DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Medicare & Medicaid Services
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Center for Medicare

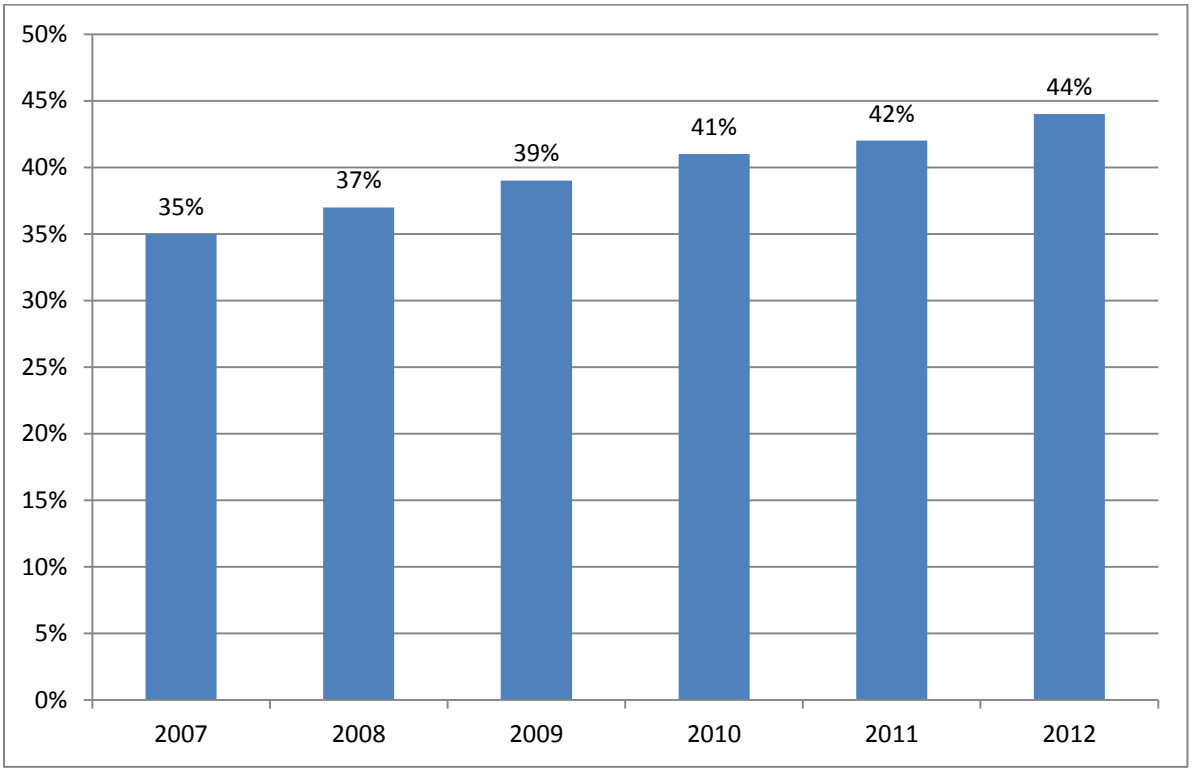
The National Hospice and Palliative Care Organization (NHPCO) and the Hospice Action Network hosted the "NHPCO's 29th Management & Leadership Conference: Leading and Mobilizing Social Change for 40 Years, March 25-29, 2014" in Washington, DC and at the National Harbor in Maryland. A selection of slides in this document was presented by the following:

- Jonathan Blum, Principal Deputy Administrator at the Centers for Medicare & Medicaid Service on March 25, 2014 at the "Right Care at the Right Time: An Open Conversation about Hospice Length of Stay"; and,

- Hillary Loeffler, Technical Advisor at the Centers for Medicare & Medicaid Services, Center for Medicare, Chronic Care Policy Group's Division of Home Health and Hospice, on March 27, 2014 at the "CMS Update" session.

This document contains information on the data source of the results in each slide. Additionally, descriptions of the main results of each slide are presented.

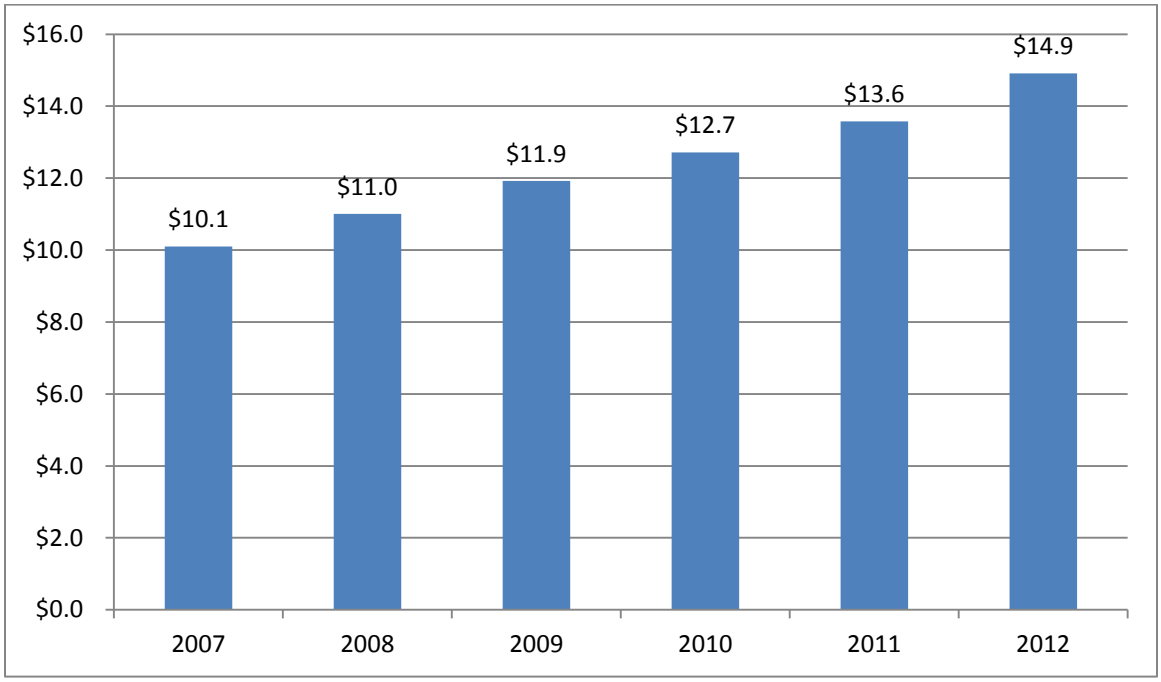
Annual Hospice Decedents as a Percentage of all Medicare Decedents, CY 2007 – 2012



Data Source: The 100% Medicare denominator file using the date-of-death field for all Medicare deaths and 100% Hospice Claims for deaths occurring during a hospice election.

Description: From CY 2007 to CY 2012, the rate of Medicare decedents who died on the hospice benefit has increased from 35% to 44%. The rate has steadily increased during this time period. Not noted in the figure, hospice decedents as a percentage of all Medicare decedents in CY 2000 was 20%.

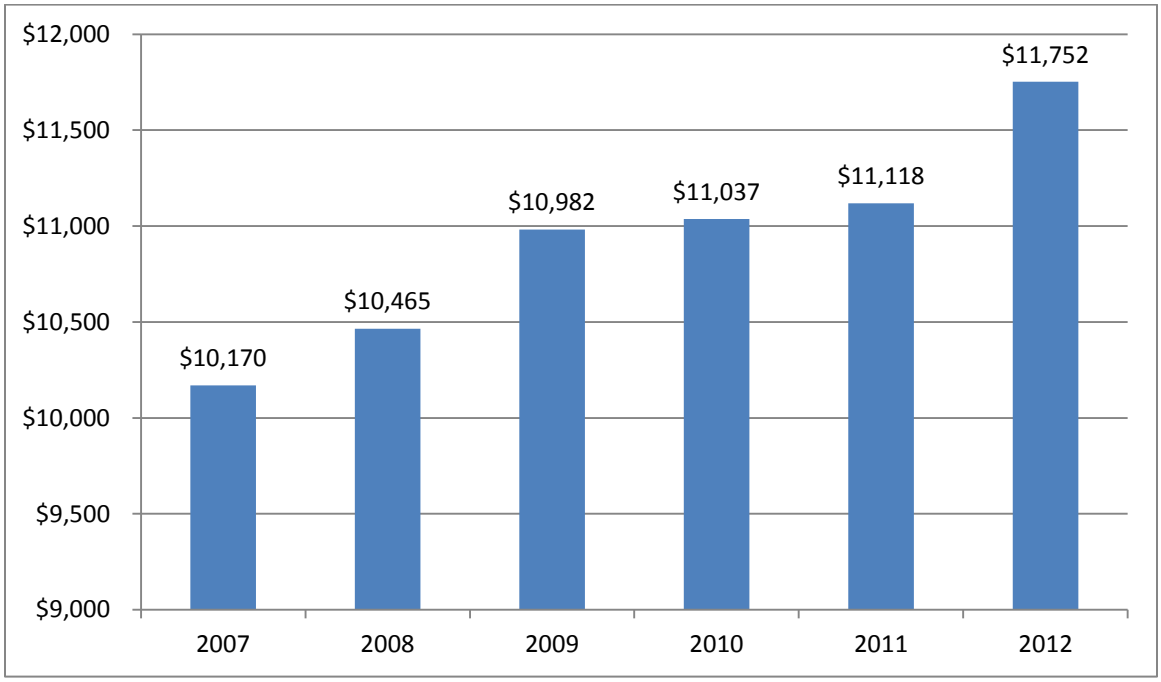
Total Annual Medicare Hospice Expenditures - in Billions, FY 2007 – 2012



Data Source: 100% of Hospice Claims from FY 2007 – FY 2012. These data were accessed via the Chronic Conditions Data Warehouse from February 21 through 24, 2014.

Description: Medicare expenditures for the hospice benefit have increased from $10.1 billion in 2007 to an estimated $14.9 billion in 2012. The growth in expenditures reflects many factors including more beneficiaries utilizing the benefit, beneficiaries utilizing the benefit for longer lengths of time, and increases in the base payment rate for hospice services.

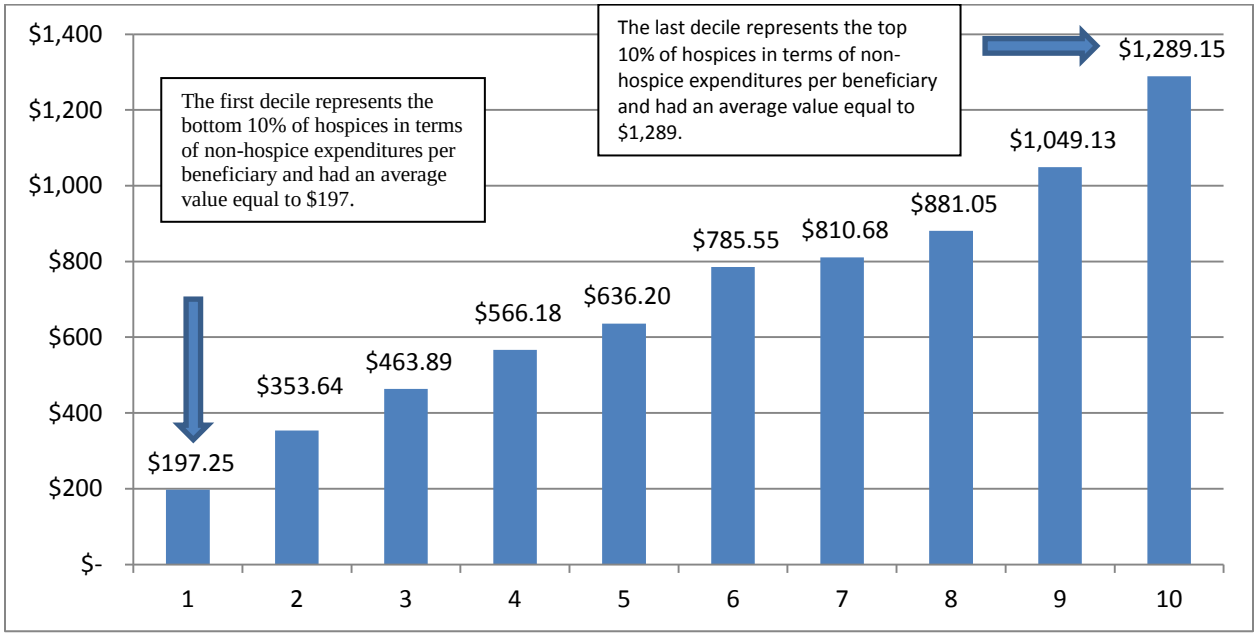
Annual Average Medicare Hospice Expenditures per Beneficiary, FY 2007 – 2012



Data Source: 100% of Hospice Claims from FY 2007 – FY 2012. These data were accessed via the Chronic Conditions Data Warehouse from February 21 through 24, 2014 and include any beneficiary who utilized at least 1 day of hospice in a given year.

Description: Average annual Medicare payments for a beneficiary during a hospice election have slowly risen from $10,170 in 2007 to $11,752 in 2012. Increased payment per beneficiary reflects beneficiaries utilizing the benefit for longer lengths of time and increases in the base payment rate for hospice services.

Non-Hospice Expenditures per Beneficiary for Beneficiaries in Hospice Elections, CY 2012



Data Source: 100% Hospice, Part A, and Part B claims and 100% Part D event records (2012). Non-Hospice Expenditures include Inpatient, Outpatient, Physician/Supplier and Other Part B, DME, Home Health, SNF, and Part D utilization occurring in non-boundary days (boundary days are admit and discharge days).

Description: The figure shows the average value of non-hospice expenditures per beneficiary for deciles of hospices. Each decile of hospices represents approximately 370 hospices, or one tenth of hospice providers. Hospices are placed into deciles based on a ranking of their average value of non-hospice expenditures per beneficiary. That is, the first decile represents the bottom 10% of hospices (again, roughly 370 hospices) in terms of non-hospice expenditures per beneficiary and has an average value equal to $197. The tenth decile represents the top 10% of hospices in terms of non-hospice expenditures per beneficiary and has an average value equal to $1,289. Also unreported in the figure is that total non-hospice spending in Parts A, B, and D during a hospice election was nearly $1.3 billion in CY 2012.

Medicare Hospice and Non-Hospice Expenditures by Common Diagnoses, CY 2012

Primary Diagnosis (or Disease Grouping) at Hospice Admission	Total Hospice Spending (Including Boundary Days)	Non-Hospice A, B, & D Total (Excluding Boundary Days)	Hospice and Non-Hospice Total Spending
All Diagnoses	**$15,046,808,585**	**$1,263,443,086**	**$16,310,251,670**
Debility NOS & Failure to Thrive	$3,285,171,065	$268,008,875	$3,553,179,940
Non-Alzheimer's Dementia	$2,462,643,383	$175,374,863	$2,638,018,246
Non-Infectious Respiratory Diseases (inc. COPD)	$1,165,877,604	$134,992,881	$1,300,870,485
Congestive Heart Failure	$1,138,065,567	$91,046,925	$1,229,112,493
Alzheimer's Disease	$1,038,781,920	$65,718,380	$1,104,500,300
Other Heart Diseases	$965,288,932	$110,164,041	$1,075,452,973
All Other Diagnoses	$4,990,980,114	$418,137,120	$5,409,117,234

Data Source: 100% Hospice, Part A, Part B claims and 100% Part D event records for CY 2012. Non-Hospice Expenditures include Inpatient, Outpatient, Physician/Supplier and Other Part B, DME, Home Health, SNF and Part D utilization occurring in non-boundary days (boundary days are admit and discharge days).

Description: The table shows both hospice and non-hospice expenditures during 2012 for specific diagnoses. The six primary diagnoses (or disease groupings) listed account for 2/3rds of all hospice and non-hospice spending in CY 2012. Debility, Adult Failure to Thrive, and Non-Alzheimer's Dementia account for nearly 40 percent of all hospice and non-hospice spending in CY 2012.

Hospice Drug Costs, FY 2004 - 2012
Costs per Patient-Day by Year, 2010 Dollars

	2004	2005	2006	2007	2008	2009	2010	2011	2012
Hospices	n = 1,047	n= 1,218	n = 1,490	n = 1,694	n = 1,834	n = 1,882	n = 1,929	n = 2,015	n = 2,054
Provider-level drug costs per patient-day									
Mean	$20	$18	$17	$15	$14	$13	$12	$11	$11
Std. dev.	(10)	(11)	(11)	(9)	(9)	(9)	(7)	(6)	(6)
Median	$20	$17	$16	$15	$14	$13	$12	$11	$10
Trimmed means									
1%-99%	$21	$19	$17	$16	$15	$14	$13	$12	$11
5%-95%	$20	$18	$16	$15	$14	$13	$12	$11	$10

Data Source: Data are from the Abt Trim sample of freestanding hospice cost reports. The costs are averaged at the provider level and adjusted to constant 2010 dollars using the Producer Price Index for prescription pharmaceuticals. Freestanding hospice cost reports with HCRIS release date of 1/23/2014 are used. Additional information about how cost reports were trimmed can be found in the report "Medicare Hospice Payment Reform: Hospice Study Technical Report" at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/Hospice/Downloads/Hospice-Study-Technical-Report-4-29-13.pdf

Description: This table shows that between 2004 and 2012 freestanding hospices (through information reported on their cost reports) have reported a decline in their per patient, per day expenditures on drugs. In 2004, freestanding hospices reported spending $20 per patient-per day for drugs. In 2012, freestanding hospices reported spending $11 per patient, per day for drugs.

Hospice Level of Care Utilization

Care Level	National Percentage of Days	Provider-Level Percentage of Days	Provider-Level Standard Deviation
Routine Home Care (RHC)	97.3%	98.1%	4.2%
Continuous Home Care (CHC)	0.4%*	0.2%	2.1%
General Inpatient Care (GIP)	1.9%	1.2%	2.9%
Inpatient Respite Care (IRC)	0.3%	0.3%	0.4%

Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased).

The Provider level average for this table (and subsequent tables) is computed using the following formula (with the example of percentage of RHC days provided shown).

$$\text{Provider Average} = \frac{\sum_{i=1}^{n} \frac{\text{RHC Days}_i}{Total\ Days_i}}{n}$$

Where "i" represents an individual hospice and n represents the total number of hospices in the sample. The provider level average weights each hospice equally so that smaller hospices have the same impact on the overall average as larger hospices.

The National average for this table (and subsequent tables) is computed using the following formula (with the example of percentage of RHC days at the national level shown).

$$\text{National Average} = \frac{\sum_{i=1}^{n} \text{RHC Days}_i}{\sum_{i=i}^{n} Total\ Days_i}$$

In the national level average, larger hospices have a greater impact on the average compared to smaller hospices.

Description: This table shows that the vast majority of hospice days are billed at the Routine Home Care (RHC) level of care. This can be found for both the national average (97.3%) and the provider level average (98.1%). The national Continuous Home Care (CHC) results are skewed by a large chain provider with a 3.9% rate of CHC. Excluding that large chain provider produces a national average CHC rate equal to 0.2%.

Hospice Level of Care Utilization: General Inpatient Care (GIP)

Any GIP Provided?	Number of Hospices	Average Days	Average Unduplicated Beneficiaries	Average Length of Stay
No	780	6,124	76	80.2
Yes	2,922	28,716	416	69.1

Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased). Note, this table uses information on enrollment dates (to compute length of stay) starting from an individual's first ever day of hospice, even if that date occurred before January 1, 2010.

Description: This table indicates some differences between hospices that provide at least one day of GIP for the sample of beneficiaries analyzed. Those hospices that do provide GIP for that sample provide more days of service on average for the time period analyzed (28,716 days versus 6,124 days). Correspondingly, they also on average serve more beneficiaries (416 versus 76). They also have shorter lengths of stay (69.1 days versus 80.2).

In results not reported in the above table, using the sample of beneficiaries and time period described above, the following was found:

- 66% of hospices that *do not* provide GIP are for-profit
- The national rate of GIP days equaled 1.9%
  - 195 hospices billed 5% to <10% of their days as GIP
  - 46 hospices billed 10% or more of their days as GIP

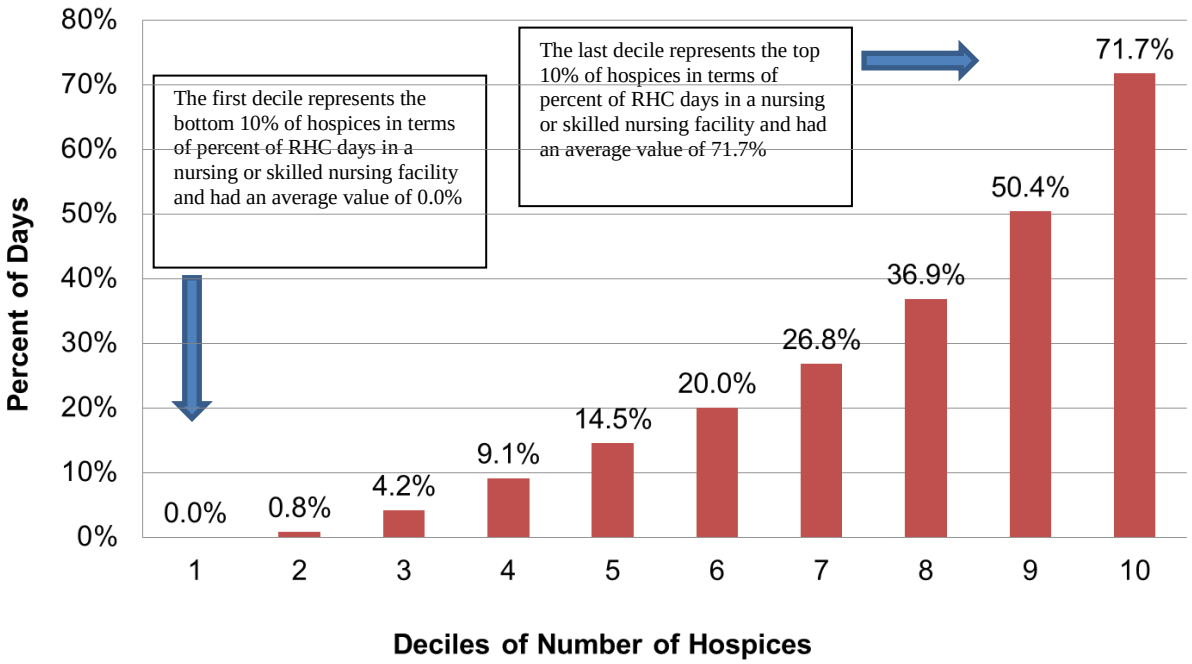
Percent of Routine Home Care (RHC) Days by Site of Service

Site of Service	National Percentage of Days	Provider-Level Percentage of Days	Provider-Level Standard Deviation
Nursing Facility or Skilled Nursing Facility	27.0%	23.5%	22.9%
Assisted Living Facility	13.9%	10.4%	14.3%

Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased).

Description: Using the sample of beneficiaries described, this table shows how frequently RHC days are billed at two particular sites of service, nursing facility/skilled nursing facilities or assisted living facilities. Nationally, 27% of RHC days are provided in a nursing or skilled nursing facility while 13.9% of RHC days are provided in assisted living facilities. The national rates mask large levels of variation by providers. The provider level average of RHC days provided in a nursing or skilled nursing facility is 23.5% (with a standard deviation of 22.9%). The provider level average of RHC days provided in assisted living is 10.4% (with a standard deviation of 14.3%).

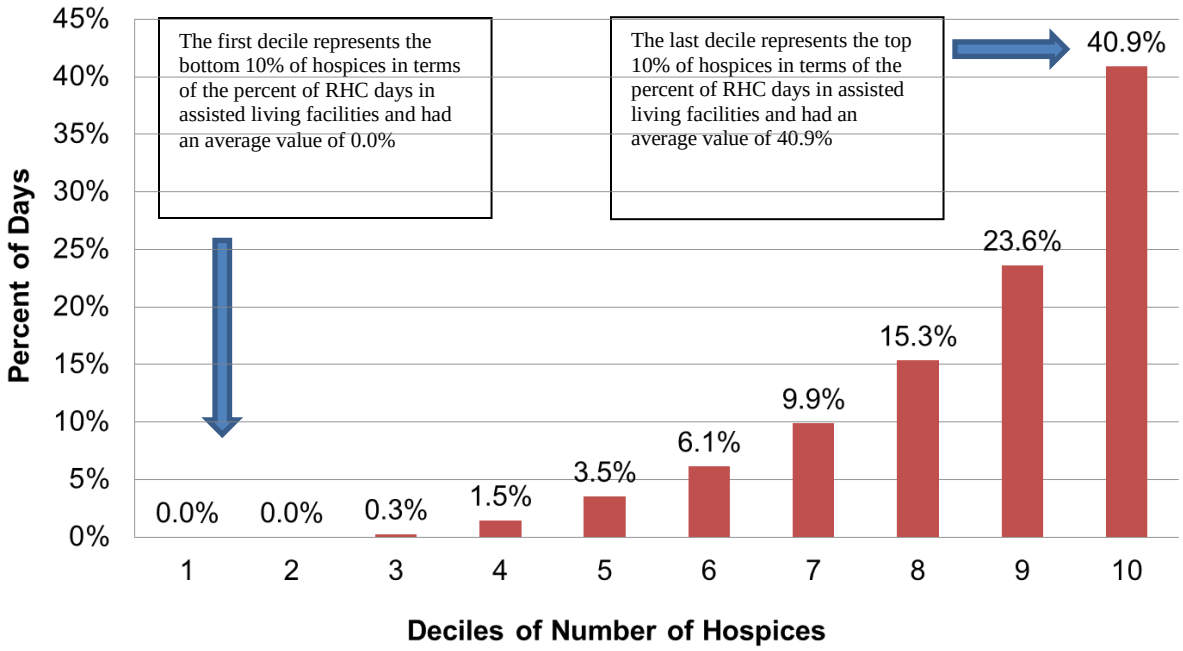
Percent of Routine Hospice Care (RHC) Days in a Nursing Facility or Skilled Nursing Facility



Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased).

Description: Using the sample of beneficiaries described, the figure shows the average percent of RHC days provided in a nursing or skilled nursing facility for deciles of hospices. Each decile of hospices represents approximately 370 hospices, or one-tenth of all hospices in the data file. Hospices are placed into deciles based on a ranking of their percentage of RHC days in a nursing or skilled nursing facility. That is, the first decile represents the bottom 10% of hospices (again, roughly 370 hospices) in terms of their percentage of RHC days in a nursing or skilled nursing facility and has an average value equal to 0.0%. The tenth decile represents the top 10% of hospices in terms of their percentage of RHC days in a nursing or skilled nursing facility and has an average value equal to 71.7%.

Percent of Routine Hospice Care (RHC) Days in Assisted Living Facilities



Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased).

Description: Using the sample of beneficiaries described, the figure shows the average percent of RHC days provided in an assisted living facility for deciles of hospices. Each decile of hospices represents approximately 370 hospices, or one-tenth of the total number of hospices in the data file. Hospices are placed into deciles based on a ranking of their percentage of RHC days in an assisted living facility. That is, the first decile represents the bottom 10% of hospices (again, roughly 370 hospices) in terms of their percentage of RHC days in an assisted living facility and has an average value equal to 0.0%. The tenth decile represents the top 10% of hospices in terms of their percentage of RHC days in an assisted living facility and has an average value equal to 40.9%.

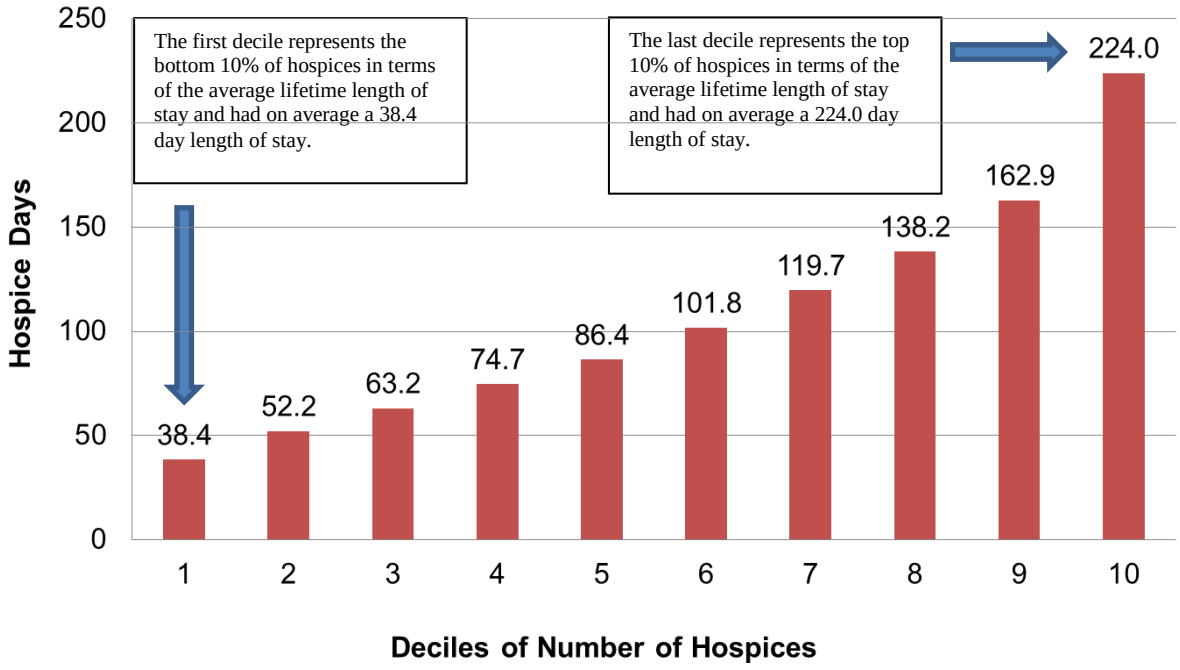
Average Lifetime Length of Stay

National Average Length of Stay	Provider Level Average Length of Stay	Provider Level Standard Deviation
95.4	108.6	68.0
Average Length of Stay	**Number of Hospices**	
>180 days	382	
>360 days	31	
>540 days	9	

Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased). This table includes individuals who were alive at discharge and may have had additional hospice after CY 2012. Note, this table uses information on enrollment dates starting from an individual's first ever day of hospice, even if that date occurred before January 1, 2010.

Description: Using the sample of beneficiaries described, the table shows information on the average length of stay through the beneficiary's last claim of 2012. Nationally, the average length of stay equaled 95.4 days. The provider level average was 108.6 days with a standard deviation of 68.0. There were 382 hospices with an average length of stay that exceeded 180 days using the beneficiaries described. There were 31 hospices with an average length of stay that exceeded 360 days. Finally, there were 9 hospices with an average length of stay that exceeded 540 days.

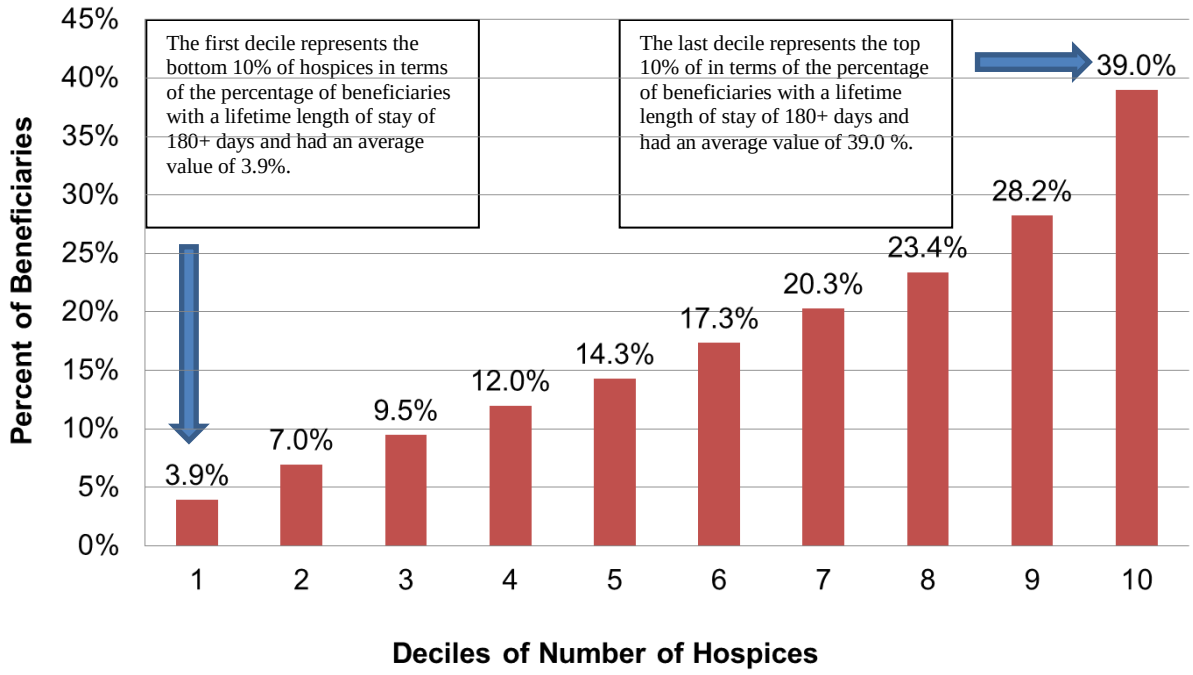
Average Lifetime Length of Stay



Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased). This table includes individuals who were alive at discharge and may have had additional hospice after CY 2012. Note, this table uses information on enrollment dates starting from an individual's first ever day of hospice, even if that date occurred before January 1, 2010.

Description: Using the sample of beneficiaries described, the figure shows the average lifetime length of stay for deciles of hospices. Each decile of hospices represents approximately 370 hospices, or one-tenth of all hospices in the data file. Hospices are placed into deciles based on a ranking of their average lifetime length of stay. That is, the first decile represents the bottom 10% of hospices (again, roughly 370 hospices) in terms of their average lifetime length of stay and has an average value equal to 38.4 days. The tenth decile represents the top 10% of hospices in terms of their average lifetime length of stay and has an average value equal to 224.0 days.

Percent of Beneficiaries with a Lifetime Length of Stay of 180+ Days



Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased). This table includes individuals who were alive at discharge and may have had additional hospice after CY 2012. Note, this table uses information on enrollment dates starting from an individual's first ever day of hospice, even if that date occurred before January 1, 2010.

Description: Using the sample of beneficiaries described, the figure shows the percentage of beneficiaries with a lifetime length of stay of over 180 days for deciles of hospices. Each decile of hospices represents approximately 370 hospices, or one-tenth of all the hospices in the data file. Hospices are placed into deciles based on a ranking of their percentage of beneficiaries with a lifetime length of stay of over 180 days. That is, the first decile represents the bottom 10% of hospices (again, roughly 370 hospices) in terms of their percentage of beneficiaries with a lifetime length of stay of over 180 days and has an average value equal to 3.9% of beneficiaries. The tenth decile represents the top 10% of hospices in terms of their percentage of beneficiaries with a lifetime length of stay of over 180 days and has an average value equal to 39.0% of beneficiaries.

Rates of Live Discharges

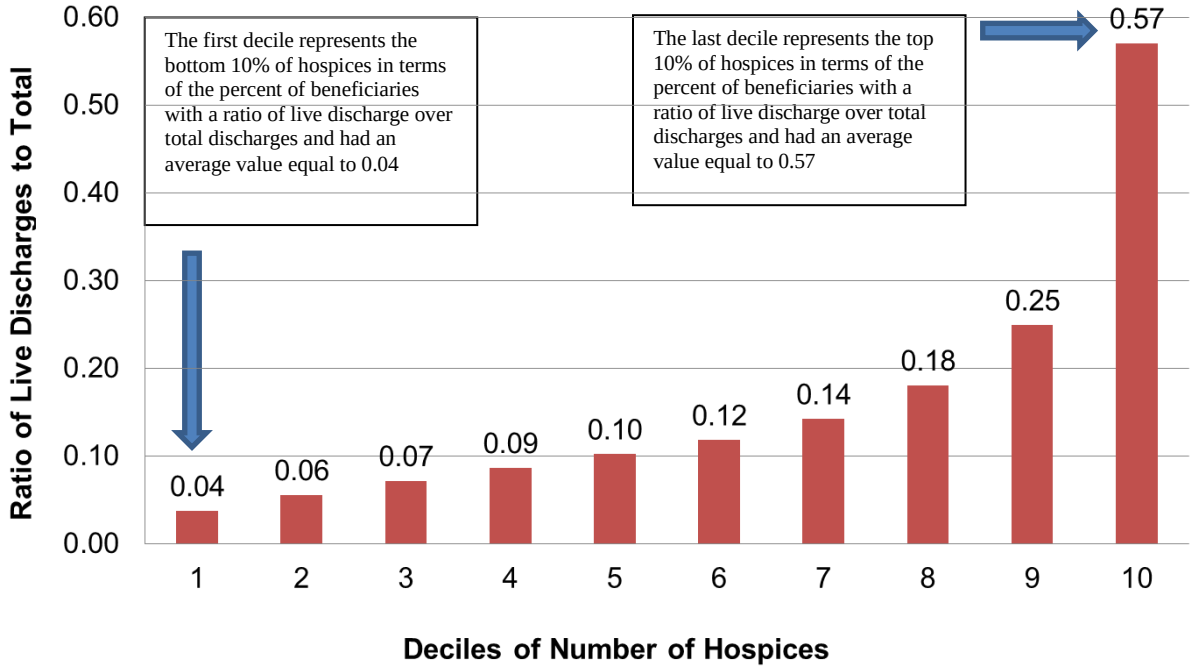
National Average Rate of Live Discharge	Provider Level Average Rate of Live Discharge	Provider Level Standard Deviation
10.6%	16.6%	18.1%

Range	Number of Hospices
0 – 9.9%	1,601
10% - 19.9%	1,315
20% - 29.9%	371
30% - 39.9%	133
40% +	282

Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased). The live discharge rate is only based on a beneficiary's final claim in CY 2012. The live discharge rate is calculated by dividing the number of live discharges by the number of total discharges.

Description: Using the sample of beneficiaries described, the table shows information on the rate of live discharge using a final beneficiary's claim from 2012. Nationally, the average rate of live discharge equaled 10.6%. The provider level average was 16.6% with a standard deviation of 18.1%. There were 1,601 hospices with a live discharge rate below 10%. There were 282 hospices with a live discharge rate that exceeded 40%. 71 hospices had live discharges on 100% of their patients using the sample analyzed. Of those hospices, they had an average length of stay equal to 193 days and served on average 62 beneficiaries.

Ratio of Live Discharges over Total Discharges



Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased). This table includes individuals who were alive at discharge and may have had additional hospice after CY 2012. Note, this table uses information on enrollment dates starting from an individual's first ever day of hospice, even if that date occurred before January 1, 2010.

Description: Using the sample of beneficiaries described, the figure shows the ratio of live discharges over total discharges for deciles of hospices. Each decile of hospices represents approximately 370 hospices, or one-tenth of all the providers in the data file. Hospices are placed into deciles based on a ranking of their ratio of live discharges over total discharges. That is, the first decile represents the bottom 10% of hospices (again, roughly 370 hospices) in terms of the percent of beneficiaries with a ratio of live discharge over total discharges and has an average value equal to 0.04. This means that for the first decile, on average, 4 percent of the patients discharged in CY 2012 were discharged alive. The tenth decile represents the top 10% of hospices in terms of the percent of beneficiaries with a ratio of live discharge over total discharges and has an average value equal to 0.57. This means that for the 10th decile, on average, nearly 60 percent of discharged patients were discharged alive in CY 2012.

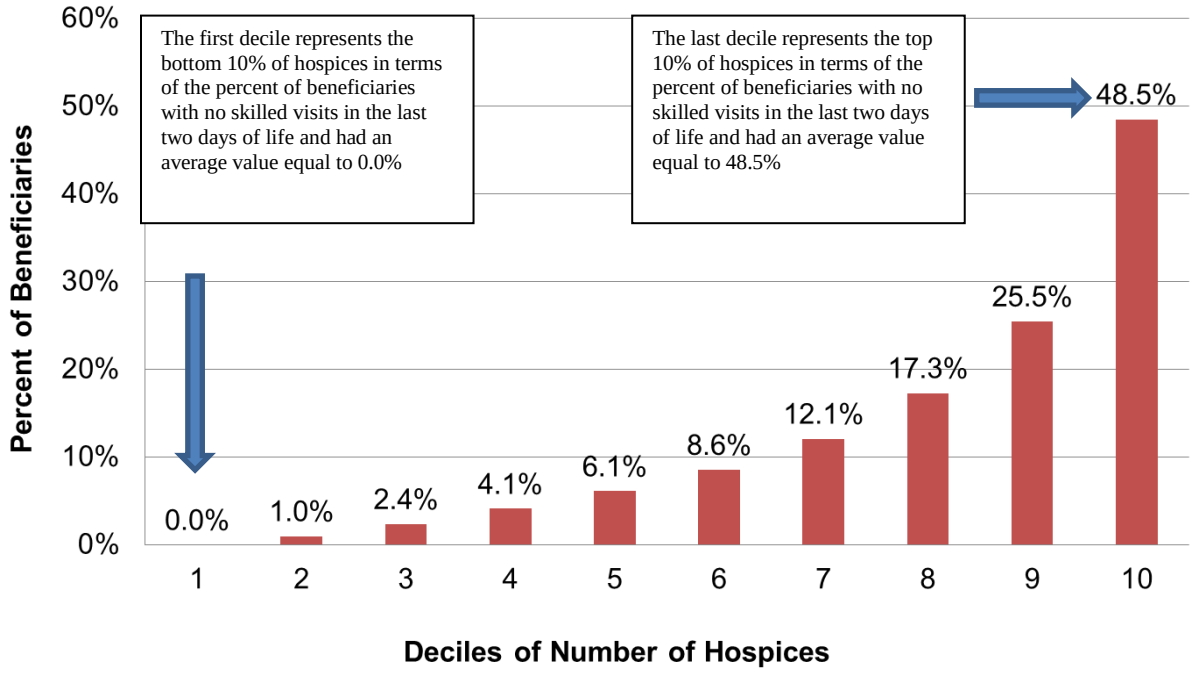
Percent of Beneficiaries with No Skilled Visits in the Last Two Days of Life (When final two days were billed as RHC)

% of Beneficiaries	Number of Hospices
0 – 10%	2,217
>10% - 20%	711
>20% - 30%	308
>30% - 40%	176
>40% - 50%	89
>50% - 60%	52
>60% - 70%	25
>70% - 80%	34
>80% - 90%	15
>90%	54

Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased). Skilled visits describe visits recorded on the hospice claim from nursing staff, medical social services, physical therapy, occupational therapy, or speech language pathology.

Description: Using the sample of beneficiaries described, most hospices (n = 2,217) had 10% or fewer of their beneficiaries not receiving skilled visits during the last two days of life (when final two days were billed as RHC). 54 hospices had 90% or more of their beneficiaries not receiving skilled visits during the last two days of life (when final two days were billed as RHC). Additionally, hospices with 50% or more of their beneficiaries not receiving skilled visits during the last two days of life (when final two days were billed as RHC) tended to be smaller, had more RHC patients at home, and had a longer average length of stay (143 days).

Percentage of No Skilled Visits in the Last Two Days of Life
(When final two days were billed as RHC)



Data Source: Hospice claims data from CY 2010-CY 2012 for beneficiaries who, in their final claim in CY 2012, were discharged (alive or deceased). Skilled visits describe visits recorded on the hospice claim from nursing staff, medical social services, physical therapy, occupational therapy, or speech language pathology.

Description: Using the sample of beneficiaries described, the figure shows the percentage of beneficiaries not receiving skilled visits in the last two days of life (when final two days were billed as RHC) for deciles of hospices. Each decile of hospices represents approximately 368 hospices, or one-tenth of the 3,681 hospices with data on skilled visits in the last two days of life, when the final two days were RHC. Hospices are placed into deciles based on a ranking of their percentage of beneficiaries not receiving skilled visits in the last two days of life (when final two days were billed as RHC). That is, the first decile represents the bottom 10% of hospices (again, roughly 368 hospices) in terms of their percentage of beneficiaries with no skilled visits in the last two days of life (when final two days were billed as RHC) and has an average value equal to 0.0%. The tenth decile represents the top 10% of hospices in terms of their percentage of beneficiaries with no skilled visits in the last two days of life (when final two days were billed as RHC) and has an average value equal to 48.5%.