



A DETAILED DIAGNOSIS OF
INTEGRATED COMMUNITY ONCOLOGY



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EXECUTIVE SUMMARY

Integrated community oncology practices are a cornerstone of cancer care in the United States. Serving a wide range of insured and uninsured people in both rural and urban settings, these practices do more than treat cancer patients. They manage the lives of cancer patients while addressing the myriad of social and health issues that come with fighting cancer. But despite the benefits, these integrated community oncology practices are not well understood and are vulnerable to economic pressures, changes in regulatory frameworks, and hospital competition. Because of these challenges, over the last five years hundreds of community practices have closed, merged, or been acquired by hospitals and hospital systems.

In an effort to better inform policy makers and stakeholders in the fight against cancer, this study seeks to:

- Define the shared characteristics and unique aspects of integrated community oncology practices
- Highlight the benefits these community practices provide to cancer patients, payers, and the healthcare system generally
- Understand the challenges facing integrated community oncology practices and the impact these challenges have on the viability of this care delivery model

Through a combination of literature review, physician and administrator interviews, data analytics, and a survey of integrated community oncology practices, we have made a number of observations and drawn the following conclusions regarding these practices:

- Integrated community oncology practices share a number of common characteristics, including care coordination, patient-physician communication, and personal attention, but are uniquely shaped by the communities in which they operate
- Integrated community oncology practices provide access to cancer care at a lower cost than hospital outpatient departments
- Integrated community oncology practices deliver state-of-the-art cancer care and are beginning to adopt innovative healthcare delivery and payment models
- The challenges facing integrated community oncology practices include reduced reimbursement, complex regulations and reporting demands, and hospital competition that highlights significant payment disparity between the physician office and hospital outpatient settings
- These challenges are both pushing and pulling integrated community oncology practices into higher-cost hospital outpatient departments

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HISTORICAL BACKGROUND

Until the 1970s, cancer treatment focused primarily on surgery, with few drugs proven effective against the disease. As such, cancer care meant hospitalization, usually for long periods. As more drugs became available and chemotherapy became integral to cancer treatment, medical oncology as a specialty grew rapidly, but treatment remained in the inpatient setting. This changed dramatically in 1982 with the passage of the Federal Tax Equity and Fiscal Responsibility Act (TEFRA), which launched prospective payment for hospital inpatient services through Diagnosis Related Groups (DRGs). This created economic pressures that forced cancer care out of the inpatient setting and into outpatient settings. The outpatient setting proved to be more cost effective and, in many ways, more pleasant for patients, while also improving access to care for patients, particularly low-income and rural residents, who no longer had to travel long distances for cancer treatment.

The trend toward outpatient cancer care continued to accelerate as commercial payers also adopted DRGs and physicians began providing chemotherapy infusion in their offices. Although the Medicare Fee Schedule rates for chemotherapy administration were generally low, reimbursement for drugs under the Average Wholesale Price (AWP) formula provided enough drug-margin to cover the losses on chemotherapy administration and fund other

unreimbursed ancillary services, such as patient financial counseling, social support, and nutritional counseling. By the 1990s, community-based oncology practices were flourishing across the United States, and patients had greater access to cancer treatment closer to home.¹

However, this economic equilibrium was disrupted following passage of the 2003 Medicare Modernization Act (MMA). MMA regulations changed the reimbursement mechanism for drugs from AWP to Average Sales Price (ASP) plus 6%, which effectively eliminated drug margins after accounting for the costs of buying, storing, and handling the drugs. While these reductions forced practices to become more efficient, they also made it more difficult to cover costs, particularly the costs of unreimbursed ancillary and support services that had once been subsidized by drug reimbursement. In addition, there was risk associated with the high carrying costs of the drugs themselves. Some practices found that the financial pressures were too great or that they needed the economies of scale that larger groups and hospitals could provide. These practices closed, were acquired by hospitals, or merged with other practices. The prevailing community-based model that emerged from this upheaval in the marketplace is the integrated community oncology practice of today.

TODAY'S INTEGRATED COMMUNITY ONCOLOGY PRACTICE

The evolution in cancer care and reimbursement that gave rise to integrated community oncology practices has necessarily resulted in variations in the services provided and operational structure of these practices. This was evident in our interviews of oncologists and practice administrators, as well as in our survey of community oncology practices. Most interviewees pointed out that the concept of an integrated community oncology practice cannot be defined solely based on services provided directly by a practice, or even by the services provided directly *and* indirectly through arrangements with other practices, hospitals, or other providers. Instead, most said that the definition rests on a few key concepts, namely coordination, communication, and personalized care. Therefore, in attempting to define what an integrated community oncology practice actually is, this paper focuses on each individual term in the context of cancer care.

Our research suggests that integrated community oncology practices can be defined as providers of coordinated oncology care that are uniquely shaped by the communities in which they operate. As a result, no two practices are alike, and they often function differently in terms of the types of services provided, where they are provided, and how they are managed. Nevertheless, this model of coordinated care is underpinned by strong patient–physician communication and personal attention, and thus provides numerous advantages to patients, payers, and the healthcare system in general.

INTEGRATED Webster’s dictionary defines *integrate* as “to form, coordinate, or blend into a functioning or unified whole.”² Indeed, the words “coordinate,” “coordinated,” and “coordination” were repeated often by individuals interviewed. Care coordination can translate operationally in different ways—from all services provided under one roof to services provided in multiple locations but directed or otherwise managed by a practice. More than one interview respondent used a sports analogy to describe integrated cancer care. “Cancer care is a team sport,” said one physician. Another added that the oncologist or a nurse navigator is like the “quarterback” who calls the plays and that the team [other physicians, mid-level practitioners, nurses, and staff] executes the plays.

COMMUNITY Interview respondents most often described “community” as the place where patients live and work. Communities, in turn, also influence what type of integrated oncology models will work there because they have differing regulatory, political, and economic environments. For example, in states with Certificate of Need (CON) laws, community practices can be restricted to medical oncology services, because local hospitals own radiation therapy and other large equipment-dependent services (requiring a CON). In other cases, the “community” has become an entire state or region. For example, over half of the oncology practices in one state in the northeast have joined in a network that includes an academic medical center and other facilities, and contracts with payers as a single entity. Some rural communities have embraced oncology practices in different ways, from remote cancer care outposts where residents can receive basic services to networks that include rural hospitals and other providers that offer more comprehensive services.

ONCOLOGY In its purest clinical definition, oncology focuses on the medical aspects of cancer. In fact, the National Cancer Institute defines *oncology* as “[a] branch of medicine that specializes in the diagnosis and treatment of cancer.” This definition includes medical oncology, radiation oncology, and surgical oncology. Yet, as cancer care has evolved from a mostly inpatient service to an outpatient and community-based service, the definition of oncology has become more holistic, encompassing not only clinical ancillary services such as lab testing and imaging, but also social and support services such as counseling, nutritional support, and pain management. Over 98% of survey respondents that consider their practice to be an integrated community oncology practice provide additional services beyond just medical, surgical, or radiation oncology.

PRACTICE Some community-based oncologists would describe their practices as “centers,” almost functioning as hospital cancer centers in the way that they offer a wide range of services either under one roof or through closely connected locations and satellites. Others would describe their practices as doctors’ offices, because they are smaller, have fewer physicians, and offer fewer services directly, but coordinate services provided by other entities. However, all of the practices interviewed emphasized the personalized nature of the services they provide in their practices, regardless of size or number of physicians.

Although the types of services provided by integrated community oncology practices are not what define them, the breadth and depth of services are quite impressive. In addition to medical oncology, hematology, and infusion services, which virtually all practices provide, 76% of surveyed practices conduct clinical research, 54% have a dispensing pharmacy, 42% provide imaging services, and almost 35% give radiation therapy. In addition, the services are not limited to just “medical” services, as 95% of practices provide financial counseling, 39% employ a social worker, 32% have a dietician on staff, and 23% provide psychological support. Figure 1 gives a more comprehensive picture of the many different ways in which integrated community oncology practices serve their patient population. Services with a larger font size had a higher percentage of survey respondents who reported providing them directly in their clinic. Services with smaller font sizes are less likely to be provided directly in the clinic but are coordinated by the integrated community oncology practice.

Figure 1



COMMON MISCONCEPTIONS ABOUT COMMUNITY-BASED ONCOLOGY

Perception

It is not possible for a patient to obtain all cancer services in a community-based practice. At some point, he/she will need to be referred to a hospital.

Fact *Many community-based practices interviewed provide all cancer services, from diagnosis through treatment to survivorship support.*

State-of-the-art cancer care is only available in hospitals.

The latest technologies and drugs are available in community practices as well as hospitals, and preliminary results of an ongoing study of utilization and quality measures suggest that community-based models actually perform better than hospitals on certain measures.³

Access to clinical trials is an option only at academic medical centers.

Over 75% of respondents to our survey reported availability of clinical research opportunities in their practices.

Integrated community oncology practices and hospitals are mutually exclusive.

Several practices interviewed have close relationships with hospitals: some rent space in hospitals and/or refer patients to hospitals for certain services, and others have Professional Services Agreements (PSAs) with hospitals.



BENEFITS OF THE INTEGRATED COMMUNITY ONCOLOGY PRACTICE

According to the literature, as well as physicians and administrators interviewed, the integrated community oncology model has numerous benefits that accrue to patients, payers, and the healthcare system in general. In addition to well-documented benefits such as lower costs and better access to highly personalized care, integrated community oncology practices are often more innovative in terms of care delivery and payment models. These innovations, coupled with the lower costs of community-based care, provide significant benefits to not only patients and payers but also the healthcare system as a whole.

Benefits to Patients

Our analysis suggests three primary benefits to patients of integrated community oncology practices:

1. Lower costs relative to hospital outpatient care
2. Efficient care delivery, particularly through medical home models
3. Personalized delivery of care

LOWER COSTS RELATIVE TO HOSPITAL OUTPATIENT CARE

The most quantifiable benefit for patients, which has been demonstrated in multiple studies, is lower out-of-pocket costs for cancer treatment delivered in the community setting compared to hospitals. Because of the differences in reimbursement approaches and rates paid by Medicare between hospital and physician office settings, overall payments for oncology services are generally higher for hospitals compared to physician offices. For example, a 2011 study conducted by Milliman found that Medicare pays \$6,500 more per year per patient for chemotherapy for 10 common types of cancer when provided exclusively in a hospital setting than in a physician office. This higher Medicare reimbursement translates to an additional \$650 in costs to Medicare beneficiaries, in the form of higher co-insurance.⁴

In a 2014 study, the IMS Institute for Healthcare Informatics found that for 10 common oncology drugs, the average cost to a patient was \$134 higher per dose when administered in a hospital compared to a physician office. Furthermore,

the authors noted that “multiple therapies may be given per treatment cycle when both combination and chemotherapy support drugs are considered, leading to significant increases in member financial burden.”⁵

Perhaps the starkest difference in reimbursement rates comes from an analysis done by Lee Newcomer, MD, on UnitedHealthcare data. In a recent Health Affairs article, Newcomer notes that “medical oncologists in private practice are paid 22 percent more than Medicare rates for providing chemotherapy. However, hospitals that own oncology practices or employ medical oncologists can use their contracting leverage to earn reimbursement for the same service at an average of 146 percent more than Medicare... It is not right that cancer patients are bearing this heavier burden.” The table below summarizes some of the key findings from these and other studies looking at the differences in reimbursement and out-of-pocket expenses for cancer therapy provided in a community oncology practice versus the hospital outpatient department.

Figure 2

KEY FINDINGS FROM PAYMENT PARITY STUDIES			
Study Author	Time Period	Patient Population	Key Findings
IMS Health (May 2014)	2010-2012	Multiple Payer Types	The average cost for 10 routinely prescribed chemotherapy drugs is 189% higher on average in the hospital outpatient setting versus in a physician’s office
Moran (August 2013)	2009-2011	Medicare FFS Patients	Chemotherapy spending per patient day ranged between 24.3% and 40.1% more in the hospital outpatient setting than physician offices
Jad Hayes, et al (April 2015)	2008-2010	Commercial Patients	When controlling for cancer type, geographic location, patient age, and number of chemotherapy sessions, patients seen in a community oncology clinic had a 20% to 39% lower mean per member per month cost of care than patients seen in a hospital outpatient department
Avalere (March 2012)	2008-2010	Commercial Patients	Chemotherapy treatment costs an average of 24% more when provided in a hospital outpatient department versus in a physician’s office
Milliman (October 2011)	2006-2009	Medicare FFS Patients	Total healthcare costs for patients receiving chemotherapy exclusively in the hospital outpatient setting are 14.2% more expensive than for patients receiving treatment in the physician office setting

EFFICIENT CARE DELIVERY

As described previously, a key characteristic of the integrated community oncology practice is coordinated care, which typically results in greater efficiency. A Duke University study found that by one important measure of efficiency—the time from diagnosis to first chemotherapy treatment—the average number of days was shorter for patients seen in physician offices compared to in outpatient hospital settings.⁶ Of respondents to our survey, 95% rated community-based practices as excellent or very good in providing coordinated care, compared to 28% who rated hospitals as very good or excellent in this area. Physicians and practice administrators interviewed who have worked in both community and hospital settings agreed, pointing out that their community practices often have less bureaucracy, allowing doctors and staff to interact more frequently.

The manifestation of the coordinated care concept is often considered the “Patient Centered Medical Home” (PCMH). Dr. John Sprandio pioneered the Oncology PCMH in 1997 in Pennsylvania, and variations on the model have been implemented across the country. He describes these models as “...attempts to promote a value-based agenda that facilitates physician accountability, encourage clinical integration between likeminded medical oncology groups, enhance communication and coordination of care with

primary care PCMH models, and collaborate with payers while maintaining a focus on patient needs and evidence-based care.”⁷

In many ways, the medical home concept is a natural extension of the integrated community oncology model. Coordination and communication are critical to the definition of integrated community oncology practices, as described previously, and the medical home model expands and enhances these aspects through formal processes. Some payers have also discovered the benefits of medical homes and are working with providers to leverage the concept in the development of bundled payments and shared savings programs. For example, the Medicare program funded a demonstration project called Community Oncology Medical Home (COME HOME) model, which has been implemented in seven community oncology practices around the country. The project builds on the concept of a PCMH, with goals to “improve health outcomes, enhance patient care experiences and significantly reduce costs of care.” COME HOME is aggressively managing patients through specific care processes and pathways, and it estimates savings of up to \$34 million to the Medicare program, or \$4,178 per patient.⁸

CASE STUDY

Practice Name: Center for Cancer and Blood Disorders

Geographic Area: North Texas (Dallas/Fort Worth area)

Number of Physicians: 19

Number of Mid-level Practitioners: 5

Number of Locations: 9

Services Provided:

- Physician specialties: Medical oncology, radiation oncology, gynecologic oncology, and breast surgery
- Ancillary services: Imaging, biopsy-based surgical services, CyberKnife, social services, nutritional counseling, retail pharmacy, massage, acupuncture, chaplaincy, nurse navigation, and others

Overview

The Center for Cancer and Blood Disorders was formed by the merger of two oncology groups in the mid-1990s. The “central campus” in Fort Worth, Texas, provides comprehensive cancer treatment services in a single building, including medical oncology, infusion, radiation therapy, and other clinical services. The Careity Breast Center was recently opened in cooperation with Huguley Memorial Medical Center in Burleson, Texas, and provides state-of-the-art services for breast cancer patients.

The Center for Cancer and Blood Disorders’ case management team and triage nurses provide additional infrastructure to enhance the integrated care model, and the practice also participates in the Medicare COME HOME medical home pilot project. The practice has been certified by the American Society of Clinical Oncology’s (ASCO) Quality Oncology Practice Initiative (QOPI®) Certification Program, which recognizes adherence to specific quality-improvement process measures. Beyond innovation in the care delivery model, the Center has participated in several payment initiatives including an episode of care pilot project with UnitedHealthcare and a shared savings arrangement with Aetna.

PERSONALIZED DELIVERY OF CARE

With or without medical home models in place, another often-cited benefit of integrated community oncology practices is their personal, “high-touch” environment. Ninety-five percent (95%) of survey respondents rated patient–physician communication in community settings as very good or excellent; only 30% rated patient–physician communication in hospitals as very good or excellent. Many of those interviewed emphasized that staff members working in community settings become very familiar with patients and their families and individual situations, which is not always possible in a hospital where staffs are larger and there are numerous shift changes. Others interviewed pointed out that cancer became less stigmatized when treatment moved out of the inpatient setting; in turn, patients realized not only that surviving cancer was possible, but also that it was possible to live with cancer *treatment* while still having a life.

Some community-based practitioners believe that community-based care further destigmatizes cancer because it allows patients to be treated in the communities where they live and work, minimizing the disruption to their lives. For patients needing end-of-life care and/or palliative care, most individuals

we interviewed indicated that community practices offer a personal touch that is not always available in a hospital setting. This view is supported by other researchers on the topic. In an article in the *Journal of Pain and Symptom Management*, Dr. Arif Kamal, an oncologist and palliative care researcher at Duke University, reported that when determining palliative care needs, a “[c]ommunity-based assessment provides a more

“It’s like the difference between your shopping experiences at Walmart compared to a boutique dress shop. At a boutique dress shop, you’ll meet the owner; they’ll have a hand in your care. At Walmart, you’re on your own.”

realistic depiction of caregiver roles and associated stressors, which may be invisible when the patient is hospitalized.”⁹ One physician interviewed, when asked about the difference in the patient experience between a community practice and a hospital, said, “It’s like the difference between your shopping experiences at Walmart compared to a boutique dress shop. At a boutique dress shop, you’ll meet the owner; they’ll have a hand in your care. At Walmart, you’re on your own.”

95%

*of survey respondents rated patient-physician communication as very good or excellent in **community settings***

30%

*of survey respondents rated patient-physician communication as very good or excellent in **hospitals***



“We provide the highest quality care at the lowest cost.”

CASE STUDY

Practice Name: Dayton Physicians Network

Geographic Area: West/Central Ohio

Number of Physicians: 36

Number of Mid-level Practitioners: 7

Number of Locations: 18

Services Provided:

- Physician specialties: Medical oncology, radiation oncology, and urology.
- Ancillary services: Pathology, imaging, and pharmacy dispensing.
- Of the 18 locations, 6 provide comprehensive services. In addition to clinical cancer treatment, the practice also provides financial counseling, a palliative care program, and other support services.

Overview

The Dayton Physicians Network was formed through the merger of medical oncology, radiation oncology, and urology practices. The practice does not have a formal PSA with Premier Health, a six-hospital system in Ohio, but Dayton Physicians Network provides the majority of inpatient and outpatient cancer services for the health system and utilizes an electronic medical record (EMR) system. The practice has developed a formal medical home model and is one of seven practices participating in the Medicare COME HOME pilot project. The practice also has a medical home pilot project with Aetna. Initial data suggest that the medical home care delivery approach, which includes expanded office hours and other support services, has resulted in fewer emergency room visits, inpatient admissions, and duplicate testing for patients.

Benefits to Payers and the Healthcare System

While patients benefit from high-quality, highly personalized cancer care provided in community-based practices at lower cost, payers also benefit. Our research documents not only lower costs to payers but also innovation in care delivery models and reimbursement arrangements that may ultimately benefit the healthcare system.

Studies have documented different aspects of the cost savings that accrue to payers for cancer care services. A 2011 study by The Moran Company found that, “[b]y a variety of metrics, estimated chemotherapy spending is higher under the Hospital Outpatient Prospective Payment system (OPPS) than corresponding payments in the physician office under

the Medicare Physician Fee Schedule (MPFS) for the same set of patients despite lower unit payment rates for drugs in the OPPS during the 2009-2011 period.”¹⁰ Moran researchers found that spending was substantially higher for Medicare claims paid under the OPPS than the MPFS for a variety of metrics, including spending per beneficiary, chemotherapy spending per day, chemotherapy administration spending per beneficiary, and chemotherapy drugs per patient per day. Our analysis indicates that the average per claim expense for chemotherapy in the Medicare FFS population is \$1,560 when delivered in a physician’s office versus \$2,064 when provided in a hospital outpatient department. This difference has actually increased over the last four years (Figure 3).

Figure 3

COMPARISON OF MEDICARE FFS REIMBURSEMENT AMOUNTS FOR CHEMOTHERAPY CLAIMS			
YEAR	PHYSICIAN OFFICE SETTING	HOSPITAL OUTPATIENT DEPARTMENT	PERCENT HIGHER
2010	\$1,436	\$1,879	31%
2011	\$1,570	\$2,011	28%
2012	\$1,606	\$2,121	32%
2013	\$1,643	\$2,170	32%
AVERAGE	\$1,560	\$2,064	32%

Documented lower costs, coupled with adoption of more efficient care delivery models such as patient centered medical homes, can translate into increased value for the healthcare system. In fact, many individuals interviewed commented on the high value of integrated community oncology practices. Most felt that the clinical outcomes (such as survival rates) were no different between community and hospital settings, but that the value of services provided in the community is higher because the services cost less.

Eighty-three percent (83%) of survey respondents said that the value to Medicare and to commercial payers provided by community-based practices is “excellent.” One physician interviewed summarized it: “We provide the highest quality care at the lowest cost.”

Further benefitting payers and the healthcare system are the community oncology providers who are increasingly working together with payers to drive innovation focused

on increasing the value of cancer care through bundled payments, shared savings, and other innovative payment approaches that move away from the traditional fee-for-service reimbursement model. Over 23% of respondents to our survey have implemented one or more of these payments models, and others are in active discussions with payers regarding these incentive arrangements. The results from these innovative payment models can be significant. UnitedHealthcare’s Episode Payment Pilot Program included five practices that treated 810 patients with breast, colon, and lung cancer between October 2009 and December 2012 using episode payments (where a single episode payment was made based on average sales price for drugs and the existing fee schedule for other services). While the costs of chemotherapy drugs were \$13 million higher than predicted, total costs were \$33 million less than predicted—a 34% reduction in total costs.¹¹



CHALLENGES FACING INTEGRATED COMMUNITY ONCOLOGY PRACTICES

Despite clear benefits of integrated community oncology practices, providers face challenges in the context of today's healthcare system. While the evolution of cancer care from the inpatient to outpatient setting resulted in a vibrant community-based oncology delivery system by the 1990s, the market began to change in the mid-2000s. Generally, the literature and interviews identified three broad challenges facing these providers which are both pushing and pulling integrated community oncology practices into higher cost hospital outpatient departments:

1. Reductions in chemotherapy drug and administration reimbursement
2. Regulatory complexities
3. Competition from hospitals



REDUCTIONS IN REIMBURSEMENT

Reductions in drug reimbursement that originated in 2003 with the MMA have created clear challenges for community-based oncology providers. However, many physicians interviewed said that while these reductions have been difficult to adjust to, they were not the primary challenge. The problem was that the decreases in drug reimbursement were meant to coincide with increases in reimbursement for other services, particularly chemotherapy administration, but adequate increases did not occur, leaving many practices without the necessary funds to cover their costs. In fact, Medicare reimbursement actually declined for several chemotherapy administration codes.¹² Over half of survey respondents (51%) cited reductions in Medicare reimbursement and 46% cited increases in practice costs as the biggest contributors to acquisitions of community-based practices and the resulting shifts in site of care for cancer treatment from physician offices to hospitals.

In 2013, sequestration, which amounted to about \$1 trillion in automatic, across-the-board budget cuts for the U.S. economy, reduced drug reimbursement further from ASP plus 6% to ASP plus 4.3%. In addition, while the Patient Protection and Affordable Care Act (PPACA) has resulted in more individuals having health insurance coverage, some community-based providers find themselves shut out of insurers' narrow networks or forced to accept lower rates from health plans created to serve individuals who have purchased less expensive health insurance products on exchanges. These and other financial pressures have "pushed" many smaller practices to join with larger practices or be acquired by hospitals. As ASCO reported in its 2014 "State of Cancer Care in America" report, "... smaller community practices handle a disproportionate share of patient care, particularly in the southern and western United States, yet are under far greater economic pressure than larger practices. Nearly two thirds of small practices (63%) reported that they were likely to merge, sell or close operations in the next year."¹³

“Practices are forced to misdirect their resources to comply with programs such as PQRS and Meaningful Use for no real gain for the patient or patient care.”



REGULATORY COMPLEXITIES

Another often cited challenge for community-based providers is the increasingly complex regulatory environment. Healthcare providers in general are subject to numerous regulations surrounding patient safety and privacy, such as those found in the Health Insurance Portability and Accountability Act (HIPAA). Providers who treat Medicare patients must adhere to CMS provisions regarding treatment processes, quality measurement, electronic medical records, and claims processing, among other things. Some of these programs attach payment incentives and penalties, such as the “Meaningful Use” program, which is an initiative to ensure that electronic health records (EHRs) are used to improve quality of care; and Physician Quality Reporting System (PQRS), which uses a combination of incentive payments and negative payment adjustments to promote quality data reporting. Not surprisingly, 70% of survey respondents said that the costs of regulatory compliance were “very important” or “extremely important” relative to the ongoing viability of community-based practices. One physician said, “Practices are forced to misdirect their resources to comply with programs such as PQRS and Meaningful Use for no real gain for the patient or patient care.”

The In-Office Ancillary Services (IOAS) exception to the Stark physician self-referral laws is also an important issue for integrated community oncology practices. The exception protects physicians from Stark violations when certain conditions regarding referred services are met. This has been an important protection for integrated community oncology practices that provide chemotherapy infusion, radiation therapy, and other services within their own practices. Critics of the exception say that it has been exploited by physicians for financial gain and has increased costs to the Medicare program. However, proponents for preserving the exception say that it promotes coordination of care and that ending it will actually increase costs to the healthcare system. In addition, its demise could accelerate the trend toward hospital acquisitions of integrated community oncology practices. Indeed, the Medicare Payment Advisory Commission has warned of potential “unintended consequences” of ending the exception and has advised against it. A 2014 Milliman study for the American Medical Association (AMA) found that annualized utilization and/or spending declined from 2007 to

2012 for certain ancillary services, such as advanced imaging, certain radiation therapy procedures, and pathology services provided in physician office settings, suggesting a shift in these services from community-based to hospital settings.

Other regulatory compliance activities are both time consuming and expensive. Providers of chemotherapy are subject to numerous drug-handling regulations, particularly those found in U.S. Pharmacopeia (USP) Chapter 797. Providers incur substantial costs in order to comply with special drug storage and staff training requirements. Some providers interviewed also said they have spent a great deal of time and money preparing for the conversion to ICD-10. One person interviewed described the regulatory environment as “oppressive,” going on to say, “[a]s a community practice I don’t have a plethora of people who can sit around and read the Federal Register all day or CMS’s never-ending list of regulations.” Many integrated community oncology practices have found themselves feeling “pulled” into hospitals in order to offload these administrative and regulatory burdens and rediscover the freedom to focus on providing patient care.

In addition to regulations that present compliance burdens, other regulations such as CON laws can burden practices by constraining expansion and integration of services. Thirty-six (36) states have CON laws, including 18 that have restrictions regarding magnetic resonance imaging (MRI) and 23 with restrictions on radiation therapy. While these laws were designed to control healthcare spending, some studies have shown that they can reduce competition and actually increase costs. One practice interview cited CON laws as a barrier to integration. CON requirements in that state have prevented the practice from purchasing radiation therapy equipment, thereby forcing it to refer patients to local hospitals for these services. Advocates for less restrictive CON laws have suggested alternatives to control utilization and costs, including payment reform and increased transparency regarding the costs of services. With respect to specific services such as imaging, one promising approach is patient centered medical homes, which can increase coordination of care and reduce unnecessary services. In one study, medical home models were shown to reduce imaging utilization.

HOSPITAL COMPETITION

While community oncologists face financial and regulatory challenges that both push and pull them into the hospital setting, this consolidation exacerbates the third broad challenge facing integrated community oncology practices: hospital competition. This competition has come from three fronts:

- Employment of oncologists and/or acquisition of community oncology practices to compete with other community-based practices
- Control of referral networks
- 340B drug pricing available to eligible hospitals

Some physicians and practice administrators we interviewed described being pressured by local hospitals to be acquired. When the practices refused, the hospitals hired their own oncologists or acquired other practices. This scenario has played out across the United States and has been accelerated by PPACA, which encourages movement away from fee-for-service reimbursement toward accountable care organizations (ACOs) and bundled payment arrangements that reward quality and efficiency. These types of arrangements are easier to implement for hospitals that employ or otherwise integrate physicians into their business models. In its fifth annual Community Oncology Practice Impact Report, COA reported a 143% increase in consolidation of community practices into hospitals since the first report in 2010 (Figure 4). Since 2006, 544 community cancer practices have been acquired by or affiliated with hospitals. Nearly a quarter of respondents (23%) to our survey indicated that they are currently in serious discussions with a hospital regarding an acquisition. The

most important reasons cited for doing so were: financial stress (i.e., reimbursement is not enough to cover costs; 62%), enhanced ability to compete in the marketplace (43%), improved negotiating power with commercial payers (33%), and greater access to referrals (24%).

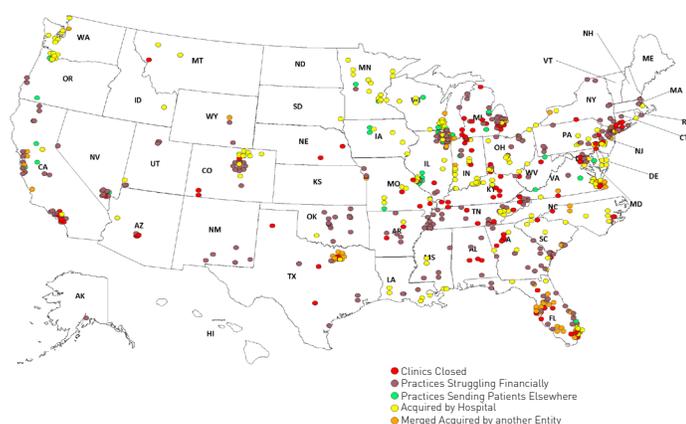
The issue of referrals was frequently mentioned in interviews as well. Individuals described declining referrals from primary care and other physician specialties as hospitals have acquired these practices and in turn redirected referrals to their facilities. A recent article in *Modern Healthcare* described a “physician buying spree,” in which:

[s]ystems across the country have been rapidly buying physician groups to expand their referral networks and prepare for a not-too-distant future where they will have to manage the health of their patient populations and be held financially accountable for meeting cost and outcomes goals. The hope is that stronger physician alignment will leave systems better positioned to meet the demands of payers, particularly as more health plans move to narrow networks.¹⁴

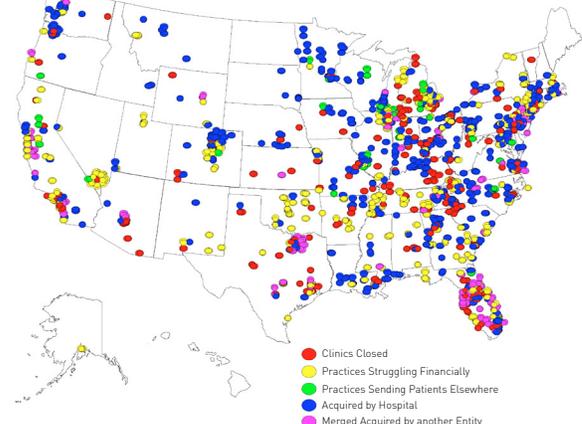
However, some community-based providers have expressed concern that this level of alignment will continue to “push” community providers to either consolidate or close, and that will ultimately mean higher costs. One physician said, “[I]f the hospitals keep eating up the community-based practices, then there will be no competition left. Competition keeps costs down.”

Figure 4

Community Oncology Cancer Care Impact Map 2010



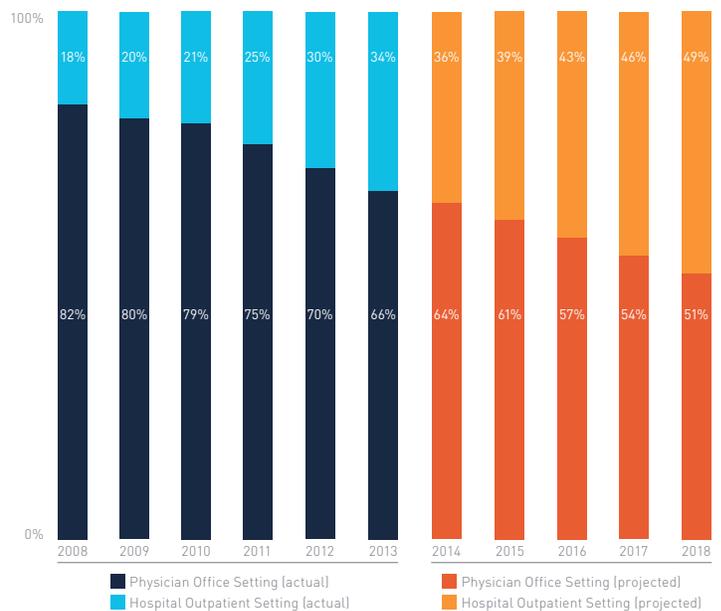
Community Oncology Practice Impact Report 2014



Perhaps the biggest source of concern regarding competition from hospitals is the access to 340B program discounts available to certain facilities, primarily hospitals that are eligible for Disproportionate Share (DSH) payments from the federal government. In fact, 65% of survey respondents cited 340B discounts as the biggest contributor to shifts in site of care for cancer treatment. According to a recent MedPAC study, over 2,100 hospitals currently participate in the 340B program (up from 535 in 2005), and 340B hospitals accounted for 46% of Medicare Part B drug reimbursement to hospitals.¹⁵ Furthermore, DSH hospital participation in the 340B program is expected to grow over the next three to five years as Medicaid expansion results in hospitals becoming newly eligible for the program. Our research indicates that as many as 350 hospitals may become newly eligible for the 340B program due to Medicaid expansion.

In addition to growth in DSH-eligible hospitals, Congress has extended 340B benefits to a variety of other types of hospitals.¹⁶ Community-based practices, on the other hand, do not have access to these discounts, unless they are owned by hospitals, and hospitals can leverage their discounts by bringing on additional patient volume through practice acquisitions. An article in *Oncology Times* in the fall of 2014 said that "...hospitals with 340B pricing are lapping up cash-strapped physician-owned oncology practices, which are not eligible for the discounted prices. This propels the migration of cancer care to hospital outpatient departments..."¹⁷ Indeed, Berkeley Research Group has documented this shift over the last five years and projects that the trend will continue for the next five years (Figure 5).

Figure 5



Most individuals interviewed commented that 340B discounts give hospitals an unfair competitive advantage. It "gives them a big leg up," said one physician. Many physicians we interviewed expressed frustration that the program has become misguided and misused. As one physician noted, "340B is a great idea. It allows patients to be treated who otherwise would not be able to afford it. But it should be patient-centric. The benefits of 340B should follow the patient wherever they are treated. It should not serve as a profit center to finance other divisions of a hospital that are otherwise failing."

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CONCLUSION

Integrated community oncology practices are a cornerstone of cancer care in the United States. These practices provide efficient, quality cancer care to patients in their community at a cost that is lower to both the patient and payers, including Medicare. In fact, integrated community oncology practices provide a range of benefits to patients and the healthcare system, including:

- Integrating and coordinating traditional cancer care, such as chemotherapy, radiation therapy, and imaging, as well as ancillary services, such as patient financial counseling, social support, and nutritional counseling
- Staying on the cutting edge of innovations in the fight against cancer, including participation in clinical trials and cancer care models like oncology medical homes
- Adopting payment reform models, including medical oncology homes, bundled payments, and shared savings models
- Delivering high-quality care at a cost that is demonstrably lower than hospital outpatient-based care

Yet, despite the benefits integrated community oncology practices provide to patients, payers, and the healthcare system in general, these practices are vulnerable to challenges including:

- Cost of complying with increasingly complex government regulations from CON laws, USP 797 regulations, Stark laws, and programs like PQRS
- Reduced reimbursement due to changes in Medicare drug reimbursement, sequestration, and the changing landscape of private insurance attributable to PPACA
- Increased competition from hospitals, particularly those that benefit from access to lower drug prices through the 340B program

These challenges place additional strain on integrated community oncology practices. This is resulting in closures, mergers, or hospital acquisitions of such practices. If these trends continue, our research suggests a different cancer care landscape marked by decreased access, less personalized care, and higher costs despite the significant gains in efficiency, coordination, and quality of care provided by integrated community oncology practices.

The onus is on policy makers and others to preserve the range of benefits provided by these practices to patients and the healthcare system in general. This is especially important as these practices are implementing innovative care and payment models, such as the oncology medical home, in treating the nation's cancer patients. With passage of legislation eliminating the Medicare sustainable growth rate (SGR) and moving towards new alternative payment models, integrated community oncology practices are poised to lead the way in this area of healthcare reform.

APPENDIX A: DATA SETS RELIED UPON

In order to conduct the analyses presented in this report, we used the following data sets:

Medicare Outpatient Research Identifiable Files (RIF) for 2008 to 2013: These data sets provide 100% of Medicare fee-for-service claims submitted by institutional outpatient providers. These data sets were used to:

- Identify total Medicare Hospital Outpatient chemotherapy claims over time
- Calculate the Medicare payments and Medicare Beneficiary payments on claims provided in hospital outpatient departments at the claim level

Medicare Carrier Limited Data Sets (LDS) for 2008 to 2013: These data sets are also known as the Medicare 5% Carrier Files or the Physician/Supplier Part B Claims Files. They contain a 5% sample of fee-for-service claims submitted on a CMS-1500 claim form, primarily by non-institutional providers. These data sets were used to:

- Identify total physician office chemotherapy claims over time
- Calculate the Medicare payments and Medicare Beneficiary payments on chemotherapy claims provided in physician offices at the encounter level

APPENDIX B: METHODOLOGY

This section describes in more detail the methodology used to conduct the analyses presented in this report. Specific topics include:

- Definition of chemotherapy claims
- Calculation of chemotherapy claim costs
- Re-pricing of physician office chemotherapy encounters

Definition of Chemotherapy Claims

For purposes of this study, we defined chemotherapy claims within the Medicare Outpatient RIF as claims with bill type 131 (interim and adjusted claims excluded) with chemotherapy administration codes and a diagnosis of cancer. Chemotherapy claims in the 5% Medicare Carrier File were also identified by the presence of a chemotherapy administration code and a diagnosis of cancer. Chemotherapy administration codes include therapeutic infusions of chemotherapy drugs and other IV hydration infusions in the CPT code range 96360–96549.

A diagnosis of cancer includes both primary and secondary ICD-9 diagnosis codes in the following ranges:

Figure 6

CANCER RELATED DIAGNOSIS CODES	
Description	ICD-9 Diagnosis Codes
Cancer	140-239
Thrombocytopenia	287.30, 287.31, 287.39, 287.49
Neutropenia	288.00, 288.02, 288.03, 288.09
Lymphadenitis	289.1, 289.2, 289.3, 289.53, 289.83, 289.89
Encounter for chemotherapy	V07.2, V07.39, V58.11, V58.12
Personal History of Cancer	V10.00-V10.91

Shift in Site of Care

In order to estimate the extent to which chemotherapy is shifting from the physician office setting to the outpatient hospital setting, we calculated the distinct number of chemotherapy claims (as defined above) occurring in each year within the physician carrier file versus the hospital outpatient file (physician claims totals were multiplied by 20 to account for the fact that the file represents a 5% sample). The process was performed for the years from 2008 to 2013 for which data are available. We performed a standard regression (using time as the independent variable) in order to project the results into future years and develop a line of best fit for the trend in shift of site of care in recent years. The intercept and coefficient generated by this regression were used to estimate the breakdown in site of care for the years from 2014 to 2018.

Calculation of Chemotherapy Claim Costs

This study evaluates the cost of chemotherapy claims to two different payers: the Medicare program and Medicare beneficiaries, including payments by third-party payers (e.g., Medigap insurance). The cost to the Medicare program is the Medicare reimbursement amount on the claim. The cost to Medicare beneficiaries includes deductibles, coinsurance and copayments, and payments made by the Medicare beneficiary's third-party insurance.

Re-pricing of Physician Office Chemotherapy Encounters

Both hospitals and physician offices often provide additional services to patients in support of chemotherapy treatment (saline used in chemotherapy infusions, imaging, pathology, etc.). To account for the additional costs associated with these services in the hospital setting, we combined reimbursement amounts for claims coded with at least one chemotherapy CPT code. For purposes of this study, chemotherapy claims coded with radiation administration CPT codes were excluded. Additionally, chemotherapy claims with \$0 total allowed amounts were excluded from our analysis.

Within the physician office setting, multiple claims may be billed for different services provided during the same encounter (defined here as a distinct patient and date-of-service combination). To account for the cost of supporting services in the physician office setting, we combined reimbursement amounts for all encounters billed on the same date of service as encounters when a patient received at least one chemotherapy CPT code. For purposes of this study, encounters coded with both chemotherapy *and* radiation administration CPT codes were excluded.

We calculated total encounters, reimbursement amount, and average encounter cost for chemotherapy administration encounters within the 5% Medicare Carrier File. We then re-priced these encounters by multiplying the number of total physician encounters by the average reimbursement amount per claim from the Medicare Outpatient RIF.

Not all charges associated with a given physician office chemotherapy encounter will be paid to the physician's practice. For example, a physician may order an imaging study on a chemotherapy patient but not own the necessary imaging equipment. The imaging procedure itself may occur in a hospital outpatient department, which will collect reimbursement for the technical component of the service. The physician will collect only the professional component for interpreting the results. Because our re-pricing analysis is meant to capture all reimbursement to *physician offices* in support of chemotherapy treatment, the average encounter allowed amounts calculated for physician offices will not include the cost of supporting services billed by a hospital. This may decrease the average reimbursement for chemotherapy claims in the physician office setting.

Similarly, physicians may bill separately for their services when providing services in hospital outpatient departments to patients receiving chemotherapy in the hospital. Again, because our re-pricing analysis is meant to capture all reimbursement to *hospitals* in support of chemotherapy treatment, the average encounter allowed amounts calculated for hospital outpatient departments will not include physicians' services billed separately. This may decrease the average reimbursement for chemotherapy claims in the hospital outpatient setting.

1 Dawn Halcombe, "The Evolution of Community Oncology Care and its Threatened Extinction Due to Federal and Private Payment Reform," American College of Medical Practice Executives (August 25, 2003).

2 "integrate." *Merriam-Webster.com*. [2015]. Accessed April 12, 2015, at: <http://www.merriam-webster.com/dictionary/integrate>

3 Maxine Fisher et al. "Comparative health care (HC) costs and quality of care in five cancer types by physician office (PO) and hospital outpatient (HOP) settings." Poster highlights session presented at 2014 ASCO Annual Meeting (2014).

4 Kate Fitch and Bruce Pyenson, *Site of Service Cost Differences for Medicare Patients Receiving Chemotherapy*, Milliman Client Report (October 19, 2011).

5 IMS Institute for Healthcare Informatics, "Innovation in cancer care and implications for health systems" (May 2014).

6 Alisa Shea et al., "Association Between the Medicare Modernization Act of 2003 and Patient Wait Times and Travel Distance for Chemotherapy," *Journal of the American Medical Association* (July 9, 2008).

7 John Sprandio, "Oncology patient-centered medical home and accountable cancer care," *Community Oncology* 7:12 (December 2010).

8 John McCleery, "Innovative Cancer Care and the Initiation of the COME HOME Medical Home Program," *OBG Green: Health Information Exchanges* 7:11 (December 2013).

9 Arif Kamal, David Currow, Christine Ritchie, Janet Bull, and Amy Abernethy, "Community-Based Palliative Care: The Natural Evolution for Palliative Care Delivery in the U.S.," *Journal of Pain and Symptom Management* 46:2 (August 2013).

10 The Moran Company, *Cost Differences in Cancer Care Across Settings* (August 2013).

11 Lee Newcomer, Bruce Gould, Ray Page, Sheila Donelan, and Monica Perkins, "Changing Physician Incentives for Affordable, Quality Cancer Care: Results of an Episode Payment Model," *Journal of Oncology Practice* (July 8, 2014).

12 Lola Butcher, "Unintended Consequences: How Government Policies Have Increased the Cost of Cancer Care – Part I: Medicare Pay Change Increased the Cost of Cancer Care," *The Oncology Times* (September 10, 2014).

13 ASCO, "The State of Cancer Care in America, 2014: A Report by the American Society of Clinical Oncology," *Journal of Oncology Practice* 10:2 (March 2014).

14 Beth Kutcher, "Making physicians pay off: Hospitals struggle to balance current costs with future benefits of employing docs," *Modern Healthcare* (February 22, 2014).

15 Ariel Winter and Daniel Zabinski, "The 340B Drug Pricing Program," Medicare Payment Advisory Commission (November 6, 2014).

16 Victoria Stern, "340B: Helping Patients or Enriching Hospitals?" *Clinical Oncology News* (October 2013).

17 Lola Butcher, "Unintended Consequences: How Government Policies Have Increased the Cost of Cancer Care – Part II: 340B Drug Discounts Have Fueled the Migration of Cancer Care," *The Oncology Times* (September 25, 2014).

ABOUT BRG

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