

OCM Benchmark & Savings Report

Prepared for: Oncology Care Practice



ARCHWAY
HEALTH ADVISORS

Illuminating the Healthcare Landscape

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

I. Savings Model Overview

II. Benchmarks

A. Service Category

1. National
2. State - Massachusetts
3. Regional - Springfield, MA Hospital Referral Region
4. Practice - Oncology Care Practice

B. Cancer Type

1. Service Category Analysis
2. Benchmarks and PGP Performance

III. Savings Estimation

A. CMS Data Sample Size Analysis

B. Savings Distribution

C. Savings Model

D. Archway Oncology Care Management Savings Estimate

IV. Savings Detail

V. Endnotes

EXECUTIVE SUMMARY

Oncology Care Practice can expect to generate \$1,317,593 in additional revenue during the first two years of OCM, and a total of \$4,305,330 over the life of the program. This estimate is based on Archway's provisional OCM episode design using CMS 5% files that include 65 episodes for Oncology Care Practice out of an estimated 466 reported by the practice. This annual savings estimate assumes a comprehensive redesign of oncology care and includes savings via:

- \$447,227 from advanced care planning
- \$526,164 from chemotherapy pathway adherence
- \$223,033 from ER visit reduction
- \$48,151 from avoidable hospitalizations
- \$155,183 from service duplication reduction

The episode sample found for Oncology Care Practice was smaller than needed for significance, and we therefore blended expenditures with regional and state benchmarks. Oncology Care Practice's episode distribution found in our CMS sample and that provided by the practice are shown below.

	CMS Sample	Oncology Care Practice
Cancer of lymphatic and hematopoietic tissue	12	24
Cancer of male genital organs	20	96
Cancer of urinary organs	4	48
Cancer of uterus and cervix	2	14
Colorectal cancer	2	58
Other gastrointestinal cancer	4	27
Maintenance chemotherapy; radiotherapy	11	30
Cancer of breast	2	77
Cancer of bronchus; lung	8	92

Oncology Care Practice's episode profile indicates significant opportunity for savings. As shown in the estimated per episode spend table below there exists significant spending within each cancer type and across the key areas of expected savings.

	Spend per OCM Episode
Cancer of lymphatic and hematopoietic tissue	\$ 51,542
Cancer of male genital organs	\$ 9,260
Cancer of urinary organs	\$ 18,696
Cancer of uterus and cervix	\$ 29,869
Colorectal cancer	\$ 51,221
Other gastrointestinal cancer	\$ 32,181
Maintenance chemotherapy; radiotherapy	\$ 38,945
Cancer of breast	\$ 29,105
Cancer of bronchus; lung	\$ 34,175

SAVINGS MODEL OVERVIEW

The Oncology Care Model offered by CMS requires that applicants demonstrate how participants expect to generate savings as well as providing a credible estimate of those savings. Archway Health Advisors uses CMS claims data integrated with documented savings pathways from previous demonstrations. This document outlines the process Archway uses to create quantified savings estimates for OCM application financial narratives.

Archway has gained access to the CMS claims and enrollment data for a 5% sample of Medicare beneficiaries stratified by county. This data includes all inpatient, outpatient, skilled nursing, and professional claims for these beneficiaries.

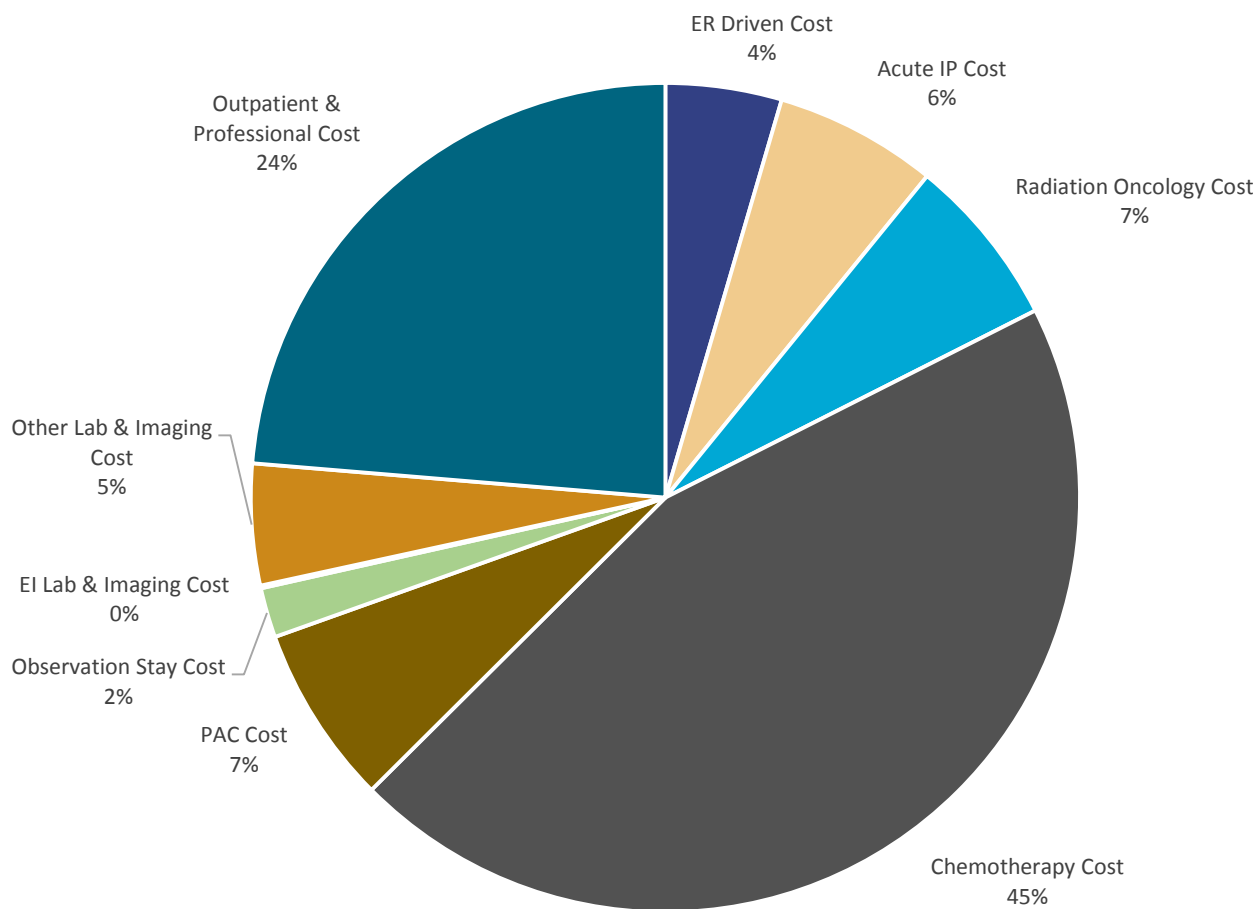
The OCM request for applications lays out the basic design of bundles within the demonstration and we have filled in the details based on the design of the Bundled Payment for Care Improvement Initiative. Archway provisional OCM episodes begin with a professional or outpatient facility claim that include a chemotherapy CPT code and that have a cancer diagnosis code. We have limited our list of chemotherapy codes to the drugs specifically laid out in the OCM RFA. Cancers included in the OCM model represent our best guess at the cancers Medicare intends to include in the model. The cancers we include are lung, breast, prostate, lymphatic, uterine, bladder, colorectal, and other gastrointestinal. All medical claims from the initiation date through 6 months after the initiation date are included in the episode. Part D prescription drug costs are excluded both from the identification of chemotherapy initiation and the episode cost profile.

The costs are divided into eight service categories: ER-driven, Acute Inpatient, Post-Acute, Observation Stays, Laboratory & Radiology, Chemotherapy, Radiation Oncology, and Outpatient & Professional.

Archway's savings model uses estimates from previous studies of oncology home models and centers on five areas. Advance care planning, ER utilization reduction, service duplication reduction, chemotherapy pathways, and avoidable hospitalizations represent the sources of savings in our model. The impact of these areas is estimated for each cancer type and service category. We apply these estimates of savings to our estimate of your practice's costs based on a combination of your performance and your regions performance. The larger the sample of episodes in your practice's performance the more the estimate is weighted toward your specific experience.

State Benchmark - Massachusetts

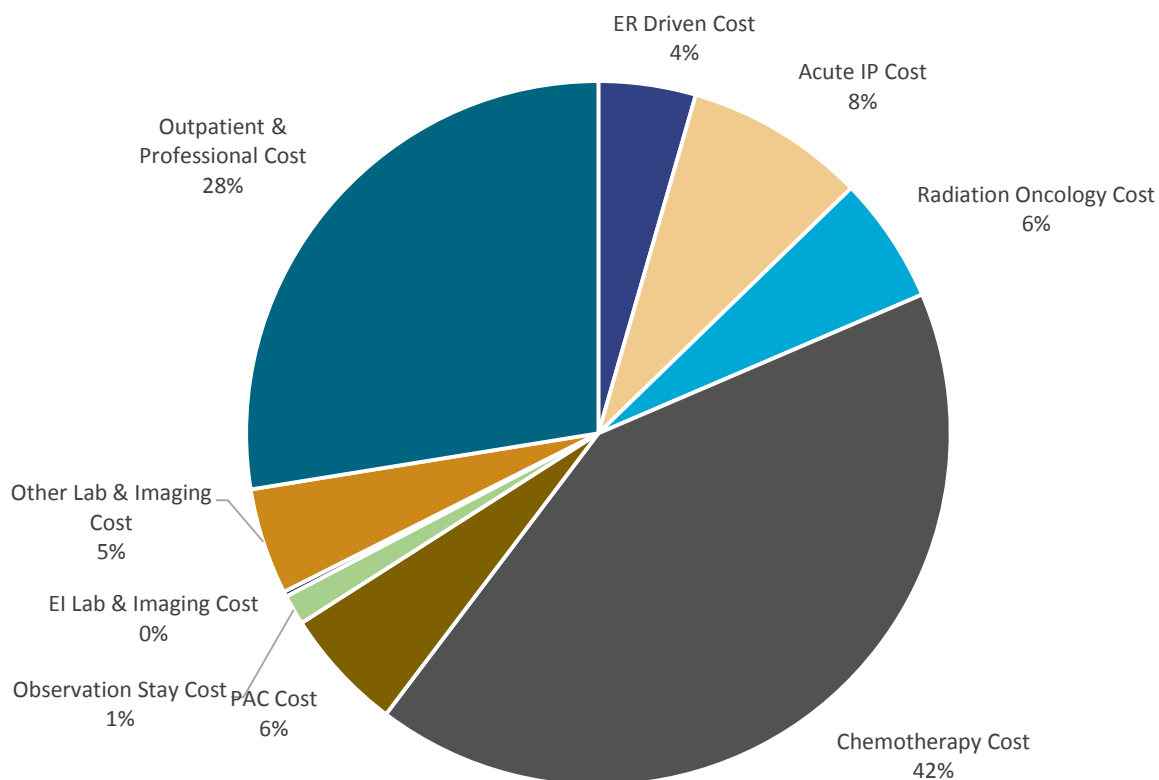
Figure 2. Spending by Service Category - State Benchmark



In the state of Massachusetts we identified 1,199 episodes with mean costs of \$33,120. State costs are 10.4% higher than the national benchmark. This is driven primarily by chemotherapy cost.

Regional Benchmark - Springfield, MA Hospital Referral Region

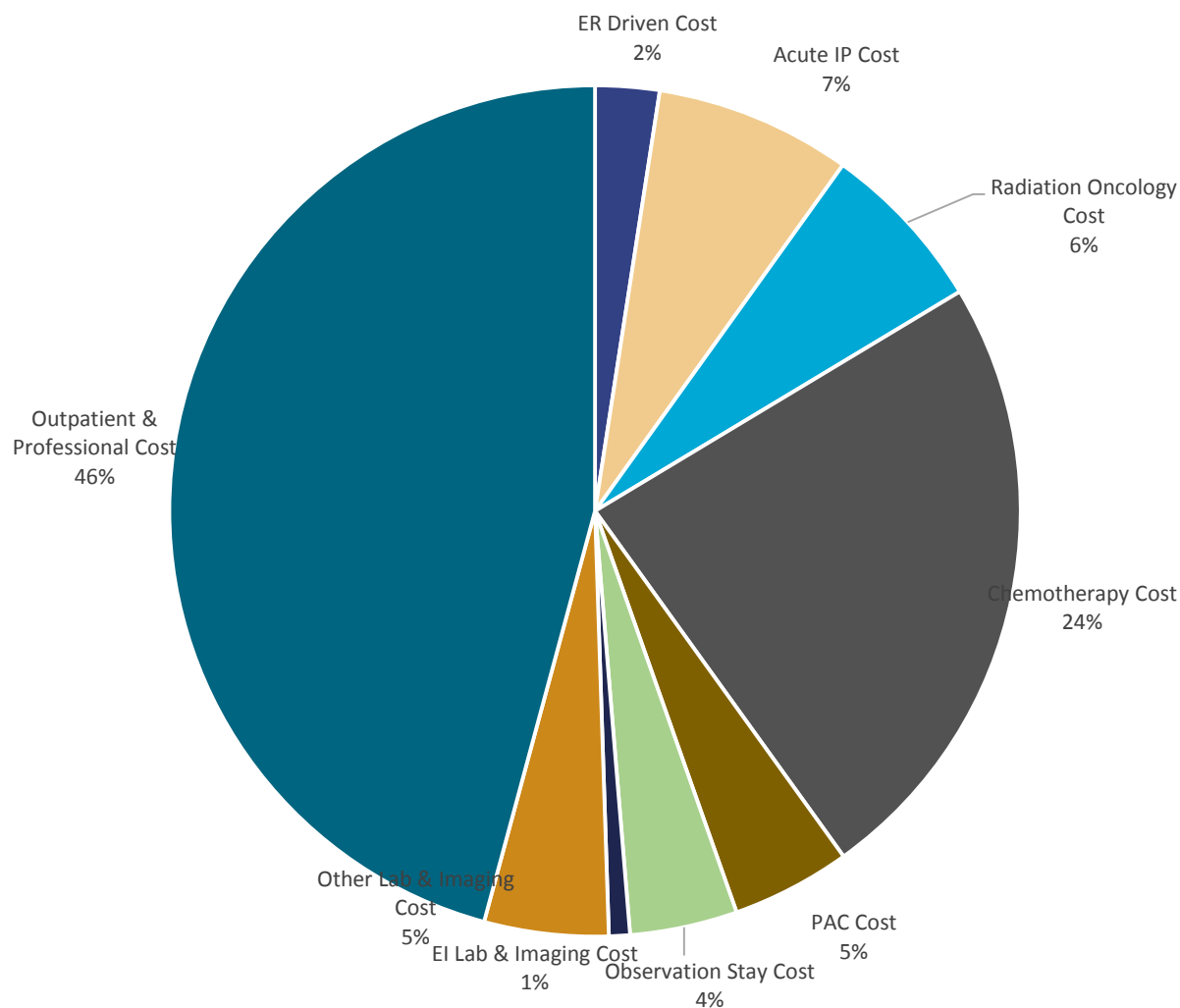
Figure 3. Spending by Service Category - Regional Benchmark



Springfield, MA Hospital Referral Region has 246 episodes with an average cost of \$30,713. Regional costs are 2.4% higher than the national benchmark. This is driven primarily by outpatient & professional cost.

Practice Performance - Oncology Care Practice

Figure 4. - Practice OCM Spending by Service Category



The CMS sample identified 65 episodes with a mean cost of \$28,472. Oncology Care Practice has very high spending in the chemotherapy service category. Outpatient and professional spending is very high relative to benchmarks.

Archway OCM Provisional Savings Model

Archway's provisional OCM savings model is based on recent studies of oncology medical home and care model programs. Research indicates that savings from oncology care model redesign result from reduced ER and acute hospital visits, advanced care planning, reduced duplication of diagnostic services, and chemotherapy pathway development and adherence. Working with clinicians and industry experts Archway has generated the savings ranges shown in Table 3.

Table 3 - Range of Savings by Source

Advanced Care Planning	1.5-3%	All Service Categories
Pathway Adherence	8-10%	Chemotherapy and Radiation Oncology
ER Visit Reduction	15-25%	ER Driven Cost
Avoidable Hospitalizations	2.5-5%	Acute and Post Acute Services
Service Duplication Reduction	1-5%	Lab, Imaging, and Diagnostic Procedures

For Oncology Care Practice, this results in estimated annual gross savings from \$1,259,782 to \$1,578,927. Table 4 displays the range of annual savings for a fully developed program from each savings source.

Table 4. - Oncology Care Practice Savings Range by Source

	Low Estimate	Midpoint	High Estimate
End of Life Planning	\$ 402,504	\$ 447,227	\$ 504,472
Pathway Adherence	\$ 473,548	\$ 526,164	\$ 593,513
ER Visit Reduction	\$ 200,730	\$ 223,033	\$ 251,581
Avoidable Hospitalizations	\$ 43,336	\$ 48,151	\$ 54,314
Service Duplication Reduction	\$ 139,665	\$ 155,183	\$ 175,046
Total	\$ 1,259,782	\$ 1,399,758	\$ 1,578,927

Oncology spend savings are estimated within each service category. Table 5 presents savings estimates by service category for Oncology Care Practice.

Table 5. - Oncology Care Practice Savings Range by Service Category

	Low Estimate	Midpoint	High Estimate
ER Driven Cost	\$ 140,938	\$ 156,598	\$ 176,642
Acute IP Cost	\$ 68,583	\$ 76,204	\$ 85,958
Radiation Oncology Cost	\$ 24,913	\$ 27,681	\$ 31,225
Chemotherapy Cost	\$ 627,571	\$ 697,301	\$ 786,556
PAC Cost	\$ 25,988	\$ 28,875	\$ 32,571
Obseration Stay Cost	\$ 88,165	\$ 97,961	\$ 110,500
EI Lab & Imaging Cost	\$ 4,233	\$ 4,703	\$ 5,305
Other Lab & Imaging Cost	\$ 50,614	\$ 56,238	\$ 63,436
Outpatient Cost	\$ 228,777	\$ 254,197	\$ 286,734
Total	\$ 1,259,782	\$ 1,399,758	\$ 1,578,927

Archway Oncology Care Management Savings Estimate

Table 6. Annual Savings

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Annual Episode Volume	466	466	466	466	466	2,328
Estimated PBPM Care Model Revenue	\$ 447,360	\$ 447,360	\$ 447,360	\$ 447,360	\$ 447,360	\$ 2,236,800
Historical Claims Benchmark	\$ 15,024,642	\$ 15,024,642	\$ 15,024,642	\$ 15,024,642	\$ 15,024,642	\$ 75,123,212
CMS Fee (4%/2.75%)	\$ (600,986)	\$ (600,986)	\$ (413,178)	\$ (413,178)	\$ (413,178)	\$ (2,441,504)
Target Price	\$ 14,423,657	\$ 14,423,657	\$ 14,611,465	\$ 14,611,465	\$ 14,611,465	\$ 72,681,707
Total Spend on Chemotherapy Episode	\$(13,834,848)	\$(13,694,872)	\$(13,624,884)	\$(13,610,887)	\$(13,610,887)	\$(68,376,377)
Estimated OCM PBPM Payments	\$ (447,360)	\$ (447,360)	\$ (447,360)	\$ (447,360)	\$ (447,360)	\$ (2,236,800)
Total Practice OCM Debits	\$(14,282,208)	\$(14,142,232)	\$(14,072,244)	\$(14,058,247)	\$(14,058,247)	\$(70,613,177)
Net Savings Estimate	\$ 141,449	\$ 281,425	\$ 539,220	\$ 553,218	\$ 553,218	\$ 2,068,530
Net Savings Rate	0.9%	1.9%	3.6%	3.7%	3.7%	2.8%
			\$ 1,399,750	\$ 1,413,756	\$ 1,413,756	
Net Payment to Practice	\$ 588,809	\$ 728,785	\$ 986,580	\$ 1,000,578	\$ 1,000,578	\$ 4,305,330
CMS Net Cost Reduction	\$ 600,986	\$ 600,986	\$ 413,178	\$ 413,178	\$ 413,178	\$ 2,441,504

In the OCM RFA CMS asks for a detailed explanation of how the practice and CMS will split any cost savings generated by program implementation. Table 6 depicts how savings are divided over the course of the demonstration. During the first two years Oncology Care Practice generates \$422,873 in net savings. Oncology Care Practice nets \$1,317,593 of which \$894,720 are PBPM payments; CMS benefits from \$1,201,971 in reduced cost. During the last three years the provisional OCM model estimates \$1,645,657 in net savings and \$1,342,080 in PBPM payments. Note that in the first two years, any negative gross savings result in no cost to the

The model presented here assumes a 0% growth rate over the 5 year program. Volume is based on 12 practicing physicians with 50 OCM episodes per year. Distribution of episodes by cancer type is based on Medicare SEER data.

ENDNOTES

- [1.] Sanghavi, Darshak, Patel, Kavita, Samuels, Kate, George, Meaghan, McStay, Frank, Thoumi, Andrea, Hart, Rio, and Mark McClellan. "*Transforming Cancer Care and the Role of Payment Reform: Lessons from the New Mexico Cancer Center* " **The Merkin Series on Innovation in Care Delivery**. August, 2014.
- [2.] Barkley, Ron. "Business Case for the Oncology ACO". Downloaded from CCBD, May 27, 2015.
- [3.] Profile of Consultants in Medical Oncology and Hematology, Drexel Hill PA. UCLA Health Global Lab for Innovation. Downloaded June 4th, 2015.
- [4.] Kuntz, G., Tozer, J., Snegosky, J., Fox, J., and Kurt Neumann. "*Michigan Oncology Medical Home Demonstration Project: First Year Results* " 2014. **Journal of Oncology Practice**, Vol 10, 5: pp294-297.