



DEPARTMENT OF HEALTH & HUMAN SERVICES

Office of Inspector General

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**TO:** Charlene Frizzera  
Acting Administrator  
Centers for Medicare & Medicaid Services

**FROM:** Stuart Wright */S/*  
Deputy Inspector General for  
Evaluation and Inspections

**SUBJECT:** Memorandum Report: "Medicare Hospice Care: Services Provided to Beneficiaries Residing in Nursing Facilities," OEI-02-06-00223

This memorandum report determines the proportion of Medicare hospice beneficiaries residing in nursing facilities in 2006 and describes the nature and extent of hospice services provided to them. The Medicare hospice benefit allows a beneficiary with a terminal illness to forgo curative treatment for the illness and instead receive palliative care, which is the relief of pain and other uncomfortable symptoms. The number of Medicare beneficiaries receiving hospice care has increased significantly in recent years. In fiscal year 2001, about 580,000 beneficiaries received hospice care. In 2006, this number increased by 62 percent to 939,000 beneficiaries. Medicare spending on hospice care rose from \$3.6 billion in 2001 to \$9.2 billion in 2006.<sup>1</sup>

Some studies suggest that the use of hospice care is growing most rapidly in nursing facilities.<sup>2</sup> In addition, previous OIG work has raised questions about the hospice benefit for nursing facility residents. For example, OIG reported that in 1995, payment levels for hospice care in nursing facilities may have been excessive.<sup>3</sup> However, little subsequent research has been done to examine hospice care for these beneficiaries and almost no

<sup>1</sup> Centers for Medicare & Medicaid Services (CMS), "Medicare Hospice Expenditures and Units of Care." Available online at [http://www.cms.hhs.gov/ProspMedicareFeeSvcPmtGen/downloads/FY05update\\_hospice\\_expenditures\\_and\\_units\\_of\\_care.pdf](http://www.cms.hhs.gov/ProspMedicareFeeSvcPmtGen/downloads/FY05update_hospice_expenditures_and_units_of_care.pdf). Accessed on March 27, 2009; CMS analysis of Medicare Health Care Information System data for calendar year 2006 claims. Provided by CMS on May 5, 2009.

<sup>2</sup> Office of the Assistant Secretary for Planning and Evaluation (ASPE), "Use of Medicare's Hospice Benefit by Nursing Facility Residents," March 2000; Medicare Payment Advisory Commission, "Report to the Congress: Medicare Beneficiaries' Access to Hospice," May 2002, p. 5.

<sup>3</sup> OIG, "Hospice Patients in Nursing Homes," OEI-05-95-00250, September 1997.

OEI-02-06-00223 Medicare Hospice Care: Services Provided to Beneficiaries  
Residing in Nursing Facilities

beneficiary-specific data exist.<sup>4</sup> In fact, a recent report from the Medicare Payment Advisory Commission noted that Medicare “has virtually no information on the hospice care it purchases, in terms of either the specific services provided or the quality of care obtained.”<sup>5</sup> It also stated that substantially more data will be needed to modernize Medicare’s payment system for hospice.

A 2009 OIG report determined the extent to which hospice claims for beneficiaries in nursing facilities met Medicare coverage requirements.<sup>6</sup> The report found that 82 percent of hospice claims for beneficiaries in nursing facilities did not meet at least one Medicare coverage requirement. Medicare paid approximately \$1.8 billion for these claims. The report also found that for 31 percent of claims, hospices provided fewer services than outlined in beneficiaries’ plans of care.

In this evaluation, we found that 31 percent of Medicare hospice beneficiaries resided in nursing facilities in 2006. Medicare paid \$2.59 billion for their hospice care, at an average of \$960 per week for each hospice beneficiary residing in a nursing facility. Hospices most commonly provided nursing, home health aide, and medical social services. They furnished an average of 4.2 visits per week for these three services combined. They also commonly provided drugs. The results in this memorandum report can help CMS and other decisionmakers determine whether the types and frequencies of hospice services provided to beneficiaries in nursing facilities meet the goals of the hospice benefit and whether current payment rates are aligned with the hospice services being provided.

## **BACKGROUND**

### **The Medicare Hospice Benefit**

The Tax Equity and Fiscal Responsibility Act of 1982 created the Medicare hospice benefit for eligible beneficiaries under Medicare Part A.<sup>7</sup> The goals of hospice care are to help terminally ill beneficiaries continue life with minimal disruption and to support beneficiaries’ families and other caregivers throughout the process. The care may be provided to individuals and their families in the home or other places of residence, such as a skilled or other nursing facility. The care provided to families and other caregivers includes counseling and training to provide care for the individual and bereavement counseling.

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<sup>4</sup> Government Accountability Office (GAO), “Medicare Hospice Care: Modifications to Payment Methodology May Be Warranted,” GAO-05-42, October 15, 2004, pp. 4 and 20; ASPE, “Synthesis and Analysis of Medicare’s Hospice Benefit,” March 2000.

<sup>5</sup> Medicare Payment Advisory Commission, “Report to the Congress: Reforming the Delivery System,” June 2008, Chapter 8, p. 224.

<sup>6</sup> OIG, “Medicare Hospice Care for Beneficiaries in Nursing Facilities: Compliance With Medicare Coverage Requirements,” OEI-02-06-00221.

<sup>7</sup> The Tax Equity and Fiscal Responsibility Act of 1982, § 122, P.L. No. 97-248 § 122, 96 Stat. 324, 356, 42 U.S.C. § 1395x(dd).

To be eligible for Medicare hospice care, a beneficiary must be entitled to Part A of Medicare and be certified as having a terminal prognosis with a life expectancy of 6 months or less if the disease runs its normal course. Upon a beneficiary's election of hospice care, the hospice agency assumes the responsibility for medical care related to the beneficiary's terminal illness and related conditions. This care is palliative, rather than curative. The beneficiary waives all rights to Medicare payment for services related to the treatment of the terminal condition or a related condition but retains rights to Medicare payment for services to treat conditions unrelated to the terminal illness.<sup>8</sup>

*Hospice services.* A plan of care must be established as set forth in regulations before services are provided, and the services must be consistent with the plan of care.<sup>9</sup> Pursuant to Federal statutes and regulations, Medicare covers the following hospice services:

- nursing care provided by, or under the supervision of, a registered nurse;
- physical or occupational therapy or speech-language pathology services;
- medical social services under the direction of a physician;
- home health aide and homemaker services;
- medical supplies (including drugs and biologicals) and the use of medical appliances;
- physician services;
- short-term inpatient care (including both respite care and procedures necessary for pain control and acute and chronic symptom management);
- counseling (including dietary counseling) with respect to care of the terminally ill individual and adjustment to the individual's death; and
- any other service that is specified in the plan of care as reasonable and necessary for the palliation and management of the terminal illness and related conditions and for which payment may otherwise be made under Medicare.<sup>10</sup>

*Levels of care and payment.* The Medicare hospice benefit has four levels of care, and each level has an all-inclusive, prospectively determined daily rate. The rate is paid to the hospice for each day that a beneficiary is in hospice care, regardless of the number of services furnished. The four levels of care are: routine home care, continuous home care, respite care, and general inpatient care. Routine home care is the most common level of care and includes, but is not limited to, nursing and home health aide services. Appendix A provides detailed information on the four levels of care and the payment rates.

In addition, Medicare pays for physician services for hospice beneficiaries. This reimbursement may be through Part A or Part B, depending on the physician's

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<sup>8</sup> 42 CFR § 418.24.

<sup>9</sup> 42 CFR § 418.200.

<sup>10</sup> 42 CFR § 418.202.

relationship with the hospice. Medicare pays the hospice for physician services under Part A when the beneficiary's attending physician is an employee of or is under contract with the hospice provider.<sup>11</sup> The hospice compensates the physician through salary or some other arrangement. Medicare pays the physician for physician services under Part B when the beneficiary's attending physician does not have a payment arrangement with the hospice.

*Hospice care in nursing facilities.* When a beneficiary resides in a nursing facility, the hospice is responsible for providing the hospice services to the beneficiary. The nursing facility provides room and board and care unrelated to the terminal illness. Medicare reimburses the hospice according to the level of care provided, and the beneficiary or a third-party payer pays the nursing facility for room and board costs.<sup>12</sup>

### **Related Work**

An earlier OIG report found that 28 percent of Medicare hospice beneficiaries resided in nursing facilities while they received hospice care in 2005.<sup>13</sup> These beneficiaries were more than twice as likely as beneficiaries in other settings to have terminal diagnoses of ill-defined conditions, mental disorders, or Alzheimer's disease. Another report found a number of cases in which the use of respite care for nursing facility beneficiaries may have been inappropriate; these cases were referred to CMS for appropriate action.<sup>14</sup>

## **METHODOLOGY**

To conduct this study, we used complete claims data for all Medicare beneficiaries who received hospice care in 2006. We also used data from a medical record review of a stratified random sample of hospice claims for beneficiaries in nursing facilities. We selected a stratified random sample of 470 hospice claims from this file, and our final sample included 450 hospice claims. See Appendix B for detailed information about our sample selection.

### **Medical Record Review**

We used a contractor to collect and review the medical records associated with each sampled claim. The contracted reviewers recorded all hospice services provided to the beneficiary during the claim period, with the exception of physician services.<sup>15</sup> The reviewers also recorded whether drugs were provided to the beneficiary but did not identify the drugs or record dosages provided. The reviewers did not record services provided to family members.

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<sup>11</sup> The beneficiary's attending physician may be a nurse practitioner.

<sup>12</sup> "Medicare Benefit Policy Manual," chapter 9, section 20.3. Available online at [http://www.cms.hhs.gov/manuals/Downloads/bp\\_102c09.pdf](http://www.cms.hhs.gov/manuals/Downloads/bp_102c09.pdf). Accessed on February 10, 2009.

<sup>13</sup> OIG, "Medicare Hospice Care: A Comparison of Beneficiaries in Nursing Facilities and Beneficiaries in Other Settings," OEI-02-06-00220, December 2007.

<sup>14</sup> OIG, "Hospice Beneficiaries' Use of Respite Care," OEI-02-06-00222, March 2008.

<sup>15</sup> Services provided by beneficiaries' attending physicians are not always included in the hospice records.

The contractor reviewed a total of 447 claims. For the other three claims, the hospices did not provide any documentation to review.<sup>16</sup> Because no information on services was available for these claims, they were excluded from our analysis.

### **Analysis**

Using the complete National Claims History file, we calculated the total number of Medicare beneficiaries who received hospice care in 2006.<sup>17</sup> Hospice claims typically cover a 1-month period but could be for shorter periods of time. After matching this file to the Minimum Data Set file, we calculated the total number of Medicare hospice beneficiaries who resided in nursing facilities in 2006. We determined the total dollars and the average weekly amount Medicare paid for their hospice care, not including physician payments. In addition, we determined the percentage of claims for these beneficiaries by the levels of care provided.

Based on our medical record review of sampled claims, we calculated the percentage of claims for which drugs, nursing services, home health aide and homemaker services (hereinafter referred to as “home health aide services”), medical social services, counseling, volunteer and other miscellaneous services, physical therapy, occupational therapy, or speech-language pathology services were furnished. The use of medical appliances and supplies was not included in our analysis.<sup>18</sup> Because a hospice could have provided an appliance before the sampled claim period, the use of that appliance may not have appeared in the collected medical records.

We calculated the average number of visits hospices provided per week for nursing, home health aide, and medical social services. We described the average length of these visits among sampled claims that covered routine care only. Durations were not recorded for a significant percentage of visits, so projecting the average length of visits from our sample was unfeasible. Finally, we compared the types of services provided by not-for-profit hospices and for-profit hospices. We were unable to compare types and frequencies of services by level of care provided, because most of the claims in our sample were for routine care only. We tested for statistically significant differences and noted in our findings when these differences occurred.

See Appendix C for selected point estimates and their confidence intervals, and see Appendix D for the results of our statistical tests.

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<sup>16</sup> We contacted the hospices by telephone and certified mail, but they did not provide the requested records. We have referred these cases to CMS for appropriate action.

<sup>17</sup> We excluded claims that were for physician services only.

<sup>18</sup> Appliances may include durable medical equipment as well as other self-help and personal comfort items related to the palliation or management of the patient’s terminal illness. See 42 CFR § 418.202(f).

**Limitations**

This memorandum report is based on a medical record review of sampled claims. These claims were also the basis for another OIG report, which found that 82 percent of claims did not meet at least one Medicare coverage requirement.<sup>19</sup> For this memorandum report, we presented information on the types and frequencies of services provided by hospices to beneficiaries in nursing facilities. We did not assess whether individual services were appropriate.

**STANDARDS**

This review was conducted in accordance with the “Quality Standards for Inspections” issued by the President’s Council on Integrity and Efficiency and the Executive Council on Integrity and Efficiency (now Council of the Inspectors General on Integrity and Efficiency).

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<sup>19</sup> OIG, “Medicare Hospice Care for Beneficiaries in Nursing Facilities: Compliance With Medicare Coverage Requirements,” OEI-02-06-00221.

**RESULTS**

**Thirty-One Percent of Medicare Hospice Beneficiaries Resided in Nursing Facilities in 2006; Medicare Paid \$2.59 Billion for Their Hospice Care**

Based on claims data for all Medicare beneficiaries receiving hospice care, we found that 31 percent of hospice beneficiaries resided in nursing facilities in 2006, compared to 28 percent in 2005.<sup>20</sup> In 2006, 289,544 beneficiaries received hospice care while residing in nursing facilities.

Medicare paid hospices approximately \$2.59 billion for care provided to beneficiaries residing in nursing facilities in 2006. On average, Medicare paid \$960 per week for each hospice beneficiary in a nursing facility. This amount did not cover physician services, which were paid for separately from the daily rate.

By far, the most common level of hospice care provided to these beneficiaries was routine care. Ninety-one percent of their hospice claims were for routine care only. Another 3 percent were for general inpatient care only. Most of the remaining claims were for a combination of routine care and one or more other levels of care. See Table 1.

<b>Level of Care</b>	<b>Percentage of Claims</b>
Routine care only	91%
General inpatient care only	3%
Routine and general inpatient care only	3%
Routine and continuous care only	2%
All other levels or combinations of levels of care	1%

Source: OIG analysis of hospice claims, 2008.

**Hospices Most Commonly Provided Nursing, Home Health Aide, and Medical Social Services; They Also Commonly Provided Drugs**

Based on the medical record review, hospices provided nursing services to beneficiaries for 96 percent of claims in 2006. Hospices furnished home health aide services to beneficiaries for 73 percent of claims and medical social services for 68 percent of claims. Hospices provided counseling for 58 percent of claims. Volunteer and other miscellaneous services were provided to a lesser extent. Physical therapy, occupational therapy, and speech-language pathology services occurred only in rare instances. See Table 2. In addition to these services, drugs were provided to beneficiaries for 96 percent of claims.

<sup>20</sup> OIG, “Medicare Hospice Care: A Comparison of Beneficiaries in Nursing Facilities and Beneficiaries in Other Settings,” OEI-02-06-00220, December 2007, p. 8.

The medical record review revealed some differences between the types and frequencies of services provided by for-profit hospices and those provided by not-for-profit hospices.

Type of Service	Percentage of Claims*
Nursing services	96%
Home health aide services	73%
Medical social services	68%
Counseling (including spiritual, pastoral, or chaplain services)	58%
Volunteer and other miscellaneous services	14%
Physical therapy, occupational therapy, or speech-language pathology services	<1%

Source: OIG analysis of medical record review results, 2008.

\*Percentages are not mutually exclusive.

Home health aide services were furnished for a higher percentage of claims from for-profit hospices than from not-for-profit hospices. These services were provided for 79 percent of for-profit hospice claims, compared to 67 percent of not-for-profit hospice claims. By contrast, volunteer and other miscellaneous services were furnished for a lower percentage of claims from for-profit hospices than from not-for-profit hospices, 8 percent and 21 percent, respectively. These differences were statistically significant at the 95-percent confidence level.

**Hospices Provided an Average of 4.2 Visits Per Week for the Three Most Common Services Combined**

Hospices provided an average of 4.2 visits per week for nursing services, home health aide services, and medical social services combined. Although nursing services were furnished for the greatest percentage of claims, they did not occur the most frequently. Home health aide services were provided more often, at an average of 2.2 times per week. For over half of the claims, beneficiaries received about 1 to 3 home health aide visits per week. Nursing services averaged 1.7 visits per week, with beneficiaries receiving about 1 to 2 nursing visits per week for two-thirds of the claims. Medical social services usually occurred on a monthly or bimonthly basis, averaging about 1.7 visits per month or 0.4 visits per week. See Table 3.

Type of Service	Average Number of Visits Per Week*
Home health aide services	2.2
Nursing services	1.7
Medical social services	0.4
<b>All three services combined</b>	<b>4.2</b>

Source: OIG analysis of hospice claims, 2008.

\*The averages for individual services do not sum to the average for all three services combined because of rounding.

As noted in the methodology, durations were not recorded for a significant percentage of visits, so projecting the average length of visits from our sample was unfeasible. Based on the limited number of visits whose lengths were recorded and which were for routine care only, we found that home health aide visits were 65 minutes on average, although their duration ranged from 2 minutes to



8 hours. Nursing services were shorter, at 53 minutes on average, and ranged from 5 minutes to 4 hours. Medical social service visits were shorter still, at 43 minutes on average, and ranged from 5 minutes to 2.6 hours.

## **CONCLUSION**

We found that 31 percent of Medicare hospice beneficiaries resided in nursing facilities in 2006. Medicare paid hospices approximately \$2.59 billion for care provided to beneficiaries in nursing facilities in 2006. On average, Medicare paid \$960 per week for hospice care for each hospice beneficiary in a nursing facility, not including payment for physician services. This care most commonly included nursing, home health aide, and medical social services. Hospices furnished an average of 4.2 visits per week for these three services combined. They also commonly provided drugs.

The results of this memorandum report can help CMS and other decisionmakers determine whether the types and frequencies of hospice services provided to beneficiaries in nursing facilities meet the goals of the hospice benefit. The results can also help decisionmakers determine whether current payment rates are aligned with the hospice services being provided.

This report is being issued directly in final form because it contains no recommendations. If you have comments or questions about this report, please provide them within 60 days. Please refer to report number OEI-02-06-00223 in all correspondence.

## **APPENDIX A**

### **HOSPICE PAYMENT RATES**

The Centers for Medicare & Medicaid Services (CMS) publishes general hospice payment rates annually to be used for each level of care.<sup>21</sup> The rates are adjusted based on the beneficiary's geographic location. The levels of care and the fiscal year 2006 Medicare unadjusted daily rates for each are as follows:

- **Routine Home Care (\$126.49):** The routine home care rate is paid to the hospice for each day that the beneficiary is under the care of the hospice and is not receiving one of the other categories of care. Routine home care includes, but is not limited to, nursing and home health aide services. Routine home care may be provided in the home or other places of residence, such as a nursing facility.
- **Continuous Home Care (\$738.26):** Continuous home care is allowed only during periods of crisis in which a beneficiary requires continuous care to achieve palliation or management of acute medical symptoms. It is covered only as necessary to maintain the terminally ill beneficiary at home. The care must be predominantly nursing care. Continuous home care may be provided in the home or other places of residence, such as a nursing facility. The continuous home care rate is divided by 24 hours to determine an hourly rate. A minimum of 8 hours must be provided.
- **Respite Care (\$130.85):** Respite care is short-term inpatient care provided to the beneficiary when necessary to relieve the beneficiary's caregiver(s). Respite care may be provided only on an occasional basis and is not reimbursed for more than 5 consecutive days. Respite care may be provided in a Medicare- or Medicaid-certified hospice inpatient facility, hospital, skilled nursing facility, or nursing facility.
- **General Inpatient Care (\$562.69):** General inpatient care is for pain control and symptom management that cannot feasibly be provided in other settings. General inpatient care may be provided in a Medicare- or Medicaid-certified hospice inpatient facility, hospital, or skilled nursing facility.

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<sup>21</sup> CMS, "Medicare Claims Processing Manual," Pub. No. 100-04, ch. 11, Transmittal 663, Change Request 3977. Available online at <http://www.cms.hhs.gov/transmittals/downloads/R663CP.pdf>. Accessed on January 28, 2009.

## **APPENDIX B**

### **METHODOLOGY**

We based this study on data from a medical record review of a stratified random sample of hospice claims for beneficiaries in nursing facilities.

#### **Sample Selection**

Using the National Claims History file, we extracted all Medicare hospice claims that had service dates in 2006 and were received through December 2006. Hospice claims typically cover a 1-month period but could be for shorter periods. We matched the claims data to the Medicare Enrollment Database by health insurance claim number to identify the Social Security number for each beneficiary.

Because hospice claims in 2006 did not include place of service, we used the Minimum Data Set (MDS) to identify nursing facility stay dates. The MDS includes assessments on all residents in Medicare- or Medicaid-certified nursing facilities. We used the MDS assessments received from January 2004 through December 2006 to create a record for each beneficiary of the dates when he or she resided in a nursing facility.

We matched the hospice claims to these nursing facility stay dates by the beneficiaries' Social Security numbers to identify claims for beneficiaries while they resided in nursing facilities. We created a file that included all hospice claims that corresponded to beneficiaries' nursing facility stays. This file included 812,668 hospice claims for 231,978 beneficiaries.<sup>22</sup>

We selected a stratified random sample of 470 hospice claims from this file. We stratified the sample to ensure that we included claims for beneficiaries who had high-dollar-amount claims and had received hospice care while in a nursing facility for an extended period. This stratum comprised all claims for hospice beneficiaries with an average hospice reimbursement of \$400 or more per day for at least 60 days while in a nursing facility during 2006. The other two strata comprised claims for all remaining beneficiaries who received hospice care while in a nursing facility: one stratum included all claims for beneficiaries with a maximum claim amount of \$3,000 or less, and the other included all claims for beneficiaries with a maximum claim amount of more than \$3,000. We then selected a random sample of claims from each stratum. See Table B-1.

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<sup>22</sup> These numbers were based on claims received through December 2006.

<b>Table B-1: Sample Selection</b>				
<b>Description of Strata</b>		<b>Population</b>	<b>Initial Sample</b>	<b>Final Sample</b>
Claims for beneficiaries with high average daily claim amounts and extended nursing home stays	Average claim amount $\geq$ \$400/day for at least 60 days	1,441	35	33
Claims for all other beneficiaries with nursing home stays	Maximum claim amount $\leq$ \$3,000	279,697	85	82
	Maximum claim amount $>$ \$3,000	531,530	350	335
<b>Total claims</b>		<b>812,668</b>	<b>470</b>	<b>450</b>

We excluded 12 claims from our sample because the hospices were currently under investigation by the Office of Inspector General. We excluded an additional claim because the beneficiary’s nursing facility stay information was incomplete and an additional three claims because we were unable to locate the hospices.<sup>23</sup> We also excluded another four claims because the contractor erred in record collection.<sup>24</sup> Our final sample included 450 claims.

As a last step, we identified the names and addresses of the hospices associated with each sampled claim by using the Online Survey and Certification Reporting System (OSCAR). We matched the hospice provider numbers in the claims file with the OSCAR data. We also identified hospices that were for-profit and those that were not-for-profit using a variable that indicated the type of provider ownership. In total, 43 percent of claims were from not-for-profit hospices and 53 percent of claims were from for-profit hospices. The remaining 4 percent were for services provided by government hospices.

**Medical Record Review**

We used a contractor to collect and review the medical records associated with each sampled claim. For each claim, we requested that the hospices provide the relevant hospice election statement, plan(s) of care,<sup>25</sup> record of services provided (including those furnished under arrangement or contract with the hospice), certification(s) of terminal illness, and clinical information and other documentation that supported the medical

<sup>23</sup> The hospices’ telephone numbers were disconnected and the hospices could not be reached by certified mail. We have referred these cases to CMS for appropriate action.

<sup>24</sup> The contractor collected records for the wrong claim period in three cases and contacted the wrong provider in one case.

<sup>25</sup> Although only one plan of care is in effect at any given time, some beneficiaries had more than one plan of care during the claim period.

prognosis. Hospices are required to keep all of this information in the clinical record that they establish for every individual receiving care and services.<sup>26</sup> We requested these records for the claim period and, if possible, for the 30 days preceding and the 30 days following the claim period.

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<sup>26</sup> 42 CFR § 418.74.

**APPENDIX C**

**CONFIDENCE INTERVALS FOR SELECTED ESTIMATES**

Type of Service	n	Point Estimate	95-Percent Confidence Interval
Nursing services	447	96.3%	93.3% – 97.9%
Home health aide services	447	73.0%	68.1% – 77.4%
Medical social services	447	68.0%	63.0% – 72.7%
Counseling (including spiritual, pastoral, or chaplain services)	447	57.6%	52.4% – 62.6%
Volunteer and other miscellaneous services	447	14.4%	11.3% – 18.2%
Physical therapy, occupational therapy, or speech-language pathology services	447	0.6%	0.2% – 1.8%

Source: Office of Inspector General (OIG) analysis of medical record review results, 2008.

	n	Point Estimate	95-Percent Confidence Interval
Drugs*	446	96.1%	93.5% – 97.8%

Source: OIG analysis of medical record review results, 2008.

\*Reviewers did not indicate for one claim whether drugs were provided.

Type of Service	n	Average Number of Visits Per Week	95-Percent Confidence Interval
Home health aide services	447	2.16	2.01 – 2.32
Nursing services	447	1.68	1.59 – 1.77
Medical social services	447	0.38	0.35 – 0.42
<b>All three services combined*</b>	<b>447</b>	<b>4.23</b>	<b>4.03 – 4.42</b>

Source: OIG analysis of medical record review results, 2008.

\*The averages of individual services do not sum to the average for all three services combined because of rounding.

**APPENDIX D**

**WEIGHTED CHI-SQUARE TEST COMPARING NOT-FOR-PROFIT AND FOR-PROFIT HOSPICES**

Type of Service	Percentage of Claims From Not-for-Profit Hospices for Which Services Were Provided	Percentage of Claims From For-Profit Hospices for Which Services Were Provided	P-Value
Nursing services	97.6%	96.5%	0.55
Home health aide services*	67.0%	78.6%	0.02
Medical social services	67.5%	69.6%	0.69
Counseling (including spiritual, pastoral, or chaplain services)	59.0%	57.9%	0.83
Volunteer and other miscellaneous services*	21.2%	8.3%	0.0005
Physical therapy, occupational therapy, or speech-language pathology services**	0.9%	0.4%	N/A

Source: Office of Inspector General (OIG) analysis of medical record review results, 2008.

\* Differences between percentages of claims from not-for-profit hospices and those from for-profit hospices were statistically significant at the 95-percent confidence level.

\*\*Percentages for these services were too small for statistical testing.

	Percentage of Claims From Not-for-Profit Hospices for Which Services Were Provided	Percentage of Claims From For-Profit Hospices for Which Services Were Provided	P-Value
Drugs	96.3%	96.6%	0.88

Source: OIG analysis of medical record review results, 2008.