

The Cost Drivers of Cancer Care: Highlights from Landmark Study of Trends in Overall & Component Cancer Care Costs



Over 14 Years
of Making A
Difference In
Cancer Care

Commissioned by the Community Oncology Alliance (COA) and conducted by researchers at the actuarial firm Milliman, the *Cost Drivers of Cancer Care* study takes an in-depth look at eleven years of claims data for the Medicare and commercially insured patient populations (2004-2014).

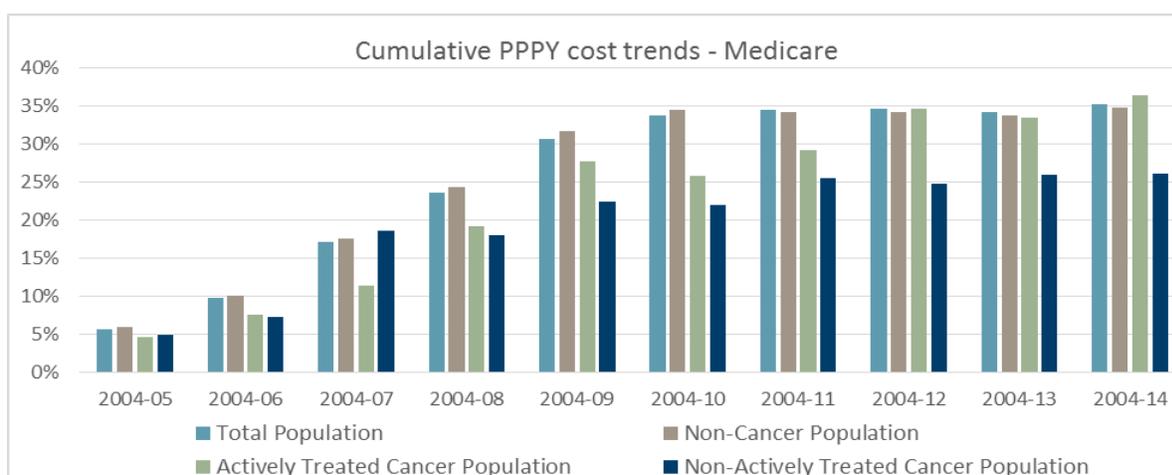
The study shows that the long-held belief that cancer care costs in America have increased faster than other health care costs is absolutely wrong. Contrary to a commonly held assumptions in research and policy circles, the overall cost of treating patients with cancer in the United States has risen no faster than all other health care spending.

There are a number of complex factors driving cancer care costs. Physicians, patients, payers, and policymakers must take a holistic look at all of them – including site of service, the 340B program, and drug prices – in order to make meaningful progress in reducing spending.

Study Highlight: The annual costs for treating patients with cancer increased at essentially the same rate as all health spending since 2004.

Per-patient annual increases in cost of cancer care were essentially the same for all patients, regardless of whether or not they had cancer, were in active treatment for that cancer, or were in the non-cancer population studied. Researchers defined “actively treated cancer patients” as those with one or more claims for chemotherapy, radiation therapy, or cancer surgery in a given year.

- In the Medicare population, the increases were 35.2% for the total population, 36.4% for the actively treated cancer population, and 34.8% for the non-cancer population.
- For the commercially insured, the cost increases were 62.9% for the total population, 62.5% for the actively-treated cancer population, and 60.8% for the non-cancer population.



Study Highlight: Drug spending has increased at the highest rate of all cancer care costs, with much of that growth aligning with the approval of new cancer drugs and therapies.

As expected, when looking at a breakdown of specific elements of costs for treating cancer patients, the researchers found large increases in spending for cancer drugs.

The portion of these costs associated with all chemotherapy (including biologic, cytotoxic, and other chemotherapy and cancer drugs) make up one-fifth of total cancer care costs.

Service Category	2004-2014 PPPY Cost Trends	
	Medicare	Commercial
Hospital Inpatient Admissions	22%	44%
Cancer Surgeries (inpatient and outpatient)	0%*	39%
Sub-Acute Services	51%	15%
Emergency Room	132%	147%
Radiology – Other	24%	77%
Radiation Oncology	204%	66%
Other Outpatient Services	48%	49%
Professional Services	40%	90%
Biologic Chemotherapy	335%	485%
Cytotoxic Chemotherapy	14%	101%
Other Chemo and Cancer Drugs	-9%	24%
Total PPPY Cost Trend	36%	62%

Of note, a significant portion of trends in drug costs trends align with clinical advances in new biological therapies and breakthrough drugs.

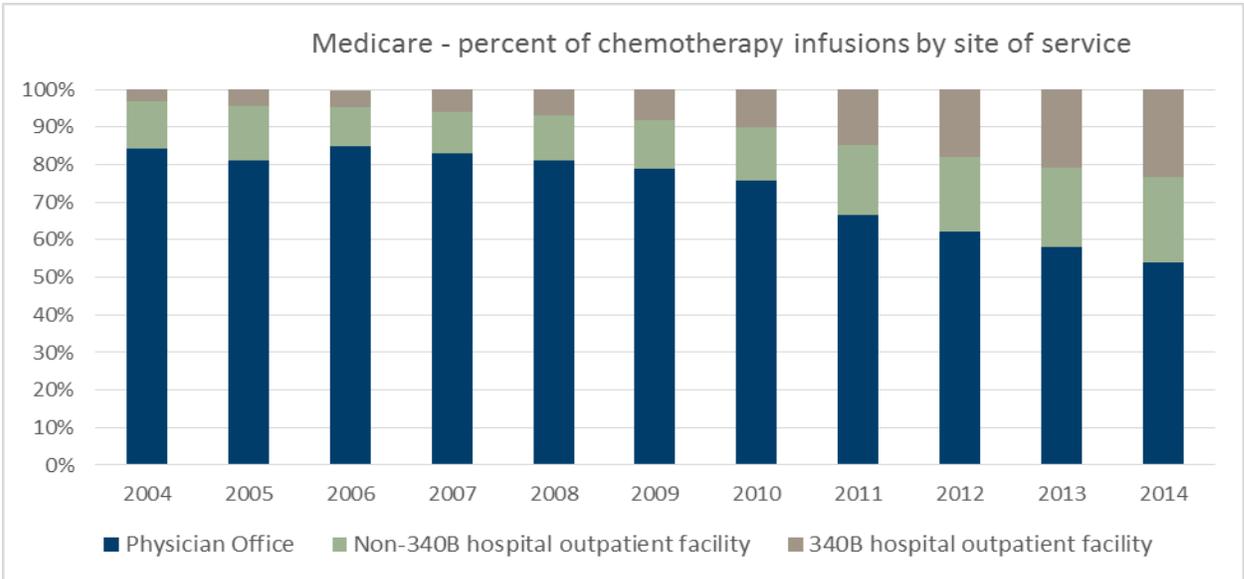
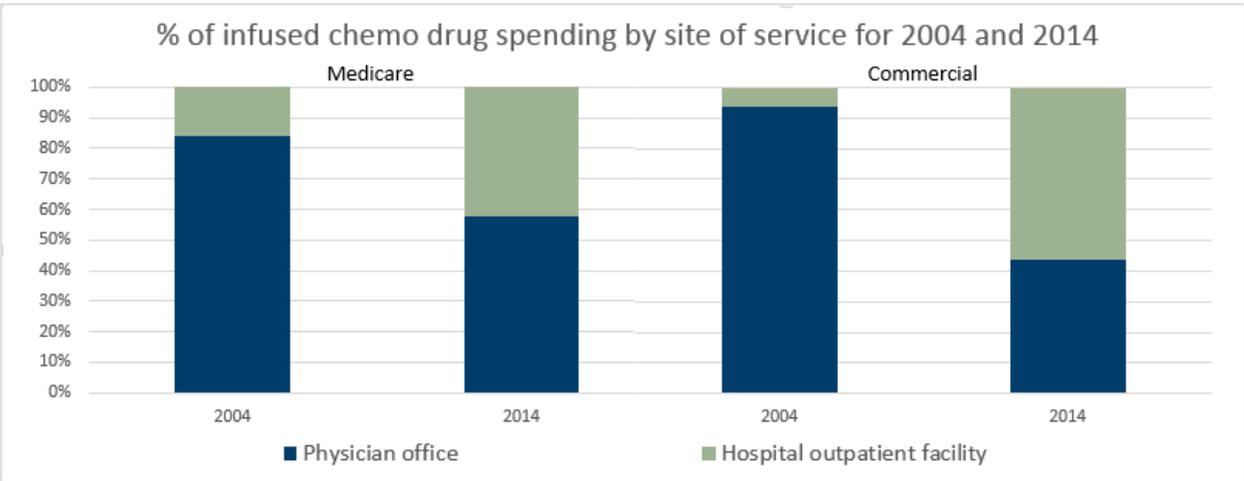
More than 70 new drugs and biologics were approved or given new indications for cancer during the 11-year study period. In each of the past three years, more than 20 therapies have either been approved to treat cancer or received new cancer indications. These new therapies have resulted in better outcomes and longer survival.

For example, the rise in costs for treating blood cancers coincided with new, FDA-approved therapeutic options for patients with blood cancers such as myeloma and leukemia. For multiple myeloma the 3-year survival rate in the 1980s was only 42%. In the 2000s the introduction of new therapies increased that to approximately 66%.

Study Highlight: There has been a dramatic shift of cancer care into the more expensive hospital setting, which has driven large increases in cancer care costs.

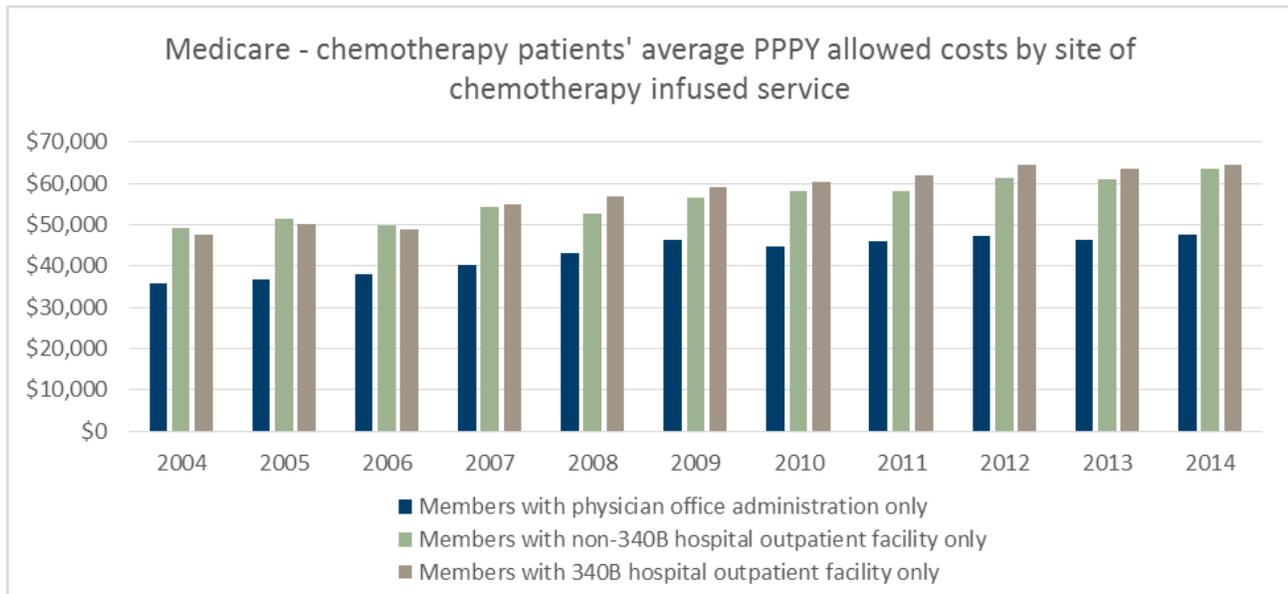
The site of service for chemotherapy infusion has dramatically shifted away from the physician office to the higher-cost hospital outpatient settings. This has been driven by things such as the 340B drug discount program and disparate site payment policies.

For the Medicare population, the proportion of chemotherapy delivered in the hospital outpatient department nearly tripled, increasing from 15.8% to 45.9% during the study period. For commercially insured patients the increase was much more dramatic, going from 5.8% to 45.9%. Hospitals with 340B discounts accounted for 50.3% of all outpatient chemotherapy in 2014.



Study Highlight: Chemotherapy delivered in the hospital outpatient setting is significantly more expensive than chemotherapy delivered in the physician office.

For Medicare patients, the difference was \$13,167 (37%) higher in 2004 and \$16,208 (34%) higher in 2014; for commercially insured patients it was \$19,475 (25%) higher in 2004, and \$46,272 (42%) higher in 2014.



Researchers modeled the cost implication of infused chemotherapy site of service shift applying the two factors involved - the site of service and the cost differential by site of service - to estimate the extra cost associated with the observed site of service shift. **For 2014, the researchers estimate that Medicare spending would be about \$2 billion lower if the infused chemotherapy site of service shift had not occurred.**

