BASIC STATISTICS ABOUT HOME CARE

Updated 2010

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Home care is a diverse and dynamic service industry that began in US in the 1880's. Approximately 12 million individuals[1] currently receive care from more than 33,000 providers[2] (for causes including acute illness, long-term health conditions, permanent disability, or terminal illness). In 2009, annual expenditures for home health care were projected to be $72.2 billion.[3]

HOME CARE PROVIDERS

"Home care organizations" include home health care agencies, home care aide organization, and hospices. Some of these organizations are Medicare certified, which allows providers to bill Medicare for reimbursement. Agencies that are not Medicare certified cannot be reimbursed through Medicare.

Medicare-certified Agencies

While home care agencies have been providing services to Americans for more than a century, Medicare's 1965 enactment accelerated the industry's growth by covering home health care services for the elderly. Services were then extended to certain disabled Americans in 1973. Between 1967 and 1985, Medicare-certified agencies grew more than three-fold (1,753 to 5,983); however, in the mid-1980s, Medicare-certified home health care agencies reached a plateau (approximately 5,900) due to Medicare administrative burden and unreliable payments. This led to a 1987 lawsuit brought against the then-Health Care Financing Administration (HCFA) by US Representatives Harley Staggers (D-WV) and Claude Pepper (D-FL), consumer groups, and the National Association for Home Care (NAHC). The successful lawsuit gave NAHC the opportunity to participate in rewriting Medicare coverage policies, which significantly increased Medicare's annual home care outlays, and the number of agencies rose to over 10,000. Prior to clarifications in coverage, public health agencies dominated the ranks of certified entities. After that, the number of hospital-based and freestanding proprietary agencies grew faster than any other types of organizations. Currently, more than 62

[1] This estimate comes from a June 2008 NAHC study of cost report information to determine the number of home health and in-home hospice patients served, and a private survey of NAHC members to obtain an estimate of private duty patients served.

[2] This number is a combination of Medicare certified home health agencies, Medicare certified hospices, and an estimate of non-Medicare agencies providing care in the home.

[3] Centers for Medicare & Medicaid Services, Office of the Actuary (March 2010).

percent of agencies are freestanding proprietary agencies 12 percent are hospital-based. Table 1 (see Appendix A) shows the changes over time in types of agencies participating in Medicare.

By the end of 2001, the number of Medicare-certified home health agencies declined to 6,861. NAHC believes the 30.4 percent decline in agencies between 1997 and 2001 can be attributed to changes in Medicare home health coverage and reimbursement enacted as part of the Balanced Budget Act of 1997 (BBA) (P.L. 105-33). With the advent of the home health prospective payment system (PPS) in 2000, financial stability returned, and the number of agencies rebounded to 10,581 by the end of 2009, for the first time surpassing the number of agencies in 1997.

Medicare-certified Hospices

Medicare added hospice benefits in October 1983, 10 years after the first hospice opened in the US. Hospices provide palliative care and social, emotional, and spiritual support services to terminally ill patients and their families. The number of Medicare-certified hospices has grown from 31 in 1984 to 3,407 as of December 31, 2009.

Non-Medicare-certified Agencies

Because of variation in licensing and oversight among states, it is difficult to assess the number of non-certified agencies. Non-certified home care agencies, home care aide organizations, and hospices that remain outside of Medicare do so for a variety of reasons. For example, some do not provide the breadth of services that Medicare requires, such as home health aide organizations that do not provide skilled nursing care.

HOME CARE EXPENDITURES AND UTILIZATION

The Centers for Medicare & Medicaid Services (CMS) projects that total national expenditures for health care in 2009 were $2.5 trillion (17.3 percent of the gross domestic product—the result of a combined 5.7 percent growth in health spending and a decline in gross domestic product of 1.1 percent).
Health spending by public payers is projected to have grown 8.7 percent in 2009, in contrast to 3.0 percent growth in spending for private payers. A main element driving public payer acceleration is anticipated growth in Medicaid enrollment (6.5 percent) and spending (9.9 percent) as a result of increasing unemployment due to the recession.
Private insurance enrollment was anticipated to decline 1.2 percent, slowing the growth in private payer spending in 2009. Despite expected economic growth in 2010, private health spending growth is projected to further slow—to 2.8 percent, related to reduced enrollment in private health insurance as a result of a continuing high rate of unemployment and an expiration of subsidies for coverage provided through the Consolidated Omnibus Budget Reconciliation Act (COBRA).
Public spending is projected to grow more slowly as well—5.2 percent in 2010, much of which can be attributed to a deceleration in Medicare spending growth to 1.5 percent, from 8.1 percent in 2009.[4]

Figure 1 provides projected 2009 national expenditures for personal health care by type. Of the more than $2 trillion attributed to personal health care spending in 2009, only a small fraction (approximately 4 percent) was spent on freestanding home care. (Hospital-

[4] Truffer, Christopher, et al. "Health Spending Projections Through 2019: The Recession's Impact Continues," Health Affairs): March 2010.

based home care is included with hospital expenditures.)

Total home care spending is difficult to estimate due to limitations of data sources. The Centers for Medicare & Medicaid Services (CMS) estimated total spending for home care to be $65 billion in 2008.[5] These estimates do not include spending for home care services that are unavailable in the national health accounts data; for example, payments made by consumers directly to independent providers.

Medicare Home Health

Medicare is the largest single payer of home health care services. In 2009, Medicare spending accounted for approximately 41 percent of home health expenditures. (See Figure 2. Note: Medicare expenditures for home health include expenditures for hospice and home health care.) Other public funding sources for home health include Medicaid, the Older Americans Act, Title XX Social Services Block Grants, the Veterans' Administration, and Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). While Medicare pays the largest share for home health care, combined federal-state Medicaid outlays for in-home services (including personal care services that Medicare does not pay for) are actually greater. However, Medicaid is projected to become the largest payer of such services by 2010, following nearly a decade of double-digit growth associated with shifting preferences away from institutional care toward home and community-based settings. While Medicaid spending growth for home health is expected to slow as the shift toward home-based care continues at a lesser pace, it is still expected to remain strong, averaging 11.4 percent per year over the projection period.[6]

As recently as 1997, home health spending was 9 percent of Medicare's benefit payments. Growth in the Medicare home health benefit between 1990 and 1996 can be attributed to specific legislative expansions of the benefit, court decisions, and to myriad socio-demographic trends that fostered growth in the program from the beginning. The percent of spending, however, has declined since 1997. In 2009, the home health benefit accounted for 4.2 percent of total Medicare spending ($434 billion). Nearly 37 percent was spent for hospital care, 14 percent for physician services, and nearly three percent for hospice care (See Figure 3).

Between 1998 and 2000, Medicare home health spending fell from $14 billion to $9.2 billion (-34 percent) through the BBA. The BBA's interim payment system (IPS) introduced a per-beneficiary limit designed to limit growth in home health expenditures by excluding a two-year inflation adjustment. Finally, agency payments under the IPS were restricted to the lowest of the agency's actual costs, the per-visit cost limits, or per-beneficiary cost limits. The Lewin Group, a health care consulting firm, estimated that 90 percent of agencies had costs that exceeded BBA limits by an average of 32 percent without changing practice patterns.[7]

The Medicare Payment Advisory Commission (MedPAC) calculated a total reduction of 1.3 million beneficiaries between 1997 and 2001. Visits per client and per client reimbursement had also declined since 1996. Two studies conducted by researchers at The George Washington University identified beneficiary

[5] Centers for Medicare & Medicaid Services (CMS) online data, published March 2010.

[6] Sisko, Andrea, C. Truffer, S. Smith, S. Keehan, et al. "Health Spending Projections Through 2018: Recession Effects Add Uncertainty To The Outlook," Health Affairs (Web Exclusive): February 24, 2009.

[7] The Lewin Group, "An Impact Analysis for Home Health Agencies of the Medicare Home Health Interim Payment System of the 1997 Balanced Budget Act." Washington, DC: National Association for Home Care (August 11, 1999).

access problems resulting from the BBA.[8,9] Additional studies from MedPAC and the Government Accountability Office (GAO) also suggest that access is a growing problem for patients who require intensive services.[10] In June 2003, MedPAC issued a report, indicating that skilled nursing facility (SNF) care is now substituting for home health care for some patients, most likely at a much higher cost to Medicare.[11] In June 2007, MedPAC issued another report, indicating that 78 percent of beneficiaries had no problems accessing home health services in 2004, up from 74 percent in 2001, while 12 percent had a small problem and 11 percent had a big problem in 2004, in contrast to 13 and 12 percent, respectively, in 2001.

Table 2 shows changes in utilization and expenditures in the Medicare home health benefit that have occurred since 1996. An estimated 3.6 million Medicare enrollees received fee-for-service home health services in 1997, twice the number of recipients in 1990. Between 1996 and 2001, utilization of Medicare home health services decreased from 3,599,700 to 2,402,500, a 33 percent drop. By 2008, utilization had risen to 3,171,600, a 32 percent recovery.[12]

Medicare Home Health Prospective Payment

The BBA mandated that CMS develop a PPS (implemented October 1, 2000) for Medicare home health, which set a national payment rate and enticed providers to deliver more efficient care.[13] The findings of a final evaluation of CMS' episode-based PPS demonstration identified a reduction in overall episode costs, which was accompanied by an increase in per-visit costs when agencies were paid prospectively based on an episode of care. This is due in large part to fewer visits over which to budget fixed costs.[14]

The home health PPS relies on a 153-category case-mix adjuster (80 previous to 2008) to set payment rates based on patient characteristics including clinical severity, functional status, and the need for rehabilitative therapy services. The case-mix adjusted payment rate is similar to the Medicare SNF and inpatient hospital prospective payment systems. Like its counterparts, the home health PPS also includes payments that partially reimburse for unexpectedly high outliers, and adjusts payments for geographically through an area wage index. However, a major difference among the systems is the unit of payment. SNFs are paid by the day while the home health PPS pays by the 60-day episode.

[8] Smith, B.M., K.A. Maloy, and D.J. Hawkins, "An Examination of Medicare Home Health Services: A Descriptive Study of the Effects of the Balanced Budget Act Interim Payment System on Access to and Quality of Care," Washington, DC: George Washington University Center for Health Services Research & Policy. (September 1999)

[9] Smith, B.M., Maloy, K.A., and Hawkins, D.J., "An Examination of Medicare Home Health Services: A Descriptive Study of the Effects of The Balanced Budget Act Interim Payment System on Hospital Discharge Planning," Washington, DC: George Washington University Center for Health Services Research & Policy. (January 2000).

[10] Abt Associates, Inc. *Survey of Home Health Agencies*, No. 99-2. Cambridge (MA): Author. Report to the Medicare Payment Advisory Commission under contract. (September 1999), and General Accounting Office. *Medicare Home Health Agencies: Closures Continue, With Little Evidence Beneficiary Access Is Impaired*. No. HEHS-99-120. Washington: Author. (May 1999).

[11] Medicare Payment Advisory Commission, *Report to the Congress: Variation and Innovation in Medicare* (June 2003).

[12] Centers for Medicare & Medicaid Services, Office of Information Services: Data from the Medicare Data Extract System; data development by the Office of Research, Development, and Information. (March 2010)

[13] "Medicare Program; Prospective Payment System for Home Health Agencies; Final Rule," *Federal Register*, vol. 65, no. 128, July 3, 2000. Pp. 41128-41214.

[14] Cheh V., "The Final Evaluation Report on the National Home Health Prospective Payment Demonstration: Agencies Reduce Visits While Preserving Quality," Princeton, NJ: Mathematica Policy Research, Inc. (April 30, 2001).

Medicaid Home Care

Medicaid payments for home care are divided into three main categories: the mandatory traditional home health benefit, and two optional programs, the personal care option and home and community-based waivers. Together, these three home care service categories represent a relatively small but growing portion of total Medicaid payments.

Figure 4 shows that approximately 34 percent ($94 billion) of the $276 billion in Medicaid benefit payments in fiscal year 2007 (FY2007) were for hospital care and institutional services. Home care services comprised 20.2 percent of the payments. Hospice is an optional Medicaid service that is currently offered by 48 states; payments for hospice services in FY2006 were estimated at $1.6 billion.

Table 3 shows the growth in Medicaid home care outlays since FY1995. Expenditures increased to $24.3 million in FY2000, decreased to $16.7 million (a loss of 31.5 percent) in FY2001, and rebounded to $55.9 million in FY2007. Changes in the reporting of Medicaid expenditures make it difficult to pinpoint the source of the decrease and why there appears to be a dramatic increase, although states have recently begun to place a greater emphasis on providing care at home in lieu of institutions.

Managed Care

Health care services in the United States are increasingly financed through managed care organizations. Managed care organizations, including health maintenance organizations (HMOs), typically finance health care services through a negotiated, prepaid rate to health care providers. A fully capitated contract specifies a lump sum payment per enrollee to cover all care provided through the plan, but there are many variations of capitation. In contrast, traditional health insurance, commonly termed fee-for-service, pays providers based on the number of services delivered generally with fewer limitations on which providers would be paid.

Managed care is most prevalent in the employer-based health insurance market. Ninety-one percent of workers with health insurance received health insurance through a managed care plan in 2009.[15] Managed care enrollment has increased among Medicaid enrollees as states seek federal waivers to convert their Medicaid programs to managed care programs. By December 31, 2008, 69.82 percent of all Medicaid beneficiaries were enrolled in managed care.[16] While Medicare managed care enrollment has only slowly increased, financial incentives created by the Medicare Modernization Act (MMA) has led to an increasing number of beneficiaries enrolling in Medicare Advantage (MA) plans. As of February 2010, 25.2 percent of Medicare beneficiaries were enrolled in MA.[17]

The increasingly competitive health care market has created incentives for home care agencies to enter managed care provider networks. However, little is known about the extent to which home care agencies have entered into managed care arrangements. A preliminary (and somewhat dated) study conducted for HCFA (now CMS). The authors found that managed care clients utilized less home health resources, compared to fee-for-service clients, but also had less favorable outcomes on average. This suggests the need for further research on the relationship

[15] Claxton, G., et al. "Job-Based Health Insurance: Costs Climb At a Moderate Pace," *Health Affairs*: (Web Exclusive), w1002, 15 September, 2009.
[16] Centers for Medicare & Medicaid Services, "Medicaid Managed Care Enrollment as of December 31, 2008," http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/downloads/08Dec31f.pdf (January 2010).
[17] Centers for Medicare & Medicaid Services online, http://www.cms.hhs.gov/MCRAdvPartDEnrolData/. (March 2010)..

between managed care and home care patient outcomes.[18]

HOME CARE RECIPIENTS

The *2000 Home and Hospice Care Survey* findings indicate that 7.2 million individuals received formal home care services in 2000, a decrease of 5.8 percent from 1998.[19] (Table 4) This figure represents roughly 2.5 percent of the US population. Of these recipients, 69 percent were over age 65 and approximately 64 percent were women. Much of this reduction can be attributed to a reduction in patients receiving home health benefits under Medicare.

Table 5 shows that 25.5 percent of 2008 Medicare home health patients had conditions related to diseases of the circulatory system as their principal diagnosis. People with heart disease, including congestive heart failure, made up approximately half of this group. Endocrine, nutritional, and metabolic diseases and immunity disorders (predominantly diabetes mellitus), diseases of the musculoskeletal system and connective tissue, and symptoms, signs, and ill-defined conditions were also frequent principal diagnoses for Medicare home health patients.

Many hospital patients are discharged to home care services for continued rehabilitative care. As hospital stays shortened beginning in the early 1980s, the percentage of Medicare patients discharged to home health care increased from 9.1 percent in 1981 to 17.9 percent in 1985. MedPAC estimated that an average of 16.0 percent of Medicare hospital patients used home health care following discharge in 2006.[20] In a June 2008 Data Report, MedPAC estimated that 16.0 percent of Medicare patients discharged from acute care hospitals used home health care. [21] In the June 2008 report, home health was also estimated as the "most common second post acute care setting used," following SNF (29.3 percent), inpatient rehabilitation (56.8 percent), and hospice (2.4 percent).

Table 6 shows the percentage of Medicare beneficiaries discharged from an acute care hospital to home health care by selected DRGs. Medicare's hospital inpatient PPS pays hospitals a predetermined amount per hospital discharge. The DRG classification system assigns patients to over 500 groups, distinguishing cases with similar clinical problems that are expected to require similar amounts of hospital resources. The DRG-based payment for each discharge includes separately determined amounts for operating and capital costs.[22]
A study performed by the Department of Health and Human Services, Office of Inspector General found that 38 percent of Medicare beneficiaries who began use of home health care in the year 2000 came directly from the community. These patients had no prior hospitalizations (48 percent) or nursing home stays (14 percent) within 15 days of receiving home health care.[23] Table 7 shows the top five diagnoses for Medicare community home health beneficiaries. Diagnosis is indicated by International Classification of Diseases coding system (ICD-9).

CAREGIVERS

[18] Shaughnessy P.W., R.E. Schlenker, D.F. Hittle, et al., *A Study of Home Health Care Quality and Cost Under Capitated and Fee-For-Service Payment Systems, Vol. 1: Summary* (Denver: Center for Health Policy Research 1994).
[19] US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, *2000 National Home and Hospice Care Survey*, CD-ROM Series 13, No. 31. July 2002.
[20] Medicare Payment Advisory Commission, *A Data Book: Healthcare Spending and the Medicare program* (June 2008).
[21] Medicare Payment Advisory Commission, *A Data Book: Healthcare Spending and the Medicare program* (June 2008).
[22] Medicare Payment Advisory Commission, *Report to the Congress: New Approaches in Medicare* (June 2004).
[23] Department of Health and Human Services, Office of Inspector General, *Home Health Community Beneficiaries 2001*, October 2001, #OEI-02-01-00070.

The *2009 Caregiving in the U.S*. survey, sponsored by the National Alliance for Caregiving and AARP, documented the prevalence of caregiving in the US. The study found that more than one in three US households (an estimated 48.9 million caregivers over age 18) are informal caregivers for a person older than age 18, with an additional 16.8 million caring for children or both children and adults, for a total of 65.7 million individual caregivers. This report also showed that 63 percent of caregivers are married and/or living with a partner, and two-thirds (66 percent) are women. One third (34 percent) care for two or more people, with 86 percent providing care to a relative—more than one-third caring for a parent and one in seven (14 percent) caring for their own child. Twenty-five percent have completed some college education, with an additional 43 percent having graduated from college. The typical caregiver is a 48 year old woman who provides more than 20 hours of care each week.[24]

Formal Caregivers

Formal caregivers include professionals and paraprofessionals who are compensated to provide in-home health care and personal care services. BLS and CMS provide data on these employees; however, agency definitions and methods of counting formal caregivers differ. BLS provides an occupational classification for "home health care services," which excludes hospital-based and public agency workers. Its method of counting is "number of employees." CMS limits its statistics to employees of certified home health agencies. Furthermore, its survey presents data on aggregated full-time equivalents (FTEs).

As shown in Table 8, BLS estimated that 958,000 persons were employed in home health care agencies in 2008, with the exclusions described above. For both BLS and CMS, the largest numbers of employees/FTEs are home care aides and RNs. CMS recorded 290,439 FTEs employed in Medicare-certified agencies as of December 2008.

Figure 5 shows calendar year home care services employment for 1996 to 2009 based on BLS annual statistics. From 1993 to 2008, home care employment grew an average 5.4 percent annually (510,000 to 961,400). Between 1997 and 1999, total home care employment declined by more than 10 percent. By the end of 2009, it had regained approximately 63 percent from the low point in 1999.

Productivity

Since 1996, NAHC has worked with the Hospital and Healthcare Compensation Service (HCS) to conduct an annual survey of compensation in the home care and hospice industry. Employee productivity data are now collected in this survey. Productivity in home care is typically based on the average number of visits provided per day. Table 9 shows data from the *Homecare Salary & Benefits Report 2009-2010*.

Compensation

Summary home care and hospice compensation results for the above-mentioned 2009 to 2010 HCS survey are shown in Tables 10 and 11. To reduce the likelihood that outliers skew results, compensation is reported for the median salary, rather than mean salary. The survey includes data from agencies with revenues up to $15 million. HCS publishes a separate report for agencies and chain organizations with revenues in excess of $15 million (The Multi-Facility Corporate

[24] National Alliance for Caregiving and AARP. " Caregiving in the U.S.," November 2009 (www.aarp.org).

Compensation Report; for more information, visit www.hhcsinc.com).

COST EFFECTIVENESS

Home care is a cost-effective service for individuals recuperating from a hospital stay and for those who, because of a functional or cognitive disability, are unable to take care of themselves. Table 12 compares the average Medicare charges on a per day basis for hospital and SNF to the average Medicare charge for a home health visit.

The following section lists some examples of the cost-effectiveness of home care. However, it should be noted that cost-effectiveness is not the only rationale for home care. Home care reinforces and supplements care provided by family members and friends and maintains the recipient's dignity and independence, qualities that can be lost even in the best institutions. Home care also allows patients to take an active role in their care.[25]

Home Health Care vs. SNF and Inpatient Rehabilitation Facility Care

One study by the RAND Corporation for MedPAC found that home health benefit ranks highest regarding outcomes and cost-effectiveness for patients who have undergone hip or knee replacement. The study compares care delivered in the home health setting with SNFs and inpatient rehabilitation facility (IRF) care. RAND determined that 35 percent of the knee and hip replacement patients studied were discharged from an acute care hospital to home for either home health rehabilitation, outpatient therapy, or no formal continuing care. The remainder of the patients was split evenly in discharge to IRF or SNF care. To measure health outcomes, RAND examined mortality rates and whether patients were institutionalized 120 days after being discharged from acute care. The study found that patients who received SNF or IRF care were more likely to be institutionalized than patients discharged to home. RAND considered post-acute care payments and total episode payments, including the cost of the initial hospitalization for joint replacement provided to patients discharged to home. The costs studied did not include Medicare Part B payments to physicians.

Several studies have compared inpatient care to home care costs for a specific group of patients. An analysis of studies that investigated the use of home care as a cost-effective substitute for acute care services found a statistically significant relationship between home health use and reduced use of inpatient hospital care.[26] The cost savings data for six studies of home care cost-effectiveness are summarized in Table 13. The information has been aggregated at a monthly level for purposes of comparison.

Psychiatric Care

An in-home crisis intervention program developed for psychiatric patients in Connecticut was effective in reducing hospital admissions, lengths of stay, and readmissions. A two-year analysis of more than 600 patients showed that 80.7 percent of patients referred for hospital care could be treated at home instead. When inpatient admissions were necessary, the average length of stay was reduced from 11.97 days to 7.48 days by adding elements of the in-home care program. Patients who received home care services were also less likely to be readmitted for hospital care (11.8 percent of home care

[25] Sheldon P. and M. Bender. "High-Technology in Home Care." *Community Health Nursing and Home Health Nursing*, no. 3 (1994): 507-519.

[26] Hughes S.L., A. Ulasevich, F.M. Weaver, et al. "Impact of Home Care on Hospital Days: A Meta Analysis," *Health Services Research* no. 4 (1997): 415-532.

patients were readmitted compared to 45.9 percent of patients who did not receive home care services).[27]

Patients with COPD

An innovative home care program for patients with chronic obstructive pulmonary disease (COPD) that was tested in Connecticut found significant cost savings by providing more comprehensive home care services to COPD patients who previously required frequent hospitalizations. Monthly costs for hospitalizations, emergency room visits and home care fell from $2,836 per patient before the intervention to $2,508 per patient--a net savings of $328 per patient per month.[28]

Terminally Ill Veterans

A home care program for terminally ill veterans reduced hospital per capita costs by $971. In the six-month study, patients receiving home care used 5.9 fewer hospital days than those in the control group. No differences were found in patient survival, activities of daily living, cognitive functioning, or morale. However, patient and caregiver satisfaction with care was significantly better among the patients receiving home care.[29]

Patients with Congestive Heart Failure

The impact of intensive home care monitoring on the morbidity rates of elderly patients with congestive heart failure was the focus of another study. The study found that with intensive home care surveillance, the total hospitalization rate dropped from 3.2 admissions per year to 1.2 admissions per year and the length of stay decreased from 26 days per year to six days per year. Cardiovascular admissions declined from 2.9 admissions per year to 0.8 admissions per year and length of stay decreased from 23 days per year to four days per year. An in-home program also resulted in significant functional status improvement in elderly patients with congestive heart failure.[30]

[27] Pigott H.E. and L. Trott. "Translating Research into Practice: The Implementation of an In-home Crisis Intervention Triage and Treatment Service in the Private Sector," *American Journal of Health Quality* no. 3 (1993): 138-144.

[28] Haggerty M.C., R. Stockdale-Woolley, and S. Nair. "Respi-Care: An Innovative Home Care Program for the Patient with Chronic Obstructive Pulmonary Disease," *Chest* no. 3 (1991): 607-612.

[29] Hughes S.L., J. Cummings, F. Weaver, L. Manheim, B. Braun, and K. Conrad. "A Randomized Trial of the Cost Effectiveness of VA Hospital-based Home Care for the Terminally Ill," *Health Services Research* no. 6 (1992): 801-817.

[30] Kornowski R., D. Zeeli, M. Averbuch, and A. Finkelstein, et al. (Tel Aviv, Israel). "Intensive Homecare Surveillance Prevents Hospitalization and Improved Morbidity Rates Among Elderly Patients with Severe Congestive Heart Failure," *American Heart Journal* no. 4 (1995): 762-766.

APPENDIX A: Tables and Figures

Table 1: Number of Medicare-certified Home Care Agencies, by Auspice, for Selected Years, 1967-2009

	FREESTANDING AGENCIES						FACILITY-BASED AGENCIES			
Year	VNA	COMB	PUB	PROP	PNP	OTH	HOSP	REHAB	SNF	TOTAL
1967	549	93	939	0	0	39	133	0	0	1,753
1980	515	63	1,260	186	484	40	359	8	9	2,924
1990	474	47	985	1,884	710	0	1,486	8	101	5,695
1996	576	34	1,177	4,658	695	58	2,634	4	191	10,027
1997	553	33	1,149	5,024	715	65	2.698	3	204	10,444
1998	460	35	968	3,414	610	69	2,356	2	166	8,080
1999	452	35	918	3,192	621	65	2,300	1	163	7,747
2000	436	31	909	2,863	560	56	2,151	1	150	7,152
2001	425	23	867	2,835	543	68	1,976	1	123	6,861
2002	430	27	850	3,027	563	79	1,907	1	119	7,007
2003	439	27	888	3,402	546	74	1,776	0	113	7,265
2004	446	36	932	3,832	558	69	1,695	1	110	7,679
2005	461	36	1,043	4,321	566	74	1,618	2	103	8,224
2006	459	29	1,132	4,919	562	85	1,547	2	103	8,838
2007	475	31	NA	NA	NA	NA	1,503	2	99	9,284
2008	489	37	1,273	5,849	559	92	1,425	1	99	9,824
2009	516	36	1,392	6,585	598	98	1,311	1	97	10,581

Source: Centers for Medicare & Medicaid Services (CMS), Center for Information Systems, Health Standards and Quality Bureau, (2009 data obtained in January 2010).

VNA: Visiting Nurse Associations are freestanding, voluntary, nonprofit organizations governed by a board of directors and usually financed by tax-deductible contributions as well as by earnings.

COMB: Combination agencies are combined government and voluntary agencies. These agencies are sometimes included with counts for VNAs.

PUB: Public agencies are government agencies operated by a state, county, city, or other unit of local government having a major responsibility for preventing disease and for community health education.

PROP: Proprietary agencies are freestanding, for-profit home care agencies.

PNP: Private not-for-profit agencies are freestanding and privately developed, governed, and owned nonprofit home care agencies. These agencies were not counted separately prior to 1980.

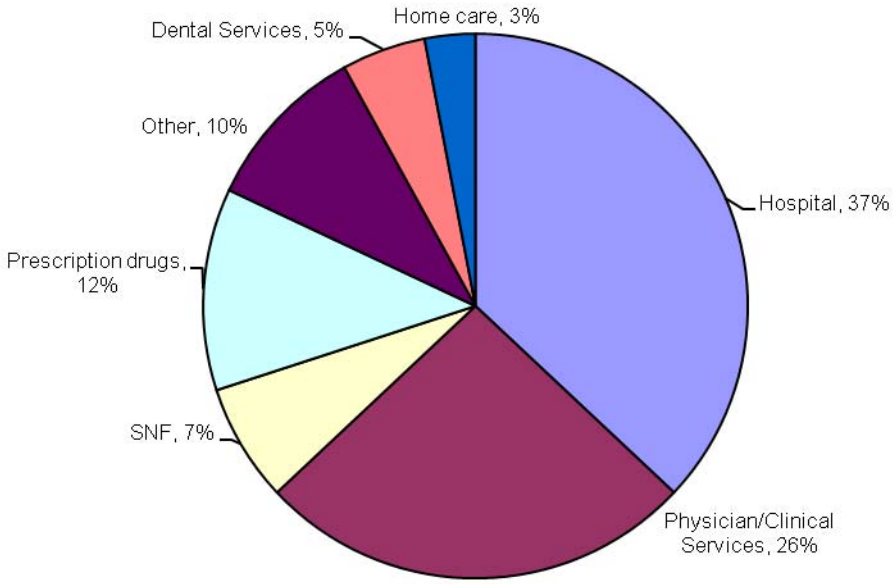
OTH: Other freestanding agencies that do not fit one of the categories for freestanding agencies listed above.

HOSP: Hospital-based agencies are operating units or departments of a hospital. Agencies that have working arrangements with a hospital, or perhaps are even owned by a hospital but operated as separate entities, are classified as freestanding agencies under one of the categories listed above.

REHAB: refers to agencies based in rehabilitation facilities.

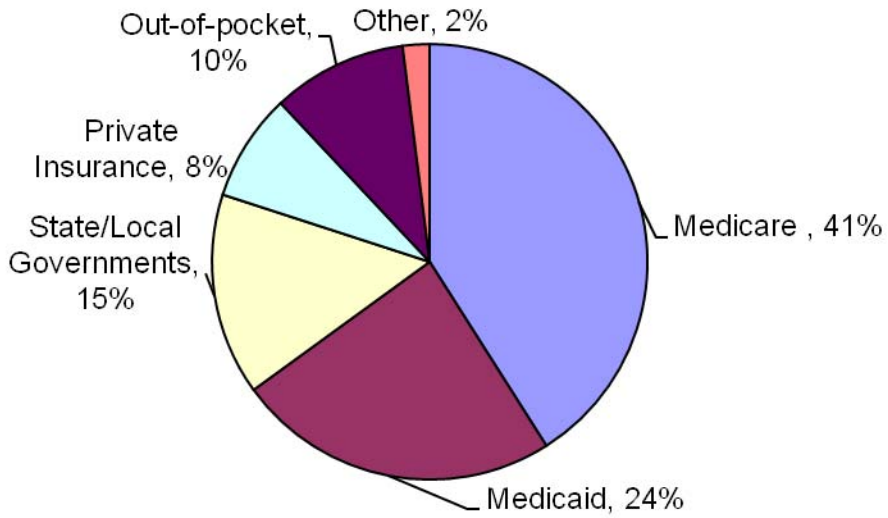
SNF: Refers to agencies based in skilled nursing facilities.

Figure 1: Personal Health Care Expenditures, 2009[1, 2]



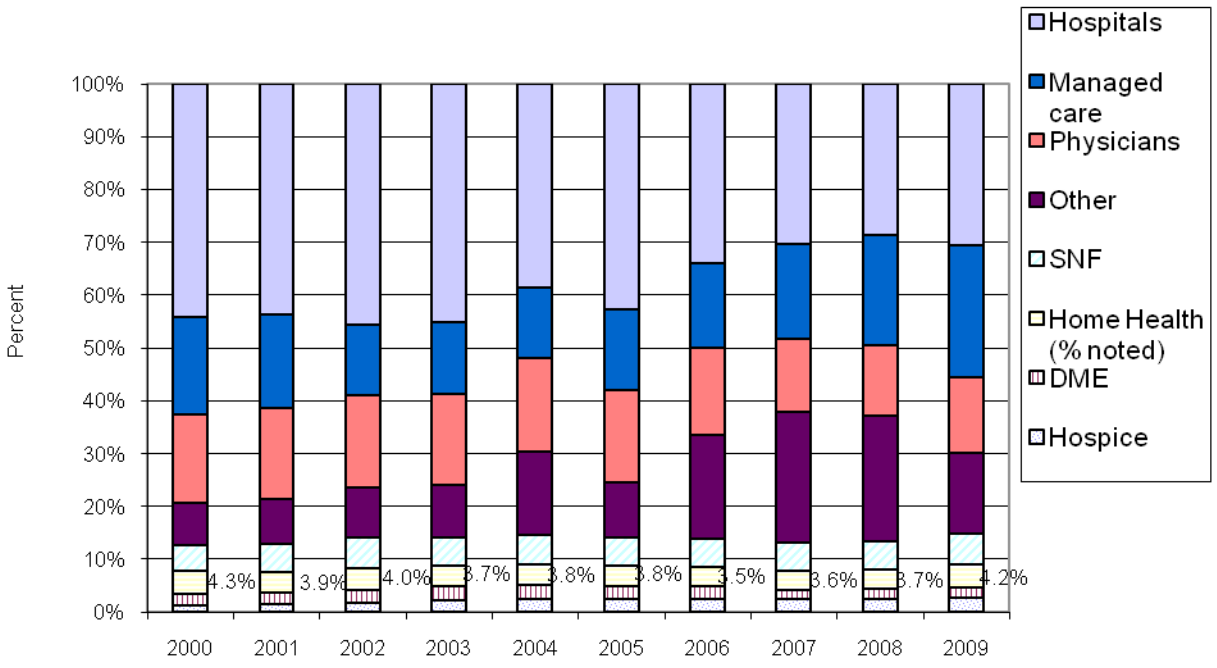
Source: Truffer, C., et al. "Health Spending Projections Through 2019: The Recession 's Impact Continues." Health Affairs : March 2010.
[1]Projected, [2]Freestanding facilities only. Additional services of this type are provided in hospital-based facilities and counted as hospital care.

Figure 2: Sources of Payment for Home Health, 2009[1]



Source: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Care Expenditures, www.cms.gov, (March 2010).
Notes: [1]Data for 2009 is projected.

Figure 3: Percent Medicare Payments, by Benefit, Fiscal Years 2000-2009

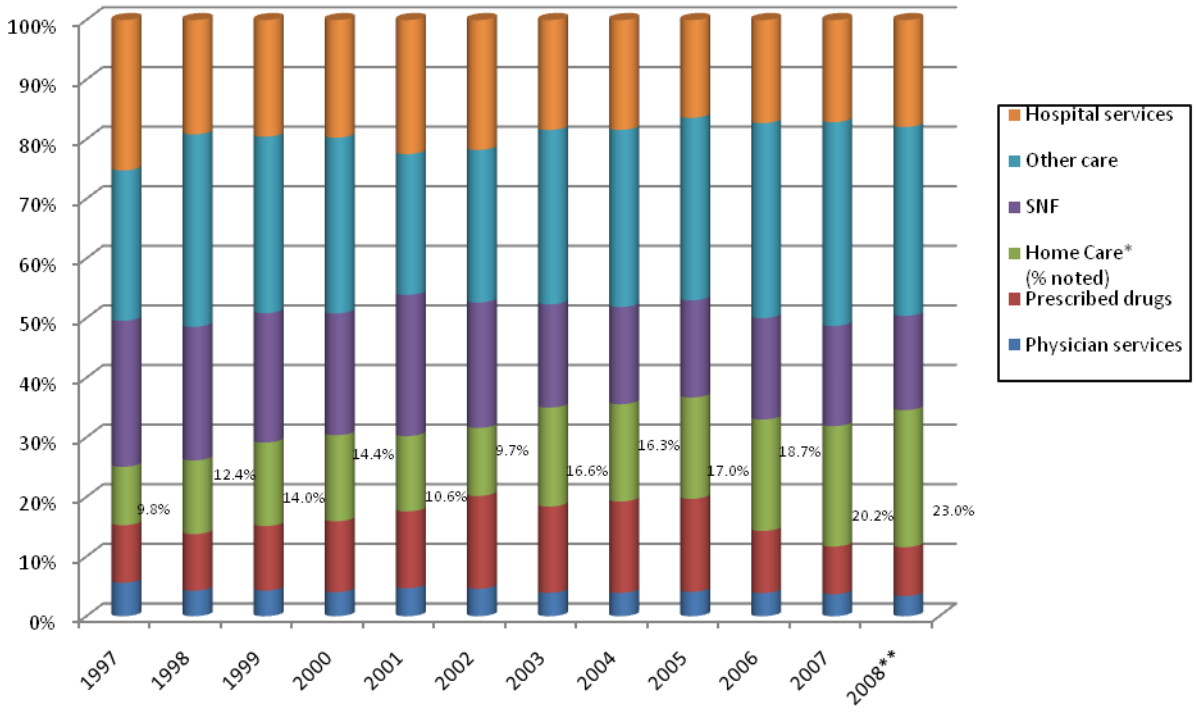


Source: Centers for Medicare & Medicaid Services, Office of the Actuary, Medicare & Medicaid Cost Estimates

Table 2: Medicare Fee-for-Service Home Health Outlays, Visits, Clients, Payment/Client, and Visits/Client, 1996-2008					
Year	**Outlays ($million)**	**Visits (1000s)**	**Clients (1000s)**	**Payment/ Client**	**Visits/ Client**
1996	16,789	264,553	3,598	4,666	74
1997	16,723	257,751	3,554	4,705	73
1998	10,446	154,992	3,062	3,412	51
1999	7,908	112,748	2,735	2,892	41
2000	7,352	90,730	2,497	2,945	36
2001	8,637	73,698	2,439	3,541	30
2002	9,635	78,055	2,724	3,538	29
2003	10,149	82,517	2,888	3,524	29
2004	11,500	88,872	2,840	4,050	31
2005	12,885	95,534	3,228	3,991	30
2006	14,050	103,981	3,302	4,254	32
2007	15,677	114,199	3,383	4,635	34
2008	17,115	121,026	3,466	4,938	35

Sources: Centers for Medicare & Medicaid Services. HCIS home health data, 1994-1998 (December 2000). HCIS home health data, 1999 & 2000 (September 2001). HCIS home health data, 2001 (December 2002). HCIS home health data, 2002 (October 2003). HCIS home health data, 2003 (October 2004). HCIS home health data, 2004 (October 2005). HCIS home health data, 2005 (October 2006). HCIS home health data, 2006 (October 2007). HCIS home health data, 2007 (March 2009). HCIS home health data, 2008 (June 2010).

Figure 4: Medicaid Expenditures by Service, 1997-2008



Source: Centers for Medicare & Medicaid Services, MSIS (formerly HCFA-2082) (www.cms.hhs.gov): March 2010.
Notes: *for years 1998-2008, includes home health, pesonal support services, and home and community based waiver program. The 1997 figure represents home health only. All numbers represent combined federal and state spending.
**Only 31 states are represented in the 2008 data.

Table 3: Medicaid Home Care Expenditures and Recipients, 1995-2008		
Fiscal Year	**Vendor Payments ($millions)**	**Recipients (1000s)**
1995	9,406	1,639
1996	10,583	1,633
1997	12,237	1,861
1998	17,600	4,800
1999	21,500	4,882
2000[1]	24,300	5,544
2001	16,655	6,776
2002	19,288	7,775
2003	38,715	8,125
2004	37,241	8,377
2005	46,618	9,076
2006	50,310	9,112
2007	55,882	8,890
2008[2]	44,915	6,039

Source: Centers for Medicare & Medicaid Services, MSIS (formerly HCFA-2082). (www.cms.gov). (2001 & 2002 data obtained February 2005). (2003 & 2004 data obtained July 2007). (2005-2008 data obtained March 2010).
Notes: [1]Hawaii did not report for FY 2000. Their FY 1999 data are used in this table.
[2]Data for 2008 is incomplete, only 31 states reported.
Figures include expenditures for home health and personal support services. Figures for 1999 through 2008 also include home and community-based waiver program.

Table 4: Number and Percent of Home Health Discharges by Age, Gender, Race, and Marital Status, 2000 (Total Discharges =7,178,964)					
Characteristic	**Number**	**Percent of Total**	**Characteristic**	**Number**	**Percent of Total**
Age in years			**Marital Status**		
< 6 years	224,692	3.1	Under age 65:		
6-17	75,144	1.0	Married	1,006,349	14.0
18-44	741,386	10.3	Widowed	98,859	1.4
45-64	1,175,637	16.4	Divorced or separated	179,819	2.5
65+	4,962,108	69.1	Single or never married	430,347	6.0
85+	1,219,997	17.0	Unknown	201,647	2.8
Gender			Age 65+:		
Under age 65:			Married	1,887,719	26.3
Male	910,206	12.7	Widowed	2,021,922	28.2
Female	1,306,652	18.2	Divorced or separated	196,876	2.7
Age 65+			Single or never married	377,283	5.3
Male	1,687,132	23.5	Unknown	478,303	6.7
Female	3,274,976	45.6			
Race/Ethnicity			**MSA or Non-MSA**		
Under age 65:			Under age 65:		
Hispanic	140,873	2.0	MSA	1,873,398	26.1
Black	250,864	3.5	Non-MSA	343,456	4.8
White and other	2,052,306	28.6	Age 65+:		
Age 65+			MSA	4,207,557	58.6
Hispanic	152,191	2.1	Non-MSA	754,548	10.5
Black	465,559	6.5			
White and other	4,428,111	61.7			

Source: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, *2000 National Home and Hospice Care Survey*, CD-ROM Series 13, No. 31 (July 2002).
Note: Percentages may not add to totals due to rounding.

Table 5: Medicare Home Health Utilization by Principal Diagnosis, Calendar Year 2008

Principal ICD-9-CM Diagnosis[1]	Principal ICD-9-CM Codes	Patients (1,000's)	Percent
Infectious and Parasitic Diseases	001-139	20	0.6
Neoplasms	140-239	110	3.5
Malignant Neoplasm of Trachea, Bronchus, and Lung	162	22	0.7
Endocrine, Nutritional, and Metabolic Diseases and Immunity Disorders	240-279	372	11.7
Diabetes Mellitus	250	341	10.8
Diseases of the Blood and Blood Forming Organs	280-289	60	1.9
Mental Disorders	290-319	68	2.1
Diseases of the Nervous System and Sense Organs	320-389	152	4.8
Diseases of the Circulatory System	390-459	809	25.5
Essential Hypertension	401	223	7.0
Heart Disease	402, 410-411, 413-414, 427-428	398	12.6
Diseases of the Respiratory System	460-519	271	8.6
Pneumonia, Organism Unspecified	486	59	1.9
Diseases of the Digestive System	520-579	74	2.3
Diseases of the Genitourinary System	580-629	82	2.6
Diseases of the Skin and Subcutaneous Tissue	680-709	196	6.2
Diseases of the Musculoskeletal System and Connective Tissue	710-739	399	12.6
Osteoarthritis and Allied Disorders	715	93	2.9
Symptoms, Signs, and Ill-Defined Conditions	780-799	262	8.3
Injury and Poisoning	800-999	208	6.6
Supplementary Classification	V01-V82	1,088	34.3
Total, All Diagnoses[2]	---	**3,172**	**100.0**
Total Leading Diagnoses[3]	---	**1,813**	**57.2**

[1]ICD-9-CM is International Classification of Diseases, 9th Revision, Clinical Modification (Volume 1). Only the first-listed or principal diagnosis has been used.
[2]Includes invalid codes not listed separately.
[3]Specific leading diagnostic categories were selected for presentation because of frequency of occurrences or because of special interest.
Source: Centers for Medicare & Medicaid Services, Office of Information Services: Data from the Medicare Data Extract System; data development by the Office of Research, Development, and Information. *Health Care Financing Review: Medicare and Medicaid Statistical Supplement.* 2009.

Table 6: Proportion of Medicare Beneficiaries Discharged to Home Health Care for the 10 Most Common Diagnosis Related Groups (DRGs), 2000-2004

Initial Hospital DRG	2000	2001	2002	2003	2004	% Change 2000-2004
DRG 462- Rehabilitation	7.4%	7.9%	8.1%	8.6%	8.7%	17.6
DRG 209- Major Joint and Limb Reattachment Procedures of Lower Extremity	7.0	7.3	7.6	7.9	8.2	17.1
DRG 127- Heart Failure and Shock	6.1	6.0	5.7	5.6	5.6	-8.2
DRG 089- Simple Pneumonia and Pleurisy	4.3	3.7	4.1	3.8	4.2	-2.3
DRG 088- Chronic Obstructive Pulmonary Disease	3.4	3.1	3.1	2.9	3.1	-8.8
DRG 148- Major Small and Large Bowel Procedures	2.1	2.0	2.0	2.0	1.9	-9.5
DRG 014- Intracranial Hemorrhage or Cerebral Infarction	3.1	3.1	3.0	2.4	1.9	-38.7
DRG 296- Nutrition/Miscellaneous Metabolic Disorders	1.7	1.7	1.9	1.9	1.7	0
DRG 107- Coronary Bypass With Cardiac Catheterization	2.0	2.0	1.8	1.8	1.5	-25.0
DRG 121- Circulatory Disorders with Acute Myocardial Infarction and Major Complication	1.6	1.6	1.5	1.4	1.4	-12.5

Source: Department of Health and Human Services, Office of Inspector General. *Medicare Beneficiary Access to Home Health Agencies: 2004*. #OEI-02-04-00260. July 2006. OIG analysis of CMS's National Claims History File, 2005
Note that the year starts with April 1 of the prior year and ends with March 31 of that year.

Table 7: Ranking of Highest Volume Diagnoses for "Community Beneficiaries" by Year, 1997-2000

	Percent (rank)			
Primary ICD9 Diagnosis	**1997**	**1998**	**1999**	**2000**
250- Diabetes	8.6 (1)	7.6 (1)	6.9 (1)	6.2 (1)
401- Essential hypertension	7.7 (2)	6.2 (2)	5.5 (3)	5.3 (3)
428- Heart failure	5.3 (3)	5.0 (3)	4.7 (4)	4.6 (4)
707- Chronic ulcer of the skin	3.6 (4)	4.6 (4)	5.7 (2)	5.6 (2)
715- Osteoarthritis	3.2 (5)	3.3 (5)	3.2 (5)	3.6 (5)

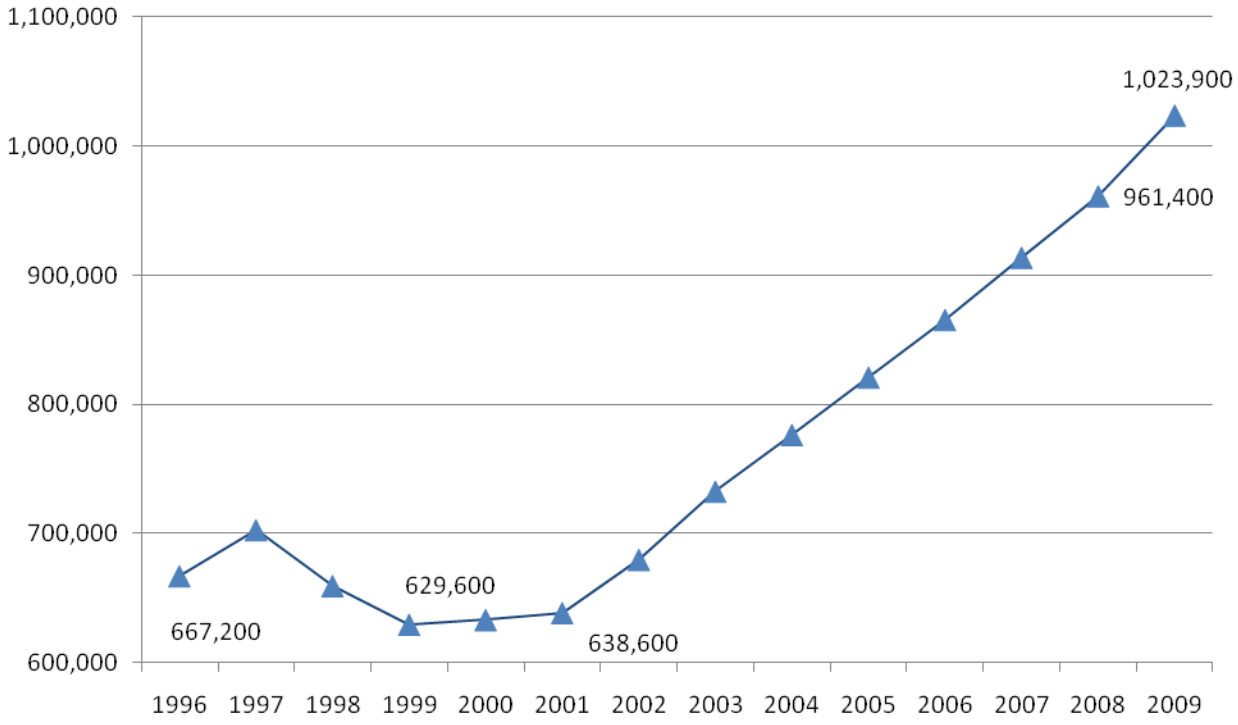
Source: Department of Health and Human Services, Office of Inspector General. *Medicare Home Health Care Community Beneficiaries 2001,* #OEI-02-01-00070. October 2001.

Table 8: Number of Home Health Care Workers, (2008) and Medicare-certified Agency FTEs (2009)		
Type of Employee	**Total Number of Home Health Employees[1]**	**Number of Medicare Home Health FTEs[2]**
RNs	132,400	92,113
LPNs	62,100	44,646
Physical Therapy Staff	22,700	26,823
Home Care Aides	324,400	65,146
Occupational Therapists	6,500	8,215
Social Workers	16,200	5,077
Other	393,700	78,420
Totals	**958,000**	**290,439**

Sources: [1] U.S. Department of Labor, Bureau of Labor Statistics, National Industry-Occupational Employment Matrix, data for 2008. Excludes hospital-based and public agencies. Home Health Aides, Personal and Home Care Aides, and Personal Care and Service Workers are included in the Home Care Aides category of the BLS data. (February 2010)

[2] Unpublished data on FTEs in Medicare-certified home health agencies for calendar year (CY) 2009 from the Centers for Medicare & Medicaid Services HCFA Center for Information Systems, Health Standards and Quality Bureau. (February 2010).

Figure 5: Home Health Care Services: Total Employment, 1996-2009*



Source: U.S. Department of Labor, Bureau of Labor Statistics: Employment, Hours, and Earnings from the Current Employment Statistics Survey (National), www.bls.gov (March 2010).
Notes: *Annual number for 2009 is projected.
Excludes hospital-based and public home care agency employees. Annual data for 1996-2009 is based on the North American Industry Classifications System (NAICS).

Table 9: Home Health Care Visit Staff Productivity (Actual Visits Performed)	
Staff Type	**Productivity (per 8 Hours)**
RN	4.96
LPN/LVN	5.90
Home Care Aide	5.17
Physical Therapist	5.39
Occupational Therapist	5.30
Social Worker	3.48

Source: National Association for Home Care & Hospice, Hospital & Healthcare Compensation Service. *Homecare Salary & Benefits Report 2009-2010.* October 2009.

Table 10: Average Compensation of Home Health Agency Executives, October 2009	
	Salary Range by Percentile Median (25^{th}, 75^{th})
Executive Director/CEO	$125,080 (98,640, 179,900)
Chief Operating Officer/ Program Director	83,000 (74,187, 100,000)
Top Level Financial Executive	99,951 (81,500, 124,000)
Director of Clinical Services	75,000 (67,777, 84,534)
Director of Social Work and Counseling	62,600 (55,200, 70,224)
Quality Improvement/ Utilization Review Manager	66,895 (57,047, 78,000)

Source*:* National Association for Home Care & Hospice, Hospital & Healthcare Compensation Service. *Homecare Salary & Benefits Report 2009-2010.* October 2009.

Table 11: Average Compensation of Home Health Agency Caregivers, October 2009						
	Per-Hour Rates by Percentile			Per-Visit Rates by Percentile		
	25th	Median	75th	25th	Median	75th
Registered Nurse	$25.64	$27.79	$31.09	$31.75	$35.13	$40.00
LPN/LVN	17.97	19.81	22.47	20.74	23.38	26.55
Occupational Therapist	31.00	34.13	36.52	53.88	58.50	62.00
Physical Therapist	34.49	37.22	40.37	56.05	60.00	65.00
Respiratory Therapist	21.88	23.44	24.96	55.00	75.00	82.50
Speech/Language Pathologist	30.41	33.65	38.57	55.00	59.92	65.00
Medical Social Worker	20.78	23.48	26.56	45.00	51.50	60.00
Home Care Aide III	10.98	12.11	13.38	12.25	13.75	15.50

Source: National Association for Home Care & Hospice, Hospital & Healthcare Compensation Service. *Homecare Salary & Benefits Report 2009-2010*. October 2009.

Table 12: Comparison of Hospital, SNF, and Home Health Medicare Charges, 2005-2009[1]					
	2005	2006	2007	2008	2009
Hospital (per day)	$4,999	$5,475	$5,895	$6,196	$6,200
SNF (per day)	504	519	558	590	622
Home health (per visit)	125	129	130	134	135

Sources: The hospital Medicare charge data for 2005-2007 are from the *Annual Statistical Supplement*, 2008, to *the Social Security Bulletin*, Social Security Administration online (www.ssa.gov). SNF data for 2005 are from the *Annual Statistical Supplement*, 2007, to *the Social Security Bulletin*, Social Security Administration online (www.ssa.gov). Home health information 2005 data are from the Health Care Financing Review, Statistical Supplement, Centers for Medicare & Medicaid Services, 2006. Home health information 2006 data are from the Health Care Financing Review, Statistical Supplement, Centers for Medicare & Medicaid Services, 2007. Home health information 2007 data are from the Health Care Financing Review, Statistical Supplement, Centers for Medicare & Medicaid Services, 2008.Home health information 2008 data are from the Health Care Financing Review, Statistical Supplement, Centers for Medicare & Medicaid Services, 2009.

Note: [1]Hospital data for 2008 and 2009 were updated using the Bureau of Labor Statistics' (BLS) Producer Price Index (PPI) for General medical and surgical hospitals by payor types, Medicare patients. Skilled nursing facility data for 2006, 2007, 2008 and 2009 were updated using BLS' PPI for Nursing care facilities, Public payors. Home health data for 2009 were updated using the BLS' PPI for Home health care services, Medicare payors. (www.bls.gov).

Table 13: Cost of Inpatient Care (Per Patient per Month) Compared to Home Care, Selected Conditions

Conditions	Hospital Costs	Home Care Costs	Dollar Savings
Low birth weight[1]	$26,190	$330	$25,860
Ventilator-dependent adults[2]	21,570	7,050	14,520
Oxygen-dependent children[3]	12,090	5,250	6,840
Chemotherapy for children with cancer[4]	68,870	55,950	13,920
Congestive heart failure in the elderly[5]	1,758	1,605	153
Intravenous antibiotic therapy for cellulitis, Osteomyelitis, others[6]	12,510	4,650	7,860

Sources: [1]Casiro, O.G., McKenzie, M.E., McFayden, L., Shapiro, C., Seshia M.M.K., MacDonald, N., Moffat, M., and Cheang, M.S. "Earlier Discharge with Community-based Intervention for Low Birth Weight Infants: A Randomized Trial." *Pediatrics* 92, no. 1 (1993): 128-134.

[2]Bach, J.R., Intinola, P., Alba, A.S., and Holland, I.E. "The Ventilator-assisted Individual: Cost Analysis of Institutionalization vs. Rehabilitation and In-home Management." *Chest* 101, no. 1 (1992): 26-30.

[3]Field, A.I., Rosenblatt, A., Pollack, M.M., and Kaufman, J. "Home Care Cost-Effectiveness for Respiratory Technology-dependent Children." *American Journal of Diseases of Children* 145 (1991): 729-733.

[4]Close, P., Burkey, E., Kazak, A., Danz, P., and Lange, B. "A Prospective Controlled Evaluation of Home Chemotherapy for Children with Cancer." *Pediatrics* 95, no. 6 (1995): 896-900. (**Note**: The study found that the daily charges for chemotherapy were $2,329±$627 in the hospital and $1,865±$833 at home. These charges were multiplied by 30 days reflecting the above per-patient per-month costs.)

[5]Rich, M.W., Beckham, V., Wittenberg, C., Leven, C., Freedland, K., and Carney, R.M. "A Multidisciplinary Intervention to Prevent the Readmission of Elderly Patients with Congestive Heart Failure." *The New England Journal of Medicine* 333, no. 18 (1995): 1190-1195.

[6]William, D.N., et al. "Safety, Efficacy, and Cost Savings in an Outpatient Intravenous Antibiotic Program." *Clinical Therapy* 15 (1993): 169-179, cited in Williams, D., "Reducing Costs and Hospital Stay for Pneumonia with Home Intravenous Cefotaxime Treatment: Results with a Computerized Ambulatory Drug Delivery System." *The American Journal of Medicine* 97, no. 2A (1994): 50-55. (**Note**: The estimated hospital cost/day/patient is $417 and the estimated savings/day/patient is $262. These costs were multiplied by 30 days, reflecting the above per-patient per-month costs.)