>2</sup>      | .177                  | .004                | -.101             | .367             |
| Med dispense sys <sup>2</sup>          | .235                  | .000                | .223              | .206             |
| Disease management. <sup>2</sup>       | .154                  | .011                | -.107             | .377             |
| Staff competencies <sup>3</sup>        | .177                  | .004                | .042              | .693             |
| Staff evaluation criteria <sup>3</sup> | .143                  | .017                | -.059             | .666             |
| Clinical resources <sup>3</sup>        | .166                  | .007                | .122              | .261             |
| Changing visit mix <sup>3</sup>        | .185                  | .003                | .058              | .571             |
| Admin. Support Turnover <sup>3</sup>   | .140                  | .019                | .122              | .234             |
| Reduce time ref/adms <sup>3</sup>      | .265                  | .000                | .259              | .026             |
| Patient communication <sup>3</sup>     | .213                  | .001                | .022              | .850             |
| Physician comm. <sup>3</sup>           | .172                  | .006                | -.093             | .468             |
| On-call staff change <sup>3</sup>      | .140                  | .019                | .044              | .784             |
| E messaging staff <sup>3</sup>         | .139                  | .020                | .057              | .670             |
| Record review                          | .147                  | .015                | -.048             | .655             |
| Clinical pathways                      | .154                  | .011                | .106              | .451             |
| Care plans                             | .139                  | .020                | -.032             | .807             |
| Falls prevention                       | .137                  | .021                | -.041             | .695             |
| Wound care materials                   | .146                  | .015                | .050              | .647             |
| Med reminder sys                       | .157                  | .010                | -.144             | .485             |
| Med dispense sys                       | .135                  | .023                | .269              | .339             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.487 | 0.237    | 1.805 | 0.008 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.4: Models for Quality Improvement Impact on Improvement in Bathing. (cont'd)**

**Model for Control HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 1.224             | .000             |
| Employee incentives <sup>1</sup>     | .322                  | .001                | .525              | .021             |
| Patient infection cntrl <sup>1</sup> | .383                  | .000                | .342              | .085             |
| Hiring requirements. <sup>1</sup>    | .230                  | .013                | -.048             | .834             |
| PI programs <sup>2</sup>             | .265                  | .005                | .153              | .290             |
| Clinical team meetings <sup>2</sup>  | .280                  | .003                | .180              | .247             |
| Management practices <sup>2</sup>    | .313                  | .001                | .211              | .154             |
| HH Aide supervision <sup>2</sup>     | .223                  | .015                | .122              | .575             |
| Changing visit patterns <sup>2</sup> | .204                  | .024                | .050              | .735             |
| Patient teaching <sup>2</sup>        | .290                  | .002                | .018              | .903             |
| Communication w/ MD <sup>2</sup>     | .284                  | .003                | .145              | .356             |
| POC specific parameters <sup>2</sup> | .255                  | .007                | -.008             | .954             |
| Care team comm. <sup>2</sup>         | .244                  | .009                | -.142             | .395             |
| Wound care protocols <sup>2</sup>    | .205                  | .024                | -.043             | .766             |
| Med dispense sys <sup>2</sup>        | .427                  | .000                | .523              | .022             |
| Disease management. <sup>2</sup>     | .263                  | .005                | -.094             | .542             |
| Screening assessment                 | .267                  | .005                | .046              | .770             |
| Falls prevention program             | .234                  | .011                | -.088             | .603             |
| Infusion devices                     | .216                  | .018                | .379              | .091             |
| Physiological monitor equip.         | .239                  | .010                | .059              | .714             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.653 | 0.427    | 2.903 | 0.001 |

**Model for Winning HHAs**

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | .838              | .000             |
| Employee incentives <sup>1</sup>       | .216                  | .012                | .100              | .626             |
| Patient infection cntrl <sup>1</sup>   | .322                  | .000                | .192              | .296             |
| Hiring requirements. <sup>1</sup>      | .275                  | .002                | .054              | .818             |
| Staff competencies <sup>3</sup>        | .240                  | .006                | .015              | .917             |
| Staff evaluation criteria <sup>3</sup> | .260                  | .003                | .103              | .584             |
| Clinical resources <sup>3</sup>        | .302                  | .001                | .266              | .066             |
| Changing visit mix <sup>3</sup>        | .192                  | .022                | -.069             | .637             |
| Admin. Support Turnover <sup>3</sup>   | .217                  | .011                | .329              | .034             |
| Reduce time ref/adms <sup>3</sup>      | .301                  | .001                | .232              | .201             |
| Patient communication <sup>3</sup>     | .206                  | .015                | .005              | .975             |
| Physician comm. <sup>3</sup>           | .187                  | .025                | -.123             | .472             |
| On-call staff change <sup>3</sup>      | .234                  | .007                | .156              | .476             |
| E messaging staff <sup>3</sup>         | .231                  | .008                | .207              | .232             |
| Mentoring programs                     | .193                  | .022                | -.028             | .875             |
| Clinical Supervision                   | .276                  | .002                | .175              | .065             |
| LPN turnover                           | .247                  | .005                | .181              | .244             |
| PT turnover                            | .192                  | .022                | -.153             | .303             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.550 | 0.302    | 2.343 | 0.005 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.5: Models for Quality Improvement Impact on Improvement in Ambulation/Locomotion.**

Model for All HHAs

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | 1.383             | .000             |
| Staff competencies <sup>1</sup>        | .217                  | .001                | .073              | .524             |
| Employee incentives <sup>1</sup>       | .218                  | .001                | .062              | .688             |
| Care team comm. <sup>1</sup>           | .231                  | .000                | .067              | .574             |
| Patient infection cntrl <sup>1</sup>   | .250                  | .000                | .175              | .214             |
| E messaging staff <sup>1</sup>         | .219                  | .001                | .230              | .113             |
| PI programs <sup>2</sup>               | .186                  | .003                | .100              | .378             |
| Record review <sup>2</sup>             | .193                  | .002                | -.021             | .856             |
| Management practices <sup>2</sup>      | .232                  | .000                | .086              | .482             |
| Changing visit patterns <sup>2</sup>   | .183                  | .003                | .073              | .524             |
| Patient teaching <sup>2</sup>          | .226                  | .000                | .043              | .711             |
| Communication w/ MD <sup>2</sup>       | .162                  | .008                | -.066             | .593             |
| Screening assessment <sup>2</sup>      | .137                  | .021                | -.104             | .379             |
| Wound care protocols <sup>2</sup>      | .171                  | .006                | -.083             | .485             |
| Med dispense sys <sup>2</sup>          | .137                  | .021                | .090              | .582             |
| Reduce time ref/adms <sup>2</sup>      | .237                  | .000                | .124              | .316             |
| Patient communication <sup>2</sup>     | .183                  | .003                | -.004             | .973             |
| Disease management. <sup>2</sup>       | .204                  | .001                | .096              | .530             |
| Falls prevention <sup>2</sup>          | .162                  | .008                | -.014             | .908             |
| Hiring requirements. <sup>2</sup>      | .200                  | .002                | .041              | .806             |
| Mentoring programs <sup>3</sup>        | .183                  | .003                | .003              | .979             |
| Staff evaluation criteria <sup>3</sup> | .294                  | .000                | .316              | .027             |
| Clinical resources <sup>3</sup>        | .168                  | .006                | .058              | .613             |
| Changing visit mix <sup>3</sup>        | .217                  | .001                | .147              | .182             |
| LPN Turnover <sup>3</sup>              | .157                  | .010                | .076              | .423             |
| On-call staff change <sup>3</sup>      | .176                  | .005                | .032              | .853             |
| Expand business hrs <sup>3</sup>       | .181                  | .004                | .250              | .524             |
| HH Aide supervision                    | .149                  | .014                | .125              | .548             |
| Disease management program             | .165                  | .007                | -.040             | .779             |
| Clinical pathways                      | .160                  | .009                | .033              | .832             |
| Care plans                             | .162                  | .008                | .003              | .985             |
| Physician comm.                        | .169                  | .006                | -.117             | .396             |
| Wound care materials                   | .150                  | .013                | .016              | .891             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.474 | 0.224    | 1.680 | 0.018 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.5: Models for Quality Improvement Impact on Improvement in Ambulation/Locomotion. (cont'd)**

**Model for Control HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 1.310             | .000             |
| Staff competencies <sup>1</sup>      | .260                  | .006                | .158              | .272             |
| Employee incentives <sup>1</sup>     | .241                  | .010                | .386              | .084             |
| Care team comm. <sup>1</sup>         | .243                  | .009                | -.159             | .344             |
| Patient infection cntrl <sup>1</sup> | .364                  | .000                | .223              | .269             |
| E messaging staff <sup>1</sup>       | .239                  | .010                | .436              | .033             |
| PI programs <sup>2</sup>             | .275                  | .004                | .138              | .362             |
| Record review <sup>2</sup>           | .354                  | .000                | .244              | .117             |
| Management practices <sup>2</sup>    | .348                  | .000                | .275              | .072             |
| Changing visit patterns <sup>2</sup> | .275                  | .004                | .062              | .693             |
| Patient teaching <sup>2</sup>        | .332                  | .001                | .085              | .569             |
| Communication w/ MD <sup>2</sup>     | .279                  | .003                | -.012             | .939             |
| Screening assessment <sup>2</sup>    | .302                  | .002                | -.047             | .776             |
| Wound care protocols <sup>2</sup>    | .223                  | .015                | -.022             | .880             |
| Med dispense sys <sup>2</sup>        | .399                  | .000                | .661              | .005             |
| Reduce time ref/adms <sup>2</sup>    | .280                  | .003                | .212              | .189             |
| Patient communication <sup>2</sup>   | .205                  | .024                | -.104             | .502             |
| Disease management. <sup>2</sup>     | .287                  | .002                | -.056             | .740             |
| Falls prevention <sup>2</sup>        | .217                  | .018                | -.051             | .792             |
| Hiring requirements. <sup>2</sup>    | .287                  | .003                | .194              | .392             |
| Staff education                      | .211                  | .021                | -.013             | .921             |
| Clinical team meetings               | .228                  | .014                | .071              | .652             |
| POC specific parameters              | .216                  | .018                | -.034             | .815             |
| Falls prevention program             | .205                  | .024                | -.159             | .472             |
| Physiological monitor equip.         | .216                  | .018                | .100              | .522             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.693 | 0.481    | 2.660 | 0.001 |

**Model for Winning HHAs**

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | 1.284             | .000             |
| Staff competencies <sup>1</sup>        | .191                  | .023                | -.071             | .648             |
| Employee incentives <sup>1</sup>       | .195                  | .021                | -.120             | .595             |
| Care team comm. <sup>1</sup>           | .236                  | .006                | .019              | .904             |
| Patient infection cntrl <sup>1</sup>   | .201                  | .017                | .040              | .836             |
| E messaging staff <sup>1</sup>         | .197                  | .019                | .141              | .441             |
| Mentoring programs <sup>3</sup>        | .203                  | .017                | -.052             | .782             |
| Staff evaluation criteria <sup>3</sup> | .413                  | .000                | .648              | .002             |
| Clinical resources <sup>3</sup>        | .277                  | .002                | .220              | .164             |
| Changing visit mix <sup>3</sup>        | .220                  | .011                | .192              | .212             |
| LPN turnover <sup>3</sup>              | .237                  | .006                | .244              | .071             |
| On-call staff change <sup>3</sup>      | .230                  | .008                | -.065             | .781             |
| Expand business hrs <sup>3</sup>       | .238                  | .006                | .437              | .253             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.516 | 0.266    | 2.931 | 0.002 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.6: Models for Quality Improvement Impact on Improvement in Transferring.**

Model for All HHAs

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 1.030             | .000             |
| Reduce time ref/adms <sup>1</sup>       | .241                  | .000                | .147              | .232             |
| Physician comm. <sup>1</sup>            | .217                  | .001                | -.007             | .960             |
| Disease management. <sup>1</sup>        | .285                  | .000                | .193              | .208             |
| PI programs <sup>2</sup>                | .225                  | .000                | .154              | .175             |
| Record review <sup>2</sup>              | .221                  | .001                | .046              | .687             |
| Staff competencies <sup>2</sup>         | .166                  | .007                | -.035             | .760             |
| Management practices <sup>2</sup>       | .256                  | .000                | .157              | .190             |
| HH Aide supervision <sup>2</sup>        | .177                  | .004                | .254              | .222             |
| Changing visit patterns <sup>2</sup>    | .184                  | .003                | .072              | .611             |
| Disease management program <sup>2</sup> | .212                  | .001                | -.034             | .817             |
| Clinical pathways <sup>2</sup>          | .183                  | .003                | .192              | .210             |
| Patient teaching <sup>2</sup>           | .220                  | .001                | -.033             | .776             |
| Communication w/ MD <sup>2</sup>        | .195                  | .002                | -.025             | .838             |
| Screening assessment <sup>2</sup>       | .145                  | .016                | -.032             | .788             |
| Wound care protocols <sup>2</sup>       | .143                  | .017                | -.152             | .193             |
| Med dispense sys <sup>2</sup>           | .134                  | .024                | .041              | .799             |
| Patient communication <sup>2</sup>      | .197                  | .002                | -.078             | .536             |
| Falls prevention <sup>2</sup>           | .188                  | .003                | .026              | .824             |
| Patient infection cntrl <sup>2</sup>    | .209                  | .001                | .125              | .370             |
| Hiring requirements. <sup>2</sup>       | .202                  | .001                | -.006             | .972             |
| Mentoring programs <sup>3</sup>         | .181                  | .004                | .062              | .602             |
| Staff evaluation criteria <sup>3</sup>  | .215                  | .001                | .216              | .129             |
| Clinical resources <sup>3</sup>         | .145                  | .016                | .042              | .715             |
| Changing visit mix <sup>3</sup>         | .205                  | .001                | .105              | .342             |
| Care team comm. <sup>3</sup>            | .223                  | .000                | .024              | .838             |
| LPN Turnover <sup>3</sup>               | .182                  | .003                | .108              | .256             |
| On-call staff change <sup>3</sup>       | .149                  | .014                | .036              | .836             |
| Expand business hrs <sup>3</sup>        | .147                  | .015                | -.080             | .838             |
| Employee incentives                     | .181                  | .004                | .048              | .756             |
| Admin. Support Turnover                 | .173                  | .005                | .195              | .076             |
| Care practice                           | .170                  | .006                | .025              | .856             |
| Care plans                              | .143                  | .017                | -.163             | .261             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.473 | 0.223    | 1.672 | 0.019 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.6: Models for Quality Improvement Impact on Improvement in Transferring. (cont'd)**

**Model for Control HHAs**

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 1.090             | .000             |
| Reduce time ref/adms <sup>1</sup>       | .252                  | .007                | .199              | .264             |
| Physician comm. <sup>1</sup>            | .278                  | .003                | -.265             | .166             |
| Disease management. <sup>1</sup>        | .394                  | .000                | .149              | .507             |
| PI programs <sup>2</sup>                | .332                  | .001                | .182              | .300             |
| Record review <sup>2</sup>              | .397                  | .000                | .328              | .040             |
| Staff competencies <sup>2</sup>         | .239                  | .010                | .122              | .407             |
| Management practices <sup>2</sup>       | .350                  | .000                | .067              | .677             |
| HH Aide supervision <sup>2</sup>        | .237                  | .011                | .285              | .251             |
| Changing visit patterns <sup>2</sup>    | .233                  | .012                | .006              | .975             |
| Disease management program <sup>2</sup> | .298                  | .002                | -.155             | .469             |
| Clinical pathways <sup>2</sup>          | .228                  | .014                | .177              | .379             |
| Patient teaching <sup>2</sup>           | .287                  | .002                | .038              | .805             |
| Communication w/ MD <sup>2</sup>        | .278                  | .003                | .014              | .936             |
| Screening assessment <sup>2</sup>       | .255                  | .007                | -.185             | .290             |
| Wound care protocols <sup>2</sup>       | .231                  | .012                | -.110             | .498             |
| Med dispense sys <sup>2</sup>           | .284                  | .003                | .505              | .049             |
| Care practice <sup>2</sup>              | .224                  | .015                | .063              | .702             |
| Patient communication <sup>2</sup>      | .286                  | .003                | .174              | .311             |
| Falls prevention <sup>2</sup>           | .262                  | .005                | -.042             | .800             |
| Patient infection cntrl <sup>2</sup>    | .364                  | .000                | .191              | .357             |
| Hiring requirements. <sup>2</sup>       | .287                  | .002                | .112              | .637             |
| E messaging staff <sup>4</sup>          | .285                  | .003                | .641              | .004             |
| Staff education                         | .253                  | .007                | .006              | .968             |
| Telemonitoring                          | .229                  | .013                | .616              | .026             |
| PU reduction equip.                     | .228                  | .014                | .009              | .974             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.697 | 0.485    | 2.566 | 0.001 |

**Model for Winning HHAs**

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | 1.294             | .000             |
| Reduce time ref/adms <sup>1</sup>      | .222                  | .010                | .034              | .862             |
| Physician comm. <sup>1</sup>           | .201                  | .018                | -.007             | .965             |
| Disease management. <sup>1</sup>       | .207                  | .015                | .073              | .693             |
| Mentoring programs <sup>3</sup>        | .218                  | .011                | .012              | .950             |
| Staff evaluation criteria <sup>3</sup> | .312                  | .000                | .349              | .095             |
| Clinical resources <sup>3</sup>        | .199                  | .019                | .071              | .657             |
| Changing visit mix <sup>3</sup>        | .234                  | .007                | .175              | .257             |
| Care team comm. <sup>3</sup>           | .268                  | .002                | .104              | .535             |
| LPN turnover <sup>3</sup>              | .223                  | .010                | .184              | .192             |
| On-call staff change <sup>3</sup>      | .230                  | .008                | -.009             | .969             |
| Expand business hrs <sup>3</sup>       | .194                  | .021                | .263              | .490             |
| E messaging staff <sup>4</sup>         | .206                  | .016                | .168              | .375             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.438 | 0.192    | 1.918 | 0.041 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.7: Models for Quality Improvement Impact on Improvement in Status of Surgical Wounds.**

Model for All HHAs

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | .909              | .012             |
| Communication w/ MD <sup>1</sup>       | .315                  | .000                | .341              | .008             |
| Care team comm. <sup>1</sup>           | .277                  | .000                | .237              | .076             |
| Wound care protocols <sup>1</sup>      | .240                  | .000                | .072              | .556             |
| Disease management. <sup>1</sup>       | .201                  | .001                | .067              | .596             |
| Hiring requirements. <sup>1</sup>      | .196                  | .002                | .068              | .691             |
| Record review <sup>2</sup>             | .164                  | .008                | -.034             | .778             |
| Management practices <sup>2</sup>      | .134                  | .024                | -.004             | .972             |
| HH Aide supervision <sup>2</sup>       | .157                  | .010                | .143              | .495             |
| Changing visit patterns <sup>2</sup>   | .209                  | .001                | .190              | .100             |
| Screening assessment <sup>2</sup>      | .198                  | .002                | -.005             | .969             |
| Reduce time ref/adms <sup>2</sup>      | .152                  | .012                | -.011             | .934             |
| Physician comm. <sup>2</sup>           | .171                  | .006                | -.150             | .247             |
| Wound care materials <sup>2</sup>      | .199                  | .002                | .151              | .194             |
| Staff evaluation criteria <sup>3</sup> | .157                  | .010                | .075              | .600             |
| Patient teaching <sup>3</sup>          | .192                  | .002                | .045              | .711             |
| Med check software <sup>3</sup>        | .134                  | .024                | .177              | .440             |
| PI programs                            | .140                  | .019                | .050              | .662             |
| Clinical team meetings                 | .159                  | .009                | -.136             | .298             |
| Changing visit mix                     | .133                  | .025                | .023              | .840             |
| Med dispense sys                       | .139                  | .020                | -.079             | .636             |
| Other Turnover                         | .143                  | .017                | .500              | .151             |
| On-call staff change                   | .137                  | .021                | -.044             | .808             |
| Productivity requirements.             | .138                  | .020                | -.004             | .977             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.436 | 0.190    | 1.991 | 0.006 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.7: Models for Quality Improvement Impact on Improvement in Status of Surgical Wounds. (cont'd)**

**Model for Control HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | .675              | .074             |
| Communication w/ MD <sup>1</sup>     | .307                  | .001                | .216              | .276             |
| Care team comm. <sup>1</sup>         | .277                  | .003                | .025              | .892             |
| Wound care protocols <sup>1</sup>    | .286                  | .003                | .198              | .294             |
| Disease management. <sup>1</sup>     | .221                  | .016                | -.090             | .632             |
| Hiring requirements. <sup>1</sup>    | .314                  | .001                | .145              | .588             |
| Record review <sup>2</sup>           | .354                  | .000                | .285              | .108             |
| Management practices <sup>2</sup>    | .244                  | .009                | .110              | .544             |
| HH Aide supervision <sup>2</sup>     | .227                  | .014                | .144              | .566             |
| Changing visit patterns <sup>2</sup> | .326                  | .001                | .305              | .118             |
| Screening assessment <sup>2</sup>    | .301                  | .002                | .116              | .530             |
| Reduce time ref/adms <sup>2</sup>    | .213                  | .020                | -.109             | .551             |
| Physician comm. <sup>2</sup>         | .218                  | .017                | -.066             | .756             |
| Wound care materials <sup>2</sup>    | .244                  | .009                | .065              | .725             |
| POC specific parameters              | .224                  | .015                | .014              | .933             |
| Other care change                    | .226                  | .014                | .404              | .248             |
| Care practice                        | .208                  | .022                | .119              | .495             |
| Patient communication                | .214                  | .019                | .022              | .904             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.564 | 0.318    | 2.082 | 0.016 |

**Model for Winning HHAs**

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | 1.779             | .000             |
| Communication w/ MD <sup>1</sup>       | .302                  | .001                | .160              | .344             |
| Care team comm. <sup>1</sup>           | .284                  | .001                | .258              | .116             |
| Wound care protocols <sup>1</sup>      | .213                  | .013                | .050              | .764             |
| Disease management. <sup>1</sup>       | .235                  | .007                | .150              | .396             |
| Hiring requirements. <sup>1</sup>      | .190                  | .023                | .160              | .499             |
| Staff evaluation criteria <sup>3</sup> | .209                  | .014                | .047              | .813             |
| Patient teaching <sup>3</sup>          | .263                  | .003                | .176              | .296             |
| Staff education                        | -.223                 | .010                | -.494             | .000             |
| Med check software                     | .211                  | .013                | .295              | .292             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.500 | 0.250    | 3.696 | 0.000 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.8: Models for Quality Improvement Impact on Improvement in Management of Oral Medications.**

**Model for All HHAs**

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | 1.510             | .000             |
| Changing visit patterns <sup>2</sup>   | .184                  | .003                | .150              | .149             |
| Communication w/ MD <sup>2</sup>       | .193                  | .002                | .072              | .497             |
| POC specific parameters <sup>2</sup>   | .184                  | .003                | .085              | .383             |
| Screening assessment <sup>2</sup>      | .215                  | .001                | .094              | .386             |
| Med dispense sys <sup>2</sup>          | .171                  | .006                | .160              | .285             |
| Patient infection cntrl <sup>2</sup>   | .208                  | .001                | .125              | .323             |
| Staff competencies <sup>3</sup>        | .184                  | .003                | .062              | .550             |
| Staff evaluation criteria <sup>3</sup> | .204                  | .001                | .144              | .241             |
| Patient teaching <sup>3</sup>          | .181                  | .004                | .029              | .785             |
| Care team comm. <sup>3</sup>           | .166                  | .007                | -.021             | .847             |
| Reduce time ref/adms <sup>3</sup>      | .135                  | .023                | -.034             | .762             |
| Falls prevention <sup>3</sup>          | .159                  | .009                | .008              | .941             |
| Expand business hrs <sup>3</sup>       | .233                  | .000                | .888              | .010             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.386 | 0.149    | 2.758 | 0.001 |

**Model for Control HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 1.313             | .000             |
| Changing visit patterns <sup>2</sup> | .296                  | .002                | .319              | .045             |
| Communication w/ MD <sup>2</sup>     | .262                  | .005                | .143              | .370             |
| POC specific parameters <sup>2</sup> | .273                  | .004                | .144              | .326             |
| Screening assessment <sup>2</sup>    | .292                  | .002                | .117              | .450             |
| Med dispense sys <sup>2</sup>        | .358                  | .000                | .513              | .070             |
| Patient infection cntrl <sup>2</sup> | .206                  | .023                | -.071             | .715             |
| Falls prevention program             | .229                  | .013                | .044              | .798             |
| Med dispense                         | .233                  | .012                | .169              | .701             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.486 | 0.237    | 3.292 | 0.003 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.8: Models for Quality Improvement Impact on Improvement in Management of Oral Medications. (cont'd)**

**Model for Winning HHAs**

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | 1.536             | .000             |
| Staff competencies <sup>3</sup>        | .215                  | .012                | .066              | .637             |
| Staff evaluation criteria <sup>3</sup> | .251                  | .004                | .171              | .337             |
| Patient teaching <sup>3</sup>          | .329                  | .000                | .289              | .049             |
| Care team comm. <sup>3</sup>           | .202                  | .017                | -.003             | .983             |
| Reduce time ref/adms <sup>3</sup>      | .216                  | .012                | .090              | .593             |
| Falls prevention <sup>3</sup>          | .200                  | .018                | .052              | .705             |
| Expand business hrs <sup>3</sup>       | .311                  | .000                | .689              | .050             |
| Employee incentives                    | .192                  | .022                | -.065             | .745             |
| LPN turnover                           | .216                  | .012                | .161              | .187             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.452 | 0.204    | 2.846 | 0.005 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.9: Models for the Demonstration's Impact on Patient Outcomes.**

**Model for All HHAs**

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 3.547             | .000             |
| Communication w/ MD <sup>1</sup>        | .229                  | .000                | .050              | .703             |
| Patient communication <sup>1</sup>      | .281                  | .000                | .218              | .099             |
| Patient infection cntrl <sup>1</sup>    | .255                  | .000                | .267              | .068             |
| Changing visit mix <sup>2</sup>         | .188                  | .003                | .131              | .251             |
| Screening assessment <sup>2</sup>       | .176                  | .005                | -.026             | .828             |
| PU reduction equip. <sup>2</sup>        | .145                  | .016                | .253              | .288             |
| Clinical team meetings <sup>3</sup>     | .157                  | .010                | -.064             | .638             |
| Staff competencies <sup>3</sup>         | .129                  | .029                | -.034             | .769             |
| Disease management program <sup>3</sup> | .136                  | .022                | -.050             | .747             |
| Clinical pathways <sup>3</sup>          | .181                  | .004                | .102              | .468             |
| Patient teaching <sup>3</sup>           | .227                  | .000                | .077              | .529             |
| Care team comm. <sup>3</sup>            | .222                  | .000                | .081              | .570             |
| Reduce time ref/adms <sup>3</sup>       | .204                  | .001                | .040              | .758             |
| Physician comm. <sup>3</sup>            | .230                  | .000                | -.043             | .765             |
| Disease management. <sup>3</sup>        | .176                  | .005                | -.033             | .840             |
| Hiring requirements. <sup>3</sup>       | .203                  | .001                | .103              | .549             |
| EMRs <sup>3</sup>                       | .189                  | .002                | .175              | .229             |
| E access to policies <sup>3</sup>       | .169                  | .006                | .095              | .508             |
| Management practices                    | .176                  | .005                | -.001             | .993             |
| HH Aide supervision                     | .135                  | .023                | .064              | .768             |
| Changing visit patterns                 | .210                  | .001                | .149              | .213             |
| Wound care protocols                    | .153                  | .012                | -.101             | .431             |
| Med dispense sys                        | .174                  | .005                | .109              | .529             |
| Expand business hours                   | .145                  | .016                | .146              | .722             |
| Wound care materials                    | .150                  | .013                | -.010             | .937             |
| Med check software                      | .145                  | .016                | .271              | .263             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.441 | 0.195    | 1.787 | 0.015 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.9: Models for the Demonstration's Impact on Patient Outcomes. (cont'd)**

**Model for Control HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 2.981             | .000             |
| Communication w/ MD <sup>1</sup>     | .232                  | .012                | -.027             | .879             |
| Patient communication <sup>1</sup>   | .360                  | .000                | .324              | .068             |
| Patient infection cntrl <sup>1</sup> | .225                  | .014                | .124              | .515             |
| Changing visit mix <sup>2</sup>      | .203                  | .025                | .151              | .401             |
| Screening assessment <sup>2</sup>    | .276                  | .004                | .095              | .581             |
| PU reduction equip. <sup>2</sup>     | .207                  | .023                | .338              | .253             |
| PI programs                          | .242                  | .009                | .101              | .556             |
| POC specific parameters              | .239                  | .010                | .401              | .101             |
| Other staff turnover                 | .207                  | .023                | .475              | .169             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.482 | 0.232    | 2.823 | 0.006 |

**Model for Winning HHAs**

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 3.597             | .000             |
| Communication w/ MD <sup>1</sup>        | .259                  | .003                | -.124             | .504             |
| Patient communication <sup>1</sup>      | .236                  | .007                | -.171             | .367             |
| Patient infection cntrl <sup>1</sup>    | .339                  | .000                | .205              | .343             |
| Clinical team meetings <sup>3</sup>     | .290                  | .001                | -.019             | .921             |
| Staff competencies <sup>3</sup>         | .230                  | .008                | .043              | .788             |
| Disease management program <sup>3</sup> | .240                  | .006                | -.045             | .823             |
| Clinical pathways <sup>3</sup>          | .236                  | .007                | -.061             | .734             |
| Patient teaching <sup>3</sup>           | .402                  | .000                | .281              | .123             |
| Care team comm. <sup>3</sup>            | .304                  | .001                | .152              | .412             |
| Reduce time ref/adms <sup>3</sup>       | .295                  | .001                | .122              | .544             |
| Physician comm. <sup>3</sup>            | .309                  | .001                | .236              | .240             |
| Disease management. <sup>3</sup>        | .331                  | .000                | .161              | .493             |
| Hiring requirements. <sup>3</sup>       | .235                  | .007                | -.111             | .670             |
| EMRs <sup>3</sup>                       | .208                  | .015                | .139              | .470             |
| E access to policies <sup>3</sup>       | .213                  | .013                | .109              | .593             |
| Mentoring programs                      | .270                  | .002                | .220              | .277             |
| Staff evaluation Criteria               | .208                  | .015                | -.217             | .329             |
| Employee incentives                     | .350                  | .000                | .346              | .157             |
| Management practices                    | .240                  | .006                | -.049             | .812             |
| LPN turnover                            | .217                  | .012                | .104              | .461             |
| Med reminder sys                        | .195                  | .021                | -.031             | .909             |
| Med check software                      | .252                  | .004                | .393              | .187             |
|   |                       |                     |                   |                  |
| <b>Model Summary</b>                    | <b>R</b>              | <b>R Square</b>     | <b>F</b>          | <b>Sig.</b>      |
|   | 0.560                 | 0.314               | 1.810             | 0.028            |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.10: Models for the Demonstration's Impact on HHA's Quality of Care.**

**Model for All HHAs**

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 3.416             | .000             |
| Communication w/ MD <sup>1</sup>        | .281                  | .000                | .194              | .132             |
| Patient infection cntrl <sup>1</sup>    | .264                  | .000                | .275              | .052             |
| Hiring requirements. <sup>1</sup>       | .230                  | .000                | .109              | .531             |
| Changing visit patterns <sup>2</sup>    | .161                  | .009                | .097              | .508             |
| Changing visit mix <sup>2</sup>         | .177                  | .004                | .073              | .521             |
| Screening assessment <sup>2</sup>       | .190                  | .002                | .046              | .697             |
| Care practice <sup>2</sup>              | .105                  | .060                | .006              | .963             |
| Reduce time ref/adms <sup>2</sup>       | .202                  | .001                | .069              | .595             |
| Patient communication <sup>2</sup>      | .216                  | .001                | .093              | .481             |
| Clinical team meetings <sup>3</sup>     | .205                  | .001                | .001              | .994             |
| Management practices <sup>3</sup>       | .156                  | .010                | -.011             | .933             |
| Patient teaching <sup>3</sup>           | .200                  | .001                | .041              | .739             |
| Wound care protocols <sup>3</sup>       | .184                  | .003                | -.020             | .871             |
| Sr Management Turnover <sup>3</sup>     | .133                  | .025                | .179              | .079             |
| Physician comm. <sup>3</sup>            | .230                  | .000                | -.008             | .954             |
| Disease management. <sup>3</sup>        | .169                  | .006                | -.109             | .423             |
| Productivity requirements. <sup>3</sup> | .170                  | .006                | .020              | .882             |
| Wound care materials <sup>3</sup>       | .190                  | .002                | .085              | .484             |
| Med reminder sys <sup>3</sup>           | .177                  | .004                | .071              | .732             |
| Record review                           | .178                  | .004                | .000              | 1.000            |
| Staff competencies                      | .108                  | .056                | -.128             | .268             |
| Clinical resources                      | .145                  | .016                | .080              | .511             |
| Clinical pathways                       | .202                  | .001                | .211              | .120             |
| POC specific parameters                 | .168                  | .006                | .022              | .846             |
| Care team comm.                         | .240                  | .000                | .032              | .811             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.431 | 0.186    | 1.765 | 0.018 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.10: Models for the Demonstration's Impact on HHA's Quality of Care. (cont'd)**

**Model for Control HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 3.356             | .000             |
| Communication w/ MD <sup>1</sup>     | .317                  | .001                | .216              | .238             |
| Patient infection cntrl <sup>1</sup> | .222                  | .016                | -.052             | .803             |
| Hiring requirements. <sup>1</sup>    | .251                  | .007                | .231              | .372             |
| Changing visit patterns <sup>2</sup> | .220                  | .017                | .105              | .586             |
| Changing visit mix <sup>2</sup>      | .221                  | .016                | .107              | .549             |
| Screening assessment <sup>2</sup>    | .297                  | .002                | .131              | .457             |
| Care practice <sup>2</sup>           | .221                  | .016                | .230              | .196             |
| Reduce time ref/adms <sup>2</sup>    | .282                  | .003                | .131              | .459             |
| Patient communication <sup>2</sup>   | .297                  | .002                | .143              | .419             |
| Med dispense sys                     | .219                  | .017                | .218              | .435             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.473 | 0.224    | 2.394 | 0.015 |

**Model for Winning HHAs**

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 3.498             | .000             |
| Communication w/ MD <sup>1</sup>        | .272                  | .002                | .061              | .732             |
| Patient infection cntrl <sup>1</sup>    | .356                  | .000                | .262              | .210             |
| Hiring requirements. <sup>1</sup>       | .199                  | .019                | -.094             | .711             |
| Clinical team meetings <sup>3</sup>     | .258                  | .003                | .041              | .832             |
| Management practices <sup>3</sup>       | .211                  | .013                | -.114             | .579             |
| Patient teaching <sup>3</sup>           | .309                  | .001                | .090              | .612             |
| POC specific parameters <sup>3</sup>    | .227                  | .009                | .118              | .483             |
| Care team comm. <sup>3</sup>            | .286                  | .001                | .120              | .496             |
| Physician comm. <sup>3</sup>            | .246                  | .005                | -.020             | .908             |
| Disease management. <sup>3</sup>        | .275                  | .002                | .075              | .699             |
| Productivity requirements. <sup>3</sup> | .229                  | .008                | .053              | .800             |
| Wound care materials <sup>3</sup>       | .223                  | .010                | .051              | .757             |
| Med reminder sys <sup>3</sup>           | .209                  | .014                | -.062             | .835             |
| Staff evaluation criteria               | .252                  | .004                | .075              | .727             |
| Employee incentives                     | .381                  | .000                | .432              | .075             |
| Clinical pathways                       | .262                  | .003                | .108              | .546             |
| Wound care protocols                    | .218                  | .011                | -.030             | .862             |
| LPN turnover                            | .259                  | .003                | .273              | .049             |
| On-call staff change                    | .199                  | .019                | -.098             | .685             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.525 | 0.276    | 1.802 | 0.034 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.11: Models for the Demonstration's Impact on HHA's Cost of Providing Care.**

**Model for All HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 1.699             | .000             |
| PI programs <sup>2</sup>             | .161                  | .009                | .130              | .337             |
| Patient teaching <sup>3</sup>        | .152                  | .012                | .154              | .287             |
| Screening assessment <sup>3</sup>    | .136                  | .022                | .051              | .719             |
| Wound care protocols <sup>3</sup>    | .134                  | .024                | .011              | .942             |
| Patient infection cntrl <sup>3</sup> | .212                  | .001                | .326              | .055             |
| Telemonitoring                       | .160                  | .009                | .397              | .041             |
| Communication w/ MD                  | .137                  | .021                | .020              | .888             |
| Care team comm.                      | .134                  | .024                | .005              | .974             |
| Med dispense sys                     | .145                  | .016                | .086              | .683             |
| Sr Management Turnover               | .171                  | .006                | .231              | .069             |
| Other Turnover                       | .168                  | .006                | .666              | .119             |

  

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.354 | 0.125    | 2.690 | 0.003 |

**Model for Control HHAs**

| Independent Variables    | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)               |                       |                     | 1.430             | .002             |
| PI programs <sup>2</sup> | .273                  | .004                | .393              | .070             |
| Other staff turnover     | .266                  | .005                | .958              | .027             |
| Physician comm.          | .255                  | .007                | .289              | .175             |

  

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.386 | 0.149    | 5.238 | 0.002 |

**Model for Winning HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 2.450             | .000             |
| Patient teaching <sup>3</sup>        | .223                  | .010                | .066              | .738             |
| Screening assessment <sup>3</sup>    | .206                  | .015                | .149              | .390             |
| Wound care protocols <sup>3</sup>    | .196                  | .020                | .087              | .639             |
| Patient infection cntrl <sup>3</sup> | .255                  | .004                | .294              | .211             |
| Mentoring programs                   | .301                  | .001                | .356              | .110             |
| Employee incentives                  | .233                  | .007                | .159              | .532             |
| LPN turnover                         | .240                  | .006                | .271              | .087             |

  

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.416 | 0.173    | 3.057 | 0.006 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.12: Models for the Demonstration's Impact on HHA's Financial Solvency.**

**Model for All HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 2.062             | .000             |
| POC specific parameters <sup>1</sup> | .198                  | .002                | .189              | .127             |
| PI programs <sup>2</sup>             | .136                  | .022                | .082              | .522             |
| Communication w/ MD <sup>2</sup>     | .179                  | .004                | .061              | .666             |
| Other staff turnover <sup>2</sup>    | .135                  | .023                | .672              | .076             |
| Physician comm. <sup>2</sup>         | .154                  | .012                | .026              | .870             |
| Patient teaching <sup>3</sup>        | .163                  | .008                | .094              | .468             |
| Changing visit mix                   | .182                  | .003                | .228              | .069             |
| Screening assessment                 | .162                  | .008                | .053              | .676             |
| Patient communication                | .137                  | .022                | .038              | .794             |
| PU reduction equip.                  | .136                  | .023                | .277              | .260             |
| <b>Model Summary</b>                 | <b>R</b>              | <b>R Square</b>     | <b>F</b>          | <b>Sig.</b>      |
|                                      | 0.322                 | 0.104               | 2.410             | 0.010            |

**Model for Control HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 1.726             | .000             |
| POC specific parameters <sup>1</sup> | .230                  | .013                | .214              | .258             |
| PI programs <sup>2</sup>             | .260                  | .006                | .191              | .343             |
| Communication w/ MD <sup>2</sup>     | .216                  | .018                | .166              | .455             |
| Other staff turnover <sup>2</sup>    | .225                  | .015                | .747              | .055             |
| Physician comm. <sup>2</sup>         | .216                  | .018                | .045              | .839             |
| EMRs                                 | .286                  | .003                | .639              | .018             |
| <b>Model Summary</b>                 | <b>R</b>              | <b>R Square</b>     | <b>F</b>          | <b>Sig.</b>      |
|                                      | 0.441                 | 0.194               | 3.499             | 0.004            |

**Model for Winning HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 2.623             | .000             |
| POC specific parameters <sup>1</sup> | .271                  | .002                | .214              | .179             |
| Patient teaching <sup>3</sup>        | .294                  | .001                | .211              | .249             |
| Clinical team meetings               | .189                  | .024                | .022              | .907             |
| Employee incentives                  | .247                  | .005                | .222              | .333             |
| Care team comm.                      | .199                  | .019                | -.002             | .993             |
| Wound care protocols                 | .302                  | .001                | .274              | .109             |
| LPN turnover                         | .228                  | .008                | .157              | .391             |
| OT turnover                          | .188                  | .025                | .129              | .390             |
| Patient infection control            | .216                  | .012                | .040              | .847             |
| <b>Model Summary</b>                 | <b>R</b>              | <b>R Square</b>     | <b>F</b>          | <b>Sig.</b>      |
|                                      | 0.447                 | 0.200               | 2.776             | 0.006            |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.13: Models for the Demonstration's Impact on HHA's Profitability.**

**Model for All HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 1.801             | .000             |
| Communication w/ MD <sup>1</sup>     | .252                  | .000                | .147              | .348             |
| POC specific parameters <sup>1</sup> | .169                  | .006                | .094              | .474             |
| Physician comm. <sup>1</sup>         | .268                  | .000                | .262              | .116             |
| Emergency response <sup>1</sup>      | .176                  | .005                | .448              | .114             |
| Changing visit mix <sup>2</sup>      | .192                  | .002                | .226              | .095             |
| Other staff turnover <sup>2</sup>    | .154                  | .011                | .923              | .027             |
| Patient communication <sup>2</sup>   | .169                  | .006                | -.047             | .754             |
| Patient teaching <sup>3</sup>        | .204                  | .001                | .200              | .157             |
| Care team comm. <sup>3</sup>         | .144                  | .017                | -.097             | .507             |
| Screening assessment <sup>3</sup>    | .179                  | .004                | .086              | .538             |
| Wound care protocols <sup>3</sup>    | .132                  | .025                | -.038             | .788             |
| Hiring reqrmnts. <sup>3</sup>        | .137                  | .021                | -.063             | .751             |
| Staff competencies                   | .087                  | .099                | -.020             | .878             |
| Med dispense sys                     | .138                  | .021                | .002              | .993             |
| PU reduction equip.                  | .158                  | .010                | .287              | .287             |
| E access to policies                 | .144                  | .016                | .162              | .307             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.406 | 0.165    | 2.487 | 0.002 |

**Model for Control HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 1.512             | .001             |
| Communication w/ MD <sup>1</sup>     | .312                  | .001                | .045              | .855             |
| POC specific parameters <sup>1</sup> | .236                  | .011                | .164              | .410             |
| Physician comm. <sup>1</sup>         | .357                  | .000                | .447              | .070             |
| Emergency response <sup>1</sup>      | .241                  | .010                | .865              | .066             |
| Changing visit mix <sup>2</sup>      | .211                  | .021                | .300              | .160             |
| Other staff turnover <sup>2</sup>    | .257                  | .006                | .945              | .023             |
| Patient communication <sup>2</sup>   | .231                  | .012                | -.022             | .920             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.490 | 0.240    | 3.881 | 0.001 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.13: Models for the Demonstration's Impact on HHA's Profitability. (cont'd)**

**Model for Winning HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 2.762             | .000             |
| Communication w/ MD <sup>1</sup>     | .219                  | .011                | -.092             | .653             |
| POC specific parameters <sup>1</sup> | .192                  | .022                | .081              | .650             |
| Physician comm. <sup>1</sup>         | .197                  | .019                | -.045             | .815             |
| Emergency response <sup>1</sup>      | .229                  | .008                | .882              | .022             |
| Patient teaching <sup>3</sup>        | .381                  | .000                | .446              | .025             |
| Care team comm. <sup>3</sup>         | .219                  | .011                | -.010             | .962             |
| Screening assessment <sup>3</sup>    | .235                  | .007                | .090              | .614             |
| Wound care protocols <sup>3</sup>    | .293                  | .001                | .197              | .292             |
| Hiring requirements <sup>3</sup>     | .277                  | .002                | .205              | .446             |
| Mentoring programs                   | .257                  | .003                | .178              | .423             |
| Clinical team meetings               | .241                  | .006                | -.047             | .824             |
| Employee incentives                  | .287                  | .001                | .140              | .581             |
| Management practices                 | .264                  | .003                | .102              | .635             |
| LPN turnover                         | .228                  | .008                | .160              | .303             |
| Med check software                   | .242                  | .005                | .150              | .631             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.533 | 0.284    | 2.487 | 0.004 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.14: Models for the Demonstration's Impact on HHA's Patient Satisfaction.**

**Model for All HHAs**

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 2.775             | .000             |
| HH Aide supervision <sup>1</sup>        | .181                  | .004                | .197              | .387             |
| Communication w/ MD <sup>1</sup>        | .300                  | .000                | .234              | .083             |
| Care team comm. <sup>1</sup>            | .293                  | .000                | .107              | .453             |
| Reduce time ref/adms <sup>1</sup>       | .260                  | .000                | .129              | .334             |
| Patient communication <sup>1</sup>      | .307                  | .000                | .192              | .164             |
| Physician comm. <sup>1</sup>            | .283                  | .000                | -.026             | .861             |
| Patient infection cntrl <sup>1</sup>    | .273                  | .000                | .327              | .030             |
| Hiring requirements <sup>1</sup>        | .300                  | .000                | .062              | .756             |
| Clinical resources <sup>2</sup>         | .175                  | .005                | .127              | .338             |
| Changing visit mix <sup>2</sup>         | .218                  | .001                | .174              | .145             |
| Screening assessment <sup>2</sup>       | .154                  | .011                | -.032             | .798             |
| Med dispense sys <sup>2</sup>           | .146                  | .015                | -.101             | .623             |
| Other staff turnover <sup>2</sup>       | .136                  | .022                | .432              | .256             |
| Mentoring programs <sup>3</sup>         | .200                  | .001                | .163              | .210             |
| Clinical team meetings <sup>3</sup>     | .249                  | .000                | -.023             | .872             |
| Record review <sup>3</sup>              | .228                  | .000                | .132              | .294             |
| Management practices <sup>3</sup>       | .207                  | .001                | .043              | .749             |
| Disease management program <sup>3</sup> | .159                  | .009                | .021              | .891             |
| Clinical pathways <sup>3</sup>          | .179                  | .004                | .161              | .266             |
| Patient teaching <sup>3</sup>           | .275                  | .000                | .137              | .292             |
| Admin. Support Turnover <sup>3</sup>    | .195                  | .002                | .179              | .142             |
| Disease management. <sup>3</sup>        | .182                  | .003                | -.188             | .262             |
| Expand business hrs <sup>3</sup>        | .162                  | .008                | .100              | .809             |
| PI programs                             | .133                  | .025                | -.056             | .649             |
| Staff competencies                      | .001                  | .494                | -.366             | .003             |
| POC specific parameters                 | .155                  | .011                | .023              | .846             |
| Wound care protocols                    | .168                  | .006                | -.117             | .368             |
| Care practice                           | .059                  | .191                | -.060             | .615             |
| Productivity requirements               | .143                  | .018                | -.166             | .240             |
| EMRs                                    | .163                  | .008                | .109              | .472             |
| Wound care materials                    | .184                  | .003                | .068              | .588             |
| Med reminder sys                        | .159                  | .009                | .037              | .884             |
| E access to policies                    | .186                  | .003                | .166              | .268             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.549 | 0.301    | 2.417 | 0.000 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.14: Models for the Demonstration's Impact on HHA's Patient Satisfaction. (cont'd)**

**Model for Control HHAs**

| Independent Variables                | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                           |                       |                     | 2.843             | .000             |
| HH Aide supervision <sup>1</sup>     | .210                  | .021                | .096              | .731             |
| Communication w/ MD <sup>1</sup>     | .369                  | .000                | .239              | .290             |
| Care team comm. <sup>1</sup>         | .313                  | .001                | .066              | .731             |
| Reduce time ref/adms <sup>1</sup>    | .345                  | .000                | .393              | .051             |
| Patient communication <sup>1</sup>   | .380                  | .000                | .237              | .253             |
| Physician comm. <sup>1</sup>         | .294                  | .002                | -.096             | .664             |
| Patient infection cntrl <sup>1</sup> | .294                  | .002                | .202              | .417             |
| Hiring requirements <sup>1</sup>     | .326                  | .001                | .247              | .421             |
| Clinical resources <sup>2</sup>      | .280                  | .003                | .385              | .054             |
| Changing visit mix <sup>2</sup>      | .269                  | .004                | .200              | .309             |
| Screening assessment <sup>2</sup>    | .305                  | .001                | .076              | .708             |
| Other staff turnover <sup>2</sup>    | .215                  | .019                | .282              | .467             |
| Employee incentives <sup>4</sup>     | .206                  | .023                | .151              | .599             |
| Falls prevention program             | .205                  | .024                | -.239             | .289             |
| Med dispense sys                     | .206                  | .023                | .102              | .746             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.593 | 0.352    | 2.820 | 0.002 |

**Model for Winning HHAs**

| Independent Variables                   | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|---|-----------------------|---------------------|-------------------|------------------|
| (Constant)                              |                       |                     | 3.085             | .000             |
| HH Aide supervision <sup>1</sup>        | .200                  | .018                | .063              | .884             |
| Communication w/ MD <sup>1</sup>        | .287                  | .001                | .069              | .715             |
| Care team comm. <sup>1</sup>            | .270                  | .002                | .018              | .926             |
| Reduce time ref/adms <sup>1</sup>       | .243                  | .005                | -.041             | .855             |
| Patient communication <sup>1</sup>      | .238                  | .006                | -.001             | .997             |
| Physician comm. <sup>1</sup>            | .263                  | .003                | -.011             | .961             |
| Patient infection cntrl <sup>1</sup>    | .304                  | .001                | .112              | .617             |
| Hiring requirements <sup>1</sup>        | .265                  | .003                | -.064             | .824             |
| Mentoring programs <sup>3</sup>         | .273                  | .002                | .151              | .471             |
| Clinical team meetings <sup>3</sup>     | .306                  | .001                | .101              | .612             |
| Record review <sup>3</sup>              | .253                  | .004                | .005              | .980             |
| Management practices <sup>3</sup>       | .241                  | .006                | -.049             | .824             |
| Disease management program <sup>3</sup> | .241                  | .006                | .090              | .662             |
| Clinical pathways <sup>3</sup>          | .214                  | .012                | .024              | .901             |
| Patient teaching <sup>3</sup>           | .397                  | .000                | .297              | .122             |
| Admin. Support Turnover <sup>3</sup>    | .227                  | .008                | .270              | .137             |
| Disease management. <sup>3</sup>        | .296                  | .001                | .104              | .664             |
| Expand business hrs <sup>3</sup>        | .217                  | .012                | .034              | .943             |
| Employee incentives <sup>4</sup>        | .353                  | .000                | .434              | .095             |
| LPN turnover                            | .227                  | .008                | .158              | .435             |
| PT turnover                             | .195                  | .020                | -.009             | .960             |
| On-call staff change                    | .193                  | .022                | -.121             | .628             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.540 | 0.291    | 1.625 | 0.059 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.15: Models for the Demonstration's Impact on HHA's Staff Satisfaction.**

**Model for All HHAs**

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | 3.149             | .000             |
| Reduce time ref/adms <sup>1</sup>      | .203                  | .001                | .068              | .649             |
| Patient communication <sup>1</sup>     | .246                  | .000                | .254              | .093             |
| Screening assessment <sup>2</sup>      | .165                  | .007                | .037              | .784             |
| Physician comm. <sup>2</sup>           | .190                  | .002                | -.045             | .778             |
| Mentoring programs <sup>3</sup>        | .168                  | .006                | .190              | .185             |
| Clinical team meetings <sup>3</sup>    | .147                  | .015                | -.127             | .407             |
| Record review <sup>3</sup>             | .175                  | .005                | .087              | .531             |
| Changing visit mix <sup>3</sup>        | .231                  | .000                | .300              | .023             |
| Patient teaching <sup>3</sup>          | .228                  | .000                | .185              | .183             |
| Communication w/ MD <sup>3</sup>       | .198                  | .002                | .091              | .540             |
| POC specific parameters <sup>3</sup>   | .132                  | .025                | .072              | .569             |
| Care team comm. <sup>3</sup>           | .200                  | .001                | .098              | .525             |
| Wound care protocols <sup>3</sup>      | .154                  | .011                | .073              | .586             |
| Patient infection cntrl <sup>3</sup>   | .152                  | .012                | .067              | .678             |
| Productivity requirements <sup>3</sup> | .143                  | .017                | .021              | .886             |
| Hiring requirements <sup>3</sup>       | .206                  | .001                | .081              | .697             |
| Staff competencies                     | -.015                 | .411                | -.317             | .016             |
| Management practices                   | .089                  | .094                | -.152             | .293             |
| Admin. Support Turnover                | .138                  | .021                | .067              | .611             |
| Expand business hours                  | .144                  | .017                | .594              | .183             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.421 | 0.177    | 2.127 | 0.005 |

**Model for Control HHAs**

| Independent Variables              | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|------------------------------------|-----------------------|---------------------|-------------------|------------------|
| (Constant)                         |                       |                     | 3.044             | .000             |
| Reduce time ref/adms <sup>1</sup>  | .248                  | .008                | .276              | .208             |
| Patient communication <sup>1</sup> | .319                  | .001                | .460              | .052             |
| Screening assessment <sup>2</sup>  | .205                  | .024                | .102              | .624             |
| Physician comm. <sup>2</sup>       | .208                  | .022                | -.002             | .993             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.354 | 0.125    | 3.192 | 0.017 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

**Table E.15: Models for the Demonstration's Impact on HHA's Staff Satisfaction. (cont'd)**

**Model for Winning HHAs**

| Independent Variables                  | Bivariate Correlation | Correlation p value | Model Coefficient | p value in Model |
|--|-----------------------|---------------------|-------------------|------------------|
| (Constant)                             |                       |                     | 2.965             | .000             |
| Reduce time ref/adms <sup>1</sup>      | .230                  | .008                | .042              | .864             |
| Patient communication <sup>1</sup>     | .209                  | .014                | .050              | .798             |
| Mentoring programs <sup>3</sup>        | .335                  | .000                | .330              | .149             |
| Clinical team meetings <sup>3</sup>    | .243                  | .005                | -.086             | .708             |
| Record review <sup>3</sup>             | .228                  | .008                | .030              | .879             |
| Changing visit mix <sup>3</sup>        | .234                  | .007                | .155              | .395             |
| Patient teaching <sup>3</sup>          | .350                  | .000                | .237              | .254             |
| Communication w/ MD <sup>3</sup>       | .259                  | .003                | .012              | .950             |
| POC specific parameters <sup>3</sup>   | .216                  | .012                | .152              | .424             |
| Care team comm. <sup>3</sup>           | .299                  | .001                | .119              | .583             |
| Wound care protocols <sup>3</sup>      | .312                  | .000                | .180              | .368             |
| Patient infection cntrl <sup>3</sup>   | .222                  | .010                | -.167             | .500             |
| Productivity requirements <sup>3</sup> | .194                  | .021                | -.123             | .613             |
| Hiring requirements <sup>3</sup>       | .260                  | .003                | .085              | .776             |
| Communication w/ MD                    | .308                  | .001                | .116              | .659             |
| POC specific parameters                | .357                  | .000                | .538              | .056             |
| Care team comm.                        | .224                  | .009                | -.245             | .310             |
| Clinical pathways                      | .229                  | .008                | .117              | .580             |
| LPN turnover                           | .239                  | .006                | .154              | .447             |
| PT turnover                            | .191                  | .023                | .144              | .425             |
| Disease management.                    | .220                  | .010                | -.130             | .592             |
| On-call staff change                   | .194                  | .021                | -.294             | .314             |
| Med check software                     | .261                  | .003                | .376              | .252             |
| E access to policies                   | .194                  | .021                | .047              | .840             |

| Model Summary | R     | R Square | F     | Sig.  |
|---------------|-------|----------|-------|-------|
|               | 0.559 | 0.312    | 1.608 | 0.059 |

<sup>1</sup> Common to "All", "Control", "Winners"

<sup>2</sup> Common to "All" & "Control"

<sup>3</sup> Common to "All" & "Winners"

<sup>4</sup> Common to "Control" & "Winners"

## Appendix F: Summary of Comments

|                    | Comments  |                  | Suggestions |                  |
|--------------------|-----------|------------------|-------------|------------------|
|                    | #         | % of Respondents | #           | % of Respondents |
| <b>Control</b>     | 19        | 20.2%            | 15          | 16.0%            |
| <b>Non-Winners</b> | 2         | 13.3%            | 1           | 6.7%             |
| <b>Winners</b>     | 41        | 37.3%            | 34          | 30.9%            |
| <b>Totals</b>      | <b>62</b> | <b>28.3%</b>     | <b>50</b>   | <b>22.8%</b>     |

All responses to Survey question: “Please use the space below to provide any other comments what your agency learned by participating in the P4P Demonstration during Calendar Years 2008 and 2009.”

NOTE: If a comment exceeded the length of available characters in the “comment” item field, the comment was truncated and is designated by the following [truncated]. The comments below also contain minor editing of participant responses to correct grammatical errors and complete sentences.)

### Control Comments

- 1 - Good home health services rendered prevents frequent re-hospitalizations.  
- Quality control improved staff documentations.  
- Regular staff meeting improved interdisciplinary communications; physician is regularly updated regarding patient status
- 2 We have put best practices into our daily routine and have identified them as Best Practices
- 3 Absolutely nothing since Illinois was not recognized as a State that received any bonus dollars. Nurses want to take care of their patients, I know that there has to be a balance, but really, the patients don't understand why they have to be asked [truncated]
- 4 As part of the control group we focused on best practices and readiness for Oasis C.
- 5 Continued need for focus on education on OASIS accuracy and monitoring of quality indicators for care planning trends.
- 6 Education of staff is key and OASIS competency is crucial. Continuous, on-going OASIS education is also needed to ensure accuracy.
- 7 First I must say that I was unaware that we were participating in this demonstration although I'm not sure that that would have made a difference. It would have been nice to have received updates as to what was being done in the participating group.
- 8 We learned how to teach, monitor & provide better (quality) patient care. There was much improvement to QIO data collection, analysis & strategic planning (including implementation & evaluation). We learned how to be better support clinicians.
- 9 Many of the activities implemented showed no improvement until 2010 when we began to see an improvement in several areas.
- 10 My Agency was one of the control group. There was not a lot of interaction.
- 11 Our agency just did what we had to do to improve our outcomes without really knowing how we are rated during the demonstration period as we had no contact or input from you. We basically went out and go about our business by consistently providing education.
- 12 Our agency was designated as a control group. We were more alert and in tuned to our documentation and our clinical care.

- 13 That without increased revenue that it will be impossible to study the results of information provided by P4P. Competing with large corporations is likely to impact our agency on a large scale.
- 14 There was no information received/obtained during the two year demonstration.
- 15 Unfortunately, we were the control group so we received no increase in guidelines or suggestions for improvement.
- 16 We had been working hard prior to this to get ready for P4P. There is not enough timely feedback to be able to use with the staff to make it current for them. P4P has been being discussed for over 10 years now and we still don't have good information.
- 17 We learned nothing since we were a control agency. We did what we would have done anyway despite participation in the demonstration.
- 18 We were part of the control group and so just responded to issues as we normally would.
- 19 We've worked on multiple processes that positively impacted patient care / outcomes. P4P demonstration project as well as our Casper reports started us on this journey. Staff has to be trained and have buy in on the importance of their role in P4P.

### **Non-Winner Comments**

- 1 It appears that agencies that take on the more complex and high tech clients who are at greater risk for complications, rehospitalizations and poor outcomes will not do so well in the P4P arena. I am worried that those types of clients will find [truncated]
- 2 We changed computer software systems in 2008 and have had multiple issues, which took a lot of our time and ultimately had a negative outcome.

### **Winner Comments**

- 1 Education of staff is key and OASIS competency is crucial. Continuous, on-going OASIS education is also needed to ensure accuracy.
- 2 a. Improved outcomes  
b. Increased staff knowledge and awareness to agencies target goals
- 3 2008/2009 was a time of turmoil in my Agency. We have since been acquired by another Agency so it becomes difficult to comment on anything during this time period.
- 4 As stated during the site visit by Ms. Angela Richard.
- 5 BEING ONE OF THE PARTICIPANTS IN THE P4P DEMONSTRATION AND BECAME ONE OF THE TOP PERFORMER IN OUR REGION IS A BIG IMPACT TO OUR AGENCY. WE INCREASE OUR REFERRALS, COMPLIMENTS CALL FROM PATIENTS AND FAMILY ETC. WE ARE VERY PROUD TO SAY THAT WE HAVE....[truncated]
- 6 BPIP were very informative. Leadership would have been more involved if we had known at inception which group we were assigned to and the financial impact of our efforts.
- 7 Education and supportive structure are key elements to improvement.
- 8 I don't know as we learned anything as there was not communication throughout. We had to devise our own benchmarks and seek out our own best practices. We had no idea who else was participating and so could not collaborate on best practices.
- 9 Improved patient outcomes and patient and clinician satisfaction and see below.
- 10 Improving outcomes and performing in the top percentiles proved to be very cost intensive. Agencies need more directions in meeting and maintaining high standards with little or no cost inflation. In the beginning, it appears that the benefit does...[truncated]

- 11 It is how a nurse or therapist answers the questions on the OASIS for outcomes; even though they are instructed to assess the same, it is subjective in the end. Therefore, OASIS should not be set to pay for performance standards.
- 12 It is not easy, it takes time and resources, care plans/assessments must be aligned to support positive outcomes.
- 13 It is really hard for me to know because our company changed last year to a new ownership. The previous DON was updated on this information.
- 14 It is very satisfying to be involved in projects that increase a positive outcome results in patient care. It gives us added motivation as new concepts, theories and practices are shared with a common initiative to work toward. Also, being evaluated...[truncated]
- 15 It should not be the responsibility of Home Health Agency's alone to reduce Acute Care Hospitalization. We need to have specific guidelines for hospitals, MDs, SNFs and Home Care Agencies to work together to reduce rehospitalizations.
- 16 Keep close tabs on reported items.
- 17 [Agency wrote] No comments
- 18 [Agency wrote] No comments
- 19 Our agency benefited as we focused on reducing rehospitalizations. The staff were engaged in the process and the project expanded to the hospital and SNF settings. We collaborated through Qualidigm to reduce rehospitalization of CHF patients which had a very...[truncated]
- 20 Our agency must quickly identify the needs of each patient and communicate this information between caregiver, physician and clinical supervisors timely. This collaborative effort is imperative to ensure the patient is given the most appropriate care.
- 21 Our agency qualified for 7 P4P awards but didn't receive any money because of the methodology. We are an Illinois Agency. Very discouraging. You could see the improvement from 2008 to 2009, but we received no award.
- 22 Our agency realized that we provide a very high quality of care to our community compare to other providers.
- 23 Our participation YR1 was blind to our clinical staff. We had created best practice standards and that implementation impacted the findings with no link to P4P. YR2 staff obviously aware and we continued to strive for best practice standards with...[truncated]
- 24 P4P is a very useful tool to grade and reward top performing agencies nationwide. In this hard economic situation, it is very important for MEDICARE to try and save money to stay solvent. Our Agency has been integrating Home Health Compare and HHQI...[truncated]
- 25 Participation in the P4P helped us to evaluate our care delivery practices that impact patient care outcomes. Focusing on the patient care outcomes gave us the opportunity to change our care processes; forced us to develop specific programs.
- 26 Thank you for giving us the opportunity to participate in the survey and for rewarding us. We remain committed to providing quality care.
- 27 The agency was not informed of what kind of reward/s we had or did not have. The participation of the agency is quite helpful for us but we do need to know where, how and what we had accomplished to help us improve our services or better service to...[truncated]
- 28 The need for quality improvement measures directly affects patient outcomes and should serve as a springboard for future changes.
- 29 The prior Administrator indicated little impact, and I cannot locate documentation. In 2010, during the CMS blackout for HH Compare clinical outcomes, we have been using

- SHP, Inc. to track our outcomes, including which items are expected to be P4P...  
[truncated]
- 30 We are an agency that conducts(ed) its practices without any changes due to our participation in the P4P program. Our practices remained the same before, during, and after the program. We evaluate our practices on a regular basis and since we ...[truncated]
- 31 We didn't receive extra help on improving our outcomes. We sent staff to educational workshops, read best practices, and worked to incorporate these practices into pt. care. We had staff turnover including the Quality coordinator/supervisor in 2009.
- 32 We found that staff education and team discussions made a significant difference. Our PI nurse had team meetings at which we would discuss patients that had frequent hospitalizations and the team identified what they could have done to prevent it.
- 33 We learned that the communication between ABT and Shay was essentially non-existent. We also learned that lack of recognition results in an "I don't care" attitude. Was made aware of results for year one from University of Colorado. No public recognition.
- 34 We learned that we needed to set a goal to achieve the outcome we want. We formed a team with all the disciplines. Our team received training in techniques and good customer services. The technique training is to maintain the program emphasizing ...[truncated]
- 35 We learned that you can have an impact on your patient outcomes if you put the focus on them. We had not consistently informed staff of our outcomes until 2008, at which time we began posting the CMS outcomes quarterly and explaining to staff what ...[truncated]
- 36 we really enjoyed the challenge. I feel like the nurses are more focused since then and I can tell a difference in the way we all think now.
- 37 We were bought out by a corporate company that came in and completely changes our practices. I cannot evaluate how change r/t to the survey has affected us, because our change did not come from the survey.
- 38 We were recognized as Homecare Elite and received a bonus for the P4P demonstration, but did not receive any information on what specifically we did to achieve the recognition or bonus. I would like to have this information to share with our staff and to know...[truncated]
- 39 We would want/need more timely information in order to develop lead measures to assure success.
- 40 With the challenges of rural healthcare:
- a. Low education and economics of our clients
  - b. High incidence of multiple high risk comorbidities
  - c. Decreased reimbursement and visit authorizations from our payers
  - d. Patients being discharged from Acute ...[truncated]
- 41 You should provide reports of the outcomes with the P4P checks. We still have no idea in what areas we excelled or improved to receive the performance money.

All responses to Survey question: “Please use the space below to provide specific advice that you would share with other HHAs on how to be successful if P4P becomes an implemented program in CY2012. ”

(NOTE: The comments contain minor editing of participant responses to correct grammatical errors and complete sentences.)

### **Control Suggestions**

- 1 - Patient care comes first.
- 2 You have to keep moving and reach for the stars always let staff know this is a TEAM approach.
- 3 Educate, educate, educate - on OASIS conventions, data items, why and how outcomes will impact the agency's status within the medical community, patients served, staff satisfaction and retention, and financial viability of the agency in the future.
- 4 Focus on patient outcomes, quality care, regulatory guidelines & patient satisfaction. Review every doc before filed in hard chart.
- 5 I will be interested to see the results of the participants in the active group. It's difficult to consistently get and keep improvement.
- 6 If patient needs an aide, probably the patient could benefit from a therapist. We focus on ‘rehab’-ing the patient so that they are not dependent on an aide. ACH: We have started scheduling 4 clinician visits within the first 7 days after SOC or ROC if the patient is high risk. (NOTE: same comment as treatment agency from multi-agency group.)
- 7 Implement and maintain the highest quality standards for your agency's progress and overall patient care improvement.
- 8 Invest in quality care seminars by sending your top clinicians who are strong leaders and are able to provide in-service to your visiting staff.
- 9 Make sure you have the staff available to follow your outcomes related to P4P.
- 10 Multi factorial approach and oversight to quality indicators drilled down to clinician level. Clear thorough education for OASIS accuracy. Education to referral sources to build bridge for care transitions.
- 11 Must establish and maintain productive and effective relationships with physicians. We do this by utilizing an INTAKE nurse who meets face to face with physicians on a daily basis (M-F).
- 12 Our agency does not have the option of providing financial incentives for employees although I think that would be great. As management provide training often. Provide education at least monthly. Make it of short duration. Most important ...
- 13 Staff requires constant and continuous training and education in order to achieve CQI and higher performance in care and documentation.
- 14 We are moving toward value based / quality care systems. It is not only the right thing to do for patients, but future payment structures will be driven by outcomes and patient satisfaction. Start ASAP because it takes time, resources and many ...[truncated]

### **Non-Winner Suggestions**

- 1 OASIS C has added a lot more time to documentation. My main concern with so much required documentation is the impact it has on patient care and the viability of home health agencies. Stay focused on patient care and satisfaction.

### **Winner Suggestions**

- 1 Educate, educate, educate - on OASIS conventions, data items, why and how outcomes will impact the agency's status within the medical community, patients served, staff satisfaction and retention, and financial viability of the agency in the future.
- 2 Designate a staff development coordinator.
- 3
  - a. strict compliance with the standards
  - b. strict review on oasis information before admission and discharge.
  - c. constant communication of the team
  - d. Use the best practices
  - e. Participate in seminars that could help agency improve and be updated...[truncated]
- 4 Accurate OASIS assessment is paramount. Processing of OASIS must include review with clinician to provide real time teaching regarding how to answer questions, consistency and supporting documentation
- 5 As stated during the site visit by Ms. Angela Richard.
- 6 Be patient oriented. Analysis of each patient needs and wants are very important to an efficient and effective plan of care. Front loading is beneficial only for certain patients. Quality of each visit is also very important. Listening more to the ...[truncated]
- 7 Communication is a key component to P4P: communication about P4P with staff, both field and management and finance, communication with patients about the agency on call system, agency role and purpose/goals of care, when to call the agency if there...[truncated]
- 8 Continuous oversight of QI initiatives. Keep your Eye on the Ball. Keep abreast of the best practices and implement as appropriate.
- 9 Do not wait until it is implemented. Plan ahead and implement best practices now.
- 10 Follow CMS OASIS guidance (and changes), train/retrain adult learners often, and provide timely QM oversight to question OASIS answers inconsistent with clinical documentation. Rushed clinicians can inadvertently lower scores by not reading a question...[truncated]
- 11 Front loading visits and using the telemonitors made a significant difference.
- 12 If patient needs an aide, probably the patient could benefit from a therapist. We focus on 'rehab'-ing the patient so that they are not dependent on an aide. ACH: We have started scheduling 4 clinician visits within the first 7 days after SOC or ROC if the patient is high risk. (NOTE: same comment as control agency from multi-agency group.)
- 13 Increase staff education on the importance of OASIS accuracy. Evaluate for disease management programs.
- 14 Involve staff at all levels. Keep staff informed throughout the process and of the overall results. By engaging all staff through the early process, the momentum will move forward to keep the initiatives of the program moving forward well past ...[truncated]
- 15 It takes work, but it is worth it
- 16 Keep your eye on the reason for the P4P program which is patient care. Do not become so form or another assessment challenged that you forget that the reason you are there is to provide excellent Home Health care to the patient.
- 17 Look at each element from a global perspective in order to identify structural opportunities.

- 18 Make sure staff know how they and the agency are being rated on each reported item.
- 19 Make sure you have knowledge of how and why you received the P4P money.
- 20 [Agency wrote] No comments
- 21 [Agency wrote] No comments
- 22 OASIS training is a must!!!!
- 23 QI staff needs to provide regular classes on interpretation of OASIS questions especially with OASIS-C. Staff needs to be sent to workshops on improving disease management. All management staff must work together to improve the quality and safety outcomes.
- 24 Regularly communicate with staff on strategies and actions, then communicate the same information twice more.
- 25 Staff participation and engagement is key. Once the staff understand the impact they can have on outcomes, it becomes much easier to achieve success.
- 26 TEAMWORK, DEDICATED STAFF AND CONTINUOUS EDUCATION PROGRAM TO ALL STAFF.
- 27 Technology, Technology, Technology
- 28 The philosophy of the organization trickles down to the team partners who are the front end of the care and services. The senior management must be willing to invest in our partners (staff, patient, referral sources) involved in the change process.
- 29 Need to form some sort of high risk calls on high risk patients. It has helped us in the past few years keeping patients out of the hospital. We call all of our high risk patients 2x a week regardless of what is going on and it has really showed a difference. We will continue...[truncated]
- 30 We have had a lot of success in the past 2 1/2 years with our outcomes. I attribute that to an increased awareness of the NEED to improve our outcomes. My agency allocated resources for SHP and an additional Quality Coordinator to put the focus on...[truncated]
- 31 We recommend to Clinicians to see the patient as soon as possible after hospital discharge, focus on medications, obtaining thorough history/physical, front-load visits for all patients as well as initiate rehab as soon as possible to implement fall risk...[truncated]
- 32 Weekly team conferences involving all disciplines involved in the patient care. Home supervisory visit with staff present (SN/CHHA/PT etc.). Provide frequent in-service and training. Extensive new employee orientation/training. Provide continuity in patient...[truncated]
- 33 Work to change the methodology so that all agencies receive incentives whether or not the control group showed improvement as well. How can you incentivize agencies if they don't get rewarded because of your payment methodology?
- 34 You need to determine your goal, how you plan to accomplish it and then track performance closely, communicate frequently your progress to goal and tie outcomes to individual performance goals.