U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR MEDICARE AND MEDICAID SERVICES

REVISION OF DATA COLLECTION FOR THE NURSING HOME VALUE BASED PURCHASING (NHVBP) DEMONSTRATION

OFFICE OF MANAGEMENT AND BUDGET
CLEARANCE PACKAGE SUPPORTING STATEMENT

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Supporting Statement for Modification and Extension of the Nursing Home Value Based Purchasing Demonstration Data Collection Approach

A.   BACKGROUND

A.1   Purpose

The purpose of this report is to transmit the Centers for Medicare and Medicaid Services' (CMS') supporting statement to the Office of Management and Budget (OMB) for the approval of an information collection request under the Paperwork Reduction Act and CFR 1320.6. On March 25, 2008, OMB approved the data collection for the Nursing Home Value Based Purchasing (NHVBP) demonstration under OMB Control Number 0938-1039. That data collection effort is ongoing. The purpose of this information collection request is to revise the above data collection approach.

The goal of the NHVBP Demonstration is to use financial incentives to improve the quality of care in nursing homes. The main purpose of the NHVBP data collection effort is to gather information that will enable CMS to determine which nursing homes will be eligible to receive incentive payments under the NHVBP Demonstration. Information will be collected from nursing homes participating in the demonstration on an ongoing basis. CMS will collect payroll-based staffing, agency staffing and resident census information to help assess the quality of care in participating nursing homes. CMS will determine which homes qualify for an incentive payment based on their relative performance in terms of quality.

A.2   NHVBP Demonstration

Overview:

The NHVBP Demonstration is a CMS "pay-for-performance" initiative to improve the quality of care furnished to Medicare beneficiaries in nursing homes (those in a Part A stay as well as those who receive only Part B benefits, many of whom are also eligible for Medicaid). Under this three-year demonstration project, CMS is assessing the performance of nursing homes based on selected quality measures, and making incentive payments to those nursing homes that achieve a higher performance based on those measures. Quality is being assessed based on the following four domains: staffing, appropriate hospitalizations, outcome measures from the minimum data set (MDS), and survey deficiencies.

The demonstration began July 1, 2009 in 3 States: Arizona, New York and Wisconsin. The number of nursing homes that began the demonstration was as follows:
Arizona: 41 participants; New York: 79 participants; Wisconsin: 62 participants. Since the beginning of the demonstration, four nursing homes have dropped out. Currently the number of participants is as follows: Arizona: 39; New York: 78; Wisconsin: 61.

Participating nursing homes are required to submit information on an ongoing basis over the three years of the demonstration in order to determine their eligibility for incentive payments.

The demonstration will be budget neutral to Medicare. CMS anticipates that certain avoidable hospitalizations may be reduced as a result of improvements in quality of care. The reduction of avoidable hospitalizations and subsequent skilled nursing home stays is expected to result in savings to Medicare. These savings will constitute a pool for each State from which we will make the performance payments.

Demonstration Design:

Quality Measures:

The quality measures to be used in the demonstration are as follows:

- Staffing Domain: There is considerable evidence of a relationship between nursing home staffing levels, staffing stability, and resident outcomes. Low staffing levels place residents at increased risk of hospitalizations and poor quality outcomes. The demonstration therefore includes four staffing-related measures:

  - o RN hours per resident day
  - o Licensed nursing hours per resident day (RN, Licensed Practical Nurse)
  - o Certified Nurse Aid (CNA) hours per resident day
  - o Turnover percentage for nursing staff

- Appropriate Hospitalizations Domain: Careful management of certain kinds of conditions may reduce the number of hospitalizations that occur. Conditions such as heart failure and urinary tract infections are thought to be manageable if they are treated in a proactive and timely fashion; thus hospitalizations for these conditions are considered to be "potentially avoidable." We will use separate measures of hospitalization rates for long-stay residents and short-stay residents in the demonstration.

- Minimum Data Set (MDS) Outcomes Domain: A set of measures has been developed from MDS-based indicators to describe the quality of care provided in nursing homes. These measures address a broad range of functioning and health status in multiple care areas. We have selected a subset of these measures for use in the demonstration based on their validity, reliability, statistical performance, and policy considerations:

  - Long-Stay Residents
    - o Percent of residents whose need for help with daily activities has increased;
    - o Percent of residents whose ability to move in and around their room got worse;
    - o Percent of high-risk residents who have pressure ulcers;
    - o Percent of residents who have had a catheter left in their bladder; and,
    - o Percent of residents who were physically restrained.

  - Short-Stay Residents

o   Percent of residents with improving level of ADL functioning;
o   Percent of residents who improve status on mid-loss ADL functioning; and,
o   Percent of residents experiencing failure to improve bladder incontinence.

- Survey Deficiencies Domain: The survey deficiency domain includes two types of measures. One will be a screening measure to prevent any nursing home with a serious deficiency or enforcement action on a standard or a complaint survey from receiving an incentive payment. The other will be a deficiency score, where the score will be determined based on the scope and severity of each deficiency and the regulatory areas where the deficiencies occur.

CMS is using existing data sources for most of these quality measures. All measures included in the MDS outcomes, survey deficiency, and appropriate hospitalization domains can be calculated from existing secondary data sources, such as the MDS, annual nursing home certification surveys, and Medicare claims data.

However, for the staffing domain, there is currently no satisfactory alternative source for these data. The CMS Online Survey Certification and Reporting (OSCAR) system includes information about staffing ratios, and Medicaid Cost Reports include staffing information for some States. But the staffing information from these sources has many limitations, including lack of information on turnover and agency staff hours. Therefore, primary data collection is necessary for staffing measures.

Savings Pool:

CMS selected the demonstration participants from among the nursing homes that applied for the demonstration. Then CMS assigned nursing homes in each State to a comparison group. The comparison group will allow CMS to estimate Medicare savings for each State and enable us to evaluate the impact of the demonstration. (Note: comparison group nursing homes do not submit staffing data to CMS.) Approximately 12 months after the conclusion of each year, CMS will compare certain risk-adjusted Medicare expenditures per resident between the demonstration and comparison groups. Any actual savings will be determined based on the difference in the growth of the risk-adjusted Medicare costs between the two groups.

Performance Payments:

CMS will award points to each nursing home based on how they perform on the quality measures within each of the four domains. Each domain will count towards the nursing home's overall score. The staffing and appropriate hospitalization domains will each count for 30 percent of the total score, and the MDS outcomes and survey deficiencies domains will each count for 20 percent of the total score.

CMS will determine which nursing homes qualify for a performance payment based on their overall performance scores. Those homes with the highest scores and those that show the most

significant improvement in their scores from the prior year will be eligible to receive incentive payments.

A.3   Data Collection Approach

Data Sections

The data collection consists of the following sections:

Section A - Contact information: This is the participant's most up to date contact person, phone number and email address.

Section B – Census of Resident Days: This is information on the number of resident days in the quarter. This is required to create the staffing ratio measures (i.e., staffing hours per resident day).

Section C - Payroll: The payroll data include information on each employee's job category (e.g., RN, LPN, nurse aide) and the hours worked in each pay period during the previous quarter.

Section D - Agency Staff Hours: This is the number of agency hours worked in the previous quarter (per agency invoices). This is part of the determination of the staffing ratio measures.

Note that CMS plans to add a new field to section C (payroll data): "date terminated". This field will help CMS more accurately determine when employees are no longer employed by the nursing home.

See Attachment 1 for the modified data submission specifications.

Data Collection Frequency and Duration

All participating nursing homes will submit contact, census, payroll, and agency staff information electronically to CMS on a quarterly basis. Participants will continue to submit these data using the current specifications for the remainder of year 1 of the demonstration. For years 2 and 3 of the demonstration, participants will submit using the modified specifications.

Data Verification

A subset of nursing homes each year will be asked to supply raw staffing data in order to verify the information we receive in their regular electronic submission. Submission of these verification data will not require the type of standardized format and file layout that the quarterly data reports use. While we are requesting "raw" staffing data, nursing homes will still need to encrypt the data to ensure that they do not contain any personal identifiers (name, Social Security number).

We will use a targeted approach to select the sample of nursing homes that will be asked to submit data for verification purposes. We will focus on nursing homes that have aberrant data in

their standardized reports (e.g., extremely low or high turnover, large changes relative to the baseline or prior years, aberrant staffing levels or distribution of staff by job category, missing data for some payroll periods, or high rates of errors on individual employee records.) We expect that no more than 18 participating nursing homes (10 percent of all participants) will be asked to submit data for verification purposes each year.

A.4   Participant Recruitment

As noted above, three States (Arizona, New York and Wisconsin) volunteered to "host" the NHVBP demonstration (i.e., allow CMS to conduct the demonstration in their State). During the spring of 2009, CMS solicited nursing homes in these States and selected 183 participants. Since the beginning of the demonstration, 5 nursing homes have withdrawn from the project. There are currently 178 nursing homes participating in the NHVBP demonstration.

A.5   Consultation with Industry

After we received the first quarter of staffing data, CMS asked the participating nursing homes to provide estimates of their reporting burden under the demonstration. We asked the homes to report their burden for each section (A through D) on the data collection form. We did not ask for start-up or capital costs since these had already been expended. We also asked for their estimate of the additional burden if we were to add a field (date terminated) to Section C.

We received responses from 69 of the 178 demonstration participants. Some of the nursing homes only responded to a portion of the questions. That is, some reported their burden for each section as we requested; however, others only reported a total burden and did not break it out by section. Some responded to the question about additional burden, and some did not. Specifically, 42 homes provided burden estimates for section C, and 39 provided information for sections A, B and D. Twenty one homes provided only total burden for sections A through D combined. Regarding the additional burden if we added the field above to section C, 46 homes provided burden estimates for ongoing burden and 10 provided estimates for start-up burden. The burden information collected from these nursing homes is shown in section B.12.

B.   JUSTIFICATION

B.1   Need and Legal Basis

Need for the NHVBP Demonstration

In its report "Crossing the Quality Chasm," the Institute of Medicine (IOM, 2001) argued that payment incentives should be aligned with quality improvement, with providers given the opportunity to share in the benefits of quality improvement and incentives aligned with the achievement of better outcomes and the use of good processes of care or other desired actions. The report recommended that all purchasers reexamine payment policies to remove barriers that impede quality and build in stronger incentives for quality enhancement, calling for government agencies like CMS to "identify, pilot test, and evaluate various options for better aligning current payment methods with quality improvement goals."

Value-based purchasing (or pay-for-performance) involves the use of incentives to encourage providers to improve the quality of services that they provide. This is in contrast to the current system, for which quantity is the basis for reimbursement. The NHVBP Demonstration is one CMS response to the IOM's challenge and is part of our broader long-term care quality initiative. Like other value-based purchasing programs, this demonstration will offer incentives to providers who meet certain quality objectives. These incentives are expected to promote the quality of care provided by nursing homes.

Demonstration Authority

The authority to conduct this demonstration is section 402(a)(1)(A) and section 402(b) of the Social Security Amendments of 1967, as codified by 42 USC 1395b-1(a)(1)(A) and 1395b-1(b). Under section 402(a)(1)(A), the Secretary of Health and Human Services is authorized to develop and engage in demonstration projects to determine whether, and if so which, changes in methods of payment or reimbursement for health care and services would have the effect of increasing the efficiency and economy of health services under such programs through the creation of additional incentives without adversely affecting the quality of such services. Under section 402(b), the Secretary may waive compliance with Medicare requirements related to reimbursement as needed to implement the demonstration.

Need for the NHVBP Data Collection Approach

The main purpose of the NHVBP data collection approach is to collect data on performance measures to assist in assessing nursing home quality. Wherever possible, CMS has identified existing secondary data sources for computing quality measures. As described in section A.2 above, data items already collected as part of the Minimum Data Set, the OSCAR system, and Medicare claims data will be substantial components in determining financial incentive payments to participating nursing homes. However, there are currently no existing secondary sources available which meet the data needs of the NHVBP Demonstration with respect to staffing measures.

As previously discussed, the staffing measures collected via OSCAR or Medicaid Cost Reports are inadequate for the purposes of the NHVBP Demonstration. No other national sources of staffing data currently exist. CMS therefore requires submission of staffing data for nursing homes participating in this demonstration.

B.2   Explanation of Use of Data (Information Users)

The payroll, agency and census data will be used to calculate the four performance measures included in the staffing domain: RN hours per resident day, licensed staff hours (RN, LPN) per resident day, CNA hours per resident day, and turnover percentage for nursing staff. As a specific example, to determine RN hours per resident day, CMS will sum the productive hours (i.e., hours actually worked) by RNs, the hours worked by agency RNs, and the resident days as reported by each nursing home for the entire year. CMS will then calculate the ratio of RN hours per resident day for each nursing home. Then CMS will rank the nursing homes from the highest performers (greater ratio) to lowest performers (smaller ratio). CMS will assign a score to each

nursing home according to its ranking for this measure. A similar ranking approach will be used to assign scores to nursing homes for the other 3 staffing measures.

As noted in section A.2, the staffing domain will account for 30 percent of the total performance score. Two measures (RN hours and turnover) will account for 10 points each, and two measures (licensed staff hours and CNA hours) will account for 5 points each. For each measure, the highest ranking nursing home will receive the maximum number of points; the lowest ranking home will receive zero points; and all others will receive a score that is in proportion to their rank. These staffing domain scores will be combined with scores from the other three domains (appropriate hospitalizations, MDS outcomes, and survey deficiencies) to create a single composite performance score for each nursing home. Those nursing homes with the highest overall scores and those homes that show the greatest improvement from year to year will be eligible to receive performance payments.

B.3   Use of Electronic Means of Collection

Nursing homes must submit the data that will be used to calculate the staffing performance measures electronically, sending the information to CMS in either an Excel spreadsheet or ASCII text file.

B.4   Duplication of Similar Information

Although we will use existing data sources to measure performance for the MDS outcomes, appropriate hospitalizations and survey deficiencies domains, there is no existing data collection effort that gathers the information we need on staffing. As explained above, self-reported staffing measures in the OSCAR system and Medicaid Cost Reports do not include the information needed for the demonstration.

B.5   Small Business

For purposes of this data collection, we assumed that nursing homes were small businesses if they were independently owned and operated and had less than 70 beds. Of the 178 nursing homes participating in the demonstration, 28 had less than 70 beds and operated independently. These 28 homes were considered to be small businesses.

Fifteen of these 28 homes responded to the burden questions (see section A.5). Their average reported burden was similar to (and slightly less than) the average burden reported by all respondents to the questions. See Section B.12. Note that small nursing homes may drop out of the demonstration if they consider the data submission requirements to be too burdensome.

B.6   Consequences of Less Frequent Collection

Participating nursing homes submit staffing data to CMS on a quarterly basis. This enables CMS to quickly determine which nursing homes are having difficulties meeting the reporting requirements. It also enables us to assess nursing home performance on the staffing measures so that we can provide timely feedback to participants. Less frequent data collection would not allow CMS to assess the participants in a timely manner.

B.7   Special Circumstances

There are no special circumstances associated with this data collection.

B.8   Federal Register Notice/ Outside Consultation

A 60-day notice was published on May 28, 2010. No comments were received.

Outside consultation was sought in designing the NHVBP Demonstration and in evaluating the burden of data requirements. See Section A.5 for further details.

B.9   Payment/Gifts to Respondents

There are no provisions to provide any payments or gifts to complete the data submission requirements.

B.10   Confidentiality

All information collected as part of the demonstration will be kept private to the extent permitted by law. Project directories and databases are protected by assigned group memberships, passwords and other techniques that prohibit access by unauthorized users. In addition to the issue of protection of privacy, data security encompasses backup procedures and other file management techniques to ensure that files are not inadvertently lost or damaged.

B.11   Sensitive Questions

Payroll records are the only individual-level data to be gathered in this data collection effort. The payroll data submission guidelines instruct nursing homes to create unique employee identifiers for their data submissions, and to remove all potentially identifiable information such as names or Social Security numbers from their records. Since CMS will not be able to identify individuals, the payroll data are not considered sensitive. Other data will be collected at the nursing home level and are not considered sensitive.

B.12   Program/Burden Estimate

Pre-demonstration Survey

Prior to the demonstration, CMS surveyed nine nursing homes in order to assess the data reporting burden under the demonstration. Burden was assessed for the initial application as well as for the ongoing quarterly submission. We collected estimated hours of burden to complete each section. We also estimated the burden on nursing homes to comply with our annual data verification process.

For the ongoing quarterly submission, the annual burden estimate was 17,220 hours. This estimate was based on a projected 250 nursing homes submitting data quarterly (i.e., 1,000

responses annually). In addition to sections A through D of the data collection instrument, it included the burden associated with reporting staff immunizations and use of resident care experience surveys (sections E and F). It also included the burden of complying with CMS' data verification requirements. The average hours of burden per response was estimated at 17.22 hours.

Updated Burden Estimates

As noted in section A.5 above, CMS collected data from the demonstration participants regarding the actual time they spent submitting the first quarter of data under the demonstration. Table 1 shows the hours of burden that were reported to CMS. As shown, 39 nursing homes reported the burden broken out for sections A, B, C and D, while 3 homes reported the burden only for section C. In addition, 21 homes reported only the total burden, not broken out by section. Furthermore, 46 homes reported their estimate of the ongoing burden associated with adding the "date terminated" field to section C, with 10 homes also reporting the start-up burden.

Table 1: Quarterly Burden Reported by Participants		
Sections Reported	Number of participants reporting	Mean Burden Reported
A (contact information)	39	0.15 hours
B (resident census)	39	0.44 hours
C (payroll)	42	3.94 hours
D (agency staff)	39	0.30 hours
Total (A through D) only	21	9.61 hours
Added field only (ongoing)	46	0.42 hours
Added field (start-up)	10	2.33 hours

Small Business

As noted in Section B.5 above, 15 of the 28 participants considered to be small businesses responded to CMS' request to report burden. The mean burden reported by these nursing homes was as follows: Section A: 0.18 hours; Section B: 0.35 hours; Section C: 2.71 hours; Section D: 0.15 hours. The total hours (for those who did not break this out by section) reported were 8.25 hours. The ongoing burden for the added field was 0.48 hours. The start-up burden for the added field was 1.0 hours. These were very similar to the mean hours reported by all participants who responded.

Calculation of Burden by Section

First, we summed the mean burden reported for the 39 homes that reported sections A through D and the 3 homes that reported only section C, yielding 4.83 hours. (We assumed that the 3 homes would have had the same burden on sections A, B and D as the other 39 homes.) The 21 nursing homes that reported only the total burden averaged 9.61 hours. We determined the total mean burden for sections A through D as a weighted average of these 63 homes, as follows:

[(4.83 hours) * (42 homes) + (9.61 hours) * (21 homes)] / 63 homes = 6.42 hours.

The average burden for sections A through D was estimated at 6.42 hours.

Next, we adjusted the mean burden for individual sections (so that they summed to 6.42 hours), by multiplying by (6.42 / 4.83) = 1.33. Thus, the mean burden by section was estimated as:

Section A: 0.15 * 1.33 = 0.20 hours (12 minutes)
Section B: 0.44 * 1.33 = 1.0 hours
Section C: 3.94 * 1.33 = 5.24 hours
Section D[1]: 0.30 * 1.33 = 0.40 hours (24 minutes)

Finally, we accounted for the ongoing burden of adding a field to the payroll data (section C). The reported ongoing burden was .42 hours. Adding this to the above estimate yields the following:

Section C: 5.24 hours + .42 hours = 5.66 hours (5 hours, 40 minutes)

Note that this yields a total burden for all sections of: 6.42 + 0.42 = 6.84 hours.

Calculation of Annual Burden

- The quarterly burden for sections A through D for 178 nursing homes is as follows:
  Section A: 0.2 hours * 178 =   35.6 hours
  Section B: 1.0 hours * 178 =   178.0 hours
  Section C: 5.66 hours * 178 = 1,007.5 hours
  Section D: 0.40 hours * 178 =   71.2 hours
  Total (Sections A through D): 1,292.3 hours

  This yields an annual burden of: 1,292.3 hours * 4 quarters = 5,169.2 hours for sections A through D.

- The reported startup burden (for one-time changes to software) was 2.33 hours (or 2 hours, 20 minutes). Since the data collection will cover the last 2 years of the demonstration, this translates into an annual burden of 1 hour, 10 minutes per participant per year. This yields a total annual burden for 178 nursing homes of: (178 * 1 hour, 10 minutes) = 208 hours.

- Since year 1 of the demonstration has not yet been completed, we have not yet performed a verification of the staffing data. Thus we do not have an updated estimate of the annual burden for data verification. On the pre-demonstration survey, we collected information on the burden associated with the verifying staffing data per the methods described in Section A.3. This survey yielded an average time of 8.5 hours per nursing home. Since up to 18

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[1] Note: The times reported above for section D are an average across all those homes which reported to CMS, including those reporting zero time. Thus the above estimate for Section D is an average across all nursing homes, some of which do not have any agency staff and thus do not report section D.

nursing homes will be asked to submit raw staffing data for verification purposes each year, the annual data verification burden is (18 submissions at 8.5 hours each) = 153 hours.

Total Annual Number of Responses

The total annual number of responses is: (178 participants) * 4 quarters = 712 responses.

Total Burden Estimates

Total burden estimates are summarized in Table 2. As shown, the total annual burden for 178 nursing homes is 5,530.2 hours. This yields an average burden per participant per year of 31 hours, or a per response (quarterly) burden of 7.75 hours.

Table 2: Total Program Burden		
	Quarterly	Annually
Section:		
Section A	35.6 hours	142.4 hours
Section B	178.0 hours	712.0 hours
Section C	1,007.5 hours	4,030.0 hours
Section D	71.2 hours	284.8 hours
Start-up	N/A	208.0 hours
Data verification	N/A	153.0 hours
Total		5,530.2 hours

B.13 Capital Costs

The original estimate of capital costs associated with the need for new software or modification of existing software systems was $400 per nursing home. These are now sunk costs. We do not anticipate that the demonstration participants will incur further capital costs.

B.14 Cost Estimate to Federal Government

The annual cost to the Federal government to administer the data collection during the demonstration is $40,000.

B.15 Program Changes

When CMS submitted the original supporting statement for this data collection, we estimated that there would be 250 participants (submitting 4 responses annual, yielding 1,000 annual responses) and an annual burden of 17,220 hours. We also estimated that there would be 1,000 applicants for the demonstration, at a total burden of 31,950 hours. These estimates were based on a pre-demonstration survey of 9 nursing homes.

We have revised the annual burden estimates for this supporting statement. These estimates are substantially lower than our original estimates, for two reasons. First, the actual number of demonstration participants is 178 (submitting 4 responses annually, yielding 712 annual responses). Second, 69 participants reported their actual burden. Based on this information, we estimated an annual burden of 5,530 hours (i.e., an average of 7.75 hours per response for 712 responses). In addition, the initial collection (i.e., the application) has ended. So the burden associated with the initial collection (1,000 responses at 31,950 hours) is no longer included in the current burden estimate.

B.16 Publication and Tabulation Schedule

Information will be compiled and tabulated quarterly. CMS will disseminate information on the aggregate performance scores of nursing homes in the demonstration on a semiannual basis.

B.17 Expiration Date

CMS will display the date for OMB approval on the collection instrument.

B.18 Certification Statement

There are no exceptions to this certification statement.