THE 2016 GENENTECH ONCOLOGY TREND REPORT

Perspectives From Managed Care, Specialty Pharmacies, Oncologists, Practice Managers, and Employers

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The 2016 Genentech Oncology Trend Report
An informational report provided by Genentech, South San Francisco, CA
Produced by Emron, Wayne, NJ • www.emron.com

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Mission Statement

The mission of *The 2016 Genentech Oncology Trend Report: Perspectives From Managed Care, Specialty Pharmacies, Oncologists, Practice Managers, and Employers* is to provide timely and useful information on the latest cancer care trends and developments. Updated annually, the publication is designed to serve as a unique resource for those seeking an understanding of the issues surrounding cancer management and practice. The content of this report was prepared by Emron on Genentech's request with the guidance of an editorial board and is based on primary research of key stakeholders, as well as published literature. Statements and opinions contained in the report do not necessarily reflect those of Genentech or the editorial board.

Suggested Citation

The 2016 Genentech Oncology Trend Report: Perspectives From Managed Care, Specialty Pharmacies, Oncologists, Practice Managers, and Employers. 8th ed. South San Francisco, CA: Genentech; 2016.

INTRODUCTION

This edition marks the eighth year *The Genentech Oncology Trend Report* has examined issues regarding cancer treatment from the vantage points of five key stakeholder groups tasked with payment for and provision of high-value care that improves the health and well-being of Americans diagnosed with cancer. Notable developments in 2015 worthy of discussion include access to care provided by the Medicare program as it turns 50 and the building momentum in the pursuit of value fueled by public sector reforms.

Medicare Turns 50

Medicare, the single largest payer for cancer care services, was enacted into law 50 years ago. The Medicare Board of Trustees oversees the financial operations of the trust funds for the program's major components: 1) Part A—hospital insurance (HI), which helps fund hospital, home health after hospitalization, skilled nursing facility and hospice care; 2) Part B—supplemental medical insurance (SMI) that helps fund services, including physician, outpatient hospital, and home health services; and 3) Part D-subsidized drug insurance coverage for those who voluntarily enroll. Traditional Parts A and B coverage is paid from the HI and SMI Part B trust fund accounts based on costs. Part C, also known as private Medicare Advantage plans that offer an alternative to traditional coverage, receives prospective, capitated payments from the accounts.[1]

In 2014, Medicare provided health insurance coverage to 53.8 million people—44.9 million aged 65 and older and 8.9 million disabled—at a cost of $613.3 billion. About 30% of these beneficiaries have chosen to enroll in private Medicare Advantage plans to provide their Part A and Part B health services.[1]

Repeal of the Sustainable Growth Rate (SGR) Formula

The enactment of the Medicare Access and Children's Health Insurance Program Reauthorization Act (MACRA) of 2015 permanently eliminated the SGR formula that linked the Medicare physician fee schedule (PFS) payments to the growth in gross domestic product.[2,3] Under MACRA, PFS payment rates will be updated by a single annual conversion factor of 0.5% from July 2015 through 2019, and will remain unchanged from 2020 through 2025.[2] In 2016, despite SGR repeal, physicians will see a 0.29% fee *reduction* compared with 2015 when factoring in adjustments called for in prior legislation regarding misvalued codes and budget neutrality.[4]

Due to the SGR repeal under MACRA, the basis for projections was changed in the 50th report submitted to Congress by the Medicare Board of Trustees, which alerts policy makers and the public about trust fund deficits that could lead to program insolvency. The estimated depletion date of 2030 for the HI trust fund remained unchanged. Growth in HI spending has averaged 2.1% annually over the last 5 years and is projected to average 4.8% over the next 5 years.[1]

Growth in Part B spending has averaged 5.3% annually over the last 5 years and is projected under current law by the Trustees to grow 6.7% over the next 5 years—surpassing the anticipated annual growth rate of 5.3% for the US economy during this time period. As premium and general revenue income for Parts B and D are reset annually to cover anticipated costs, the Trustees deem the SMI trust fund to be adequately financed over the next decade. However, the Trustees noted that a "hold-harmless" provision in the Social Security law that restricts Part B premium increases for most beneficiaries was expected to cause a 52% increase in premiums for three in 10 beneficiaries in 2016.[1]

Medicare Part B Premiums and Deductibles in 2016

Over the 50-year history of the Medicare program, Part B premiums have varied annually, ranging from a reduction of 13% to an increase of 39%, reflecting program spending growth.[5] Social Security typically grants a cost of living adjustment (COLA) annually to beneficiaries, which are tied to inflation; however, no COLA is granted for 2016.[6] In response to the unusual circumstances outlined in the Trustees Report, the Bipartisan Budget Act of 2015 modified the calculation method for the Part B premium and deductible amounts for 2016, thereby averting a 52% increase in Part B premiums for three in 10 Part B beneficiaries and a 52% increase in deductibles that would have affected virtually all beneficiaries in traditional Medicare. Under this recalculation, the premium and deductible will each increase by only 13% above 2015 levels, excluding the repayment surcharge. The recalculation resulted in $7.4 billion in federal outlays to be repaid over time in the form of a modest premium surcharge. In the face of flat Social Security benefits and rising Part D drug plan premiums, which are not protected under the hold-harmless provision, many Medicare beneficiaries may have difficulty affording their medical costs in 2016.[5]

Medicare Part D Turns 10

Ten years ago, Medicare Part D was implemented—as a voluntary program—with the goal of expanding access to outpatient prescription drug coverage. By 2015, Part D was firmly established as the primary source of drug coverage for 39.3 million (72%) Medicare beneficiaries. Since the program is voluntary, some Medicare beneficiaries have other sources of drug coverage, may choose to self-insure instead of purchasing coverage, may consider the coverage unaffordable, or have difficulty understanding their options.[7]

Each year since 2009, the average beneficiary has had a choice of at least 30 stand-alone prescription drug plans (PDPs) and 14 Medicare Advantage prescription drug plans (MA-PDs). The Part D architects envisioned that beneficiaries would

revisit their plan choices annually during open enrollment and switch to new plans as needed to improve coverage and lower costs. However, few do so, providing few incentives for plan sponsors to reduce premiums to retain or attract enrollees.[8] Since 2006, the majority of enrollees have chosen stand-alone PDPs, although the share of enrollees in MA-PDs has increased to 39% in 2015.[7]

Enrollment in both plan types is fairly concentrated among a small number of firms. Enrollment will be further concentrated by the proposed acquisitions of Humana by Aetna and Cigna by Anthem. If approved, the consolidated Aetna-Humana will emerge as the largest sponsor of both plan types. Consolidation could streamline choices, but also could weaken competition and increase costs.[7]

Part D includes a low-income subsidy to reduce the financial burdens from premiums and cost sharing for low-income beneficiaries. In 2015, Medicare provided this subsidy to 30% of Part D enrollees (11.7 million).[7] Low-income subsidy beneficiaries are not subject to tiered cost sharing, as their modest copayments are set by statute.

In 2015, the typical enrollee's plan had five cost-sharing tiers—preferred and nonpreferred generic and brand drugs and high-cost specialty drugs. About half of Part D enrollees have deductibles. Cost sharing has increased substantially for brands, but has decreased for generics since 2006; more enrollees today are in plans that require coinsurance, instead of flat copayments, for brand drugs. Nearly half (48%) of stand-alone PDP enrollees are in plans that charge the maximum coinsurance for specialty drugs (33%), up from 13% of enrollees in 2006. In addition to cost sharing, the average stand-alone PDP enrollee in 2015 was in a plan that required prior authorization for 23% of formulary drugs; 81% of these enrollees were in plans with tiered pharmacy networks.[7]

Part D expenditures totaled approximately $78.1 billion in 2014. Growth has averaged 5.1% annually over the last 5 years and is projected under current law by the Trustees to grow 10.9% annually over the next 5 years—surpassing the anticipated annual growth rate of 5.3% for the US economy during this time period.[1] Looking ahead, plans and policy makers face the challenge of slowing spending growth, while preserving gains in access and affordability of prescription drugs.

Accelerating the Shift Toward Value-based Payment Reform

Explicit goals for alternative payment models (APMs) and value-based payments were announced in January 2015 for the first time in the history of the Medicare program by the Department of Health and Human Services (HHS). It has set the goal of tying 30% of fee-for-service Medicare payments to quality or value through APMs, such as accountable care organizations, patient-centered medical homes, or bundled payment arrangements, by the end of 2016, and tying 50% of payments to these models by the end of 2018.[9]

MACRA underscores the government's commitment by creating two new value-based tracks for physicians. A new Merit-based Incentive Payment System (MIPS) will be created from the consolidation and expansion of the existing Physician Quality Reporting System, Electronic Heath Record (EHR) Incentive Program, and the Physician Value-based Modifier System. Beginning in 2019, providers will receive a single payment adjustment based upon scoring across four categories of weighted measures regarding quality, resource use, clinical improvement, and EHR use. Alternatively, beginning in 2019, physicians who meet specific revenue thresholds via qualified APMs according to a specified timetable may opt out of MIPS and be eligible for annual bonuses for the first 5 years of participation, in addition to long-term incentives that exceed annual increases under MIPS.[2,3]

At the same time, private initiatives are under way. The American Society of Clinical Oncology (ASCO) has developed a payment reform model, Patient-Centered Oncology Payment, designed to meet MACRA's standards for APMs, improve services to patients, and reduce spending for Medicare and other payers.[10] Looking ahead, many regulations will need to be implemented under MACRA, and HHS will likely adjust incentives to encourage risk assumption. It is important for providers to follow the evolving regulatory landscape and consider its impact on their practices.

Including Value in Treatment Assessments

The value of treatment is coming under increased scrutiny as prices for cancer drugs continue to rise. Providers and professional organizations are responding by including value in their treatment assessments. In June, ASCO published its initial version of its Value Framework that draws on high-quality evidence to compare the relative clinical benefits, side effects, and costs of treatment regimens that have been tested head-to-head in randomized clinical trials. It will ultimately serve as the basis for tools to be used with patients to discuss the relative value of new cancer therapies compared with established treatments.[11] In October, the National Comprehensive Cancer Network® (NCCN®) unveiled the first of its NCCN Evidence Blocks™, which adds affordability to its existing criteria for evaluating treatment options for chronic myelogenous leukemia and multiple myeloma.[12] The Health Outcomes Research Group at Memorial Sloan Kettering Cancer Center has developed a complementary platform, DrugAbacus, which allows users to observe price against variable weights assigned to relative drug attributes across domains related to benefit/toxicity, scientific achievements, and societal objectives.[13]

METHODOLOGY

The 2016 Genentech Oncology Trend Report is sponsored by Genentech, a member of the Roche Group. The publication was developed by Emron, Wayne, New Jersey, a health care research and communications firm. Emron developed proprietary survey instruments with the direction and review of an expert independent editorial board.

Survey Development

Surveys were developed to collect information from five core stakeholder groups responsible for the delivery and coverage of quality cancer care:

- Managed care organizations (MCOs)
- Specialty pharmacies (SPs)
- Oncologists
- Oncology practice managers (OPMs)
- Employers that sponsor health benefits

Survey questions investigated the policies and services delivered by these organizations and medical practices during 2014 and 2015 and possible changes forecast for 2016. Questions also required quantitative information related to purchase, coverage, and reimbursement of cancer agents (delineated by type of agent: office-administered infused/injected agents, self-injectables, orals, and adjunctive/supportive agents).

Figure 1 compares the regional distribution of the sample. The sample size and key demographics across each surveyed stakeholder group are summarized on page 5.

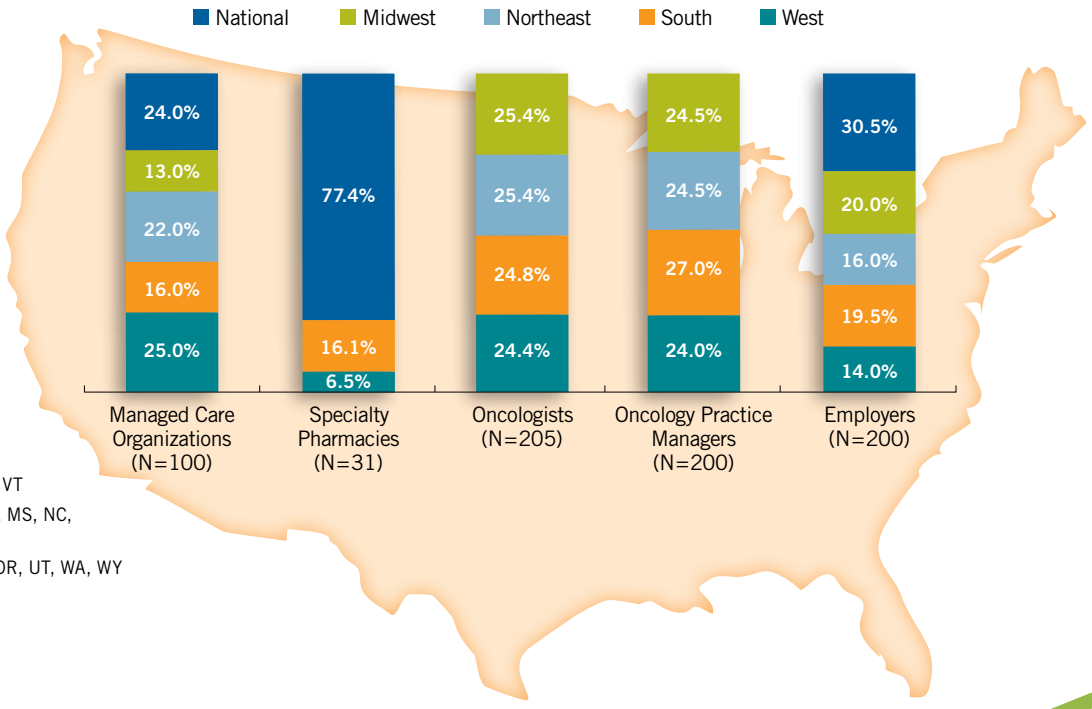
Surveys varied slightly in length. All, however, had a minimum of 39 questions, many of which required multipart responses. Survey sections addressed the following topics:

- Organizational and Respondent Demographics
- Oncology Management Practices
- Medical and Pharmacy Benefit Policies Affecting Oncology Costs and Utilization
- Revenue and Reimbursement in the Responding Organization or Practice
- Cross-Stakeholder Relationships Affecting Delivery and Reimbursement of Oncology Therapies

Recruitment and Fielding

Emron sent potential participants information about the research study via e-mail. They were assured that individual survey information and responding company and participant names would be held in strict confidence by Emron, and the final report would reflect blinded and aggregated data. Those who agreed to participate were directed to a Web-based survey. The five surveys were in the field on an overlapping schedule from June 29 to September 30, 2015—a total of 14 weeks. Honoraria were paid to those who met qualification criteria during recruitment and who submitted a completed survey.

Figure 1. Comparison of Regional Distributions of Respondent Types[a,b]



[a] For this comparison, state-level organizations were considered part of the applicable region; organizations were considered national if they were located in two or more regions.

[b] US Census regions are defined as follows:

Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI

Northeast: CT, MA, ME, NH, NJ, NY, PA, RI, VT

South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV

West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY

Prequalification Criteria

Respondents from the various types of organizations had to meet specific prequalifying criteria to ensure the integrity of their responses:

- Directors and managers from MCOs and SPs were prequalified to have knowledge of their organizations' policies and services regarding cancer care
- Oncologists were prequalified to be current practitioners, excluding those serving full-time in an administrative, teaching, and/or research capacity
- Practice managers were prequalified to serve in a management/administrative capacity in an oncology practice and to be knowledgeable regarding its operations, including staffing levels, billing, and infusion services
- Employers were prequalified to be from organizations that self-insure their health benefit plans; to be involved in the administration, design, and management of health benefits; and to employ a minimum of 101 full-time employees

New — Updated Illustrations, Better Insights

This edition of the *Oncology Trend Report* includes more graphics that provide an at-a-glance interpretation of key findings from the surveys and increase ease of reading and understanding of data trends. Words that are important to the context of a survey question are often italicized so the reader does not miss the nuance of the results. A glossary (page 94) is available to help readers better understand the meaning of various terms. Each term that is defined in the glossary is **highlighted in green** the first time it appears in each section. As in the past, all surveys were revised and updated to improve the insights about evolving issues collected from respondents.

Data Analyses and Reporting

Emron collected, clarified, aggregated, analyzed, and reported the resulting data using the Statistical Package for the Social Sciences. All data were blinded and aggregated across the entire sample of respondents, denoted as "overall," as well as by specific demographic characteristics, as applicable. While the participants' responses characterize the medical and drug benefit coverage and physician and SP services provided to large numbers of cancer patients across the country, the data are general and do not include information about specific cancer therapies. Furthermore, the responses could not be independently verified for accuracy regarding actual operations and practices in place across the stakeholder groups represented.

The *Oncology Trend Report* editorial board reviewed the data analyses, resulting interpretations, and the final manuscript. Any statements and opinions contained within the report reflect the responses of the survey participants and do not necessarily reflect those of Genentech or the editorial board.

The 2016 Genentech Oncology Trend Report: Surveyed Groups

Managed Care Organizations (N=100)

- Position of respondent
  - Pharmacy director (58.0%)
  - Medical director (23.0%)
  - Clinical pharmacist/clinical program manager (13.0%)
  - Other (6.0%)

Specialty Pharmacies (N=31)

- Position of respondent
  - Vice president (22.6%)
  - Pharmacy director (16.1%)
  - Pharmacy manager (12.9%)
  - Clinical staff (12.9%)
  - President (12.9%)
  - Director (9.7%)
  - Other (12.9%)

Oncologists (N=205)

- Practice environment
  - Solo (3.4%)
  - Single–oncology-specialty group private (18.5%)
  - Multi–oncology-specialty group private (23.9%)
  - Hospital owned, nonacademic (12.2%)
  - Private, hospital integrated (11.7%)
  - Academic/medical center—institution owned (24.9%)
  - Academic/medical center—physician owned (5.4%)

Oncology Practice Managers (N=200)

- Practice environment
  - Solo (3.0%)
  - Single–oncology-specialty group private (10.0%)
  - Multi–oncology-specialty group private (29.5%)
  - Hospital owned, nonacademic (15.0%)
  - Private, hospital integrated (15.5%)
  - Academic/medical center—institution owned (21.5%)
  - Academic/medical center—physician owned (5.5%)

Employer Health Benefit Sponsors (N=200)

- Self-insured medical benefits (81.0%)
- Self-insured medical benefits via a private exchange (19.0%)
- Self-insured pharmacy benefits (100%)

KEY FINDINGS

Each of the stakeholder groups reported information through surveys designed to gather their unique perspectives on a number of cancer care topics. Naturally, all such stakeholders interact with one another to provide cancer care to patients, thus raising common themes related to care issues. Accordingly, these Key Findings profile interconnected practices and policies organized by topic headings.

Cancer Drug Spending & Revenue

Managed care organizations (MCOs) continue to report that the largest shares of both *total* cancer costs and cancer *drug* costs are paid for under the medical benefit. MCOs anticipate higher growth rates for cancer drug spending under the pharmacy benefit compared with the medical benefit.

Presented with the same list of cancer care issues, *all* stakeholders selected control of overall cancer care costs and cancer specialty drug costs among their top three most pressing issues today. Consensus regarding the challenges in specialty drug cost control is highest among MCOs (77.0%) compared with 60.5% of employers most concerned about overall cancer care spending.

Oncology Practice Cancer Drug Purchasing & Revenue

Reliance on specialty pharmacies (SPs) by oncology practices continues to rise, driven by payer requirements and financial pressures. About one-fourth of drug volume for in-practice use in 2014 was purchased by SPs and supplied to practices via white and brown bagging, and more than three in 10 oncology practice managers (OPMs) forecast an increase in white bagging in 2015 compared with 2014. Direct drug purchasing via buy and bill continues to be highest among community-based private oncology practices compared with other settings.

Investigation and implementation of in-practice oral oncology drug dispensing continues to grow. Almost half of the 67 OPMs with in-practice dispensing reported their patients prefer to obtain their drugs and education from the oncology practice staff. A number of managers have negotiated fees for patient education (35.8%) and/or oral drug adherence monitoring (40.3%) with insurers.

Nearly half of SPs (45.2%) noted an increase in the number of community-based and/or hospital-based oncology practices taking responsibility for oral oncology drug dispensing and patient education.

Drug margin performance among the OPMs with infusion services and drug purchasing responsibility was variable, with near equal numbers reporting higher, lower, or steady trends over the last 12 months. Margin decline is most often mitigated via group purchasing contract maximization and drug waste reduction.

Cancer Drug Management Efforts

Most MCOs (n = 92) use prior authorization (PA)/precertification, and about half of them noted increased use of this tool to manage oncology drugs covered under the medical benefit over the last year; 69 MCOs employ a narrow SP network. Both tools lead all others surveyed in highest effectiveness ratings by MCOs in managing care and controlling drug cost trend.

- 32 of the 48 MCOs responsible for PA administration have integrated the PA process under the medical benefit with the PA process under the pharmacy benefit, and another three MCOs plan to do so in 2016
- 57.0% of MCOs integrate oncology drug management across the medical and pharmacy benefits and rated it *moderately* effective in managing care and controlling drug cost trend. Data integration across benefits led all strategies predicted for implementation over the next 12 to 18 months
- 26.0% of MCOs have implemented data tools that make cancer drug costs and quality more transparent to members; 21.0% make provider performance more transparent by sharing profiles of top performers with others in the network
- 23 MCOs have site-of-service steerage tactics currently under way and 17 additional MCOs are developing them—half of the 23 MCOs address site selection through medical/pharmacy benefit designs, 43.5% utilize case management, and 39.1% use PA or precertification to guide lowest-cost site selection. PA and precertification led the steerage tactics forecast over the next 12 to 18 months

More than half of the prescription volume for oral oncolytics and self-injectables in 2015 was distributed via SPs, according to MCO estimates; 55 MCOs reported oral oncology drug dispensing by network oncology practices.

Encouraging use of generics, biosimilars, mail services, and preferred SPs led the tactics undertaken by 54 employers (27.0% overall) with their vendors to *directly* address the cost trend in cancer specialty drugs. More than half of these employers (57.4%) are focused on site-of-service management and have established *preferred* physician networks.

Eight in 10 SPs (n = 25) offer split-fill programs to reduce waste—most calculate the dollar valuation of the waste avoidance and track split-fill prescriptions by drug; 61.3% of the surveyed SPs identify these programs as their primary strategy for better cost control.

Integrated Payer/Provider and Quality Initiatives

Fifty-three MCOs are pursuing integrated payer/provider initiatives with oncologists to improve cancer care.

- 41.5% of these MCOs have new risk arrangements/payment models with oncology practices
- 35.8% of these MCOs provide incentives/payment reforms to encourage *early* palliative care and advance care planning (ACP) as part of cancer treatment planning and goal setting
- 35.8% of these MCOs use patient-centered medical home models of care coordination—all include primary care physicians (PCPs) and a few include oncology specialists; 20 MCOs have an oncology accountable care organization in the commercial and/or Medicare/Medicaid space

Value-based quality initiatives (eg, pay for performance) are under way/piloted at more than one-third of MCOs (n = 34), and an additional 27 MCOs are investigating options; financial rewards are more common than shared risk.

- Most common performance metrics included in the initiatives are cancer screening, adherence to guidelines/pathways, hospitalizations, and ACP/hospice; 38.2% measure chemotherapy administration within the last 2 weeks of life
- 11 MCOs used the American Society of Clinical Oncology's Quality Oncology Practice Initiative certification to differentiate in-network oncology practices in 2015/planned for in 2016, and 40 MCOs have this under consideration

Guidelines & Pathways

Balancing treatment *standardization* with *personalization* is among the top three challenges in cancer for 34.0% of MCOs; 81 MCOs follow cancer treatment *guidelines* and 38 MCOs have initiated a cancer treatment *pathways* program.

Oncologists' use of guidelines remains mostly *voluntary* and is often incentivized; few MCOs tie oncologist reimbursement to *mandatory* use of guidelines (13.6%) and/or pathways (7.9%).

Incentives for guidelines/pathways use vary across MCOs and include preferred provider status in the network, reduced PA/precertification requirements and/or faster processing, expedited utilization management (UM) reviews and claims processing, and higher drug and/or evaluation and management reimbursements. Oncologist participation rates vary, averaging 58.2% for guidelines and 51.8% for pathways programs, according to MCO estimates.

Measurement of the clinical and cost impact of pathways led the payer/provider initiatives undertaken by 53 MCOs in 2015.

Some employers have developed in 2015/planned for 2016 provider payment strategies tied to compliance with cancer treatment guidelines (25.0%) and/or pathways (21.5%).

More than one-third (35.5%) of SPs used automated cancer guidelines-based UM tools in 2015; this is the leading payer-focused service expansion likely in 2016.

More than six in 10 oncologists use treatment guidelines, and nearly half use pathways. About four in 10 of these oncologists have studies under way to measure the cost impact of guidelines and pathways and the impact on care quality.

Coverage & Access to Cancer Care

Second Opinions

A total of 57 MCOs have undertaken initiatives regarding second opinion consultations, including encouragement as part of member advocacy (66.7%), case management support to identify appropriate specialists (45.6%), requirement of referral or precertification (29.8%), and tracking of consults (17.5%).

- 36.0% of employers *require* case management for their employees and dependents with cancer. Four in 10 employers will consider developing a *formal* second opinion coverage policy for cancer and *requiring* a second opinion for diagnosis and treatment planning involving tumor testing using next-generation sequencing (NGS) prior to 2018

Impact of Cost Sharing on Patients & Practices

Escalation in patient out-of-pocket (OOP) costs continues to burden both patients and practices and was among the top three most pressing challenges in cancer care reported by 43.4% of oncologists, 33.5% of OPMs, and 32.3% of SPs.

- 61 MCOs offer commercial or managed Medicare plans that set a member OOP spending maximum that is applied to drugs, including oncology drugs in 2015, and 37.7% of them forecast a larger share of membership affected and a higher spending limit in 2016
- 32.5% of OPMs altered their collection policy regarding OOP drug payments in light of the trend in patients with high-deductible commercial coverage. OPMs successfully collected *all* copayments from only an average of 24.5% of patients in 2015
- Most OPMs seek financial support for patients through assistance programs from manufacturers and foundations. Overall, these managers estimate that 41.4% of patients, on average, are eligible for aid, and more than half of the applications filed with the programs are approved

Coverage & Access to Cancer Care (cont.)

- Nearly all surveyed SPs facilitate financial support/advocacy for their patients in need via manufacturer assistance programs, and 58.6% assist providers in identifying less-expensive alternative treatments. Those with support programs in place estimated that 42.2% of their patients were eligible for patient assistance in 2015, and 70.2% of the applications were approved for financial support

SPs & Cancer Drug Access

Larger shares of oncology drug prescriptions to be delivered to patients' homes for self-administration or directly to oncology practices in 2016 were forecast by 64.6% and 38.8% of SPs, respectively. *Required* patient use of an SP by payers to acquire oral oncolytics is forecast to continue its upward trend over the next year by eight in 10 SP respondents.

Four SPs contracted with hospitals to provide outsourced oncology pharmacy services in 2015, two plan to do so in 2016, and 13 are discussing the option; hospital expansion of 340B Drug Pricing Program-related outpatient services was noted as a key driver by 63.2% of these 19 SPs.

Nineteen SPs offer MCOs services to ensure that the highest-value site of care is used for oncology injectables/infusions.

Oncology Practice Consolidation, Workload & Staffing

Practice Consolidation & Trends Toward Hospital-Based Oncology Care

OPMs from 148 practices reported *current* implementation or *plans to consider* one or more reorganizational strategies: hospital joint ventures, combining with another practice, or selling the practice to a hospital. Two-thirds of them identified insurance inadequacy and patient affordability in light of high-deductible health coverage as a major driver of reorganization.

- Half of community-based practices (51.8%) have either already combined with another practice or will consider doing so

Uninsured patients' inability to pay and anticipation of *significant* drug revenue loss are leading drivers of hospital outpatient treatment referrals. OPMs estimated that an average 64.5% of the volume of prescribed infusions are administered in-practice across the different practice settings.

Ensuring safety and regulatory compliance with USP 797/800 standards regarding sterile compounding and handling of hazardous drugs are among the drivers rated *moderately* to *very important* by OPMs regarding current and future reorganization plans.

Oncologist Workload

Overall, surveyed oncologists worked an average 56.7 hours weekly, saw patients during 4.1 clinic days per week, and planned to work a total of 47.6 weeks in 2015; 35.8% forecast growth in patient volume by year-end 2015.

More than half (56.6%) of oncologists reported increased personal workloads; leading drivers across all settings are growing patient populations and higher intensity of services.

Oncology Practice Operations & Staffing

Overall, practices are open for patient visits 4.9 days and 38.6 hours weekly. By year-end 2015, 79 OPMs anticipated expanded weekly hours for in-practice visits.

Nearly eight in 10 (78.0%) managers overall employ advanced practice providers (APPs), and hiring more of them is top of mind for practices adjusting staffing in 2016; six in 10 OPMs reported an increase in patients seen daily by APPs over the last 12 months and that APPs work at least 1 day per week (36.5%) or 2 days or more weekly (30.7%) outside of regular practice hours catching up on electronic health record (EHR) updating, care coordination, and e-mails.

Seven in 10 of the surveyed oncologists deliver care assisted by APPs, and 30.2% are expanding their roles, encouraging more *independence*.

Three in 10 OPMs track call volume and have hired nurses to triage patient inbound clinical calls. More managers have hired/assigned staff (41.0%) or plan to do so in 2016 (20.0%) to *proactively* contact patients at predetermined points of care to avoid potential complications and/or hospitalizations.

Population Health Management, Including Cancer

Many employers used health risk/well-being assessments in 2015 (64.0%) or planned for 2016 (11.5%); most offer monetary rewards to encourage completion.

A total of 141 employers receive cancer claims-based reports from vendors—better data to evaluate cost, use, and quality details leads the unmet needs of 41.1% of them; only 34.0% rated their understanding of cost variation across cancer sites as *very good* or *excellent*.

About one-third of employers (n = 62) promoted early cancer detection as part of their wellness initiatives in 2015; 24.2% of them offered financial incentives for cancer screenings.

Palliative Care & Advance Care Planning

Eighty-six MCOs have undertaken palliative care and ACP initiatives, including expanding palliative care medical benefits (38.4%) and hospice length of care (19.8%) and focusing on individualized high-touch case management (24.4%).

Provider reimbursement for ACP consultations, including advance directives, palliative care, and hospice, was provided by 32.5% of employers in 2015 and/or likely in 2016, and an additional 35.0% will consider it prior to 2018.

Nearly three-fourths (74.2%) of SPs offer patients/family members palliative care and ACP services, similar to the previous study period.

More than eight in 10 oncologists discuss palliative care with *all* patients (17.6%), those with metastatic cancer (18.5%), or patients with advanced disease and a short life expectancy (50.2%); most often, these discussions occur within a month of advanced-stage diagnosis.

Cancer Survivorship Care

Formal programs to manage the quality and cost of survivorship care are utilized by 22 MCOs, and 13 MCOs are currently investigating such a program.

Earlier diagnosis and precision medicine make working during and after treatment a reality, and three-fourths of employers (n = 151) help employees meet the challenges of returning to work via survivorship resources from their Employee Assistance Program (23.5%), health plan (15.0%), or both (37.0%).

Half of the oncologists (52.2%; n = 107) are *primarily* responsible for survivorship program care through their practice; 22.9% coordinate care with the patient's PCP. More than half of these 107 oncologists provide a written survivorship care plan to *all* (32.7%) or *some* (18.5%) of their patients at the conclusion of active treatment and routinely screen *all* survivors for psychosocial distress (56.1%) as part of survivorship program care.

Precision Medicine

Most MCOs do not seek input from molecular pathologists to develop coverage policy for molecular/biomarker testing (58.0%) and/or NGS (66.0%); MCOs currently support (9.0%) or are discussing (36.0%) an *expanded role* for molecular pathologists regarding collaboration with oncologists and surgeons and decision support.

Eight in 10 (83.0%) MCOs identified a need for tools, such as diagnostic guidelines or pathways, to guide the appropriate use of the broad spectrum of molecular testing available, including guidance on when to test, testing frequency, and specimen adequacy and preparation to support downstream testing.

About one-third (30.0%) of MCOs require a PA for molecular/biomarker tests, 28.0% restrict drug coverage to favorable test results, and 24.0% restrict testing coverage based on evidence; nearly all MCOs (91.3%) are responsible for PA administration regarding molecular testing and companion diagnostics for select oncology drugs.

Two-thirds of oncologists rated themselves *somewhat* knowledgeable about genetic science and the application of NGS-based testing in treatment planning; 31.7% support an *expanded role* for molecular pathologists.

Oncologists *frequently* encounter a PA/precertification contingent on diagnosis (50.7%) or pathology or tumor typing or genomic marker testing (45.4%), and payer restrictions related to specific molecular testing labs (20.0%), genetic counseling independent of a testing lab (18.5%), or *required* genetic counseling *prior* to genetic testing (18.0%).

Oncologists' initiatives to identify the appropriate use of whole genome sequencing (WGS) (41.5%) and to identify preferred WGS labs (36.1%) have grown since the previous study. Nearly six in 10 oncologists noted a *moderate* or *significant* impact of WGS on patient outcomes.

Health Information Technology & Mobile Health (mHealth)

Three-fourths of oncologists (n = 157) use EHRs and 44.6% of the systems are oncology-specific; the impact on productivity and patient interaction is mixed—since adoption, 33.7% of oncologists see fewer patients and reported lower-quality interaction (40.8%), while 19.8% see more patients and improved interaction (17.8%).

mHealth functionality among practices continues to grow. OPMs reported having secure e-mail (74.0%) and secure texting (39.5%) for patient and staff communication, smart phone and tablet deployment (52.5%), and telehealth visits (25.0%).

Few MCOs (n = 4) offer/plan to offer *cancer-specific* mHealth services described as palliative care pilots, timer caps for oral oncolytics, and general cancer education and care management; few MCOs pay oncologists for alternative visits using e-communication (11.0%) or telehealth (11.0%).

MANAGED CARE ORGANIZATIONS
(N = 100)

HIGHLIGHTS

Oncology Management & Spending

- 64 MCOs participated in the federal and/or state health insurance exchanges or marketplaces
- 77.0% of MCOs reported that the most pressing cancer care issue faced by oncology stakeholders today is control of cancer specialty drug costs
- The growth rate in cancer drug spending is higher under the pharmacy benefit vs the medical benefit

Coverage Policies & Departmental Management

- 70.0% of MCOs have implemented, or plan to implement in 2016, the management of oncology drugs through a formulary or preferred drug list
- 32 respondents noted the involvement of pathologists in coverage policy around molecular/biomarker testing and next-generation sequencing
- The introduction of a new molecular/biomarker test *sometimes* (44.0%) or *always* (11.0%) triggers a P&T committee and/or coverage policy review of a cancer agent(s)
- 36.0% of MCOs have a *formal* coverage policy regarding genetic testing for members at heightened risk for certain cancers

Cancer Treatment Guidelines & Pathways

- 81 MCOs follow cancer treatment *guidelines*; 38 MCOs use cancer treatment *pathways*
- 65.4% of the 81 MCOs encourage network oncologists to voluntarily follow cancer treatment *guidelines*, and 44.7% of the 38 MCOs encourage them to voluntarily use *pathways*

Management Strategies for Oncology Care

- 57.0% of MCOs have integrated oncology drug management across the medical and pharmacy benefits and rated this strategy as *moderately effective* in helping to manage oncology care and control drug costs
- 71 MCOs use step-therapy protocols with cancer-related drugs; most are applied to adjunctive drugs used to treat nausea and vomiting
- When the first FDA-approved biosimilar is marketed, 93.0% of MCOs will have the drug reviewed by their P&T committee

Integrated Payer/Provider Initiatives

- 53 MCOs are pursuing new integrated payer/provider initiatives with oncologists to improve cancer care—half are measuring the *cost* impact of treatment pathways
- 38.2% of the 34 MCOs pursuing value-based/quality initiatives payment models included chemotherapy administration within the last 2 weeks of life as a performance measure

Palliative Care

- 86 MCOs have undertaken palliative care and advance care planning initiatives, with 27.8% of these MCOs expanding member benefits for palliative care

Site-of-Service Management

- 48.0% of MCOs have implemented site-of-care/service steerage tactics to manage oncology care and control drug costs

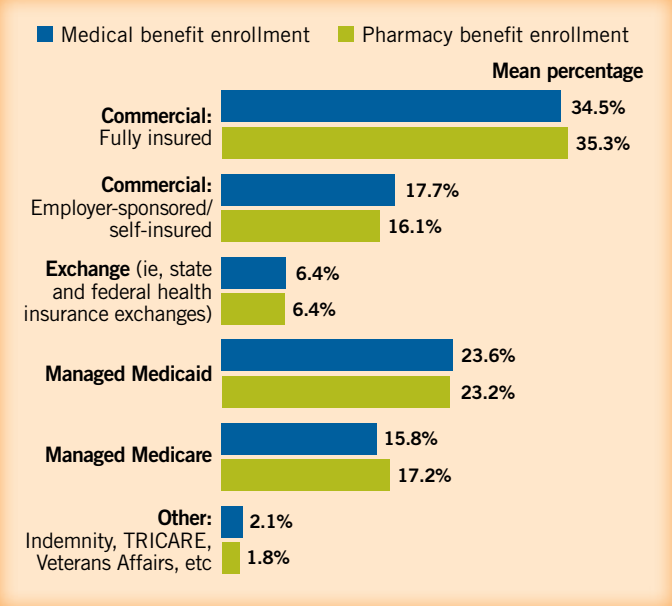
Demographics

For this year's *Oncology Trend Report*, 100 representatives from managed care organizations (MCOs) were surveyed. The majority of the sample's respondents (81.0%) serve as pharmacy directors or medical directors within their MCOs. The majority of respondents are directly involved in drug formulary decision making, formulating medical policy, and/or rendering coverage decisions regarding the oncology care provided by MCOs.

National/multiregional MCOs make up 24.0% of the sample. The remaining plans serve members in the following regions: midwest (13.0%), northeast (22.0%), south (16.0%), and west (25.0%), with state-level organizations considered part of the applicable region. Overall, MCOs in this study represent an average enrollment of 2.6 million members with medical benefits and 2.1 million members with pharmacy benefits. **Figure 1** illustrates the sample distribution by line of business across both medical and pharmacy benefit enrollment. Most survey questions were posed at the overall MCO level; however, some questions were analyzed by line of business.

In the second full year of open enrollment in **public exchanges**, 11.7 million people were enrolled in a health plan through the federal or state-based marketplaces, which included 4.6 million new enrollees in 2015.[1] Silver metal plans continue to be the dominant metal level chosen, with 67% of enrollees, followed by bronze plans (22%), gold plans (7%), and platinum plans (3%). The majority of enrollees (86%) obtained premium assistance through advance premium tax credits.[1] Sixty-four surveyed MCOs participated in the exchanges; however, less than 10% of members in the surveyed MCOs, on average, were enrolled.

Figure 1. MCO Sample Distribution by Line of Business and Type of Benefit



Sample respondents estimated the percentage of total MCO membership (as of January 1, 2015) enrolled in the various health benefit plans/product types. Less than 10% of members are enrolled in health insurance exchange plans.

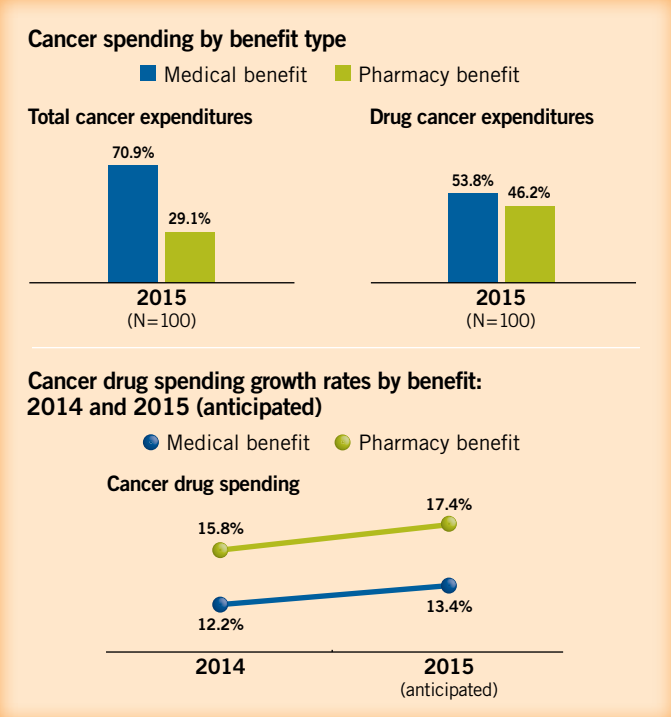
Oncology Management and Spending

Similar to previous years, the largest share of *total* cancer spending (70.9%) and cancer *drug* spending (53.8%) was paid for under the medical benefit in 2015 (**Figure 2**). MCOs reported annual growth rates for cancer drug spending paid for under the medical and pharmacy benefits for 2014 (ie, 2014 over 2013) and anticipated for 2015—based on spending levels by mid-year 2015, when respondents were surveyed. Growth rates in cancer drug spending for 2014 and anticipated for 2015 are higher under the pharmacy benefit compared with the medical benefit (**Figure 2**).

Respondents estimated the share of their MCO's total cancer expenditures, overall, in 2014 across various service categories (**Figure 3**). Similar to the previous study period, drug and drug administration (30.2%) and hospital care (26.3%) comprise most of MCOs' cancer care expenditures, on average.

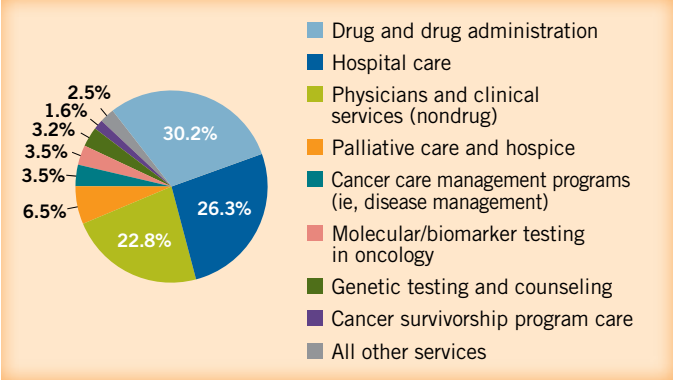
Similar to the previous study period, MCOs identified the most pressing challenges facing cancer care today from their perspective (see illustration at lower right). **New this survey**, cost challenges were added as options. Not surprisingly, 77.0%

Figure 2. MCO Mix of Cancer Spending and Growth Rates by Benefit

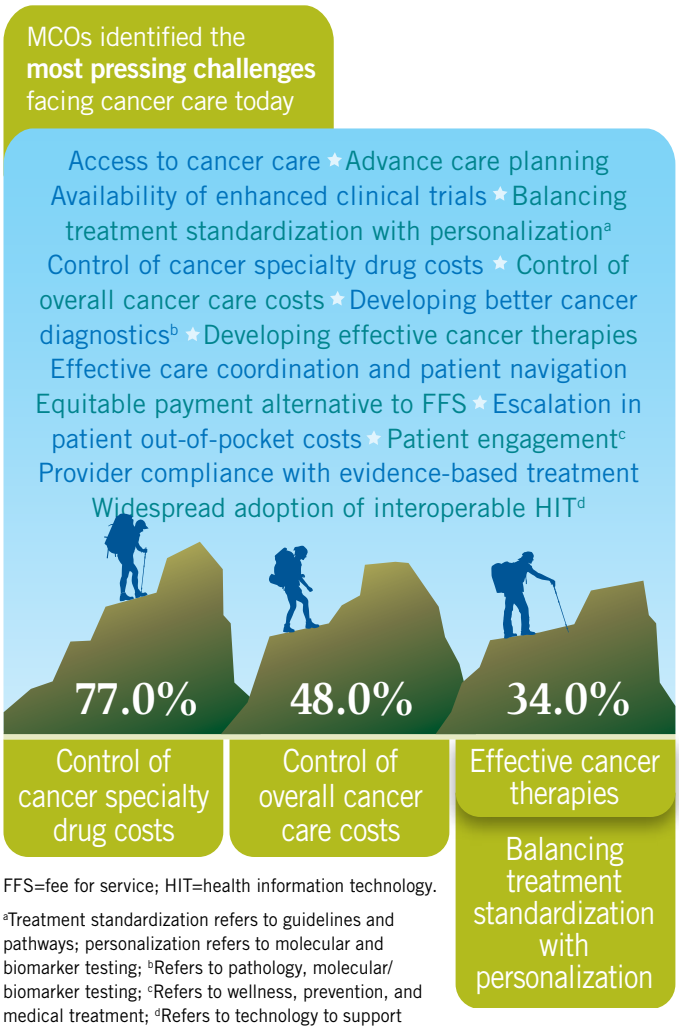


Similar to previous study years, in 2015, the majority of total and drug-only cancer expenditures was paid for under medical benefit coverage. However, MCOs anticipate higher growth rates for cancer drug spending under the pharmacy benefit compared with the medical benefit.

Figure 3. Share of Total Cancer Care Expenditures Across Service Categories in 2014



Similar to the previous study period, drug and drug administration, hospital care, and physicians and nondrug clinical services comprise most of MCOs' cancer care expenditures at the overall MCO level, on average. New this study, cancer survivorship program care comprised 1.6% of cancer care expenditures.



FFS=fee for service; HIT=health information technology.

[a]Treatment standardization refers to guidelines and pathways; personalization refers to molecular and biomarker testing; [b]Refers to pathology, molecular/biomarker testing; [c]Refers to wellness, prevention, and medical treatment; [d]Refers to technology to support quality improvements and outcomes measurement.

Control of cancer specialty *drug costs is the top challenge for all MCOs regardless of size or service area.*

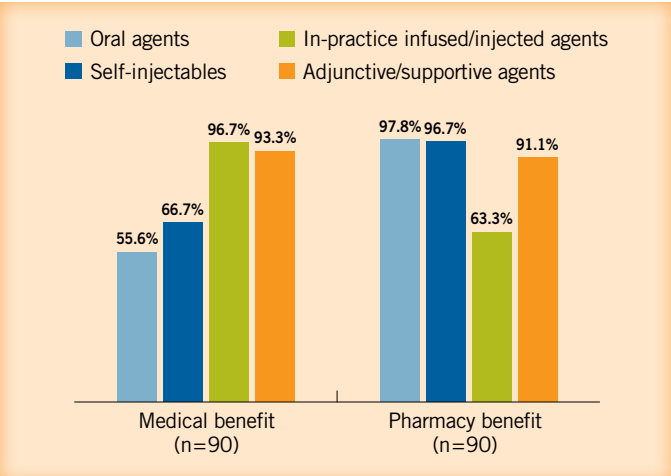
of MCOs reported that control of cancer *specialty* drug costs is the most pressing challenge, followed by control of overall cancer care costs. Effective cancer therapies and balancing treatment *standardization* with *personalization* are the third most pressing challenges. Control of cancer *specialty* drug costs is the top challenge for all MCOs regardless of size or service area—national, regional, or statewide.

Coverage Policies, Departmental Management, and Pharmacy & Therapeutics Committees

In 2015, 90.0% of MCOs currently had in place, or plan to institute in 2016, coverage policies for oncology drugs under the medical benefit and/or the pharmacy benefit. **Figure 4** outlines details of how these coverage policies apply to *all* or *some* of various types of cancer agents under both benefits.

In 2015, more than half of MCOs (52.0%) had instituted a formulary/preferred drug list (PDL) for oncology drugs as part of the pharmacy benefit, and an additional 17.0% plan to institute one in 2016. Fewer MCOs (21.0%) had instituted a formulary/PDL as part of the medical benefit, with an additional 18.0% considering such a strategy in 2016.

Figure 4. MCOs That Apply Coverage Policies to *All* or *Some* Types of Oncology Drugs by Type of Benefit



Policies governing oral and self-injectable agents are more common under the pharmacy benefit, and policies for in-practice infused/injected agents are more common under the medical benefit.

Use of a formulary/PDL is more common for oral, self-injectable, and adjunctive/supportive agents under the pharmacy benefit and for in-practice infused/injected drugs under the medical benefit.

More than three-fourths of MCOs (n = 76) have direct oncology specialist input in their Pharmacy & Therapeutics (P&T) committees, clinical policy units, and/or other departments responsible for developing coverage policy regarding one or more of the following: oncology drugs, **molecular/biomarker testing**, genetic testing and counseling in oncology, **advance care planning** (ACP) and **palliative care**, and **survivorship program care** (**Figure 5**). The types of oncologists whose input is solicited include current oncologist practitioners (61.8%), external oncologist consultants/vendors (55.3%), and/or internal health plan oncologists (44.7%).

Figure 5. Specialist Input Into MCO Coverage Policy Development

Oncologist input	Yes	No	Planned for 2016
Oncology drugs	73.0%	20.0%	7.0%
Molecular/ biomarker testing in oncology	53.0%	38.0%	9.0%
Genetic testing and counseling in oncology	49.0%	42.0%	9.0%
Advance care planning and palliative care	32.0%	59.0%	9.0%
Survivorship planning care	18.0%	72.0%	10.0%
Pathologist input			
Molecular/ biomarker testing in oncology	31.0%	58.0%	11.0%
Next-generation sequencing in oncology	23.0%	66.0%	11.0%
Geneticist/genetic counselor input			
Genetic testing for inherited risk of cancer	23.0%	66.0%	11.0%

Oncologists have the greatest input into policies for oncology drugs compared with other categories. New this survey, though less than one-third of plans seek the input of pathologists and geneticists/genetic counselors into clinical/medical policy development, more are planning to do so in 2016.

Molecular/Biomarker Testing in Oncology

New this survey, 32 respondents noted the input of pathologists in clinical/medical policy decisions around molecular/biomarker testing and/or **next-generation sequencing** (**Figure 5**). The types of pathologists called on for input by these plans include current pathologist practitioners (n = 19), external pathologist consultants/vendors (n = 15), and/or internal health plan pathologists (n = 9).

New this survey, 23 respondents noted the input of geneticists or genetic counselors in clinical/medical policy decisions around **genetic testing** for inherited risk for cancer (**Figure 5**). Most often, these MCOs use current geneticists or genetic counselors (n = 13), external geneticists or genetic counselor consultants/vendors (n = 12), and/or internal health plan geneticists or genetic counselors (n = 7).

Two-fifths of MCOs (40.0%) do not manage laboratory testing platforms and laboratories, though 27.0% are in the early stages of discussing a strategy and 8.0% are evaluating vendors. Of the remaining 25 MCOs, 23 limit coverage of specific molecular/biomarker tests to specified (preferred/approved) platforms/vendors and two awarded a capitated laboratory contract to a single vendor to ensure testing consistency.

For 44.0% of MCOs, the introduction of a new molecular/biomarker test *sometimes* triggers a P&T committee and/or clinical/medical coverage policy review of a cancer agent; and for another 11.0%, it *always* triggers a review. Additionally, 15.0% of MCOs are considering the adoption of this trigger.

New this survey, 55 MCO executives identified sources their organizations are using to guide clinical/medical policy decisions regarding coverage for molecular diagnostic testing in cancer and genetic testing in cancer (**Figure 6**). Most often, they use the NCCN Clinical Practice Guidelines In Oncology (NCCN Guidelines®) (87.3%) or reviews of peer-reviewed, evidence-based literature (78.2%) to aid in making decisions regarding coverage of molecular diagnostics.

In spite of an increasing number of vendors advertising whole genome sequencing (WGS), most MCOs are in the early stages of discussing how to address the appropriateness, quality, and validity of test results, as well as what vendors to use. Currently, MCOs with coverage policies for WGS require prior authorization (PA) to determine medical necessity for testing and handle requests on a case-by-case basis. Several plans exclude panel-type testing from coverage; however, one MCO offers members a fee-for-service cash discount for WGS.

New this survey, 36.0% of MCOs have a formal coverage policy regarding genetic testing for members at heightened risk for certain cancers (eg, breast, colorectal), with 33.0% reporting that coverage is determined on a case-by-case basis. More than half of those MCOs with formal policies *always* or *sometimes* require members to undergo genetic counseling prior to genetic testing (**Figure 6**).

Figure 6. MCOs' Policies Regarding Molecular Diagnostic Testing Coverage

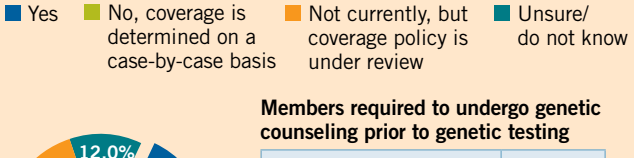
Sources MCOs use to guide decisions regarding molecular diagnostic testing coverage

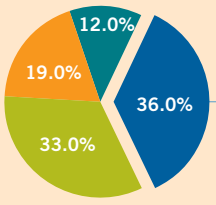
Source	Percentage of MCOs (n = 55)
NCCN Guidelines®	87.3%
Peer-reviewed, evidence-based literature review	78.2%
ASCO Clinical Practice Guidelines	69.1%
NCCN Biomarker Compendium®	58.2%
Medicare assessments by MEDCAC	36.4%
MCO-conducted technical assessment reviews	32.7%
Technical assessment reviews by Blue Cross Blue Shield Association's Technical Evaluation Center	27.3%
Solicit expert opinion from specialty medical societies	23.6%
Personalized cancer medicine databases on cancer mutations, such as MyCancerGenome.org	1.8%

NCCN = National Comprehensive Cancer Network; ASCO = American Society of Clinical Oncology; MEDCAC = Medicare Evidence Development and Coverage Advisory Committee.

Most often, MCOs use the NCCN Guidelines (87.3%) or reviews of peer-reviewed, evidence-based literature (78.2%) as guides in making decisions regarding coverage of molecular diagnostics.

Percentage of MCOs with a formal coverage policy for genetic testing of members at risk for certain cancers (N = 100)





Members required to undergo genetic counseling prior to genetic testing

Yes, always	15.0%
Yes, sometimes	4.0%
No	11.0%
Not currently	2.0%
Unsure/do not know	4.0%

New this survey, few MCO executives (9.0%) reported that their organization supports an expanded role for molecular pathologists regarding collaboration with surgeons and oncologists and decision support (eg, to guide the proper selection of biomarker tests, branded commercial kits, laboratory-developed tests, and specimen preparation), though 36.0% are discussing the possibility. MCOs use molecular pathologists in a consultative role in offering a second opinion and to improve the understanding and expertise of team members related to value in decision making, cost, and outcomes. One MCO includes their recommendations in the total cost of care reimbursement model; whereas, another supports their use in principle as part of multidisciplinary cancer review teams, but few use the payable code for those services. Another MCO reported that molecular pathologists should be consulted prior to ordering tests for unique or rare mutations and to assess the clinical utility of such tests.

New this survey, 83.0% of MCOs indicated a need for tools, such as diagnostic guidelines or pathways, to direct the appropriate use of the broad spectrum of molecular testing (eg, from single variations/biomarkers to multigene panels to exome sequencing to WGS) by providing detailed recommendations to define appropriate use (eg, appropriate situations for testing, how often to test, how large of a battery of mutations to test, adequacy of specimen, and preparation of specimen to support downstream testing).

Among the American Society of Clinical Oncology's (ASCO) 2013 **Choosing Wisely®** Top 5 List in Oncology is the following recommendation[2]:

Do not use a targeted therapy intended for use against a specific genetic aberration unless a patient's tumor cells have a specific biomarker that predicts an effective response to the targeted therapy.

New this survey, 56 respondents described how their organization has adopted this recommendation:

- Integrated into medical policy (73.2%)
- Integrated into pathways (32.1%)
- Included in physician leadership and network communications (26.8%)
- Included in physician continuing medical education (12.5%)
- Integrated into value-based, quality initiative (10.7%)
- Included in member/caregiver communications (7.1%)

Cancer Treatment Guidelines and Pathways

MCO respondents answered a variety of questions that differentiated between the use of **cancer treatment guidelines** and **cancer treatment pathways**. Overall, the majority of MCOs (81.0%) follow cancer treatment guidelines; 38.0% use cancer treatment pathways.

Guidelines and Pathways Used by MCOs

The 81 MCOs that currently use guidelines most frequently use the NCCN Guidelines (80.2%), followed by the American Society of Clinical Oncology (ASCO) Clinical Practice Guidelines (45.7%) and National Cancer Institute Clinical Practice Guidelines in Oncology™ (21.0%). Some of these MCOs develop their own guidelines in collaboration with network oncologists (18.5%) and/or MCO-employed oncologists (11.1%); 7.4% use guidelines developed by network oncologists, independent of the MCO.

Of the 38 surveyed MCOs that have initiated a pathways program, most have developed their own pathways in collaboration with network (n = 13) and/or MCO-employed oncologists (n = 9); eight use pathways developed by network oncologists independent of the MCO. Seven MCOs use the P4 Pathways program, five use the Value Pathways powered by NCCN, and four use New Century Health.

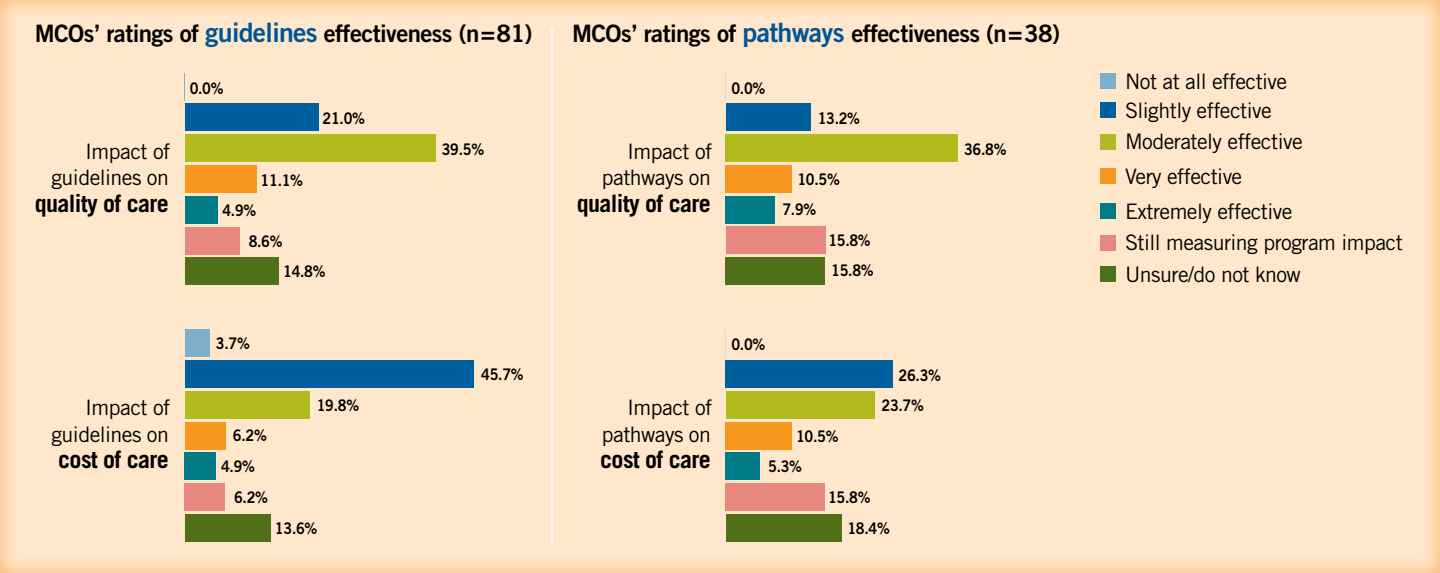
A majority of the 81 MCOs that use guidelines manage them internally (60.5%), as do 42.1% of the 38 MCOs with a treatment pathways program. However, local oncologists manage the pathways program for 23.7% of these 38 MCOs.

MCOs' ratings of the effectiveness of guidelines and/or pathways in enabling their organization to improve both the quality and cost of cancer care were similar to the last study period (**Figure 7**). Most rated the impact of the cancer treatment guidelines or pathways programs on *quality* of care as moderately effective. However, ratings about the impact of treatment guidelines on *cost* of care were more divided.

Oncologist Use of Guidelines and Pathways

Network oncologists are encouraged to voluntarily follow cancer treatment guidelines by 65.4% of the 81 MCOs that follow them, though 16.0% link incentives to their voluntary use and 13.6% tie oncologist reimbursement to their mandatory use. Twenty-nine MCOs incentivize oncologists to follow treatment guidelines, primarily through preferred provider status within the network (n = 11), faster processing of PAs/precertifications (n = 11), a share of cost savings (n = 10), expedited utilization management (UM) reviews and reimbursement processing (n = 9), reduced PA or precertification requirements (n = 8), and improved evaluation and management reimbursement (n = 7). Participation in the guidelines management program is estimated at 58.2% (range, 0% – 100%) of oncologists.

Figure 7. MCO Ratings of Cancer Treatment Guideline and Pathway Program Effectiveness



MCOs using guidelines and pathways programs most often rated them moderately effective in enabling their organization to improve the quality *of care. In comparison, ratings regarding the* cost *of care were more divided.*

Voluntary use of pathways by oncologists is also the standard for 44.7% of the 38 MCOs, though 42.1% incentivize voluntary use, and 7.9% link reimbursement to mandatory use of pathways. The 25 MCOs that incentivize oncologists to follow treatment pathways primarily reward their use by giving oncologists a share of the cost savings (n = 11), improved/higher drug reimbursement for the oncologist (n = 9), improved/higher evaluation and management reimbursements (n = 9), reductions in PA or precertification requirements (n = 6), faster processing of PAs/precertifications (n = 6), preferred provider status within the network (n = 6), and expedited UM reviews and reimbursement processing (n = 5). Participation in the pathways management program is estimated at 51.8% (range, 0% – 100%) of oncologists.

Management Strategies for Oncology Care

MCO executives identified strategies that their MCO has implemented — often with the help of pharmacy benefit managers (PBMs) and/or **specialty pharmacies** (SPs) — to manage oncology care. The respondents were then asked to rate the effectiveness of each in controlling drug costs and trends (**Table 1** on page 16). In 2015, PA/precertification protocols and drug quantity/days' supply limitations were used by more than 85% of MCOs. PA/precertification protocols were rated as the most effective management tool. Though used by only 69.0% of MCOs, a narrowed SP network was rated as the second most effective management tool surveyed.

New this survey, integration of oncology drug management across the medical and pharmacy benefits was used by 57.0% of MCOs and was rated as moderately effective in helping to manage oncology care and control drug costs.

New this survey, 26 MCOs described transparency initiatives that make oncology care costs and quality more transparent for their members, which include:

- Develop databases to track oncology care costs and quality parameters
- Educate members at point of service
- Make available treatment cost estimators through patient portals that include drugs based on specific member benefits so that members have a comprehensive view of coverage
- Offer care counseling programs
- Offer high-deductible plans that combine pharmacy and medical claims costs
- Provide members with important questions they should be discussing with their oncologist, as well as the opportunity to participate in a palliative care program
- Provide members with monthly explanation of benefits listing costs of therapy
- Provide Remittance Advice summaries, which explain reasons for reimbursement decisions

Table 1. Tools Used to Manage Oncology Care and Control Drug Costs

[a]*5-point scale, 1=not at all effective, 5=extremely effective*

Management tool	Percentage of MCOs	Effectiveness rating[a]
Drug management		
Prior authorization/ precertification	92.0%	3.35
Drug quantity/days' supply limitations	86.0%	2.92
Formulary tiering	77.0%	2.83
Member cost sharing via dollar copays and percent coinsurance	71.0%	2.79
Step therapy	71.0%	3.04
Preferred drug therapy	69.0%	2.94
Benefit design recommendations regarding specialty drug and site-of-care/service issues	65.0%	2.69
Integration of oncology drug management across the medical and pharmacy benefits	57.0%	3.04
Claims editing/repricing	56.0%	2.98
Site-of-care/service management	48.0%	2.73
Fee schedule management to lower drug expenditures	47.0%	3.02
Split-fill (ie, short fill) for oral oncology drugs	39.0%	2.77
Network management		
Narrowed specialty pharmacy network	69.0%	3.19
Narrowed oncology provider network	26.0%	2.96
Cost and quality transparency		
Data tools that make cancer drug costs and quality more transparent to members	26.0%	2.46
Sharing with network providers oncology practice/provider efficiency profiling of top performers for transparency of performance	21.0%	2.24

MCOs use a number of tools to manage oncology care and control drug costs, though their use does not necessarily correlate with their effectiveness. However, prior authorization is used most frequently and also is rated highest in effectiveness. New this survey, categories not solely focused on drug management were added. Narrowed specialty provider networks are employed by 69.0% of MCOs and are considered more effective than the majority of management tools.

New this survey, 51.1% of the 92 MCO respondents noted that the use of PA/ precertification is increasing under the medical benefit, though 43.5% have seen no change.

Use of PA/Precertification and Step Therapy

Though 92 MCO respondents using PA/precertification strategies most often identified health plans as responsible for administration of the PA process for oncology drugs covered under the medical benefit and for molecular testing/companion diagnostics, the responsibility for oncology drugs covered under the pharmacy benefit was shared with PBMs and SPs (**Figure 8**). **New this survey**, 51.1% of the 92 MCO respondents noted that the use of PA/precertification is increasing under the medical benefit, though 43.5% have seen no change.

Stakeholders have recommended that the Academy of Managed Care Pharmacy develop measurable goals for staged and full implementation of electronic prior authorization (ePA) to address the current manual and Web-based PA processes, which are often cumbersome, costly, untimely, and likely influencers of prescription abandonment. A recent survey among providers reported that streamlining medication PA is a top priority for them.[3]

The National Council for Prescription Drug Program's SCRIPT standard integrates real-time information exchange between the health plan and practice into the practice's ePA workflow within their electronic health record.[4] **New this survey**, 16 MCOs (or their delegated PBM/SP on their behalf) support ePA with their network oncology practices via the SCRIPT standard, another 19 plan on doing so in 2016, and 26 respondents reported that their information technology departments are working toward this capability, but they are unaware of the launch date.

New this survey, 32 of the 48 MCOs that are responsible for PA administration have integrated the PA process for medical benefits with the PA process for pharmacy benefits, and another three are planning to do so in 2016.

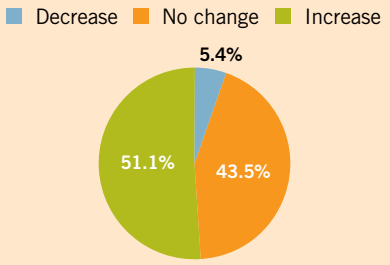
Step-therapy protocols are used with cancer-related drugs by 71 of the surveyed MCOs. Presented with a list of drug classes indicated in cancer and adjunctive/supportive care, most often respondents applied step edits to adjunctive drugs used to treat nausea and vomiting (n=47), hypercalcemia (n=40), and anemia associated with cancer therapy (n=39), and to cancer agents, such as aromatase inhibitors for breast cancer (n=34) and tyrosine kinase inhibitors for leukemia (n=29) and renal cell carcinoma (n=21).

Figure 8. Use of Prior Authorization (PA)/Precertification by MCOs

Organization responsible for administration of the PA process (n=92)

	Health plan	Pharmacy benefit manager	Specialty pharmacy	Other[a]
Oncology drugs covered under the pharmacy benefit	55.4%	37.0%	6.5%	1.1%
Oncology drugs covered under the medical benefit	85.9%	4.3%	5.4%	4.3%
Molecular testing/ companion diagnostics for select oncology drugs	91.3%	0.0%	2.2%	6.5%

Change in the use of PA/precertification for oncology drugs under the medical benefit over the past year (n=92)



[a]"Other" includes both the health plan and pharmacy benefit manager, third-party administrator, and other entities.

Though MCO respondents most often identified health plans as responsible for administration of the PA process for oncology drugs covered under the medical benefit and for molecular testing/companion diagnostics, the responsibility for oncology drugs covered under the pharmacy benefit is shared with PBMs and SPs. New this survey, more than half of MCOs reported an increased use of PA/precertification under the medical benefit over the past year.

Biosimilars

The first biosimilar medication to be marketed in the United States was approved by the Food and Drug Administration in March 2015 and was launched in September 2015.[5] **New this survey**, **Table 2** outlines initiatives planned by MCOs at the time of survey completion in July and August 2015 in anticipation of its marketing. Nearly all MCOs (93.0%) will have the drug undergo review by the P&T committee.

Table 2. Initiatives MCOs Are Planning to Undertake When the First Biosimilar Is Marketed in the United States

Initiative	Percentage of MCOs (N=100)
Undergo review by the Pharmacy & Therapeutics committee	93.0%
Manage the use of the originator product via prior authorization (PA)	48.0%
Manage the use of the biosimilar via PA	44.0%
Add the product to formulary as *preferred* status	42.0%
Institute a step-edit, establishing the biosimilar as first-line compared to the originator project	38.0%
Add the product to appropriate standards of care (eg, guidelines, pathways)	32.0%
Develop physician education materials about biosimilars	28.0%
Develop member education materials about biosimilars	24.0%
Set physician reimbursement lower than the originator product	13.0%
Add the product to formulary as *exclusive* status, for aggressive contracting	11.0%
Set physician reimbursement at parity with the originator product	8.0%
Set physician reimbursement higher than the originator product	7.0%

New this survey, when the first Food and Drug Administration-approved biosimilar in the United States is marketed, the primary initiative MCOs will take is to have the drug reviewed by their Pharmacy & Therapeutics committee.

Controlling Drug Cost and Spend

Table 3 on page 18 outlines the management strategies for costly cancer drugs that MCOs have implemented or are likely to implement over the next 12 to 18 months. Of all the strategies presented to them, similar to the last study period, 47.0% of MCOs have integrated case management across the medical and pharmacy benefits, 31.0% offered a care management program for any cancer diagnosis, and, **new this survey**, 31.0% introduced tiering for preferred and nonpreferred generics. Across the strategies surveyed, integrating oncology drug data across medical and pharmacy

Table 3. Oncology Drug Management Strategies Under Way and Predicted for Future Implementation

[a] *8-point scale, 1=not at all likely, 8=very likely*

Strategy	Currently implemented	Mean likelihood of implementation over next 12-18 months[a]
Formulary and benefit design		
Introduce tiering for preferred and nonpreferred generics	31.0%	3.97
Introduce a fourth or fifth tier for commercial plans that includes high-cost specialty drugs for cancer	28.0%	3.74
Develop a separate specialty drug benefit	26.0%	3.00
Equalize cost sharing for drugs covered under both the medical and pharmacy benefits	22.0%	4.15
Set a maximum dollar copay for oncology drugs	20.0%	3.34
Institute formulary exclusions regarding select products	17.0%	4.10
Increase patient OOP maximums	9.0%	4.26
Introduce a separate tier for oncology drugs	5.0%	2.39
Shift coverage of parenteral oncology drugs from the medical to the pharmacy benefit	3.0%	3.08
Clinical utilization management (UM)		
Integrate case management across medical and pharmacy benefits	47.0%	5.11
Offer a care management program for any cancer diagnosis	31.0%	4.76
Require a prior authorization/precertification for molecular/biomarker tests	30.0%	5.04
Restrict drug coverage to favorable molecular/biomarker test results	28.0%	4.72
Integrate oncology drug data across medical and pharmacy benefits to improve UM and clinical care management	25.0%	5.51
Restrict molecular/biomarker test coverage based on evidence supporting their validity and cost-effectiveness	24.0%	5.12
Require evidence of disease progression before approving use of a nonpreferred drug	21.0%	4.71
Institute/increase peer-to-peer consultations with oncologists	11.0%	4.51
Provider incentives and reimbursement		
Incentivize physicians to use generic drugs	15.0%	4.34
Change oncologist drug reimbursement from ASP-plus to drug acquisition cost plus care management fee	9.0%	3.80
Contract with oncology practices for services using global payments (ie, full capitation)	9.0%	3.74
Contract with oncology practices using a bundled payment or episode-of-care approach	8.0%	4.42
Contract with oncology practices for services using global payments (ie, partial capitation)	7.0%	3.96
Implement and/or expand a clinical pathway incentive payment program	6.0%	3.90
Incentivize physicians to use lower-cost biosimilars indicated in cancer care/supportive care	5.0%	4.43
Contract with oncology medical homes and/or oncology ACOs using a bundled payment or episode-of-care approach	5.0%	4.21
Apply differential physician reimbursements for use of preferred oncology drugs	4.0%	4.02
Payer/manufacturer contracting		
Enter risk-based or outcomes-based contracting	3.0%	3.80

OOP=out of pocket; ASP=average sales price; ACOs=accountable care organizations.

Of the strategies presented to them, similar to the previous study period, the largest number of MCOs have integrated case management across medical and pharmacy benefits, offered a care management program for any cancer diagnosis, and, new this survey, introduced tiering for preferred and nonpreferred generics. These plans most likely will integrate oncology drug data across medical and pharmacy benefits to improve UM and clinical care management over the next 12 to 18 months.

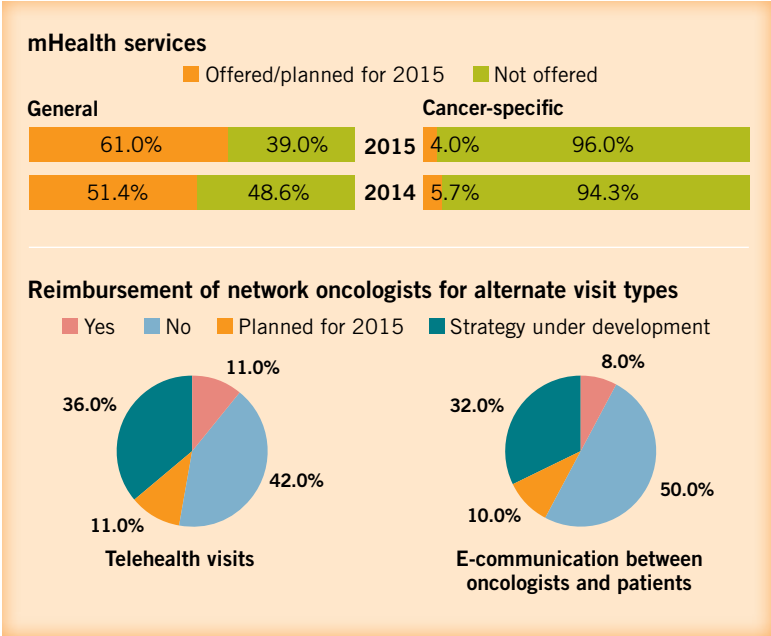
benefits to improve UM and clinical care management has the highest likelihood of implementation over the next 12 to 18 months. Additionally, 49 MCO respondents wrote in descriptions for "other" strategies under way or planned for the future, as described in the illustration below.

mHealth Strategy

Mobile health—also known as **mHealth**—refers to the use of mobile communication devices for health services and information. MCOs were surveyed on their general mHealth strategy (**Figure 9**). Nearly two-thirds of MCOs provide or plan to provide in 2015 mobile technology services to their members—12 are national plans, 34 are regional plans, and 15 are statewide plans. Most offer general mHealth applications (apps), including retail pharmacy locators, formulary searching, refill and appointment reminders, and physician finder/directory, which sometimes mirror what is found on plans' Web sites. Four MCOs offer or plan to offer cancer-specific mHealth apps or services, which include palliative care pilots, timer caps for oral oncolytics, and general cancer education and care management efforts.

Few MCOs reimburse network oncologists for alternate visit types, such as **telehealth** visits (11.0%) and visits using e-communication (11.0%). Approximately one-third of MCOs are considering mHealth reimbursement strategies in 2015 for alternate visit types.

Figure 9. MCOs' Use of mHealth Member Services



A greater percentage of MCOs provided and/or are planning to provide in 2015 general mobile technology services to their members compared with the previous study period. Though few MCOs currently reimburse oncologists for alternate types of visits, approximately one-third are developing strategies to do so.

"Other" Management Strategies for Cancer Drugs

Utilization management

- Explore use of medical benefit management programs
- Implement a claims validation process on medical benefit oncology drugs
- Apply more-restrictive PA policies that would require submission of chart notes and auditing of oncology practices using proprietary markers
- Apply more exclusion criteria for low-value drugs
- Institute post-service claim edits to confirm appropriate dosing, vial size, etc
- Explore in-sourcing of specialty drugs and oral oncolytics

Drug use/costs

- Cap drug payments at the cost of the lowest-cost site of service
- Require clinical response data for drug continuation
- Regularly review off-label use of drugs
- Restrict use of manufacturer copay coupons

Contracting

- Contract for rebates on drugs covered under the medical benefit
- Expand global payment with provider arrangements

Oncologists

- Drive a narrow network arrangement with decreased reimbursement and increased shared savings
- Institute a pay-for-performance program
- Implement peer-group best practices forums
- Institute a program to foster entry into clinical trials

Cancer treatment pathways

- Align member cost share with drugs on pathway
- Implement pathways with a large vendor

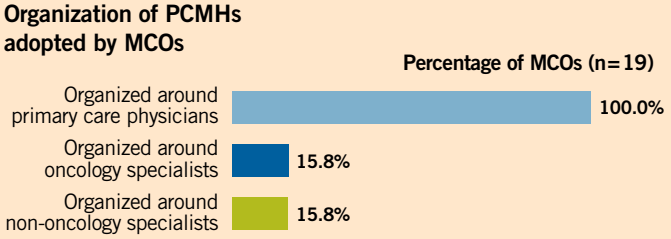
Palliative care and advance care planning

- Increase patient education regarding potential futile therapies and palliative care programs

Figure 10. Integrated Payer/Provider Initiatives With Oncologists and Cancer Care

Integrated payer/provider initiatives	Percentage of MCOs (n=53)
Measure the *cost impact* of treatment pathways	50.9%
Measure the *clinical impact* of treatment pathways	43.4%
Implement new risk arrangements/payment models with oncology practices	41.5%
Provider incentives/payment reforms to encourage early palliative care and advance care planning as part of treatment planning and goal setting	35.8%
Adopt PCMHs across the provider network	35.8%
Provider incentives/payment reforms to encourage provider use of *preferred* drug regimens	28.3%
Oncology nurse support for cancer care management	26.4%
Provider incentives/payment reforms to encourage shared decision making	24.5%
Form an oncology ACO in the commercial space	18.9%
Form an oncology ACO in the Medicare/ Medicaid space	18.9%
Provider incentives/payment reforms to encourage patient screening and discussions regarding psychosocial needs and support during treatment	17.0%
Reimburse oncology practices for data collection as part of quality improvement activities	15.1%
Offer financial support to fund EHRs and decision-support tools in network oncology practices	13.2%
Provider incentives/payment reforms to encourage patient discussions regarding cost of cancer care	13.2%
Offer financial support to fund oncology medical homes among network oncology practices	11.3%
Provider incentives/payment reforms to support development of high-performance oncology networks	11.3%

Measurement of the cost *and* clinical *impact of treatment pathways and implementing new risk arrangements/payment models with oncology practices led the payer/provider initiatives undertaken by 53 MCOs in 2015.*



PCMHs=patient-centered medical homes; ACO=accountable care organization; EHRs=electronic health records.

Integrated Payer/Provider and Quality Initiatives

More than half of MCOs (53.0%) are pursuing new integrated payer/provider initiatives with oncologists to improve cancer care. Measurement of the *cost* and *clinical* impact of treatment pathways and implementation of new risk arrangements/payment models with oncology practices led the payer/provider initiatives undertaken by these 53 MCOs in 2015 (**Figure 10**). The 19 MCOs (35.8%) that have adopted patient-centered medical homes reported that all of them are organized around primary care physicians, and only 15.8% include oncology and non-oncology specialists (**Figure 10**).

Accountable care organizations (ACOs) are another emerging delivery system. For those 15 MCOs (18.9%) that are involved in forming an oncology ACO in the private and/or public payer environment, many reported that it was too early to describe any positive or effective programs specifically for oncology care.

Payment Models

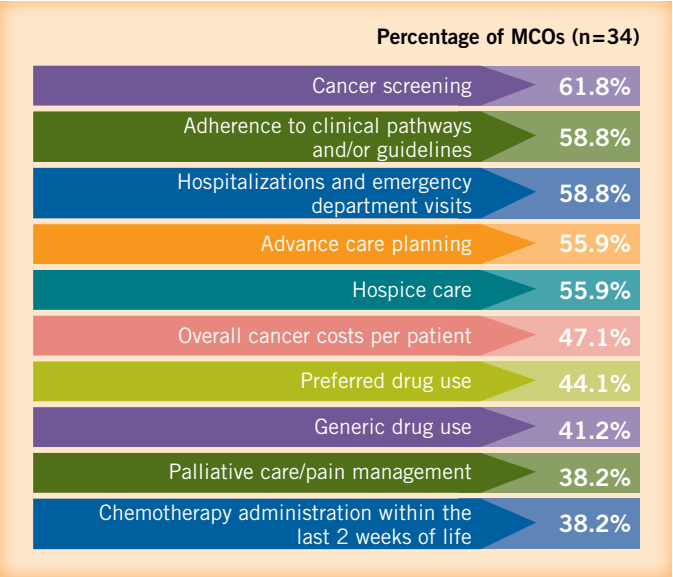
Few MCOs have contracted with network oncologists using new payment models, including **global payments**, **bundled payments**, and value-based/quality initiatives (eg, pay for performance, report cards). About two-fifths or fewer are investigating each of the three options.

The types of performance measures most often included in value-based/quality initiatives by the 34 MCOs that either are currently implementing them or have a pilot program under way are cancer screening, adherence to clinical pathways and/or guidelines, and hospitalizations and emergency department visits (**Figure 11**). **New this survey**, 38.2% of the 34 MCOs included chemotherapy administration within the last 2 weeks of life as a measure.

New this survey, only 29 MCOs could estimate oncologist outpatient services payments by type—89.3% were traditional fee for service with no quality incentives and 10.7% were new payment models. **New this survey**, the 34 MCOs that have currently implemented value-based/quality initiatives or have pilot programs described the rewards or risks shared with the participating oncologists. Most programs either are financial reward only (n=22) and/or shared risk (n=15).

More than half of MCOs (53.0%) are pursuing new integrated payer/provider initiatives with oncologists to improve cancer care.

Figure 11. Quality/Performance Measures Most Frequently Included in Value-Based/Quality Initiatives



Quality-Improvement Initiatives

The Center for Medicare and Medicaid Innovation is developing new payment and delivery models designed to improve the effectiveness and efficiency of specialty care. Among those specialty models is the Oncology Care Model (OCM), an innovative new payment model for physician practices administering chemotherapy. Under the OCM, practices will enter into payment arrangements that include financial and performance accountability for episodes of care surrounding chemotherapy administration to cancer patients.[6] **New this survey**, eight MCOs have applied to participate in the OCM, though 39 respondents were not sure of their MCO's involvement. Most of those not participating in the program reported that other initiatives were considered a priority or they had few resources for implementation of this program.

Six MCOs reported using oncology practice certification earned via ASCO's Quality Oncology Practice Initiative (QOPI®) Certification Program (QCP™) to differentiate oncology practices in their network, five MCOs expect to do so in 2016, and 40 are considering the option. These six MCOs most frequently reward practices for their participation by covering their QOPI-related participation expenses (n = 3), making them eligible for different or emerging reimbursement models (n = 2), and/or recognizing them in health plan marketing materials (n = 2).

Similar to the previous study period, 62 MCOs reported that input into the design/development of quality-improvement initiatives focused on cancer care within their health plans most often comes from in-network oncologists (n = 42), MCO-employed oncologists (n = 23), and/or external oncologist consultants/vendors (n = 21).

Cancer Care Issues

MCOs rated the level of priority that their organization places on a number of cancer care issues as part of their overall health benefit strategy for cancer (**Figure 12**). On average, MCOs place a high priority on specialty drug management, cancer screening and early detection, case management and care navigation, and palliative care. **New this survey**, ACP/hospice care was included in the choices given and rated a 7.00 on a 10-point scale, with 10 meaning very high priority. The following sections outline how surveyed MCOs are managing cancer care issues.

Figure 12. Level of Priority MCOs Place on Cancer Care Issues

10-point scale, 1 = very low priority, 10 = very high priority

Surveyed MCOs place a high priority on specialty drug management, cancer screening and early detection, case management and care navigation, and palliative care.

Access to Cancer Care

Access to cancer care can be an issue in certain markets, in light of cancer incidence, oncologist workforce, complexity of services, practice consolidations, and hospital consolidations, particularly in rural areas. **New this survey**, respondents described how their MCO monitors and measures the timeliness and adequacy of access to cancer care:

- Monitor geographic access for practices and service area
- Track patient satisfaction scores/complaints and "likelihood-to-recommend" percentages
- Measure time from diagnosis to treatment
- Track provider-to-patient ratio
- Monitor cancer care network for appropriate subspecialties

New this survey, 57.0% of surveyed MCOs have undertaken initiatives regarding second opinion consultations in cancer diagnosis and treatment planning, with another 11.0% investigating such a program. Two-thirds of the 57 MCOs encourage members to seek second opinions as part of member/consumer advocacy, and 45.6% have case managers or care navigators who support members by identifying appropriate specialists (**Table 4**).

Table 4. Initiatives Regarding Second Opinions in Cancer Diagnosis and Treatment

Initiatives	Percentage of MCOs (n=57)
MCO *encourages* members to seek second opinions as part of member/consumer advocacy	66.7%
Case managers/care navigators support members in identification of appropriate specialists	45.6%
Second opinions require referral and/or precertification/prior authorization	29.8%
MCO has no limitations on providers who can be consulted	17.5%
MCO tracks the number of second opinion consults	17.5%
MCO *requires* second opinions in certain cancer diagnoses	8.8%
MCO tracks the number of consults that result in a change in diagnosis/treatment plan	7.0%
MCO *highly encourages* remote/online/virtual consults with cancer centers of excellence	1.8%

Survivorship Care

Twenty-two MCOs have formal cancer survivorship program care to help manage the quality and cost of survivorship care, and 13 are investigating implementing such a program. The initiatives most often implemented by the 22 MCOs are case manager education and resources (n = 13), encouragement of network oncologists to follow NCCN Guidelines for Survivorship (n = 10), and encouragement of oncologists to develop survivorship care plans (n = 10). **New this survey**, six MCOs encourage **prehabilitation** assessments and services at the time of diagnosis to improve patient outcomes.

Palliative Care and Advance Care Planning

Similar to previous study periods, most surveyed MCOs (n = 86) have undertaken palliative care and ACP initiatives (**Table 5**). As in 2014, most often these involve online and print educational materials and telephonic support of members by case managers/nurses.

Geriatric assessments among oncology patients are becoming more critical, particularly for those aged 80 years or older. An important aspect of these assessments is a comprehensive medication review for polypharmacy and potentially

Table 5. MCO Initiatives Regarding Palliative Care and Advance Care Planning

Initiatives	Percentage of MCOs (n=86)
Print and Web site educational materials	68.6%
Case manager/nurse telephonic support	57.0%
Expanding member benefits for palliative care under the medical benefit	38.4%
Focusing on individualized high-touch case management	24.4%
Patient education from palliative specialists	19.8%
Expanding hospice care coverage (ie, length of care)	19.8%
Supporting state medical society initiatives	17.4%
Working with network oncologists to develop guidelines for advance care planning	16.3%
Physician training on how to discuss with patients	16.3%
Creating a palliative care team	14.0%
Creating protocols for care (eg, transitions from inpatient to home care for palliative patients)	12.8%

More than four-fifths of surveyed MCOs have undertaken initiatives to improve palliative care and advance care planning. Most often, these involve online and print educational materials and telephonic support of patients by case managers/nurses.

inappropriate medications, which can complicate and adversely impact cancer treatment.[7] **New this survey**, 36 MCOs described *specific payer/provider initiatives* under way or planned with oncologists to support the drug management aspects of patient care. Most of the medication management programs are not limited to patients with cancer, but are aimed toward high-cost complex patients.

Site-of-Service Management

New this survey, 48.0% of MCOs reported site-of-care management (assisted by PBMs and/or SPs, as applicable) as a strategy to control drug costs and manage oncology care, while an additional 14.0% plan to adopt it in 2016. This strategy is considered *slightly* to *moderately* effective by 37 of the 48 plans. Twenty-three of the 48 MCOs identified specific site-of-care steerage tactics currently implemented or the likelihood of doing so over the next 12 to 18 months to ensure that the most cost-effective site is being used by their members (**Table 6**). Utilizing medical and pharmacy benefit designs to optimize site-of-care cost-effectiveness is the tactic most frequently used by 52.2% of the 23 MCOs. However, in the next 12 to 18 months, MCOs are most likely to apply PA/precertification to ensure selection of the lowest-cost site.

Table 6. Most Frequently Used Site-of-Care/Service Steerage Tactics by MCOs

[a]*8-point scale, 1=not at all likely, 8=very likely*

Tactics	Already implemented (n=23)	Likely to be implemented[a]
Utilize medical and pharmacy benefits designs to optimize site-of-care/service steerage cost-effectiveness	52.2%	5.82
Have case management direct referrals to cost-effective settings	43.5%	5.38
Contract exclusively with a single specialty pharmacy (SP) for oncology services as a way to control costs	43.5%	4.85
Apply prior authorization/precertification to ensure selection of lowest-cost site	39.1%	6.50
Recommend the most cost-effective sites and infusion suites to oncologists	39.1%	5.71
Manage member cost-sharing by site to influence cost-effective site selection	34.8%	4.27
Contract with/designate narrowed or preferred networks of service sites	34.8%	4.93
Contract with outpatient infusion clinics	30.4%	5.81
Develop a drug list appropriate for home care or self-administration	30.4%	5.75
Mandate SP vendor management	30.4%	5.44
Increase cost transparency to members and encourage site-of-care discussions with oncologists	21.7%	4.61
Negotiate fee schedules with hospitals for their outpatient infusion services	21.7%	6.06

The tactic most frequently used (by 52.2% of the 23 MCOs) is addressing site-of-care/service steerage through medical and pharmacy benefits designs to optimize cost-effectiveness for the member. However, in the next 12 to 18 months, MCOs are most likely to apply prior authorization/precertification to ensure selection of the lowest-cost site.

Member Drug Cost Sharing

Fixed-Dollar Copays and Percent Coinsurance

MCO executives estimated the percentages of their medical and pharmacy benefit membership that had a cost-sharing requirement (ie, fixed-dollar copay and/or percent coinsurance) for oncology drugs in 2015. As in previous years, across the lines of business, there are more drug cost-sharing requirements under the pharmacy benefit versus the medical benefit, which affects a greater share of members. The managed Medicaid line of business has the smallest share of members with drug cost-sharing requirements compared to commercial and managed Medicare, particularly for drugs covered under the medical benefit.

Percentage of Members With Drug Cost Sharing

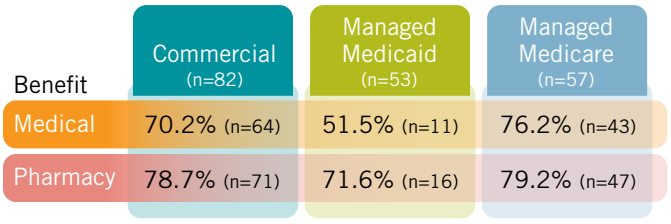


Figure 13 on page 24 details the fixed-dollar copays and percent coinsurance, on average, reported as the most common by the surveyed commercial and managed Medicare plans in 2015. It also illustrates the percentage of MCOs with commercial and managed Medicare lives that forecast an increase in the share of members with an oncology drug cost-share requirement and its value in 2016 compared with the previous benefit year. More than one-third of commercial MCOs forecast an increase in dollar copayment amounts required for oncology drugs and the use of percent coinsurance in determining members' oncology drug cost share under the pharmacy benefit. Cost share is

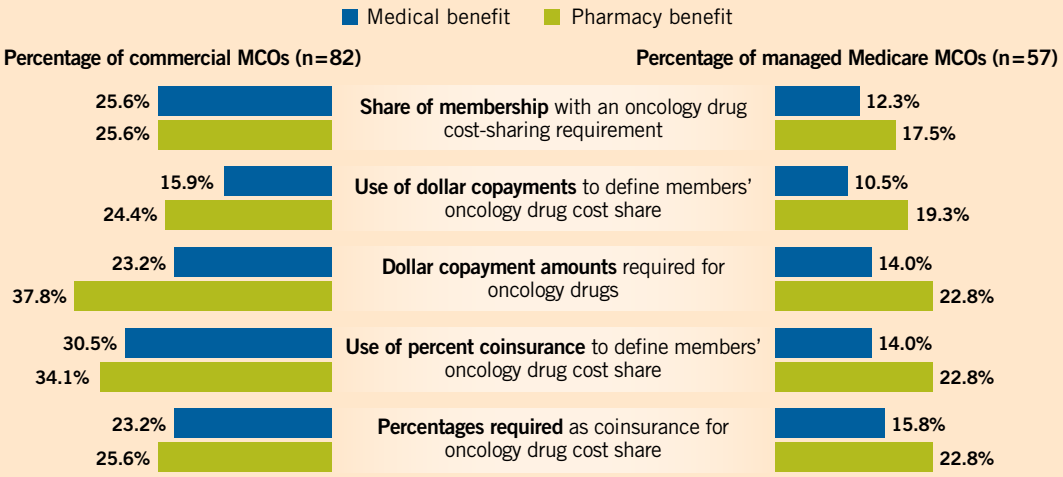
Figure 13. Oncology Drug Cost Sharing

"Most common" level of member cost sharing for oncology agents in commercial and managed Medicare benefits in 2015

Ranges appear in parentheses

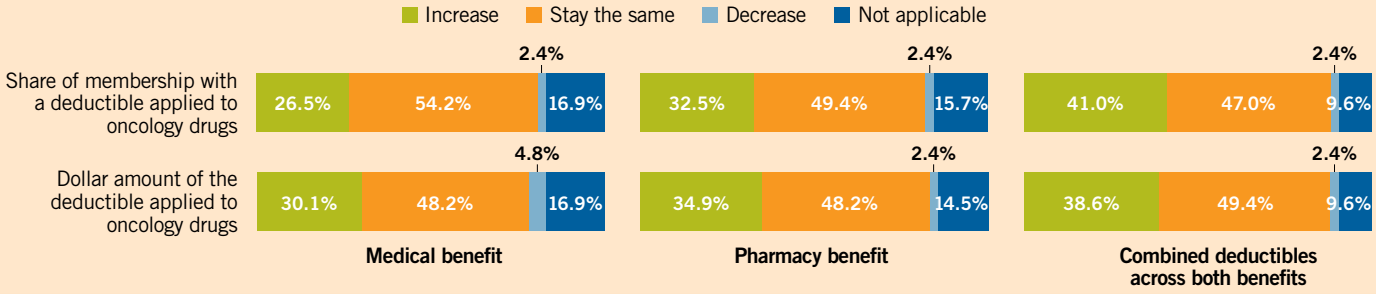
	Commercial		Managed Medicare	
	Mean fixed-dollar copay	Mean coinsurance	Mean fixed-dollar copay	Mean coinsurance
Medical benefit	$47.59 ($0–$100)	20.9% (0%–100%)	$49.33 ($15–$100)	20.8% (0%–33%)
Pharmacy benefit	$61.44 ($10–$250)	25.0% (10%–100%)	$50.83 ($4–$100)	26.9% (0%–33%)

MCOs forecasting increases for 2016



***Deductibles* required under the medical and pharmacy benefits**	Percentage of membership subject to deductibles	Average amount of most common annual deductible
Separate deductible applied to oncology drugs under the medical benefit (n=22)	46.2%	$1,423.33
Separate deductible applied to oncology drugs under the pharmacy benefit (n=21)	36.6%	$1,032.14
Combined deductible applied to oncology drugs under the medical and pharmacy benefits (n=74)	51.2%	$2,446.67

Forecasts regarding deductibles applied to oncology drugs (n=83)



More than one-third of commercial MCOs expect higher dollar copayments (37.8%) and more use of percentage coinsurance (34.1%) for oncology drugs under the pharmacy benefit. More than two in 10 managed Medicare MCOs (22.8%) forecast higher dollar copayments, more use of percentage coinsurance, and higher coinsurance percentages applied to oncology drugs under the pharmacy benefit. The majority of commercial and managed Medicare MCOs expect cost sharing to remain unchanged in 2016 (data not shown).

typically limited for managed Medicaid recipients, and few respondents forecast an increase in 2016 for this line of business.

Deductibles

Surveyed MCOs estimated the percentage of their current (2015) medical and pharmacy benefits membership that has a deductible applied to oncology drugs under the medical benefit, pharmacy benefit, and/or combined under both benefits and the most common annual deductibles across all lines of business (**Figure 13**). Though about half of MCOs reported that the share of membership with a deductible and the dollar amount of deductibles applied to oncology drugs across the medical and pharmacy benefits in 2016 compared with 2015 would stay the same, a number of MCOs forecast increases (**Figure 13**).

New this survey, 83 respondents described initiatives their organization has undertaken to keep members who are undergoing cancer treatment well managed and out of the hospital or emergency department (see box below).

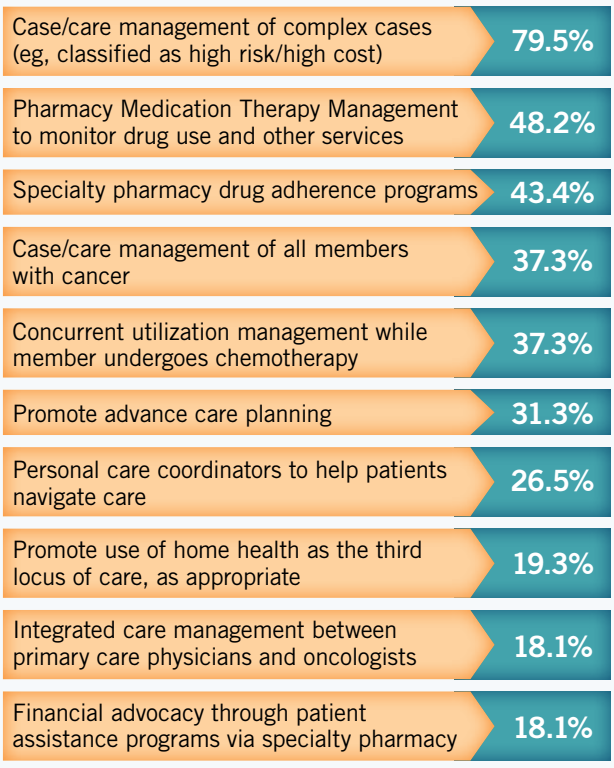
Member Spending Maximums

In 2015, 68.5% of the 61 MCOs with commercial and managed Medicare lines of business have established a member out-of-pocket (OOP) spending maximum applied to drugs, including oncology drugs. The average annual OOP maximum applied to all drugs is an average of $4,053.85 (n = 52).

New this survey, 37.7% of MCOs expect the share of membership with an OOP spending maximum to increase in 2016 compared with 2015, while 62.3% expect it to stay the same.

New this survey, 37.7% of the 61 MCOs expect the share of membership with an OOP spending maximum to increase in 2016 compared with 2015, while 62.3% expect it to stay the same. The same percentages apply to the dollar amount of the OOP spending maximums.

Most Frequently Employed Approaches to Keep Members With Cancer Well Managed (n = 83)



Specialty Pharmacy Contracting and Drug Fulfillment

Considering the total prescription volume for oncology drugs covered by their MCO last year (2014) under the medical and pharmacy benefits, MCO executives estimated the percentage of oncology drugs by type that flow through various distribution channels (**Figure 14** on page 26). Similar to previous study periods, SPs are most often used to distribute oral and self-injectable agents, and more than half of in-practice infused/injected drugs are sourced through physician offices (eg, in-practice dispensary or practice-owned **closed-door licensed pharmacy** or infusion services/shot clinic).

More than half of the MCO executives (n=55) reported oral oncology drug dispensing from physician offices. Four in 10 of these MCOs estimated that this represents 1% to 10% of their private, community-based practices within their networks (**Figure 14**).

New this survey, 64 MCOs identified unmet needs regarding data describing oncology drug use provided to them by their contracted SPs (**Figure 14**). Nearly half would like to receive data about the average length of therapy by cancer type.

SP Distribution of Drugs to Physicians and Members

Figure 15 on page 27 illustrates the percentage of MCOs that require physicians (ie, for in-practice use) and members to use one or more SPs to provide or manage oncology drugs covered under the medical or pharmacy benefit. In addition, MCOs identified the types of oncology drugs that they require physicians and members to obtain through SPs, as applicable (**Figure 15**).

Split-Fill Program

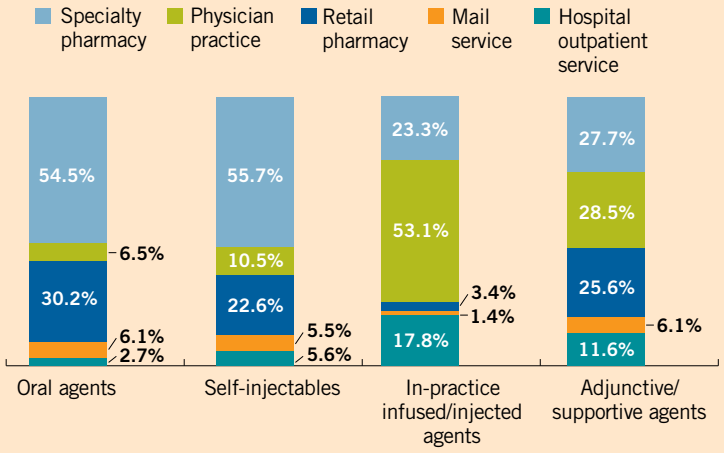
Some of the MCOs that use SPs or plan to use SPs in 2016 to procure and/or distribute oncology drugs to patients offer a **split-fill program** to manage wastage of oncology drugs due to lack of tolerability, side effects, or other reasons for discontinuation of the drug. **Table 7** shows the number of MCOs whose contracted SP vendors offer a split-fill program for *all* or *some* oncology drugs that they distribute to patients, as well as the more common time durations for the split-fill option by category of oncology drug covered. Most often, split-fills are offered for the first month of treatment or determined on a case-by-case basis.

Physician Reimbursement for Oncology Drugs

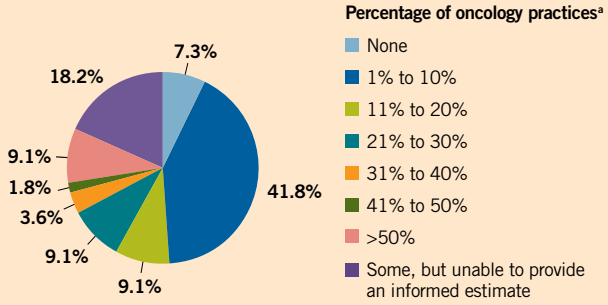
MCOs described the drug pricing base used to reimburse physicians who **buy and bill** branded and generic cancer drugs covered under the medical benefit. Most commonly, half (50.0%) of the surveyed MCOs reimburse physicians for branded cancer drugs based upon average sales price (ASP); 28.0% of MCOs use average wholesale price (AWP). Generic drugs and biosimilars with cancer treatment/ supportive indications are reimbursed using ASP by 39.0% of MCOs, AWP by 23.0% of MCOs, and maximum allowable cost by 15.0% of MCOs. In 2016, very few MCOs plan to revise the basis used to compensate physicians for cancer drug buy and billing.

Figure 14. Distribution Channels for Oncology Drugs

Percentage of oncology drugs distributed through various channels



MCO estimates for share of network practices that dispense oral oncology drugs (n=55)



Top unmet needs regarding data describing oncology drug use

Reports and analytics	Percentage of MCOs (n=64)
Average length of therapy by cancer type	45.3%
Adherence/compliance measures	43.8%
Adverse event rate	42.2%
Disease progression and value of therapy continuation	37.5%
Metrics by cancer type	37.5%
Therapy comparisons of cost and outcomes by cancer type and stage	37.5%
Cost savings/avoidance tied to SP services/ interventions and utilization management	35.9%
Discontinuation rate	35.9%
Physician benchmarking reports on comparative cost and utilization metrics	32.8%
Comparison of per-member medical vs pharmacy benefit spend	31.3%
Emergency department/hospitalization rate	29.7%
Changes in drug regimens	29.7%
Number of treatment cycles	29.7%
Percentage of one-time-only fills	29.7%
Physician compliance with evidence-based standards by member and condition	29.7%

SP=specialty pharmacy.

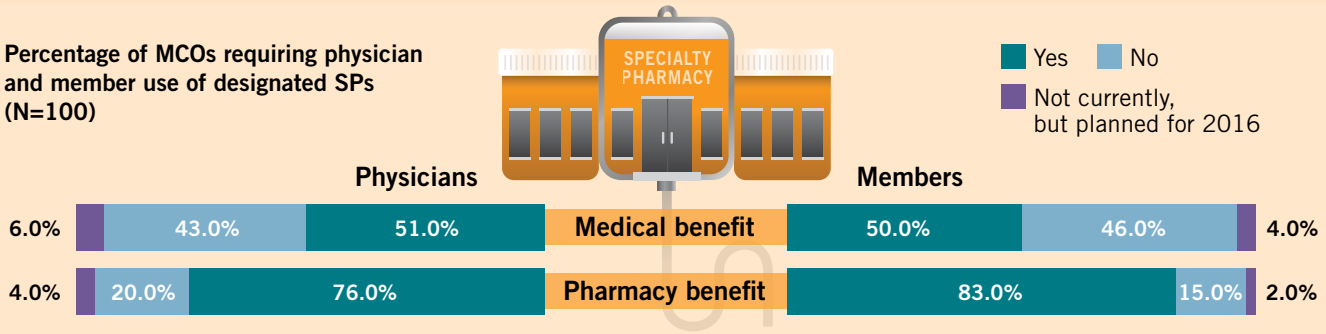
[a]Refers to private community-based practices within the MCO network.

More than half of oral oncolytics and self-injectables are distributed via SPs. More than half of the MCO executives (n=55) reported oral oncology drug dispensing from physician offices. Four in 10 of these MCOs estimated that this represents 1% to 10% of their private, community-based practices within their networks. New this survey, 64 of the surveyed MCOs identified unmet needs regarding reports and analytics provided their organizations by their contracted specialty pharmacies. Nearly half would like to receive data about the average length of therapy by cancer type.

Of those 51 MCOs that are currently using ASP-based physician reimbursement for branded and/or generic oncology drugs, 23 reported increasing professional fees in conjunction with their move to ASP-based compensation and seven are evaluating whether or not to do so.

For oncology products available from SPs, 17.4% of the 86 MCOs that use or plan to use SPs for drug fulfillment set physician drug reimbursement under buy and bill to the same rate paid to SPs for *all* oncology drugs and 47.7% for *some* oncology products in 2015. MCOs forecast an increase in these percentages in 2016: 19.8% of these MCOs plan on tying physician drug reimbursement under buy and bill for *all* and 51.2% for *some* oncology products to the SP rate.

Figure 15. MCO Requirements Related to Physician and Member Use of Designated SPs



	Oral agents	Self-injectables	In-practice infused/ injected agents	Adjunctive/supportive agents
Required PHYSICIAN use of SPs for *some* or *all* oncology agents				
Medical benefit (n=57)	50.9%	56.1%	71.9%	68.4%
Pharmacy benefit (n=80)	71.3%	70.0%	53.8%	58.8%
Required MEMBER use of SPs for *some* or *all* oncology agents				
Medical benefit (n=54)	51.9%	63.0%	72.2%	74.1%
Pharmacy benefit (n=85)	80.0%	82.4%	56.5%	71.8%

SPs=specialty pharmacies.

MCO requirements for physicians and patients to procure oncology drugs through an SP varies by benefit and type of drug. For those MCOs that mandate SP use for select drugs, the number of drugs included has stayed the same or increased since 2014 (data not shown).

Table 7. Duration of Split-Fill Program for Oncology Drugs From Specialty Pharmacies to Patients

	Oral agents (n=53)	Self-injectables (n=37)	In-practice infused/ injected agents (n=16)	Adjunctive/ supportive agents (n=26)
First month	60.4%	48.6%	43.8%	42.3%
2 months	1.9%	2.7%	6.3%	0.0%
3 months	9.4%	16.2%	12.5%	11.5%
Unlimited (ie, determined on a case-by-case basis)	20.8%	29.7%	37.5%	42.3%

The number of MCOs whose contracted specialty pharmacies manage oncology drug waste through the use of split-fills varies by type of drug, with 53 MCOs employing this option with oral oncology drugs. Most often, split-fills are offered for the first month of treatment or unlimited (ie, determined on a case-by-case basis).

SPECIALTY PHARMACIES
(N=31)

HIGHLIGHTS

SP Prescription, Revenue, Volume & Distribution

- Cancer drugs comprise 26.5% of surveyed SPs' total prescriptions, on average, an increase from 22.6% among surveyed SPs in 2014
- Commercial plans account for 51.2% and Medicare for 29.8% of contracted payers
- 60.0% of cancer prescriptions and 44.8% of cancer adjunctive/supportive prescriptions filled are oral drugs
- 63.2% of SPs identified hospital expansion of 340B program-related outpatient services as the primary driver behind SPs' move to enter or consider more contracts with hospitals to provide outsourced oncology pharmacy services

Patient & Physician Services

- 80.6% of SPs offered split-fill programs to reduce waste in 2015
- In 2015, 54.8% of SPs offered mobile health apps to members, and an additional 29.0% plan to do so in 2016
- 51.6% of SPs collect outcomes data regarding the oncology drugs they dispense and manage, while 6.5% are planning to collect these data in 2016

Payer-Focused Services

- 80.6% of SPs provide compliance/persistence/adherence and side-effects reporting and 74.2% offer drug pipeline monitoring and reporting
- 58.1% of SPs are responsible for utilization management edits and PA for *all* (22.6%) or *some* (35.5%) cancer drugs under the medical benefit

Drug Purchasing & Managed Care Contracting

- 16 SPs offer a formulary or preferred drug list (PDL) that includes cancer drugs and cancer adjunctive/supportive agents; 43.8% of MCO clients increased their use of the formulary/PDL over the past 12 months
- 10 SPs are expanding contracts to include additional services, 10 reported more aggressive discounting on drug products, and 10 are expanding contracts into therapeutic areas not previously under contract
- 86.2% of 29 SPs offer financial assistance through manufacturers' copay coupon programs, and 79.3% refer patients to manufacturers' patient assistance programs

Oncology Care Services

- 58.1% of SPs identified controlling cancer specialty drug costs as the most pressing challenge in cancer care
- 61.3% of SPs identified the implementation of split-fill/quantity-limits programs to reduce waste as the primary strategy for better cost control
- 45.2% of SPs noted an *increase* or *significant increase* in the number of community-based and/or hospital-based oncology practices taking responsibility for oral oncology drug dispensing and patient education
- 74.2% of SPs offer patients and/or their family/caregivers services regarding palliative care and advance care planning

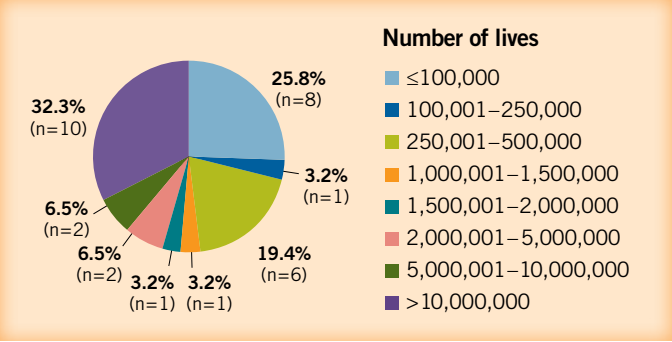
Demographics

Thirty-one managers working at specialty pharmacy (SP) organizations that provide oncology services were recruited from May to August 2015 to complete an online survey. Respondents were prequalified to ensure that they are knowledgeable about the cancer care services offered by their organizations. The survey gathered information about SP operations, contracting, and cancer care services provided to managed care organizations (MCOs), oncology practices, and patients in 2014, 2015, and forecast for 2016.

Twelve SPs are owned by pharmacy benefit management organizations (PBMs), eight function as independent pharmacies, and five are owned by a retail pharmacy chain (n = 4) or a grocer/grocery chain (n = 1). The remaining six SPs are owned by a health plan (n = 3), a home health care company (n = 1), a physician group (n = 1), and an integrated health care delivery system/accountable care organization group purchasing organization (n = 1).

Similar to earlier editions, this year's sample includes several of the largest SP operations in the United States. Twenty-three SPs (74.2%) are national in their scope of service; the remaining eight are regional SPs. All 10 SPs that serve more than 10 million lives (32.3% of the sample) are national in their scope of business (**Figure 1**).

Figure 1. Total Number of Lives Served by SPs



More than one-third (38.8%) of the 31 SPs serve more than 5 million lives.

Cancer Prescription Volume, Revenue, Distribution, and Accreditation

In 2015, drugs used to treat cancer comprised an average of 26.5% of all SP prescriptions, an increase from 22.6% among surveyed SPs in 2014. Adjunctive/supportive drugs accounted for 12.7% of SP prescriptions, more than double the 5.5% of SP prescriptions that adjunctive/supportive drugs accounted for in the previous study period. Similar to the

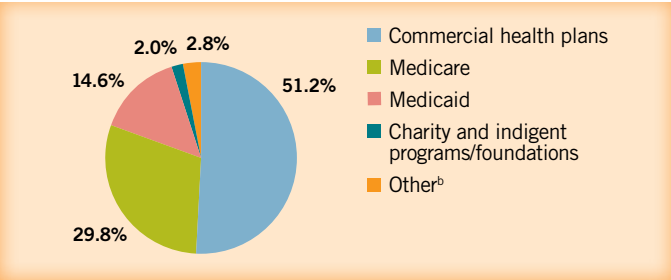
Table 1. Types of Cancer Prescriptions Filled by Surveyed SPs

Drugs used to treat cancer comprised an average of 26.5% of all SP prescriptions	Mean percentage of cancer treatment drug prescriptions	Administration method	Mean percentage of cancer adjunctive/ supportive drug prescriptions	*Adjunctive/ supportive drugs accounted for 12.7% of all SP prescriptions*
	60.0%	**Oral**	44.8%	
	17.3%	**Physician in-practice administered**	23.0%	
	15.5%	**Patient self-injected**	26.5%	
	7.2%	**Infused in the home**	5.7%	

Most cancer and adjunctive/supportive prescriptions filled by surveyed SPs are administered orally.

previous study period, oral drugs represented 60.0% of all cancer prescriptions in 2015 and 44.8% of cancer adjunctive/ supportive prescriptions (**Table 1**). Payment for these cancer treatments comes from a number of sources (**Figure 2**). Commercial health plans accounted for approximately half of the SPs' payer mix for both national SPs (50.3%) and regional SPs (53.8%) in 2015. Medicare and Medicaid represented a combined 44.4% of the payer mix in 2015.

Figure 2. Total SP Cancer Prescriptions[a] by Payer Type



[a]Total cancer prescriptions are defined as those written to treat cancer and for cancer adjunctive/supportive therapy, excluding ancillary/administrative supplies.

[b]"Other" includes patient self-pay, PhRMA programs, and physician offices.

The surveyed SPs deliver cancer prescriptions (including both drugs to treat cancer and adjunctive/supportive therapies, but excluding ancillary/administration supplies) to a variety of destinations. Similar to previous study periods, 65.6% of cancer drugs are sent from SPs directly to patients' homes for self-administration or home administration, followed by 21.8% of drugs delivered directly to oncology practices for treatment of patients (**white bagging**) and 6.7% delivered to patients' homes for **brown bagging**. In this study period, 64.6% of SPs forecast an *increase* in 2016 in the share of cancer drug prescriptions delivered to patients' homes for self- or home-administration, while 38.8% of surveyed SPs forecast an *increase* or *significant increase* in the share of prescriptions for cancer drugs delivered directly to oncology practices.

New this survey, 17 SP respondents who forecast an *increase* or *significant increase* in 2016 for either white bagging or brown bagging reported a range of factors driving this trend:

- Health plans directing patients with financial incentives toward white/brown bagging
- Lower Medicare copays under the medical benefit for in-practice drug administration
- Provider cash flow issues and low drug margins are filtering out the unscaleable low-volume practice sites
- More injectable medications available to patients
- Increased physician oversight in early stages of therapy
- Specific high-cost injectables driving case management steerage to lower-cost site of care
- Rise in the number of high-deductible health plans
- Practice accountability for proper storage/control of injectables

Only six SPs, four of which are national, *occasionally* or *routinely* provide oncology drugs to hospitals; 10 do so rarely. These 16 SPs supply cancer drugs to hospitals under the following situations: limited-distribution arrangements (n = 11), upon request by the physician (n = 7), upon request by the health plan (n = 6), in cases of drug shortages (n = 5), based on standing contracts with hospitals as an outsourced vendor (n = 4), and as part of a **patient assistance program** (n = 4). **New this survey**, eight of these 16 SPs noted that they supply cancer drugs to hospitals in instances related to the **340B Prescription Drug Discount Program**.

In terms of *required* patient use, 77.5% of respondents reported an *increase* or a *significant increase* compared with the prior year in required patient use of an SP to acquire oral cancer treatments. This trend is expected to continue, as 83.9% of the surveyed SPs forecast an increase in required patient use for oral cancer drugs over the next 12 months.

Figure 3. Changes in *Required* Patient Use of an SP to Acquire Various Types of Oncology Drugs

Change over the **past 12 months**			Type of oncology drug/administration	Change forecast for the **next 12 months**		
Decrease	**No change**	**Increase**		**Decrease**	**No change**	**Increase**
0.0%	22.6%	77.5%	**Oral**	0.0%	16.1%	83.9%
3.2%	48.4%	48.4%	**Patient self-injectable**	6.5%	35.5%	58.1%
12.9%	77.4%	9.7%	**In-practice injectable/infused**	12.9%	54.8%	32.3%
3.2%	51.6%	45.2%	**Adjunctive/supportive**	0.0%	41.9%	58.1%

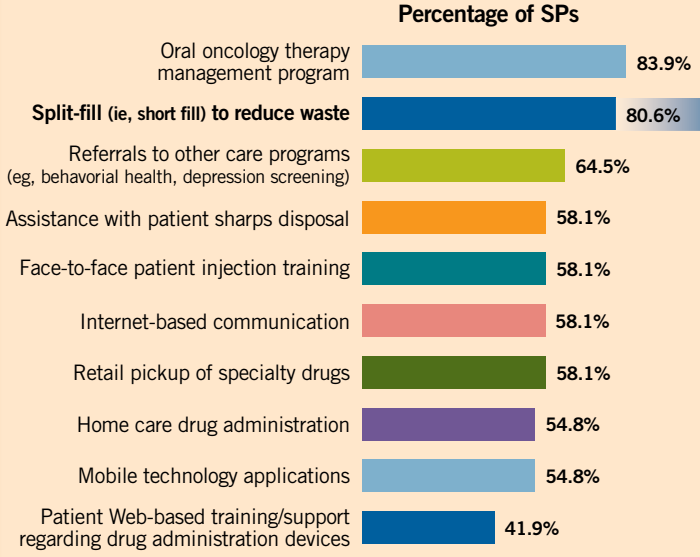
The 2015 survey results show an increasing trend toward requiring patients to use an SP to acquire most types of oncology drugs, with the notable exception of in-practice injectable/infused drugs. More than 80% of respondents forecast required *use of an SP to acquire oral treatments will continue to increase over the next 12 months.*

The trend in required patient use of SPs to acquire self-injectables and adjunctive/supportive agents was mixed. For example, 77.4% of respondents reported no change in required patient use for in-practice injectable/infused drugs, while 48.4% of respondents noted an increase in required use of an SP for patient self-injectable treatments (**Figure 3**).

Patient Services

SPs generally provide a core set of patient services to support cancer treatment. **Figure 4** details the percentage of surveyed SPs that are currently providing various additional patient support services beyond their core competencies. The most frequently provided noncore patient services are oral oncology

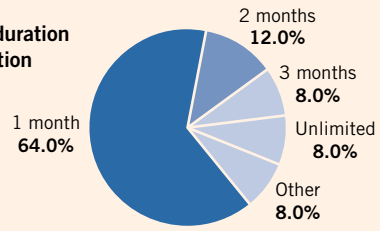
Figure 4. Top 10 *Noncore*[a] Patient Services Offered by SPs in 2015



[a]Noncore services refer to services provided *in addition* to basic/universally provided services, such as 24/7 support, disease and device education, compliance monitoring, billing, and delivery.

Average 18.2 cancer drugs in a split-fill program (n=25)

Most common duration of a split-fill option



Percentage of SPs (n=25)

Performance/outcomes metrics collected for oncology drugs in split-fill programs	**Percentage of SPs (n=25)**
Calculation/dollar valuation of waste avoidance due to split-fill program	80.0%
Number of split-fill prescriptions (Rxs) by drug	72.0%
Percentage of split-fill Rxs by drug that exposes the need for therapy changes	64.0%
Number of patients participating in the program	56.0%
Patient satisfaction	36.0%

In 2015, the most frequently provided noncore patient service was oral oncology therapy management programs, as it was in the previous study period. Other noncore services that continue to be frequently provided include split-fill programs to reduce waste and referrals to other care programs. Most commonly, split-filling is offered to patients for the first month of treatment.

therapy management programs, **split-fill services** to reduce waste, and referrals to other care programs.

One factor often cited as a principal source of drug wastage is the combination of a month's supply of oral oncolytics with poor patient adherence.[1] Patient data collected and analyzed by a PBM found that adherence to oral chemotherapy is a challenge despite the seemingly easier administration and patient control over these drugs compared to infusions. The data showed that up to one-third of patients do not complete a 180-day regimen, and of those, about one-fourth do not complete the first 30-day regimen.[2]

New this survey, 22 of the 25 SPs (88.0%) with oncology drugs in their split-fill programs expect the number of drugs in the program to increase over the next 12 months. In 2015, the average number of oncology drugs in split-fill programs offered by the 25 SP respondents was 18.2, with a range of 0 to 100. This is almost double the average of 9.6 drugs in the previous study period (**Figure 4**). The most common length of time for which patients can get split-fills for cancer drugs is 1 month (ie, the first month of treatment), according to 64.0% of the SP respondents.

New this survey, the most frequently identified performance/outcomes metrics the 25 SPs collect for oncology drugs in their split-fill programs is calculation/dollar valuation of waste avoidance due to the split-fill program (**Figure 4**).

New Patient Services

Seventeen SP executives described *new* patient services they plan to introduce in 2016.

Patient/physician-centric services include compliance management tracking under the medical benefit, developing unique programs for disease-state management, linking of the patient care software platform with the oncologist's practice management system to enable a two-way exchange of information, medication synchronization, patient access to specialized oncology PharmD care coordinators, tablet-splitting program, providing education materials and working closer with the patient services hub, quality-of-life measures, and condition management/comorbidity reporting.

Internet/mHealth-based services include 24/7 pharmacist chat, mobile apps to improve adherence, more Web-type services, patient access to oncology Web portals, and patient access to the SP's portal.

Utilization management (UM) services include split-fill support.

Use of Mobile Health Applications and Telehealth

Currently, 58.1% of surveyed SP respondents provide Internet-based communication (eg, e-mail, online chatting, instant messaging, and texting) to support patient cancer treatment (**Figure 4**). An additional 29.0% plan to add such capabilities in 2016.

More than half of SP respondents (54.8%) reported offering mobile technology applications (also known as **mHealth**) to members, and an additional 29.0% plan to provide this service in 2016 (**Figure 4**). Among the mHealth innovations SPs have rolled out are two-way text messaging and a mobile app/QR code that provides health information and refill reminders.

Although only one SP indicated it had already incorporated **telehealth** visits or video consults between staff and cancer patients, seven SPs are planning to do so in 2016, and eight additional SPs reported that they have begun developing a strategy for **telemedicine** visits.

Palliative Care, Patient Education, and Advocacy

In 2015, 74.2% of SPs offered patients and/or their family/caregivers services regarding **palliative care** and **advance care planning (ACP)**, similar to the previous study period. **Table 2** shows the percentage of these 23 SPs that provide various types of palliative care and ACP services in 2015.

Table 2. Palliative Care and Advance Care Planning Services Offered to Patients and/or Family/Caregivers

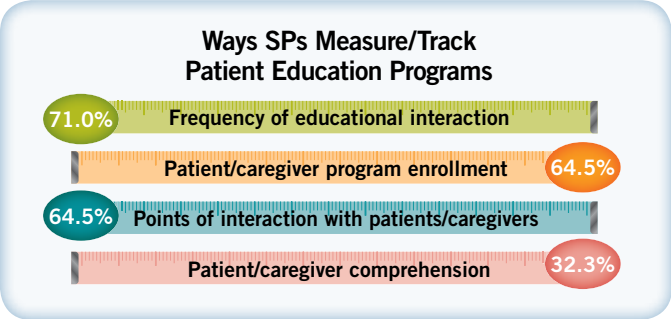
Services	Percentage of SPs (n=23)
Integral part of oncology Medication Therapy Management (MTM) services	73.9%
Pain management services in addition to oncology drugs	52.2%
Educational resources regarding advance directives	47.8%
Counseling by SP staff nurse specialists	39.1%
Referral to health plans' oncology-trained case managers	39.1%
Referral to behavioral health services	30.4%
Counseling by SP staff board-certified palliative care pharmacists	26.1%
Referral to external palliative care specialists	13.0%

Of the 23 SPs that offer palliative care and advance care planning services, almost three-fourths of respondents included them as integral components of their MTM oncology services in 2015.

The trend that began in 2012 of more than 90% of surveyed SPs facilitating financial support and patient advocacy services for patients who cannot afford to pay for their share of prescribed cancer drug costs continued in 2015.

Similar to previous study periods, 51.6% of the 31 SPs named outbound patient contact by their nursing/pharmacy staff as their primary means of patient education in 2015, and 22.6% identified their SPs' own oncology Medication Therapy Management (MTM) program resources. The majority of SP respondents (74.2%) noted that clinical pharmacists are the staff member(s) primarily responsible for educating cancer patients about their *oral* oncology drug treatments and adjunctive/supportive care, followed by nurses (51.6%). Twelve respondents noted that either *all* (n = 4) or *some* (n = 8) of their clinical pharmacists who are responsible for patient education are board certified in oncology, though 10 respondents were unsure.

Similar to the previous study period, 45.2% of SPs saw an increase in the number of community-based and/or hospital-based oncology practices taking responsibility for oral oncology drug dispensing and patient education in 2015 compared with 2014. SPs determine patient involvement in their educational programs using a variety of means, as illustrated.



Study respondents were presented with a number of drug supply, billing/benefit, and clinical care issues and were asked to rate how often these were discussed during interactions with their patients with cancer in 2015 (**Table 3**). The most frequently discussed topics were medication use, medication side effects, benefit coverage, and drug need-by dates. In addition, SPs rated the frequency of patient discussions about the availability of financial assistance (eg, copay coupons and/or patient-assistance programs) and drug costs with an average rating of 7.68 and 7.65, respectively, on a 10-point scale, with 10 indicating very high frequency.

The trend that began in 2012 of more than 90% of surveyed SPs facilitating financial support and patient advocacy services for patients who cannot afford to pay for their share of prescribed cancer drug costs continued in 2015. **Figure 5** illustrates the 5-year trend in surveyed SPs' provision of financial support/patient advocacy and outlines the types of services reported in 2015 by the 29 SPs offering them. The most frequent approach, reported by 86.2% of the SPs, is to offer financial assistance through manufacturers' **copay assistance programs**.

New this survey, the SP respondents with support programs in place and who were able to provide the information reported that 42.2% of their patients were eligible for patient assistance in 2014, and the average success rate for gaining approval of their applications was 70.2%. Eligible patients received an average of $3,708 per prescription in financial support.

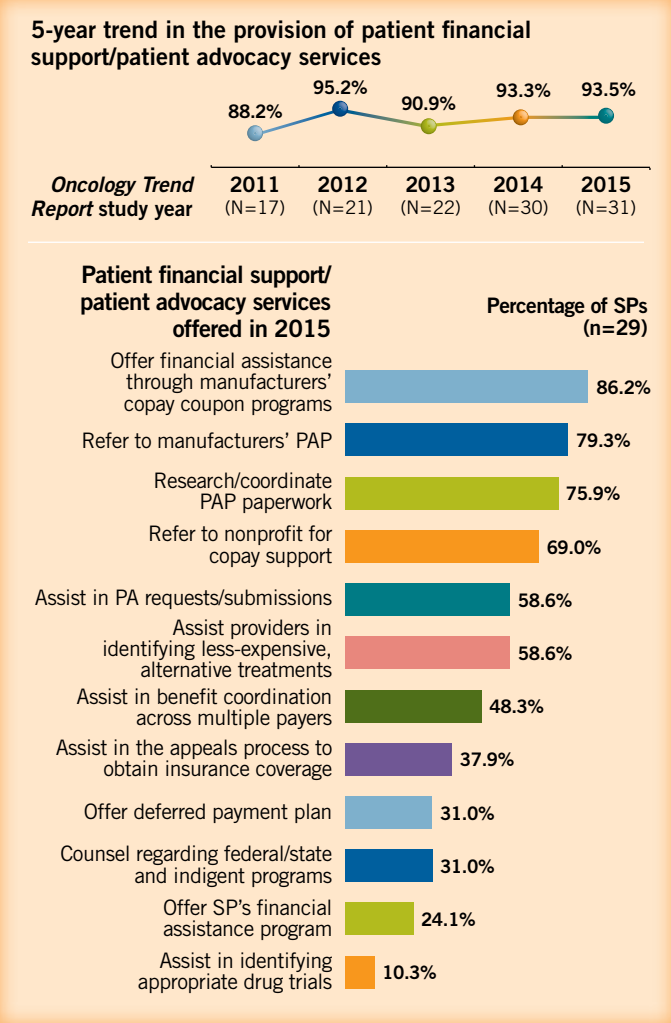
Table 3. Frequency of Cancer-Related Discussions Between SP Staff and Patients

10-point scale, 1 = very low frequency, 10 = very high frequency

Discussion topic	Overall average rating
Medication use	8
Medication side effects	
Benefit coverage	
Drug need-by date	
Storage conditions	
Shipment/delivery details	
Review of concurrent medications	
Formulary/insurance coverage issues	7
Specific financial/payment concerns	
Availability of financial assistance (eg, copay coupons and/or patient-assistance programs)	
Drug cost	
Patient education as part of a clinical program	
Disease symptoms	
Fulfillment process questions	6
Knowledge of condition	
Need for injection training	
Disposal of waste (ie, leftover or unused drugs)	
Laboratory monitoring	
Pain/palliative treatment management	
Physical and mental status/functioning	5
Drug shortages and how they are handled	
Psychological/social issues	

For SPs, the most frequently discussed topics with patients are medication use and side effects.

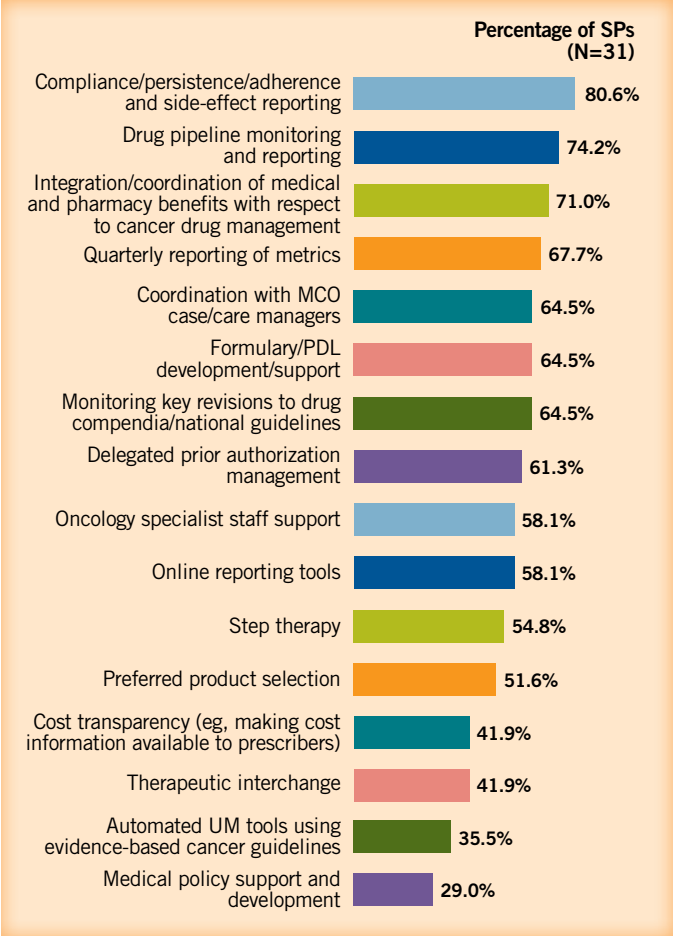
Figure 5. SP Financial Support/Patient Advocacy Services Offered to Patients



PAP=patient-assistance program; PA=prior authorization.

Among the most common financial advocacy services offered by 29 SPs are offering assistance through a manufacturer's copay coupon program, referring patients to manufacturer PAPs and/or nonprofit programs, and/or coordinating PAP paperwork for their patients.

Figure 6. *Noncore*[a] Plan/Payer-Focused Services Offered by SPs in 2015



MCO=managed care organization; PDL=preferred drug list; UM=utilization management.

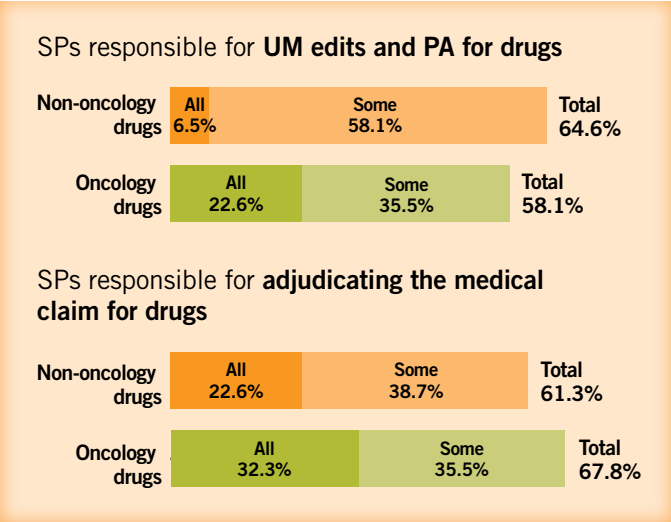
[a]Noncore services refer to services provided *in addition to* basic/universally provided plan/payer-focused services, such as utilization and costs reporting/trending, adjudication, contracting, compliance monitoring, 24/7 support, and delivery.

Compliance/persistence/adherence and side-effect reporting was the most frequently provided service among surveyed SPs in 2015. Fewer SPs offered coordination with MCO case/care managers in 2015 compared with the 86.7% of SPs in the previous study period (data not shown).

Plan/Payer-Focused Services

SPs assist their clients in the provision of quality cancer care through a variety of services. **Figure 6** lists the percentage of SPs that offered selected plan/payer-focused oncology care services in 2015, in addition to their core services. The most frequently provided services by SPs in 2015 were compliance/persistence/adherence and side-effect reporting (80.6%), drug pipeline monitoring and reporting (74.2%), and integration/coordination of medical and pharmacy benefits with respect to cancer drug management (71.0%). SPs are least likely to offer medical policy support and development. The service that SPs are most likely to add in 2016 is automated UM tools that use evidence-based cancer guidelines.

Figure 7. SPs' Responsibility for UM Edits and PA and Adjudicating Medical Claims Under the Medical Benefit



UM = utilization management; PA = prior authorization.

In 2015, 16 SPs offered a formulary or preferred drug list (PDL) that included cancer drugs and cancer adjunctive/supportive agents, and one additional national SP plans to do so in 2016. Among the 16 SPs with a formulary or PDL, 12 were national SPs (43.5% of surveyed national SPs) and four were regional SPs (50.0% of surveyed regional SPs). Seven SPs (43.8%) said the percentage of managed care clients that use their formulary/PDL has *increased* or *increased significantly* over the past 12 months. Nine SPs reported no change in clients using their formulary or PDL over the past 12 months.

More than half of SPs reported having responsibility for UM edits and prior authorization (PA) for *all* or *some* non-oncology and oncology drugs under the medical benefit, as well as for adjudicating medical claims for both types of drugs (**Figure 7**).

New this survey, 23 SPs provided brief details on the most innovative offering provided to health plans over the past 12 months. The responses included developing an automated authorization process via a Web interface for physicians, undertaking comparative effectiveness research efforts, and integrating medical and pharmacy benefits with providers. SPs also are planning to introduce several new plan/payer-focused services in 2016, including a 6-month waiting period for all newly launched drugs and providing payers with more robust information on adherence and patient outcomes via a new platform designed to better capture these data.

New this survey, respondents were asked if their SP was able to support electronic prior authorization (ePA) with any oncology practices via the National Council for Prescription Drug Programs' SCRIPT standard. Seven of the 18 SPs with UM and/or PA responsibility noted that they are capable of supporting ePA via the SCRIPT standard. Four SPs are not capable currently, but are planning to add this capability in 2016, and three SPs noted that their information technology (IT) departments are working toward ePA, but they are not certain it will be rolled out in 2016.

UnitedHealthcare determined that its per-member-per-month costs for injectable oncology drugs in outpatient hospital settings were about 30% higher than these costs in physician office settings.[3]

Site-of-Care Management

As more hospitals enter a joint venture with or acquire private oncology practices, more cancer care is shifting to hospital outpatient infusion departments. This is a challenging issue for health plans. For example, UnitedHealthcare reported in 2014 that an analysis of its patient data showed that its per-member-per-month costs for injectable oncology drugs in outpatient hospital settings were about 30% higher than these costs in physician office settings.[3]

Nineteen SPs reported on services they provide to health plans in managing **sites of care/service** for oncology injectables/infusibles to ensure that the highest-value site is used. Four SPs reported that they have contracts in place with hospitals to provide outsourced oncology pharmacy services. However, another two SPs plan to pursue such partnerships/opportunities in 2016, and 13 are discussing or investigating such a relationship. For 10 of these 19 SPs, these partnerships include covered entities under the **340B Prescription Drug Discount Program**. Four SPs were unsure whether the partnerships included 340B opportunities. **New this survey**, the 19 SP respondents who expect to and/or are considering entering into more contracts with hospitals to provide outsourced oncology pharmacy services reported on the factor(s) driving this trend (**Table 4**). The most frequently noted factor was hospital expansion of 340B program-related outpatient services, by 63.2% of the 19 SPs.

A few SPs work with plans or case managers to refer patients to the most cost-effective site of care, including infusion center referrals. Another SP provides patient counseling to help patients understand out-of-pocket (OOP) cost differentials by site of service, which enables them to make informed decisions about site of care. Another SP is implementing a site-of-care optimization program with one of its PBM partners in 2016.

Table 4. Factors Driving the Trend Toward Outsourced Oncology Pharmacy Services

Factor	Percentage of SPs (n = 19)
Hospital expansion of 340B program-related outpatient services	63.2%
Limited access to oral oncology drugs via exclusive/limited distribution arrangements	57.9%
Hospital/accountable care organization (ACO) acquisition of community-based oncology practices	52.6%
ACO formation by hospitals	47.4%
Payer strategy to create medical specialty network	47.4%
Hospital entry into the SP market	31.6%
Hospital lacks infrastructure, contracts, and expertise in clinical, operational, reimbursement, and advocacy services	31.6%
Hospital entry into home infusion services market	26.3%
Needs of rural hospitals with limited capacity for sterile compounding	15.8%

Similar to the previous two study periods, involvement of SPs in the formation of a private or public accountable care organization (ACO) was explored, but on a limited basis. Two SPs are currently involved with an ACO.

Clinical Management and Outcomes Data Collection

In 2015, 83.9% (n = 26) of the surveyed SPs had cancer clinical management programs; these involved an average of 58.6% (range, 10% – 100%) of patients with cancer who were receiving drugs through the surveyed SPs. **Figure 8** offers information about how patients enroll in these programs, the average percentage of cancer patients enrolled according to the type of cancer treatment administration, and how manufacturers compensate the 14 SPs (11 national and three regional) that contract with between two and 100 (18.1, on average) manufacturers to administer clinical programs to support and measure compliance/adherence and persistency regarding their products. All but one of the 14 SPs expect the volume of these contracts to increase over the next 12 months.

Of the 31 SPs, 51.6% collected outcomes and 74.2% collected patient-satisfaction data regarding oncology therapies that they distributed and managed in 2015 (**Figure 9** on page 36). Details regarding the types and sources of outcomes data collected in 2015 are also included in **Figure 9**. Of the 16 SPs that track outcomes, 44.3% of the data come from their own claims data and 21.9% are provided directly by patients/caregivers. **New this survey**, all 16 of the SPs collecting outcomes data reported that they collect "time-to-fill" data and 43.8% collect pain scores from their patients.

New this survey, SPs described patient-satisfaction metrics that they collect regarding time to fill; pain and side-effect management; completeness, courtesy, and responsiveness;

Figure 8. Cancer Clinical Management Programs Offered by SPs

How SPs enroll patients in their clinical management programs (n = 26)

- Patient can opt-in (41.9%)
- Accept referrals or recommendations by health plan case managers/disease managers (32.3%)
- Auto-enroll patients who then can opt out (32.3%)
- Accept physician referrals or recommendations (22.6%)

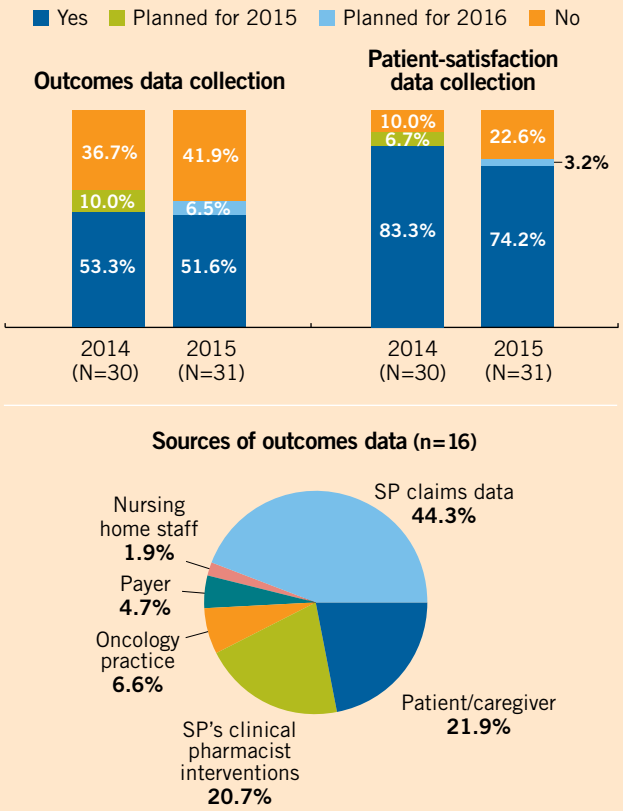
Average percentage of cancer patients enrolled, according to cancer treatment administration (n = 26)

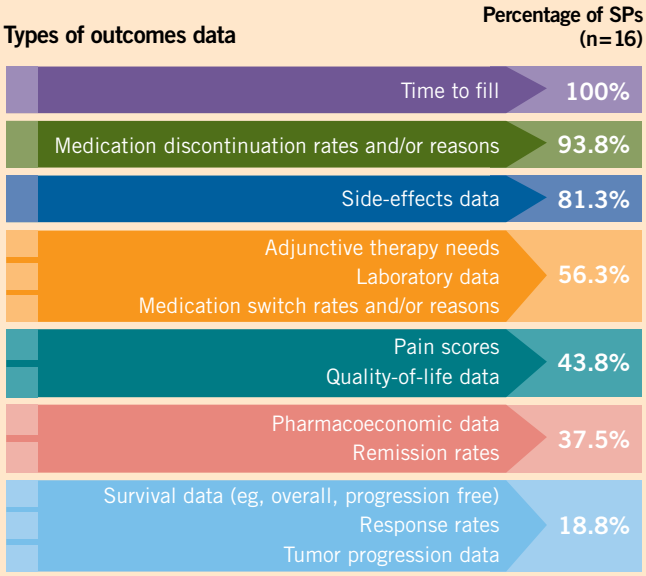
- Oral cancer drugs (66.9%)
- Patient self-injectable drugs (42.3%)
- Adjunctive/supportive agents (34.7%)
- Home infusions (30.3%)
- In-practice injectable/infused (20.4%)

Type of compensation from manufacturers for clinical programs that support and measure compliance/adherence and persistency regarding their products (n = 14)

- Service fees (85.7%)
- Rebates (28.6%)
- Reimbursement purchase discounts (21.4%)
- Outcomes/innovative contracts (7.1%)

Figure 9. Types and Sources of Data Collected by SPs





Patient satisfaction data continue to be more widely collected among surveyed SPs than outcomes data. New this survey, all 16 of the SPs collecting outcomes data reported that they collect "time-to-fill" data and 43.8% collect pain scores from their patients. Claims data represent a greater proportion of the outcomes data (44.3%) routinely collected by SPs in 2015 compared with the previous study period (35.1%, data not shown).

clarity of information provided; dispensing accuracy; staff interaction, ease of obtaining refills, and copay assistance; and service-related measures. Measurement tools include annual random patient surveys, online surveys, a Likert-scale test to measure satisfaction levels, and the Net Promoter Score system for customer loyalty.

SP respondents briefly described how their SP plans to grow or expand its outcomes data capabilities. Many of the surveyed SPs have enhanced or upgraded their IT and reporting capabilities, including efforts to expand both data collection and access to electronic health record systems. One SP has developed more clinical management programs and integrated them with its Web-based portal system, and another is seeking to capture more lab information in 2016. Another SP wants to contract with a data analytics company.

Pharmacogenomic Support

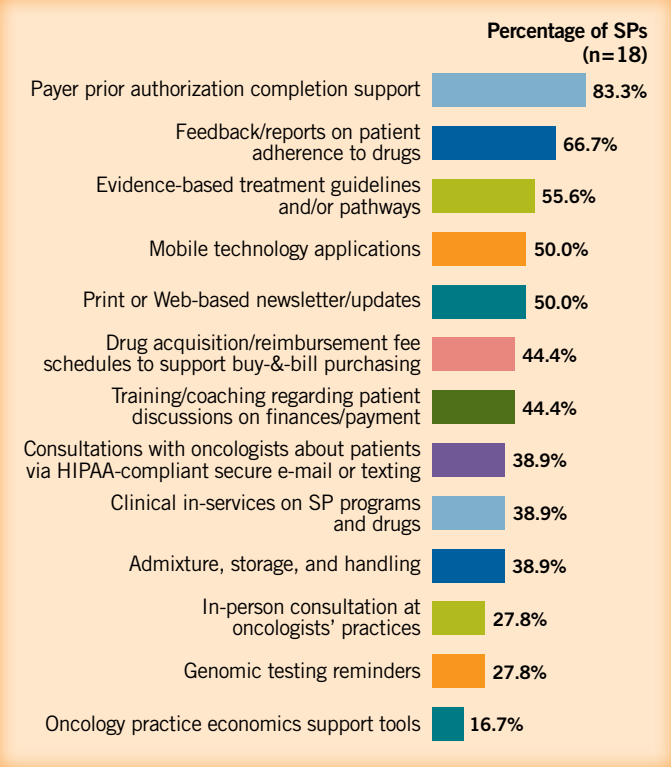
In 2015, five of the 31 surveyed SPs, all national in scope, provided pharmacogenomic support to managed care clients as part of their oncology specialty support services. Four additional SPs (two national and two regional) plan on offering this service in 2016, and seven more are investigating the option. Four of the five SPs providing this service manage the PA process for cancer drugs with companion/biomarker testing, and two SPs enforce **cancer treatment guidelines** and/or **cancer treatment pathways** that require molecular/biomarker testing. Three provide input to Pharmacy & Therapeutics committees, while two provide input to medical policy committees. In addition, two monitor/report on published evidence supporting the value of biomarker or molecular testing.

Physician Services

In 2015, 45.2% (n = 14) of the surveyed SPs reported that they offer consultation, education, and/or support services directly to prescribing oncologists and their practices. Four other SPs plan on adding these services in 2016. All SPs provide core drug support services regarding clinical and cost/coverage information, compliance monitoring, and drug distribution. **Figure 10** illustrates additional physician- and practice-focused services the 18 SPs currently offer or plan to offer in 2016.

New this survey, SPs described the most innovative offering they have provided to oncologists over the past 12 months. The responses included biomarker education,

Figure 10. SP Consultation/Education/Support Services Offered to Oncologists and Their Practices



HIPAA=Health Insurance Portability and Accountability Act.

Payer prior authorization completion support is the most frequently offered service by the 18 SPs that provide or plan to provide in 2016 consultation/education/support services to prescribing oncologists and their practices. One-half of respondents offer mobile technology applications, and an additional 27.8% plans to add these services in 2016 (data not shown), which indicates a continuing upward trend in the use of health-related apps.

an ePA tool, Web portals to access patient records and that offer messaging capability, and reports on clinical trial research and drug pipelines.

New this survey, SPs also described new services they plan to offer oncologists and their practices in 2016. The responses included expanding use of care plans to more categories of patients, integrating hospice and palliative care, increasing financial support services, onsite clinical services reporting, linking patient care management software between the SP and oncologist's practice, management software for two-way communication, online surveys to improve service and obtain feedback, and ways to prepare for biosimilar drugs coming to market.

New this survey, with respect to the drug management aspect of patient care, SPs described specific partnerships with oncologists, either under way or planned, particularly those that address polypharmacy among the elderly cancer patient population. These partnerships include offering clinical management to long-term care facilities, recommendations for MTM programs for oncology patients, quarterly reviews of polypharmacy coupled with individual prescriber contact at point-of-order submission when drug-drug interactions are discovered, and complete drug utilization reviews when patients begin treatment and at the time of refills if patients add a new drug to their treatment regimen.

Patient Adherence Reports

SPs described how their clinical staff works with oncology practices to provide feedback about their cancer patients' drug adherence and how they remedy any compliance/adherence issues (see comments below).

How SPs Inform Oncologists About Patient Drug Adherence

"We provide adherence report cards and feedback on adverse events."

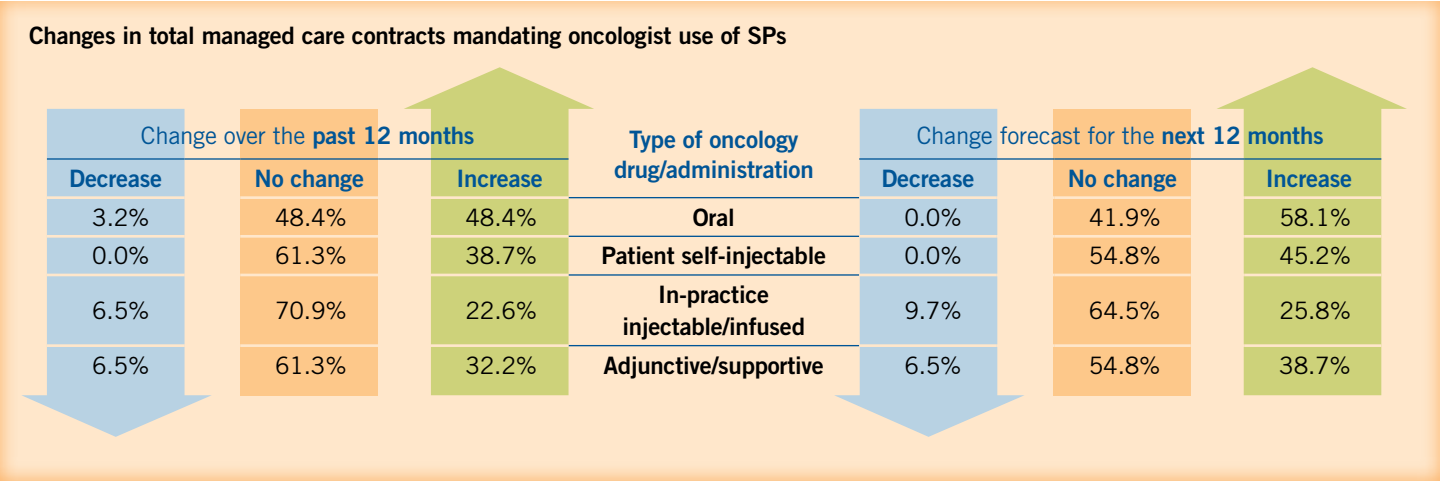
"Patient-specific utilization management reports are provided to the physicians, and over/underutilization is addressed."

"We offer proactive feedback on adherence and coordination of split-fill programs, where appropriate."

"Specialty pharmacy staff reaches out to plan participants to coordinate refills and delivery. Gaps may be reported to the respective providers."

"If a patient does not refill a medication, we contact the physician's office. If we know why the patient is nonadherent, we let the physician know and help devise a plan of action to help with adherence. Some of the ideas we suggest are ancillary medications to overcome side effects, copay assistance for financial issues, and a discussion about any family dynamics that may lead to nonadherence."

Figure 11. Payer-Mandated Changes in Contracts Covering Use of SPs by Oncologists



Almost half of SPs (48.4%) reported an increase in the percentage of mandated use of SPs by oncologists for oral cancer treatments over the past 12 months, and 58.1% forecast additional growth over the next 12 months.

mHealth Strategy

Surveyed SPs described physician services that they currently provide and/or are planning to provide for in 2016 using mobile technology. Services include drug compliance reporting, ordering capabilities, two-way text programs, and shipping confirmations.

SP Use Versus Buy and Bill

As in the previous four study periods, SPs varied widely in their estimations of the proportion of their managed care contracts that *require* network oncologists to obtain oncology drugs from their SPs. In 2015, six SPs (19.4%) reported no contracts mandating SP use by oncologists. The remaining 25 SPs estimated an average 32.5% (range, 5%–95%) of their managed care contracts require that oncologists use their SPs, rather than directly buying and billing.

Figure 11 details the increasing trend in mandatory use of specialty pharmacies by oncology drug type. Almost half of SPs (48.4%) reported an increase in the percentage of mandated use of SPs by oncologists for oral cancer treatments over the past 12 months, and 58.1% (n = 18) forecast additional increases over the next 12 months.

Drug Purchasing and Managed Care Contracting

Table 5 lists changes in oncology drug contracting strategies between SPs and drug manufacturers within the past 12 months. Among the 31 SPs surveyed, 23 noted that their contracting strategies with drug manufacturers changed. Ten SPs (32.3%) reported more aggressive discounting on drug products, and 32.3% reported an expansion of contracts into therapeutic areas not previously under contract and/or into additional service areas. **New this survey**, 29.0% of SPs have entered into contracts with price-protection thresholds. Among the seven SPs with such guarantees, three SPs noted that "time to fill" or "turnaround time" is one of the key metrics, two noted that patient adherence is among the performance metrics, and one noted that diagnosis data and lab values are metrics that are tracked as part of the contract.

Table 5. Changes in Oncology Drug Contracting Strategies Between SPs and Drug Manufacturers, 2014-2015

	Percentage of SPs (N = 31)
Expanding contracts to therapeutic areas not previously under contract	32.3%
Expanding contracts to include additional services (eg, clinical programs, data services)	32.3%
More aggressive discounting on drug products	32.3%
Entering into contracts with price-protection thresholds	29.0%
Exploring outcomes-based rebates	29.0%
Entering into contracts with performance guarantees	22.6%
Rebalancing rebates vs purchase discounts	19.4%
Expanding contracts in the infused market	16.1%

For the second consecutive year, SPs have expanded contracts into new therapeutic areas and have included additional services (eg, clinical programs and data services). New this survey, 29.0% of SPs have entered into contracts with price-protection thresholds.

Oncology Care Issues

Surveyed SPs identified the top three strategies they believe are the most effective in achieving better cost control and countering pressures from payers regarding the cost of oncology drugs:

- Implementing split-fill/quantity-limits programs to reduce waste (61.3%)
- Creating greater value through services, such as compliance and persistency programs (48.4%)
- Implementing preferred drugs in certain therapeutic categories (38.7%)

Among national SPs surveyed, 15 respondents (65.2%) reported that they have implemented split-fill/quantity-limits programs to reduce waste. Half of the regional SPs (n = 4) have implemented these programs as a cost-control measure. Of note, the number one strategy among SPs for achieving better cost control reported in the previous study period—negotiating with manufacturers for better pricing/rebates (63.3%)—was not among the top three strategies in 2015.

As illustrated, the top three most pressing challenges facing cancer care today, according to the surveyed SPs, are controlling cancer *specialty* drug and overall cancer care costs, followed by an escalation in patient OOP costs.

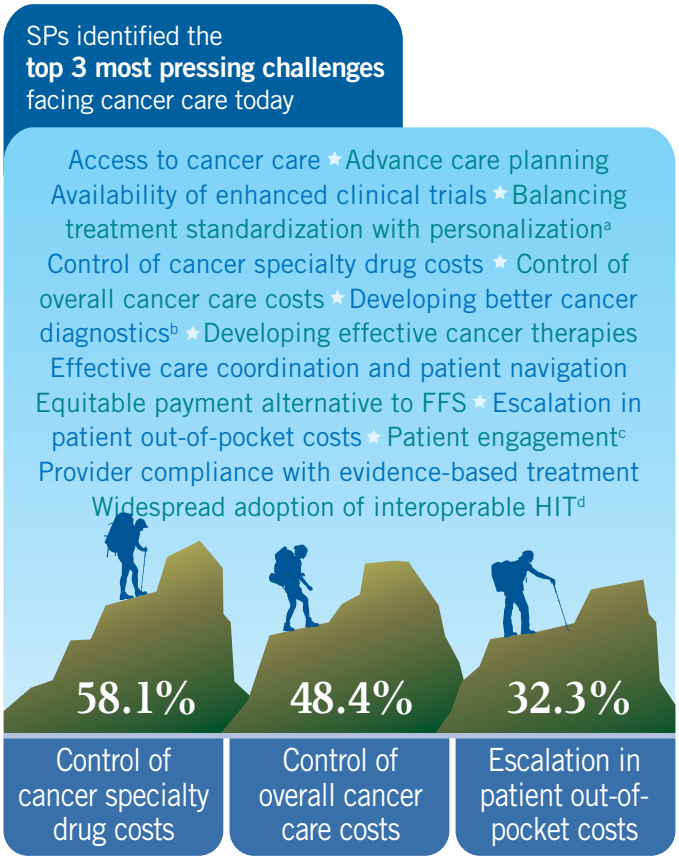
As the health care marketplace continues to evolve, stakeholders seek to adapt and address an array of challenges that also continue to shift, due perhaps, in part, to the impact of health care reform initiatives. SPs were asked to identify the aspect of health care reform that has had the most significant impact on their oncology care business. Although responses varied in wording, cost was at the root of SPs' concerns under health care reform. Their responses are summarized as follows:

Increase in costs: Ten SPs noted some element of cost that had impacted their business in 2015, including decreasing margins, decreasing reimbursement, increasing OOP costs for patients, increasing administration without ability to recoup costs, rising oncology drug costs, and a lack of private foundation money to assist patients with OOP costs, which contributes to low compliance.

Patient coverage and access: Eight SPs commented on the correlation between greater access to care and increasing patient populations and drug utilization, including responses such as a "significant influx of new patients," "increased volume of business," and "more eligible recipients with coverage."

Among national SPs surveyed, 15 respondents (65.2%) reported that they have implemented split-fill/quantity-limits programs to reduce waste.

Practice mergers and acquisitions: One SP identified a trend toward new partnerships between ACOs and oncologists, or hospitals buying oncology practices. The result is that these entities are becoming new competition for SPs.



FFS=fee for service; HIT=health information technology.

[a]Treatment standardization refers to guidelines and pathways; personalization refers to molecular and biomarker testing; [b]Refers to pathology, molecular/biomarker testing; [c]Refers to wellness, prevention, and medical treatment; [d]Refers to technology to support quality improvements and outcomes measurement.

ONCOLOGISTS
(N=205)

HIGHLIGHTS

Oncologist Workload

- 56.6% of surveyed oncologists reported increased personal workloads; key drivers included growth in cancer incidence, service intensity, the demands of quality reporting, clinical trials participation, and communications (eg, e-mail, telephone, texting) regarding care coordination
- Surveyed oncologists worked an average of 56.7 hours weekly, saw patients during 4.1 clinic days per week, and planned to work a total of 47.6 weeks in 2015

Financial Performance

- 29.8% of oncologists reported declining individual income and less than ideal *new* patient volume; contributing factors included lack of referrals, inadequate appointments and staff for service intensity, and operational inefficiency
- A number of community-based oncologists have already merged with another practice (9.6%), sold their practice to a hospital (10.6%), or will consider a merger (28.7%) or outright sale of their practice (27.7%) over the next 2 to 3 years to improve finances and risk-taking ability
- Oncologist selected control of specialty drug costs (51.5%), overall cancer care costs (48.8%), and escalation in patient out-of-pocket costs (43.4%) as the three most pressing challenges among a list of 14 issues presented to them

Advanced Practice Providers (APPs)

- Overall, seven in 10 (n=143) of the oncologists employ APPs; 30.2% of them are expanding their roles, encouraging more independence; half of them (51.7%) reported that their APPs work outside of regular practice hours 1 or more days weekly to catch up on notes, EHR maintenance, care coordination, and e-mails

Clinical Services

- More than half of the oncologists conduct prehabilitation assessments with *some* (29.8%) or *all* (23.9%) of their new patients prior to treatment; most oncologists undertake psychosocial distress screening with *all* (56.1%) or *some* (26.2%) of their patients during active treatment and survivorship
- More oncologists are providing survivorship care plans (51.2%) compared with the previous study period (40.0%)
- More than eight in 10 of the oncologists discuss palliative care with *all* patients (17.6%), those with metastatic cancer (18.5%), or patients with advanced disease and a short life expectancy (50.2%); most often these discussions occur within the first 2 weeks or 1 month after the diagnosis of advanced disease
- Two-thirds of oncologists rated themselves *somewhat* knowledgeable about genomic testing; 31.7% support an expanded role for molecular pathologists regarding collaboration and decision support

Practice Automation

- 157 oncologists use EHRs, resulting in productivity gains (19.8%) and losses (33.7%) and a negative impact on patient interaction (40.8%); interoperability and functional integration top EHR unmet needs

Demographics

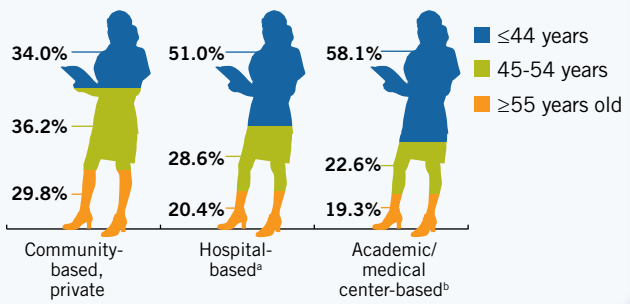
During July and August 2015, 205 oncologists from across the United States completed an online survey comprised of 49 multipart questions. To participate in the research, respondents had to be practicing oncologists who spend 1 or more days per week on practice-based patient care.

Throughout the survey, oncologists reported on the state of their practices in 2014 and 2015, and forecast their expectations for 2016 and beyond. The aggregated data describe practice environment, oncologists' personal workload, delivery of clinical services, prescribing trends and restrictions, individual physician and practice-wide economics, trends in infusion therapy, in-practice oral drug dispensing, use of **specialty pharmacies (SPs)**, and practice automation and mobile health. New topics explored in this latest edition of the *Oncology Trend Report* include staff deployment, management of clinical call volume, distress screening and prehabilitation assessments, molecular testing in precision medicine, unmet needs regarding electronic health record (EHR) adoption, and use of mobile health.

Oncologist Demographics and Practice Environment

Most respondents described their primary specialty as medical oncology (75.1%) and are younger than 55 years of age (75.5%), similar to the 2014 sample. **Table 1** details the sample composition. More oncologists treat cancer patients in academic/medical center-based or hospital-based (ie, nonacademic) practices (54.1%) compared with the previous sample (51.5%). As illustrated below, more than half of the oncologists in these settings in 2015 are 44 years of age or younger. Overall, half of the oncologists work in practice settings with seven or more full- and part-time oncologists; 39.0% practice in settings with three to six oncologists, and 10.2% in settings with two or fewer oncologists. The largest practice in the sample is an institution-owned academic/medical center practice with 100 oncologists treating patients across four sites.

Oncologist Age by Practice Setting



[a]Includes hospital-integrated private and hospital-owned nonacademic practices.
[b]Includes private and institution-owned practices.

Table 1. 2015 Sample by Practice Setting and Select Demographics

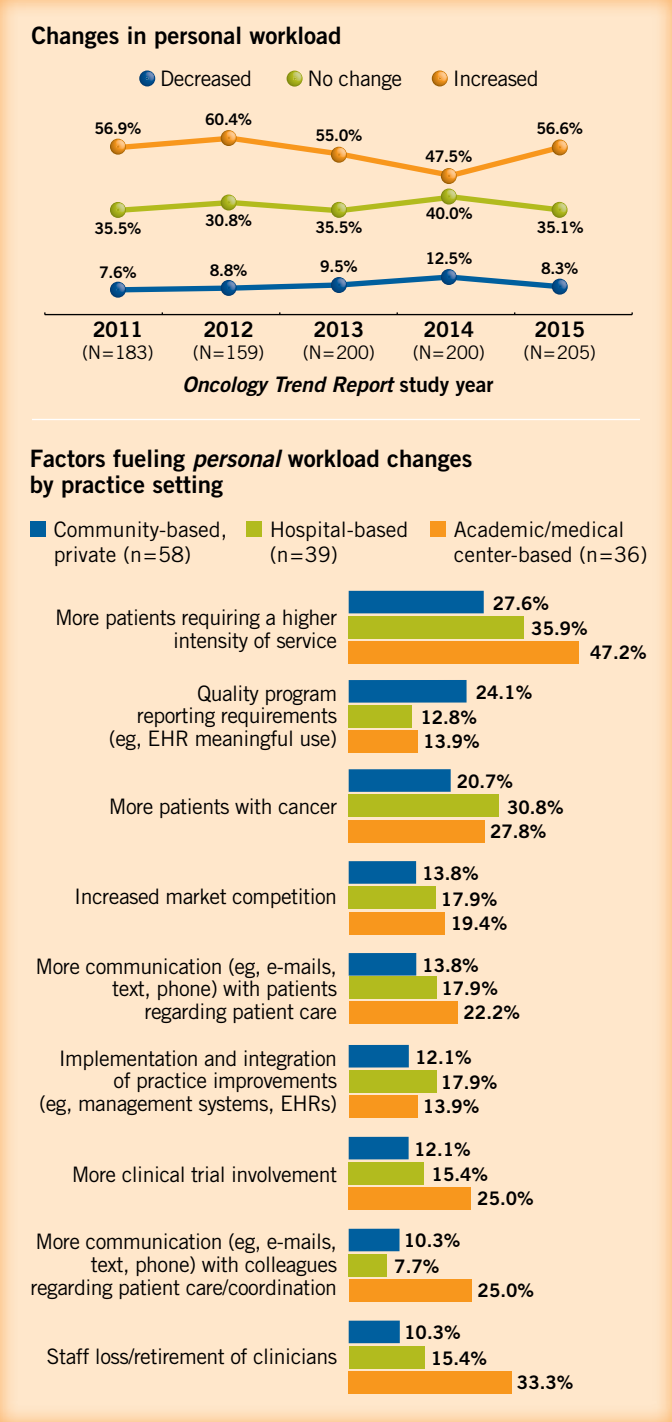
Practice setting	Percentage of sample	Mean number of sites (range)	Mean number of oncologists per practice (range)
Community-based, private (n=94)	**45.9%**	**3.3 (1–25)**	**8.2 (1–80)**
Solo (n=7)	3.4%	1.4	1.0
Single–oncology-specialty group (n=38)	18.5%	2.8	7.6
Multi–oncology-specialty group (n=49)	23.9%	4.0	9.7
Academic/medical center-based (n=62)	**30.2%**	**3.7 (1–35)**	**23.3 (1–100)**
Physician-owned (n=11)	5.4%	3.6	9.9
Hospital/institution-owned (n=51)	24.9%	3.7	26.2
Hospital-based (n=49)	**23.9%**	**3.5 (1–25)**	**8.5 (2–75)**
Hospital-owned, nonacademic practice (n=25)	12.2%	3.0	5.8
Private, hospital-integrated (n=24)	11.7%	3.9	11.2

More than half (54.1%) of the surveyed oncologists treat cancer patients in academic/medical center-based or hospital-based oncology practices. Overall, half (50.7%) of the oncologists practice in settings with seven or more full- and part-time oncologists, 39.0% practice in settings with three to six oncologists, and 10.2% practice in settings with two or fewer oncologists (data not shown).

Oncologist Personal Workload

Self-reported changes in oncologists' personal workload over the past 12 months remained high, with 64.9% (n=133) reporting changes; 56.6% experienced an increase in workload, up from the 47.5% in the previous study period (**Figure 1**). Growing patient populations and more patients requiring a higher intensity of services remain the leading drivers of workload for oncologists across the different settings. Additionally, quality program reporting requirements, such as EHR meaningful use, is a leading workload factor for 24.1% of community-based oncologists, while more clinical trial involvement, as well as growing communications with colleagues regarding care coordination, are key workload drivers for 25.0% of oncologists in academic/medical center-based practices.

Figure 1. Changes in Oncologist's Workload and Attributed Causes

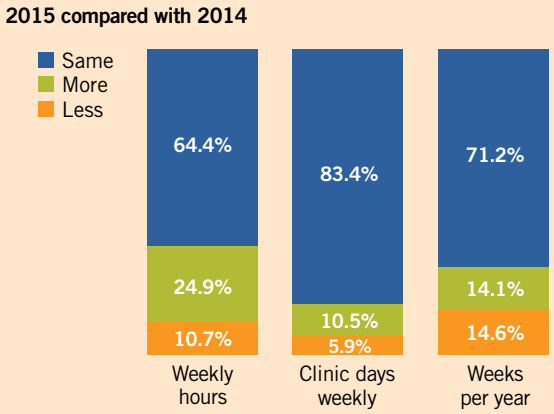


EHR=electronic health record.

This figure details the leading factors fueling the personal workload changes experienced by 133 oncologists over the last 12 months, by practice setting. Growing patient populations and higher intensity of services are major workload drivers across all settings.

Figure 2. Weekly Hours, Clinic Days, and Weeks per Year Worked

	Mean hours worked per week 2015	Mean clinic days per week 2015	Mean weeks per year 2015
OVERALL (N=205)	**56.7**	**4.1**	**47.6**
Practice setting			
Community-based, private (n=94)	56.9	4.6	47.6
Academic/medical center-based (n=62)	58.3	3.0	47.9
Hospital-based (n=49)	54.3	4.4	47.2



Overall, oncologists worked an average of 56.7 hours per week in 2015, saw patients during 4.1 clinic days weekly, and plan to work a total of 47.6 weeks. These metrics varied by practice setting, as detailed. Overall, 71.2% of oncologists (n=146) held steady their weeks worked annually, 64.4% (n=132) held steady their weekly hours, and 83.4% (n=171) held steady their weekly clinic days in 2015 compared with 2014.

Average Work Week

Oncologists reported on the hours they typically work per week, the number of clinic days per week for patient visits, and the number of weeks worked annually in 2014 and planned for 2015. Overall, 64.4% of oncologists forecast working the same number of hours in 2015 compared with 2014; however, 24.9% forecast more hours and 10.7% forecast fewer hours worked. Hours worked in 2014 and forecast for 2015 ranged from 32 to 125 hours weekly, averaging 55.6 hours in 2014 and 56.7 hours in 2015. **Figure 2** details the variances in weekly hours by practice setting. Among this sample of oncologists, those working at academic/medical centers worked the longest hours per week in 2015, averaging 58.3 hours.

Overall, the majority of oncologists (83.4%; n=171) held their weekly clinic days steady in 2015 compared with 2014, averaging 4.1 days per week (range, 1–6 days). Seven in 10 oncologists (71.2%; n=146) plan to work the same number of weeks in 2015 as in 2014, averaging 47.6 weeks (range, 20–52 weeks) (**Figure 2**).

Patient Volume

Patient care consumes the majority of a typical week for most of the 205 surveyed oncologists across all settings (**Figure 3**). Half of the oncologists expect the patient volume to remain steady by year-end 2015 compared with 2014, while 35.8% forecast growth and 12.4% expect a decline in patient volume. Overall, oncologists cared for an average 78 patients per week in 2015. **Figure 3** details the averages by practice setting.

Three in 10 oncologists (27 community-based, 19 hospital-based, and 15 academic/medical center-based) are dissatisfied with their *new* patient volume, describing it as less than ideal. Lack of referrals, inadequate appointment slots for new patient visits, inadequate staff for intensity of services, and operational inefficiency are the leading contributing factors cited by these 61 oncologists. Sixteen oncologists representing all practice settings reported a greater than ideal number of new patients.

Delivery of Clinical Services

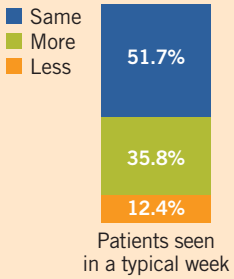
The demand for cancer care services continues to grow to levels not previously seen, driven by the growth and aging of the nation's population, expanded access to insurance as a result of the Affordable Care Act, and the long-term care needs of survivors.[1] Nearly 14.5 million Americans with a history of cancer were alive on January 1, 2014—including recently diagnosed patients actively undergoing treatment and those post-treatment with no current evidence of cancer. Nearly 1.7 million new cases are estimated to be diagnosed in 2015, excluding all noninvasive cancers except bladder and excluding basal or squamous cell cancers.[2] The American Society of Clinical Oncology (ASCO) reports that the number of oncologists remains constant despite growth in demand. Team-based care that draws upon the resources of **advanced practice providers (APPs)** (ie, doctors of nursing practice, nurse practitioners, physician assistants), pharmacists, nurses, and professionals providing psychosocial support may enable quality-of-care improvements and mitigate workforce shortages, in light of the trend in cancer incidence.[1]

Figure 3. Oncologists' Work Week and Patient Volume

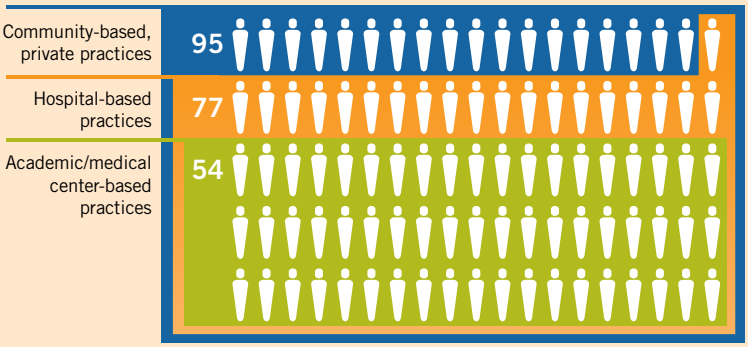
Mean time spent by oncologists during typical week by practice setting

	Community-based, private (n=94)	Hospital-based (n=49)	Academic/medical center-based (n=62)
Patient care[a]	84.2%	75.9%	70.2%
Patient communication & care documentation[b]	7.1%	11.2%	10.5%
Research[c]	1.7%	3.0%	10.7%
Practice administration[d]	3.8%	5.2%	2.7%
Teaching and other activities[e]	3.2%	4.7%	5.9%

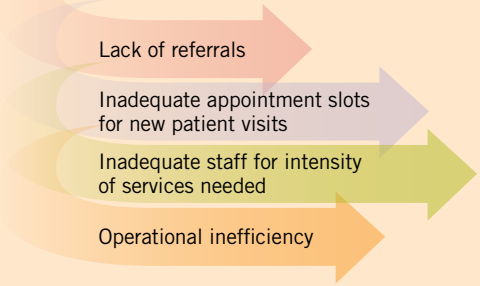
2015 compared with 2014



Average number of patients seen in typical week in 2015 (estimated)



Contributing factors for less than ideal number of new patients



[a]Includes new patient visits/consults, established patient visits, survivorship program visits, in-hospital patient care, and in-practice procedures and infusions.
[b]Includes electronic health record updating/maintenance and patient telephone triage and e-mails.
[c]Includes clinical trials and laboratory research.
[d]Includes administration, finances, improvements, and quality and performance reporting.
[e]Includes teaching, tumor board participation, hospital committee participation, and other activities.

Patient care consumes the majority of the typical week for the surveyed oncologists, although there is variation in weekly responsibilities and patient volume by practice setting. More than one-third (35.8%) of oncologists forecast growth in patient volume by year-end 2015 compared with 2014. Regarding new patients, 61 oncologists (29.8%) described less than ideal volume, citing a number of contributing factors, as detailed.

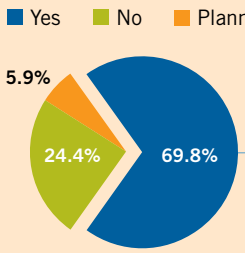
Seven in 10 of the surveyed oncologists (n = 143) delivered care with the assistance of APPs in 2015; the deployment of APPs was highest among academic/medical center-based oncologists (**Figure 4** on page 44). Most commonly, the ratio of APPs per oncologist was described as *less than one full-time APP per oncologist* for 66.4% of the practices represented by the respondents, and this is consistent across practice settings and the previous study. **New this survey**, surveyed oncologists estimated the time spent by their APPs on specific tasks during a *typical* clinic day. While APPs in the different practice settings spent most of their day on *direct* patient encounters, those in academic/medical center-based practices spent more time on care coordination, EHR maintenance and notes, and e-mail communication with patients on clinical issues compared with other settings. **New this survey**, half of the 143 oncologists (51.7%) reported that their APPs work outside of regular practice hours 1 or more days per week in order to catch up on notes and EHR maintenance, care coordination, and e-mails.

While deployment of APPs may differ slightly by practice setting, oncologists rely on their APPs primarily for established patient in-practice visits, patient education, patient telephone call triage, and **survivorship program care**, similar to the previous study. Over the last 12 months, in light of the growing demands for their time, three in 10 oncologists, including those representing all practice settings, have expanded the role of their APPs, encouraging more *independent* execution of tasks.

These expansions are described in **Figure 4** and include seeing more patients in general, as well as more involvement in clinical trials, new patient consults, and more patient communication and triage. Three academic/medical center-based oncologists described future role expansions under discussion that include responsibility for the survivorship care clinic, daily rounding for oncology patients, and care of benign hematology and bone marrow transplant patients.

Figure 4. Employment of Advanced Practice Providers (APPs)

Percentage of practices employing APPs



Overall (N=205)

	Employ APPs
Community-based, private (n=94)	61.7%
Hospital-based (n=49)	65.3%
Academic/medical center-based (n=62)	85.5%

Employ <1 APP per oncologist

APP tasks during a "typical day"

Task	Mean percentage of time spent daily: Community-based, private (n=58)	Hospital-based (n=32)	Academic/medical center-based (n=53)
In-person patient encounters[a]	48.5%	40.1%	39.2%
Care coordination resulting from patient encounters	15.5%	18.6%	19.4%
Electronic health record (EHR) maintenance, notes, test result follow-up	10.7%	9.8%	15.1%
Telephone triage of patients on clinical issues	12.0%	14.2%	12.0%
E-mail with patients on clinical issues[b]	7.4%	7.8%	8.4%
All other tasks	5.9%	9.7%	5.9%

[a]Includes scheduled or urgent care, hospital inpatient, patient education, and procedures.
[b]Includes e-mail responses to patient clinical inquiries via practice/EHR portal directed to APP and/or on behalf of oncologist(s).

Expanded APPs' role

- Chemotherapy[a]
- Clinical trials
- More independent follow-up and urgent care
- More involvement in new patient consults
- More patient communication and triage
- Patient education
- Seeing more patients
- Survivorship care

[a]Includes orders, administration, lab monitoring, and symptom control.

Work by APPs outside of regular practice hours[a]

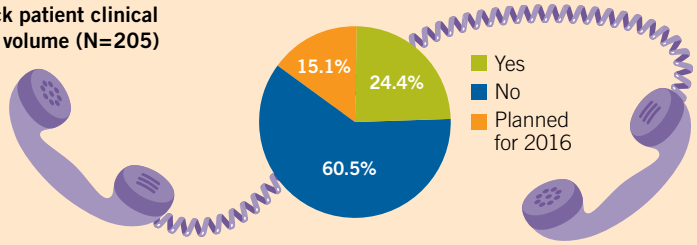
	Community-based, private (n=58)	Hospital-based (n=32)	Academic/medical center-based (n=53)
Never/rarely	48.3%	53.1%	45.3%
At least 1 day per week	22.4%	34.4%	30.2%
2 days per week	15.5%	6.3%	11.3%
3 days per week	5.2%	6.3%	7.5%
4 or more days per week	8.6%	0.0%	5.7%

[a]Defined as staying late, reporting early, or taking work home to catch up on EHR maintenance, notes, care coordination, e-mails, etc.

Seven in 10 of the surveyed oncologists (n=143) deliver care assisted by APPs. New this survey, the oncologists estimated the time spent by their APPs during a typical clinic day on specific tasks and the frequency their APPs work outside of regular practice hours catching up on notes and communications. Nearly one-third of oncologists have expanded the role of their APPs compared with the previous study period, encouraging more independence in light of the growing demands placed on oncologists' time.

Figure 5. Call Volume and Patient Clinical Support

Track patient clinical call volume (N=205)



Initiatives to expand patient contact and avoid complications (n = 111)	
Expanded schedule for walk-ins/urgent care	53.2%
Hired/assigned staff for proactive patient contact at predetermined points during treatment	46.8%
Extended weekday hours for walk-ins/urgent care	17.1%
Outsourced service for proactive patient contact at predetermined points during treatment	16.2%
Instituted/expanded weekend hours for walk-ins/urgent care	3.6%

Triggers of proactive outbound patient contact

- ✓ Advanced cases, high-risk symptom control
- ✓ After extensive family meeting regarding care goals
- ✓ After first new patient visit
- ✓ At regular intervals between in-practice visits
- ✓ At start, midpoint, and end of treatment
- ✓ Change in patient status
- ✓ Change in treatment dosage or regimen
- ✓ Hospital discharge, urgent care, and/or emergency department visit
- ✓ Initiation of emetogenic chemotherapy
- ✓ Initiation of *new* treatment[a]
- ✓ Initiation of oral cancer therapy
- ✓ Missed appointments, testing yet to be scheduled
- ✓ Pre- and post-initiation of any treatment[a]

[a]Includes chemotherapy (oral, injectable), hospice, palliative care, radiation, and surgery.

New this survey, nearly four in 10 oncologists reported tracking clinical call volume with patients (24.4%) or plan to undertake tracking within their practices in 2016 (15.1%). Initiatives to expand patient contact outside of scheduled in-practice visits were reported by 111 oncologists—46.8% have hired/assigned staff and 16.2% have contracted with an outside service to proactively contact patients at predetermined points of care to avoid potential complications. These oncologists described various triggers of outbound patient follow-up, as detailed.

New this survey, four in 10 oncologists reported that their practices currently track (24.4%) or plan to track in 2016 (15.1%) the clinical call volume between staff and patients (**Figure 5**). More than half of the oncologists (54.1%; n = 111) have undertaken initiatives to expand patient contact outside of scheduled in-practice visits as a way to avoid treatment complications. The assignment or hiring of staff for *proactive* patient contact at predetermined points during treatment has been initiated by 46.8% of these oncologists. **Figure 5** details the situations or triggers of outbound patient contact undertaken by these practices, as described by the oncologists. Few oncologists (n = 11) who have hired/assigned staff or hired an outsourced service have received financial support or incentives/bonuses from payers for improving patient contact.

Patient Navigation, Collaborative Documentation, and Practice Personnel Changes

In support of care coordination between the oncology practice and other service providers, many oncologists across all practice settings employ patient navigators (25.4%; n = 52) or use hospital-employed navigators (20.0%) in their practices; an additional 9.2% of oncologists plan to employ or use hospital navigators in their practices in 2016. **New this survey**, more than half of the 52 practices (55.8%) employ navigators as *generalists* who are trained and knowledgeable about many cancers, while 42.3% employ navigators who are *specialists* in specific cancers (eg, breast, lung, or colon).

More oncologists have hired or plan to hire staff to help manage their documentation workload, particularly related to EHRs, in this 2015 study compared with the last study, although they represent a minority of the respondents. One-fourth of oncologists (n = 52) representing all practice settings employ medical scribes (9.8%), subcontract with a scribe service (10.7%), or plan to hire scribes in 2016 (4.9%) to support collaborative documentation under their direction during in-practice visits, thereby freeing the oncologist for patient interaction. Additionally, eight oncologists are discussing how best to improve practice workflow and documentation.

More oncologists (37.6%; n = 77) reported staffing adjustments over the last year compared with the previous study (31.5%; n = 63) to handle practice workload (**Figure 6** on page 46). Most often, the practices represented by these oncologists added nurses, oncologists, and APPs to their staff.

Survivorship Program Care

The number of cancer survivors in the United States is estimated to increase from nearly 14.5 million adults and children in January 2014 to almost 19 million by January 2024.[1] This estimate excludes noninvasive cancers of any site

Figure 6. Staff Changes Over the Past 12 Months to Handle Practice Workload (n=77)

Added	Practice staff	Reduced
53.2%	Nurse	9.1%
53.2%	Oncologist	6.5%
48.1%	Advanced practice provider	5.2%
41.6%	Medical assistant	6.5%
36.4%	Billing/coding/collections	5.2%
35.1%	Staff processing precertifications, PAs, and predeterminations	5.2%
32.5%	Administrative, non-billing[a]	10.4%
24.7%	Palliative care physician	3.9%
19.5%	Hospitalist	1.3%
18.2%	Financial counselor	6.5%
18.2%	Non-oncologist physician	5.2%
16.9%	Psychologist	6.5%
15.6%	Care navigator	3.9%
15.6%	IT specialist	5.2%
15.6%	Social worker	6.5%
13.0%	Pharmacist—distributive, infusion/injectables	3.9%
13.0%	Pharmacy technician—dispensing function	3.9%
13.0%	Laboratory staff	7.8%
13.0%	Genetic counselor	2.6%
10.4%	Pharmacist—distributive, oral drugs	1.3%
10.4%	Pharmacist—clinical	2.6%
10.4%	Medical scribe	5.2%
6.5%	Pharmacy technician—chemotherapy compounding	2.6%
5.2%	Pathologist	6.5%

PAs=prior authorizations; IT=information technology.
[a]Includes scheduling and front desk staff.

Seventy-seven oncologists representing all practice settings (37.6% overall) described these staffing additions or reductions made over the past 12 months to manage their practice's workload.

except urinary bladder and excludes basal cell and squamous cell skin cancers. These survivors may require ongoing care to manage long-term treatment adverse effects and psychosocial needs, as well as surveillance for recurrence and screening for new cancers.[1] The 2013 Institute of Medicine (IOM) report on delivering high-quality, patient-centered cancer care calls for innovations in post-treatment care coordination by interdisciplinary team members, including oncology, primary care, and possibly medical subspecialties to ease the transition for this growing population, if roles are clarified and care plans are shared.[4]

More than one-half of the oncologists (52.2%; n=107) reported that their practice is *primarily* responsible for survivorship program care, and one-third of them experienced *slight* (21.5%), *moderate* (6.5%), or *significant* (5.6%) increases in the number of cancer survivors, similar to the previous study period (**Figure 7**). Among these oncologists, survivorship care consumed 4.1% of their typical work week, on average. Coordination of some care with the primary care practice was reported by 22.9% of oncologists. Only 19 oncologists delegated survivorship care to the patient's primary care practice.

More oncologists are providing a written or printed survivorship care plan (SCP) to *some* or *all* of their patients upon discharge from active treatment this study period (51.2%) compared with 40.0% in 2014 (**Figure 7**). SCPs will be a phased-in requirement for certification of cancer center programs by the Commission on Cancer (CoC). Beginning in January 2015, practices must have implemented a pilot SCP process involving 10% of eligible patients. By January 2016, SCPs must be provided to 25% of eligible patients and expanded annually until January 2019, when *all* eligible patients must receive them.[5] Lack of role clarity, preparation time, and reimbursement for preparation are among the barriers cited by ASCO in its Clinical Expert Statement on Survivorship Care Planning issued in October 2014.[6] In June 2015, a bill to provide Medicare provider payment for cancer care planning and coordination services, including the transition to survivorship and long-term follow up—H.R. 2846: the Planning Actively for Cancer Treatment (PACT) Act of 2015—was referred to congressional committee.[7]

New this survey, more than eight in 10 of the 107 oncologists screen *all* (56.1%) or *some* (26.2%) of their cancer survivors for distress and evidence of behavioral or psychosocial issues, such as depression, sleep disturbances, and cognitive dysfunction. Psychosocial distress screening is a standard requirement for certification of cancer center programs by the CoC. Beginning in January 2015, practices must be able to demonstrate that they screen cancer patients for psychosocial issues, which can negatively impact treatment and outcome.[8]

Palliative Care and Advance Care Planning

The IOM calls for the integration of disease-directed therapy and **palliative care**, such that palliative care is given throughout the continuum of cancer care with the informed preferences of patients incorporated into individualized treatment plans.[4] In its palliative care guidelines, the National Comprehensive Cancer Network® (NCCN®) recommends that all cancer patients should be screened for palliative care needs at their initial visit, at appropriate intervals, and as clinically indicated.[9]

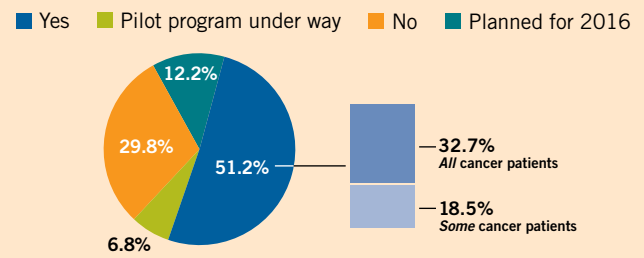
More than eight in 10 (86.3%; n=177) of the surveyed oncologists discuss palliative care with *all* or *some* of their patients, as described in **Figure 8**. **New this survey**, most often these oncologists discussed palliation with patients with

Figure 7. Survivorship Program Care

Primary responsibility for survivorship program care	(N=205)
Oncology practice	52.2%
Oncology practice in coordination with primary care	22.9%
Survivorship clinic of hospital	14.6%
Patient's primary care practice	9.3%
Other	1.0%

Distress screening	(n=107)
Routinely for *all* survivors	56.1%
For *some* survivors	26.2%
None offered	14.0%
Survivorship program under development	2.8%
Refer patients to survivorship clinic of hospital	0.9%

Provision of written/printed survivorship care plan (n=107)

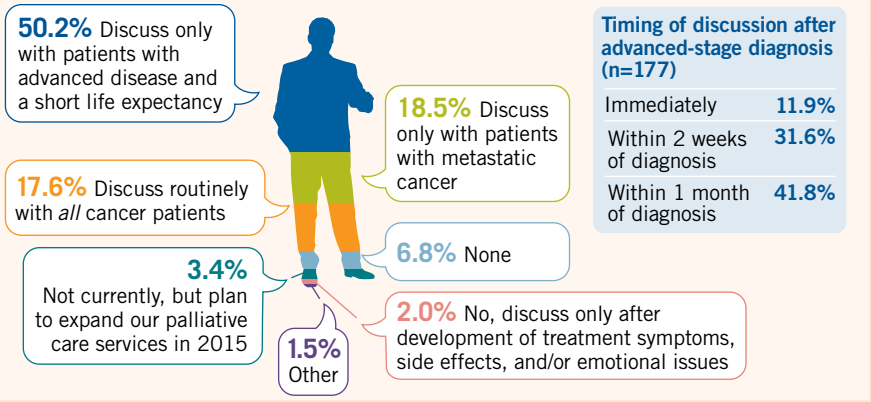


More than one-half of the oncologists (52.2%; n=107) are primarily responsible for survivorship program care through their oncology practice; 22.9% coordinate some of the care with their patient's primary care provider. More oncologists (51.2% compared with 40.0% in the previous study) provided a written or printed survivorship care plan to all *(32.7%) or* some *(18.5%) of their patients at the conclusion of active treatment. New this survey, most of the 107 oncologists include distress screening as part of their survivorship program care.*

Figure 8. Palliative Care

Access to palliative care specialists	(N=205)
Refer patient to hospital palliative care clinic[a]	28.3%
Employ a palliative care physician	26.8%
Refer patient to home health with integrated palliative care	21.5%
Employ APP(s) certified in palliative care	19.5%
Plan to hire a palliative specialist in 2016	10.2%
Employ a board-certified oncology pharmacist	8.8%

Palliative care discussions (N=205)



APP=advanced practice provider.
[a]Refers to a hospital the practice is integrated with or owned by.

More than eight in 10 of the surveyed oncologists (n=177) discuss palliative care with either all patients (17.6%), those with metastatic cancer (18.5%), or patients with advanced disease and a short life expectancy (50.2%). New this survey, most of these oncologists engage their patients in these discussions within the first 2 weeks or first month after the diagnosis of advanced disease. More than half of the practices represented by the surveyed oncologists employ a physician (26.8%), an APP (19.5%), or a pharmacist (8.8%) certified in palliative care and pain management.

Perspectives on Palliative Care and Advance Care Planning, *an* Issues in Focus *report sponsored by Genentech, takes a closer look at the benefits, challenges, and opportunities for patient-centered communication and shared decision making as they relate to palliative care, ACP, and timely hospice referrals.*

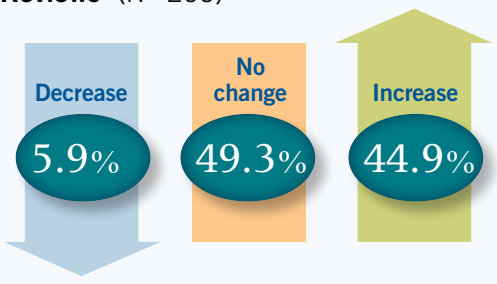
advanced disease within a month of diagnosis or refer them to a palliative care clinic. **New this survey**, more than half of the practices represented by the surveyed oncologists employ physicians (26.8%), APPs (19.5%), or pharmacists (8.8%) who are certified in palliative care or pain management in 2015. Nearly eight in 10 (78.1%) oncologists *always* or *frequently* lead the discussion of **advance care planning (ACP)** with their patients, similar to the previous study period (**Table 2**).

Oncology Prescribing Trends and Treatment Restrictions

An increase in payer treatment restrictions, in general, over the last 12 months was noted by 102 oncologists (49.7%)—54.8% of academic/medical center-based, 53.1% of hospital-based, and 44.7% of community-based (**Figure 9**). Prior authorization (PA)/precertification of treatment contingent on diagnosis (50.7%) or dependent upon pathology, tumor typing, or genomic marker testing (45.4%) remains the most frequently encountered restrictions. **New this survey**, one-fifth or fewer of the oncologists *frequently* encounter restrictions related to the use of specific molecular testing laboratories (20.0%), genetic counseling services independent of commercial labs (18.5%), or required genetic counseling prior to genetic testing for patients at heightened risk for certain cancers (18.0%).

New this survey, oncologists commented on the frequency of peer-to-peer treatment plan reviews with payers in cases of second- and third-line drugs used for patients with metastatic or advanced cancer, as illustrated. More than four in 10 oncologists noted a *slight* (28.3%), *moderate* (11.2%), or *significant* (5.4%) increase in reviews in the last 12 months.

Change in Peer-to-Peer Treatment Plan Reviews[a] (N=205)



[a]Refers to change in payer reviews over the last 12 months in cases of advanced cancer where the patient is treated with second- and third-line drugs.

Table 2. Topics *Always* or *Frequently* Discussed With Patients (N=205)

Topics *always/frequently* discussed with patients	Oncologist-led discussion	Staff-led discussion
Likely clinical benefit vs possible side effects	89.2%	44.4%
Molecular testing[a]	79.0%	34.1%
Advance care planning	78.1%	51.2%
Participation in a clinical trial	75.1%	43.4%
Treatment guided by a clinical pathway	69.3%	37.1%
Risk/benefits of off-label drug use	67.3%	34.6%
Survivorship program care	61.0%	56.1%
Treatment costs vs likely clinical benefit	51.2%	30.8%
Patient assistance and financial support programs	46.3%	81.0%
Payer prior authorization/ precertification requirements	36.6%	79.0%
Patient cost of treatment	36.6%	62.9%
Coverage limitations by payers	34.6%	69.8%
Total cost paid by all parties	28.3%	56.1%

[a]Includes companion diagnostics and next-generation sequencing-based testing.

Oncologists commented on the frequency of oncologist-led discussions about a variety of cancer care-related topics presented to them (**Table 2**). Nearly nine in 10 oncologists *always* or *frequently* lead discussions with their patients regarding the clinical benefit versus possible side effects of proposed treatments. **New this survey**, 79.0% *always* or *frequently* discuss molecular testing with their patients.

The impact of **prehabilitation** assessments and associated interventions on physical and functional outcomes and quality of life is an emerging area of study in cancer care. Often prehabilitation services are delivered during a window of time between diagnosis and the start of active oncology treatment, but are distinct from usual care that includes preoperative testing and patient education. The potential of prehabilitation to mitigate the decline in health and function that may occur after cancer treatment, often referred to as the "new normal," is an important paradigm shift in clinical care that is being

studied.[10] **New this survey**, oncologists commented on new patient assessments for prehabilitation before treatment. More than half of the oncologists conduct these assessments with *some* or *all* of their patients, as illustrated below.

Precision Medicine

New this survey, oncologists commented on their discussions with patients regarding the topic of testing in precision medicine (**Table 2**). Most oncologists *always* or *frequently* lead their patients in a discussion of molecular testing (eg, **molecular/biomarker testing** and/or **next-generation sequencing [NGS]**). Likely in response to payer restrictions, more than half of oncologists reported an increase in referrals for molecular/biomarker testing and NGS-based testing; 47.3% noted more referrals for **genetic testing and counseling** over the last 12 months. **Figure 10** on page 50 details oncologists' estimates for the number of patients who had undergone NGS-based testing in 2014; the majority of estimates (60.5%) fell within the range of less than 5% to 10% of their patients. Most often, oncologists used payer-approved commercial laboratories and hospital-based laboratories for biomarker testing. **New this survey**, oncologists identified referral sites for genetic counseling, which most often included hospital-based services (49.3%); nearly three in 10 oncologists used in-practice genetic counselors. More oncologists have undertaken initiatives to identify the appropriate use of whole genome sequencing (WGS) (41.5%) in 2015 compared with the previous study (27.0%). Likewise, more have undertaken initiatives to identify preferred laboratories for WGS testing (36.1%) in 2015 compared with the previous study (20.0%).

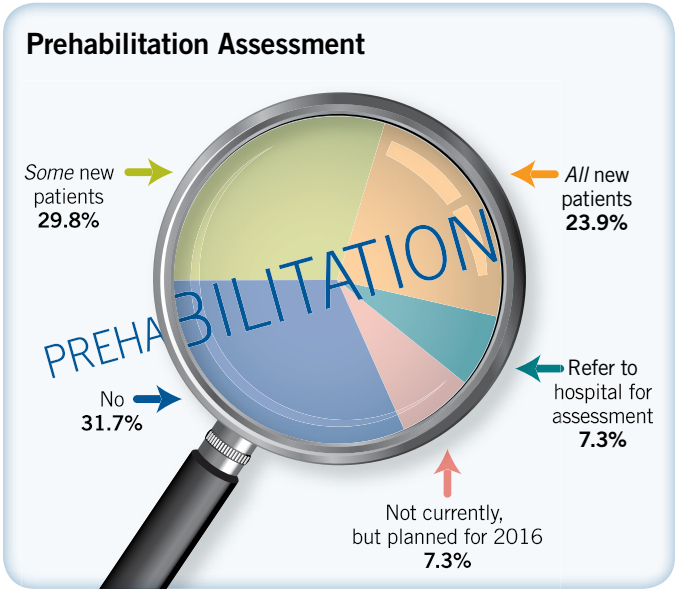
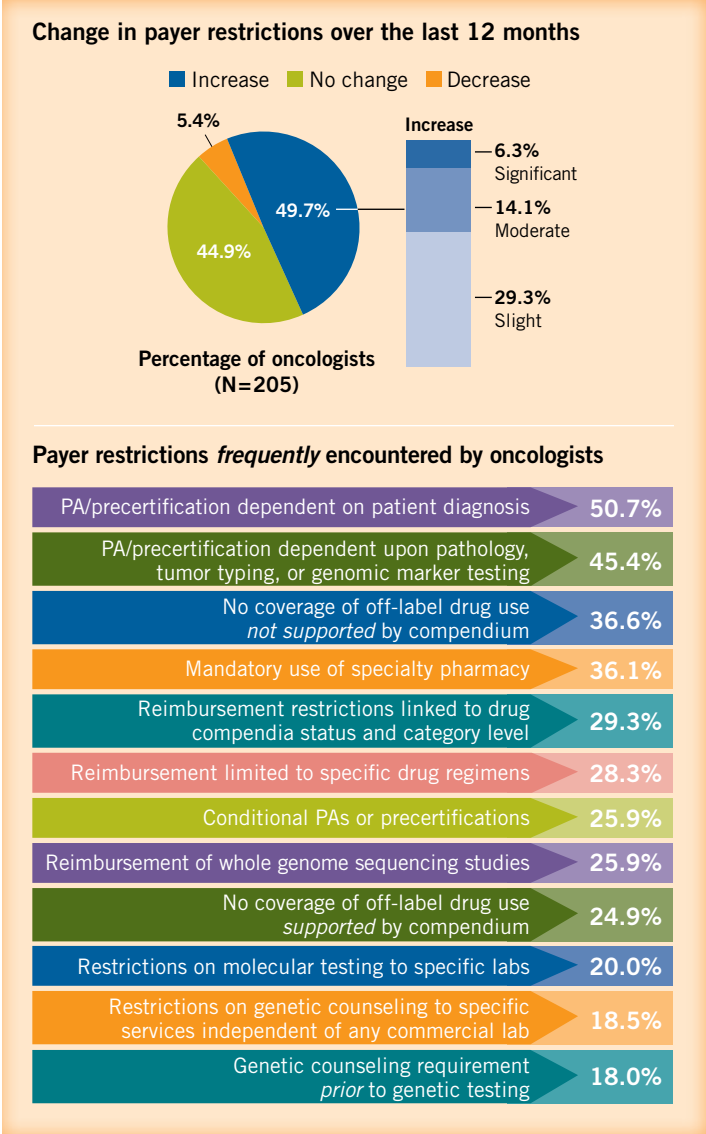


Figure 9. Payer Restrictions Applied to Oncology Treatment Decisions in 2015

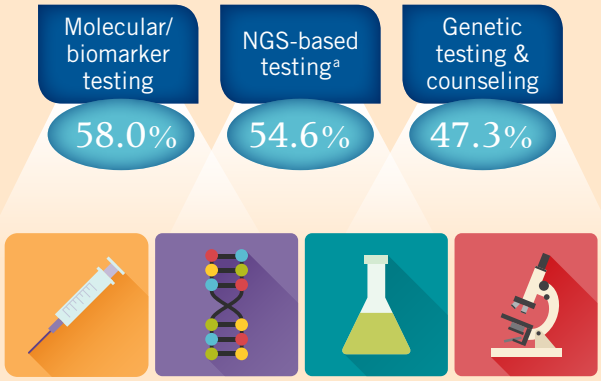


PA=prior authorization.

Nearly one-half of the surveyed oncologists (49.7%; n=102) reported a higher volume of payer-imposed treatment restrictions over the last 12 months—academic/medical center-based oncologists (54.8%), hospital-based oncologists (53.1%), and community-based oncologists (44.7%). Similar to previous study periods, PA and/or precertification of treatment dependent on patient diagnosis leads the restrictions frequently encountered.

Figure 10. Testing in Precision Medicine

Increase in referrals over the last 12 months



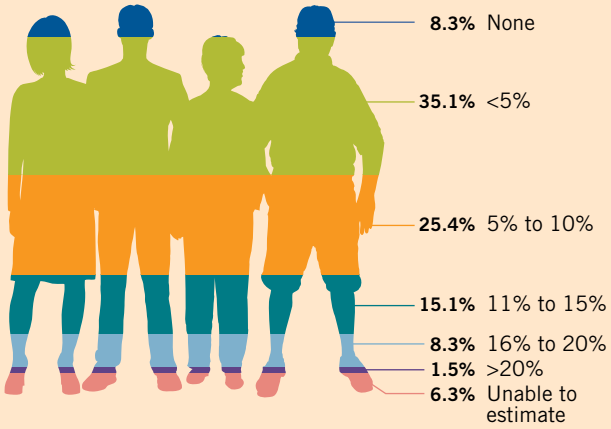
Referral sites for molecular/biomarker testing	
Payer-approved commercial laboratory	59.0%
Hospital-based laboratory	40.0%
In-practice laboratory	15.6%
Referral sites for genetic counseling	
Hospital-based service	49.3%
In-practice counselor	27.8%
Payer-approved commercial service	25.4%
Molecular testing lab service	6.3%

Initiatives to identify appropriate use and preferred vendors

	In 2015	Planned for 2016
Undertaken initiatives to identify appropriate use of WGS	41.5%	15.1%
Undertaken initiatives to identify WGS preferred vendor(s)	36.1%	16.1%

NGS-based testing in 2014

Share of patients



NGS = next-generation sequencing; WGS = whole genome sequencing.
[a]Refers to NGS-based testing, such as whole exome sequencing or WGS.

New this survey, two-thirds of oncologists rated themselves as *somewhat* knowledgeable about genetic science and the application of NGS-based testing in treatment planning (**Figure 11**). In light of the pace of genetic discovery and implications for cancer diagnosis, prognosis, and precision medicine, oncologists were asked to share their viewpoints on the role of molecular pathologists. Nearly one-third of surveyed oncologists (40.8% of hospital-based, 38.7% of academic/ medical center-based, and 22.3% of community-based oncologists) support an expanded role for molecular pathologists. Unmet needs and expanded roles are described, as detailed in **Figure 11** and illustrated on page 51.

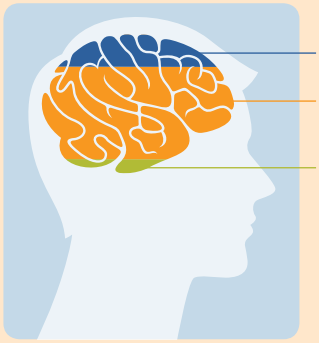
Treatment Guidelines and Pathways

Cancer treatment guidelines are currently used by 62.0% of surveyed oncologists overall (n = 127) across all settings (**Figure 12** on page 52). **Cancer treatment pathways** are followed by 49.3% (n = 101) of the oncologists across all

Genomics in Cancer Care: Realizing Precision Medicine, an Issues in Focus *report published by Genentech in 2015, takes a closer look at the opportunities and challenges to practice and policy that are central to realizing the potential of a broader spectrum of genomic advances and technologies in a new era of precision medicine, which is changing cancer care in the United States.*[11]

Figure 11. Oncologists' Knowledge, Impact, and Unmet Needs in Molecular Pathology

Knowledge of NGS-based testing in treatment planning[a]

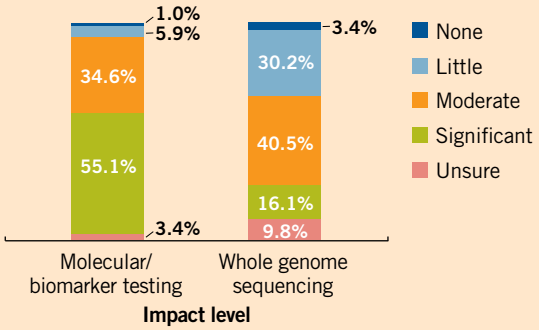


- **23.4%** Very knowledgeable
- **66.3%** Somewhat knowledgeable
- **10.2%** Not knowledgeable

NGS = next-generation sequencing.

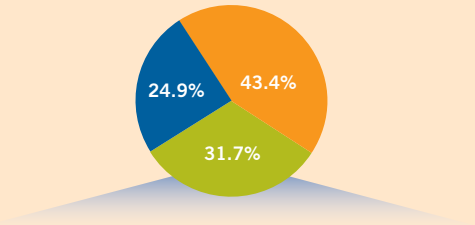
[a]Refers to oncologists' self-rated knowledge of NGS-based testing, such as whole exome sequencing or whole genome sequencing to guide treatment decisions.

Characterization of the impact of precision medicine on patient outcomes



Viewpoints on the role of molecular pathologists

- Provide validated test results
- Provide validated test results and clinical recommendations on treatment planning
- Support an expanded role regarding collaboration and decision support



Unmet needs regarding molecular pathologists

Access to verbal consultation and partnership with molecular pathologists[a]
Decision-support tools[b]
Explanation of testing methodologies and when used[c]
More user-friendly test reports
Ongoing education and training[d]
Tumor board or multidisciplinary team inclusion

[a]Regarding proper test selection for diagnosis/prognosis; after testing for results interpretation/significance and treatment planning.

[b]Includes linking molecular findings to potential treatments and clinical trials.

[c]Includes standardized guidelines on reflex testing or NGS.

[d]Includes new testing methodologies, evidence of emerging significance of actionable mutations, and organization/use of testing reports.

Oncologists' Comments on Unmet Needs in Molecular Pathology

"As more future treatments will be genome/molecularly based, we will need the speedy input of molecular pathologists to make treatment decisions."—*Oncologist at a community-based, private multi–oncology-specialty practice in the west*

"I want support in appropriate testing selection for patients and results interpretation that is summarized and easily understood—not pages long and difficult to find the answers I need."—*Oncologist at a hospital-integrated, private single–oncology-specialty practice in the northeast*

"We need to establish an efficient communication process that concisely demonstrates the pros and cons of a treatment decision for a patient."—*Oncologist at a hospital-owned, nonacademic private multi–oncology-specialty practice in the midwest*

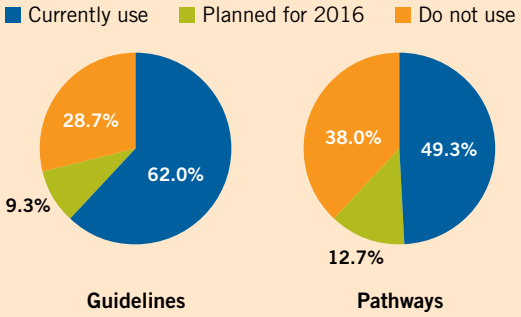
"Molecular tumor board-level discussions should be upfront for all patients, not just advanced/relapsed and/or clinical trial patients."—*Oncologist at an institution-owned, academic/medical center-based multi–oncology-specialty practice in the midwest*

"I would very much like commercial laboratories to enable us, their customers, to consult with their molecular pathologists as part of their services."—*Oncologist at a hospital-integrated, private multi–oncology-specialty practice in the northeast*

settings. Use of both is highest among the surveyed hospital-based and academic/medical center-based practices compared with community-based practices. Guidelines published by NCCN and ASCO are most frequently used by these oncologists. Hospital/cancer center-developed pathways are followed by 39.6% of the oncologists (up from 14.0% reported in 2014), and 35.6% of them follow internally developed pathways.

Use of guidelines and pathways are *encouraged* by some practices and payers, and their use remains largely voluntary. A minority of oncologists across all practice settings have contracts with payers in 2015 that tie reimbursement to adherence to specific guidelines (26.8% overall; n = 34) or pathways (27.7% overall; n = 28). Most often, guidelines and pathways are enforced by discussions during tumor boards,

Figure 12. Oncologists' Use of Cancer Treatment Guidelines and Pathways



Guidelines (n = 127)	
NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®)	59.8%
ASCO Clinical Practice Guidelines	36.2%
Children's Oncology Group	21.3%
Hospital/cancer center	18.1%
Internally developed	17.3%
Pathways (n = 101)	
Hospital/cancer center	39.6%
Internally developed	35.6%
Value Pathways powered by NCCN	19.8%

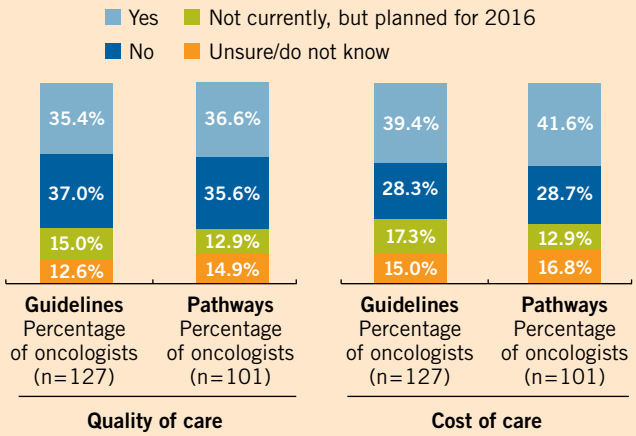
Incentives oncologists receive from payers to encourage guideline and/or pathway use[a]

- ✓ Per-patient monthly fee
- ✓ Improved drug and E&M reimbursement
- ✓ Individual physician or group bonus payments
- ✓ *Preferred* provider status within the network
- ✓ Initiation fee

Enforcement of practices' use of guidelines or pathways

	Guidelines	Pathways
	Percentage of oncologists (n = 127)	Percentage of oncologists (n = 101)
Not enforced	29.9%	28.7%
Discussion during tumor boards	33.1%	25.7%
Physician *group* payment tied to compliance	18.9%	22.8%
Reports on compliance shared with peers	16.5%	24.8%
Physician *individual* payment tied to compliance	11.0%	11.9%
IT system's stop edit requires approval on exceptions	4.7%	4.0%

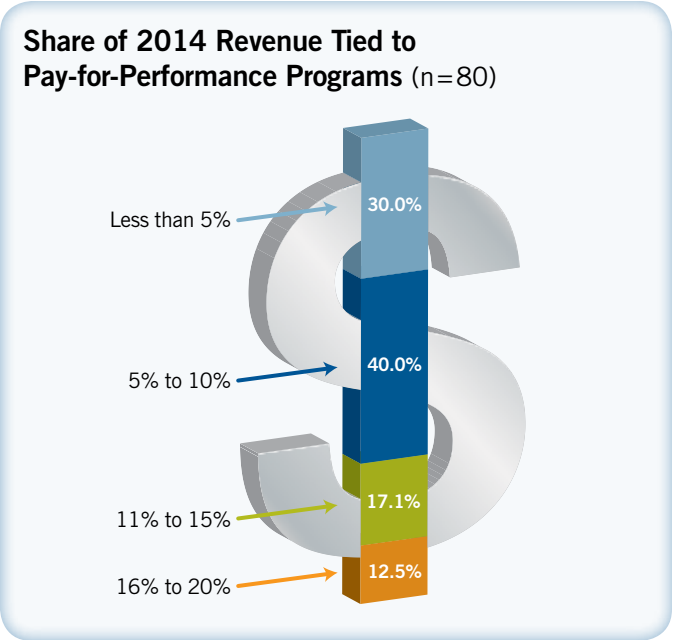
Studies under way to measure impact on quality and cost of cancer care



ASCO = American Society of Clinical Oncology; NCCN = National Comprehensive Cancer Network; IT = information technology; E&M = evaluation and management.

[a]Most frequent reports by 20% or more of oncologists receiving incentives for guidelines (n = 39) and/or pathways (n = 35).

More than six in 10 oncologists (62.0%; n = 127) use cancer treatment guidelines, and nearly half use cancer treatment pathways (n = 101), similar to the previous study. Most use NCCN's or ASCO's guidelines. More oncologists reported use of hospital/cancer center-developed pathways in 2015 (39.6% compared with 14.0% in 2014). Use is encouraged and remains largely voluntary; few oncologists reported required use of guidelines (n = 35) or pathways (n = 31) by their practices, payers, or both (data not shown). Discussions during tumor boards remain the most common way to enforce use; more oncologists reported enforcement via financial payments and peer reporting compared with the previous study. A minority of oncologists using guidelines (n = 39) and/or pathways (n = 35) are incentivized by commercial payers to do so. More practices are measuring the impact of guidelines and pathways than previously reported—four in 10 oncologists have studies under way to measure the cost impact, and more intend to initiate cost and quality studies in 2016.



Eighty oncologists (39.0% overall), representing all practice settings, estimated the share of their 2014 collected revenue attributed to their participation in pay-for-performance programs sponsored by commercial payers.

consistent with the previous study. More oncologists reported enforcement via financial payments and peer reporting compared with the previous study. Most oncologists do not receive or were unsure about incentives from payers for use of guidelines and pathways. Incentives for oncologists to follow guidelines (n = 39) and/or pathways (n = 35) are detailed in **Figure 12**. Most often, as described by 20.0% or more of these oncologists, the incentives received include per-patient monthly fees, improved drug and evaluation and management reimbursements, bonus payments, preferred network status, and initiation fees. While in play, fewer oncologists described incentives tied to reduced precertification/PA requirements or expedited utilization management reviews or reimbursement processing compared to the previous study. More practices are studying the impact of pathways and guidelines than previously reported. Four in 10 oncologists have studies under way to measure the cost impact and an additional 30.2% of oncologists intend to initiate cost and quality studies in 2016.

Nearly 4 in 10 oncologists (n = 80) representing all practice settings, participated in pay-for-performance (P4P) programs sponsored by commercial payers in 2014, up from the 67 oncologists who did so in the previous study period. As illustrated, the payments earned accounted for 10% or less of a practice's collected revenue in 2014.

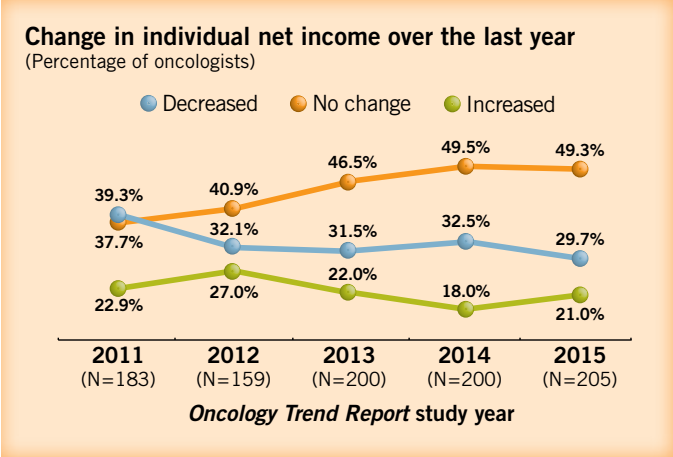
New this survey, only 11 (9.3%) of the 118 surveyed oncologists in community-based private or hospital-integrated private practices participate in P4P or cancer quality of care programs as part of the terms of joint venture arrangements with hospitals within their service area, 27 (22.9%) plan to participate in 2016, and 24 oncologists (20.3%) are unsure about participation.

Individual Oncologist and Practice Economics

Figure 13 details the self-reported trend in oncologists' individual net income since 2011. In 2015, nearly half (49.3%) of the surveyed oncologists reported income stability over the last 12 months, similar to the previous study period. However, some oncologists reported significant variances in net income over the past 12 months (an increase or decrease of more than 10%). For example, 24.4% of oncologists at community-based private practices reported their net income had *declined* by more than 10% compared with 2014. In addition, 14.5% of academic/medical center-based oncologists reported that their net income had *increased* more than 10% compared with 2014 (range, 10% to 30%).

Looking ahead to the next 12 months, community-based and academic/medical center-based oncologists forecast similar results around changes to net income. But 30.6% (n = 15) of the surveyed hospital-based oncologists expect modest income

Figure 13. Change in Oncologists' Individual Net Income: 5-Year Trend



Overall, individual income remained unchanged for nearly half of the oncologists compared to the previous 12 months, similar to the previous study. Community-based oncologists (38.3%) were most likely to report lower income compared with about 22% of hospital-based and academic/medical center-based oncologists. Higher income was reported by 30.6% of academic/medical center-based oncologists compared with about 17% of their community-based and hospital-based colleagues (data not shown).

growth, with about half of this group expecting an increase in income of 10% or less.

Eight in 10 of the 111 oncologists in the sample working in hospital-based or academic/medical center-based practices are employed by the institution with which their practice is integrated or owned. These 89 oncologists described their compensation as fixed salary (41.6%), fixed salary with clinical productivity-related bonus potential (40.4%), fixed salary with bonus tied to quality metrics or pathways adherence (11.2%), or compensation using a relative value unit (RVU)-based method (5.6%). One oncologist described his compensation as RVU-based but with potential reductions based on the share of uncollected accounts receivables.

Table 3. Practice Changes Anticipated in the Next 2 to 3 Years to Improve Financial Performance

	Percentage of oncologists (n=125)
Plan to *add* or *expand* the following operations/services:	
Clinical trial participation	36.8%
Clinical pathways implementation	36.0%
EHR system	32.0%
Clinical pharmacy services	24.0%
Clinical guidelines implementation	23.2%
Survivorship program services	20.0%
Electronic prescribing system	19.2%
Participation in Medicare's PQRS program	16.8%
In-practice oral oncology drug dispensing	16.0%
Patient navigation services	14.4%
Participation in ASCO's QOPI® program	14.4%
Plan to *reduce* or *restrict* the following operations/services:	
Services to uninsured patients	12.0%
Services to Medicaid patients	9.6%
Clinical trial participation	8.8%

EHR=electronic health record; PQRS=Physician Quality Reporting System; ASCO=American Society of Clinical Oncology; QOPI=Quality Oncology Practice Initiative.

Adding or expanding clinical trial participation, treatment pathways, and practice automation are the leading tactics reported by the 125 oncologists (61.0% overall) whose practices are planning for these changes over the next 2 to 3 years to improve their financial performance. Leading tactics when considered by practice setting are pathways (41.1%) and guidelines (32.1%) implementation by community-based practices, EHR implementation by hospital-based practices (44.4%), and clinical trial participation by 52.4% of academic/medical center-based practices (data not shown).

Practice Changes and Reorganization Strategies to Improve Financial Performance

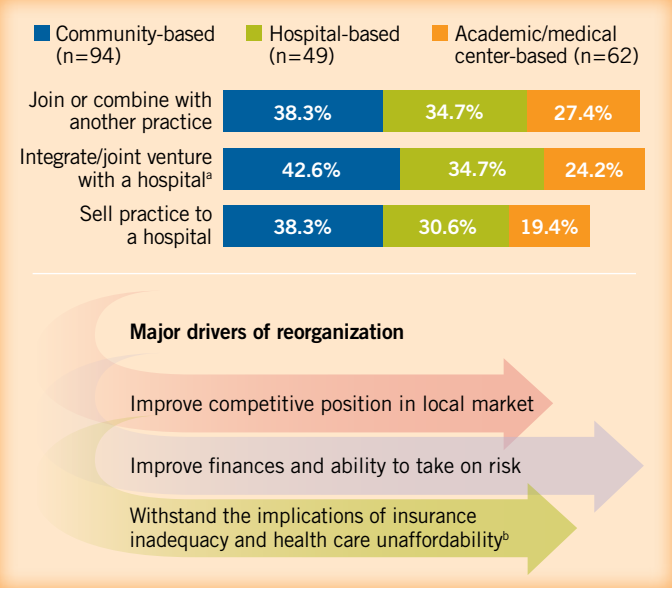
Six in 10 oncologists representing all practice settings (61.0%; n=125) reported on changes anticipated over the next 2 to 3 years to improve their practice's financial performance. While tactics varied somewhat across settings, most often, these practices are focused on adding or expanding clinical trial participation, clinical pathways implementation, and practice automation (**Table 3**).

Figure 14 details specific reorganization strategies that have been implemented or are under consideration in the next 2 to 3 years. Almost four in 10 of the community-based practices represented in the sample already have combined with another practice (9.6%) or are considering this option over the next 2 to 3 years (28.7%). Similarly, four in 10 community-based practices already have sold their practice to a hospital (10.6%) or are considering this option over the next 2 to 3 years (27.7%).

Organizational trends in oncology that are tracked by the Community Oncology Alliance (COA) included a 46% increase in mergers and acquisitions and a 143% increase in practices acquired or with a hospital agreement since the COA baseline analysis between 2008 and 2010.[12]

The leading reasons driving reorganization that were most often rated *moderately* or *very important* by surveyed oncologists are desires to improve competitive market position and risk-taking ability, and to withstand the implications

Figure 14. Reorganizational Strategies Currently Implemented and/or Under Consideration Over Next 2 to 3 Years



[a]Relationship established by a physicians services agreement.
[b]In light of trends toward high-deductible health coverage and employer health benefits funding via defined contribution.

of insurance inadequacy and health care unaffordability in light of prevailing trends toward high-deductible health coverage among their patients. Also considered *moderately* or *very important* is more employers considering **defined contribution** as a way to fund their employee health benefits. Research with community oncology practices commissioned by the COA suggests that mergers between practices are evaluated from a position of strength, such as improving negotiating power, while acquisitions by hospitals more likely occur due to greater financial stress.[13]

New this survey, oncologists were asked to select the top three most pressing challenges facing cancer care today from among 14 issues presented to them. Control of cancer specialty drug costs and overall cancer care costs, as well as escalation in patient out-of-pocket costs were most often selected, as illustrated.

Contracting

Oncologists' willingness to accept risk-based contracting in the form of **global payments** and/or **bundled payments** was mixed. More oncologists (36.6%) expressed willingness in 2015 compared with 24.5% in the previous study period. Of the 36.6%, 6.3% are willing, 21.0% have current contracts in place, and 9.3% are in contract negotiations. However, nearly as many oncologists (32.2%) are unwilling to take on risk and 31.2% are unsure, depending on the level of risk and contract terms.

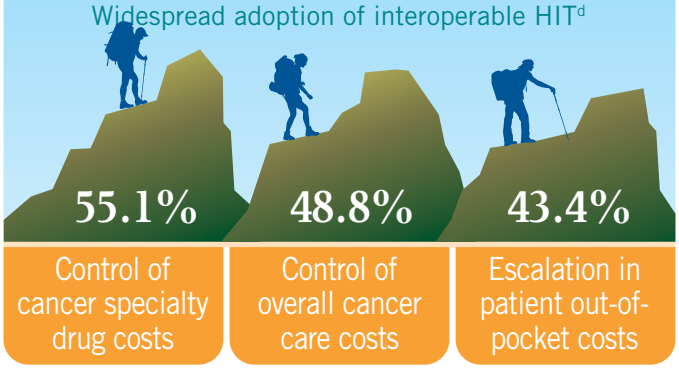
For the first time in the history of the Medicare program, explicit goals for alternative payment models and value-based payments were announced by the Department of Health and Human Services (HHS). In January 2015, HHS set the goal of tying 30% of fee-for-service Medicare payments to quality or value through alternative payment models, such as accountable care organizations or bundled payment arrangements, by the end of 2016, and tying 50% of payments to those models by the end of 2018.[14]

Few oncologists (7.8%; n = 16), representing all practice settings, reported that their practice has contracted directly with self-insured employers for oncology care services. An additional 36 oncologists are investigating or negotiating these types of contracts (12.2%) or plan to do so in 2016 (5.4%). One-fourth of the oncologists are unsure of contracting status.

Nearly half of the 170 oncologists with infusion chair/beds reported increased activity over the last 12 months investigating patient assistance from manufacturer-sponsored programs and charitable foundations.

Oncologists identified the **top 3 most pressing challenges** facing cancer care today

Access to cancer care ★ Advance care planning
Availability of enhanced clinical trials ★ Balancing treatment standardization with personalization[a]
Control of cancer specialty drug costs ★ Control of overall cancer care costs ★ Developing better cancer diagnostics[b] ★ Developing effective cancer therapies
Effective care coordination and patient navigation
Equitable payment alternative to FFS ★ Escalation in patient out-of-pocket costs ★ Patient engagement[c]
Provider compliance with evidence-based treatment
Widespread adoption of interoperable HIT[d]



FFS=fee for service; HIT=health information technology.

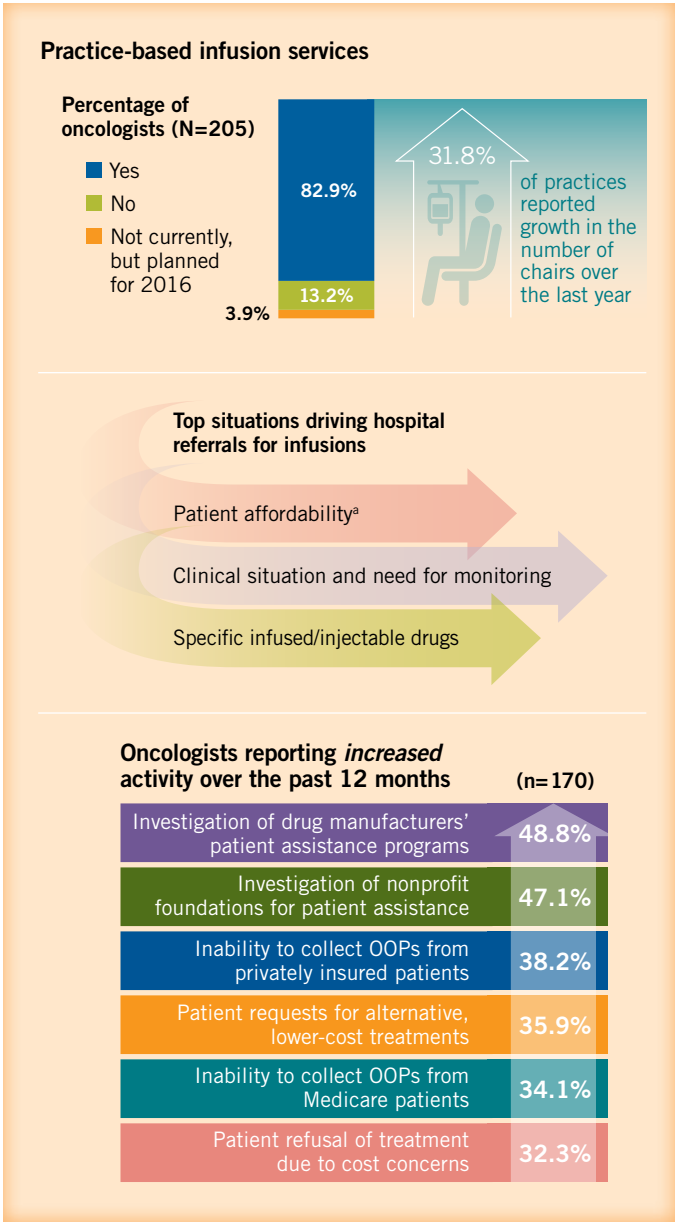
[a]Treatment standardization refers to guidelines and pathways; personalization refers to molecular and biomarker testing; [b]Refers to pathology, molecular/biomarker testing; [c]Refers to wellness, prevention, and medical treatment; [d]Refers to technology to support quality improvements and outcomes measurement.

Drug Administration

Infusion Therapy

Nearly 83% (n = 170) of the practices represented by the surveyed oncologists have infusion chairs/beds, and 31.8% of them have increased their chair capacity committed to cancer care over the past 12 months (**Figure 15** on page 56). The majority of prescribed infusions are administered in-practice across the practice settings. The situations most often driving infused treatment referrals outside of the practice to hospital outpatient facilities are related to patient affordability, clinical situations and needs for inpatient monitoring, and specific drug treatments. Nearly half of these 170 oncologists reported increased activity over the last 12 months investigating

Figure 15. Practice-Based Infusion Therapy



OOPs=out-of-pockets.

[a]Includes uninsured, commercial, and Medicare patients who cannot afford cost share.

Most oncologists (82.9%; n=170) have in-practice infusion services, and nearly one-third expanded their chair/bed capacity committed to cancer care over the last 12 months. The situations that most often drive infused therapy referrals to hospital outpatient services are related to patient affordability concerns, clinical situations requiring monitoring, and specific drug treatments, according to these oncologists. Nearly half of these 170 oncologists reported increased activity over the last 12 months investigating patient assistance from drug manufacturer-sponsored assistance programs and charitable foundations.

Oncologists from all practice settings (22.0% overall) reported that their patients prefer to obtain oral drugs and education from members of the oncology staff.

patient assistance from manufacturer-sponsored programs and charitable foundations. Many oncologists and their staff spend time *always* or *frequently* discussing treatment cost, **patient assistance programs**, and coverage-related topics with their patients, which contributes to their workload (**Table 2** on page 48). In cases of *significant* revenue loss associated with in-practice infusion therapy, pursuant to their practice's policy, these 170 oncologists will most often do the following: refer the patient to a hospital (32.9%), use an alternative drug as available (28.2%), seek assistance from a charitable foundation (24.7%), administer the medication and absorb the loss (22.9%), and/or pursue drug manufacturer-sponsored assistance or drug replacement (20.0%).

In-Practice Oral Drug Dispensing

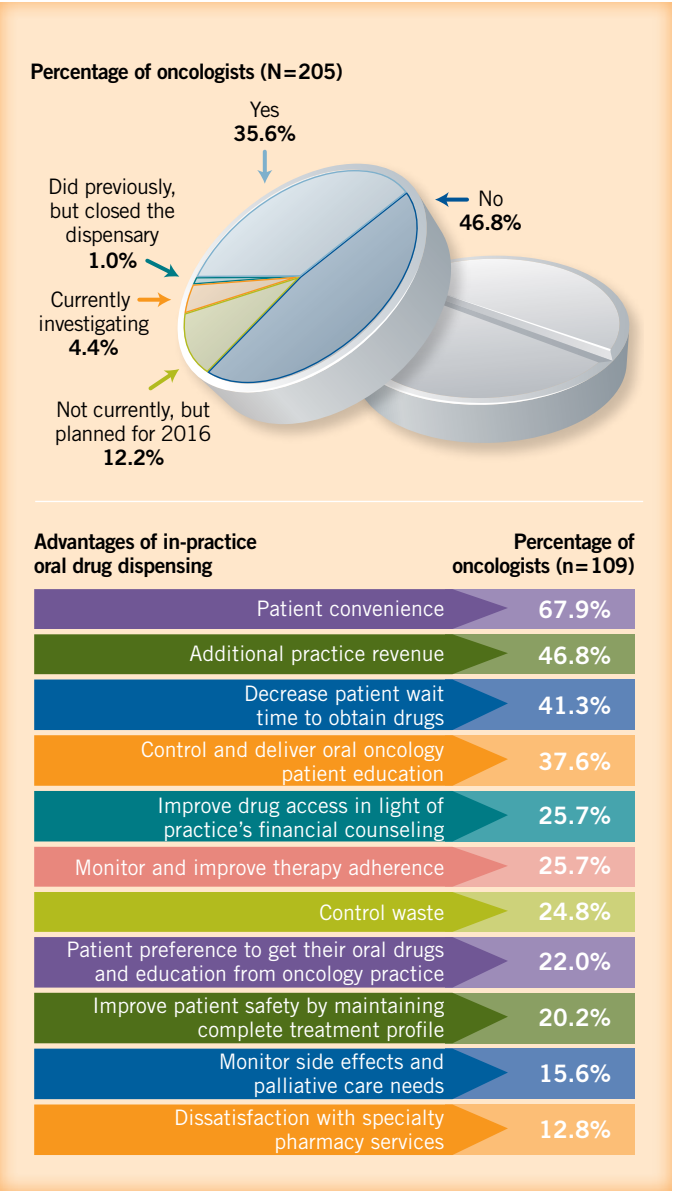
More oncologists this study (35.6%; n=73) compared with the previous study (23.5%; n=47) purchased and dispensed oral oncology drugs from their practices in 2015—40 community-based, 11 hospital-based, and 22 academic/medical center-based oncologists (**Figure 16**). Additionally, another 12.2% (n=25) plan to do so in 2016, and 4.4% (n=9) are currently investigating the option. Only two oncologists reported experience with an in-practice dispensary that has closed. Patient convenience topped the list of advantages of **in-practice drug dispensing** of oral oncolytics reported by these oncologists, similar to the previous study. Few of them (12.8%) reported dissatisfaction with specialty pharmacy (SP) services.

New this survey, 22.0% of oncologists from all practice settings reported that their patients prefer to obtain oral drugs and education from members of the oncology staff. A number of practice staff is involved in patient education about oral drugs. These include oncologists (71.2%), APPs (46.6%), pharmacists (42.5%), and nurses (35.6%). Oncologists' involvement was more frequently reported among hospital- and academic/medical center-based practices compared with community-based practices.

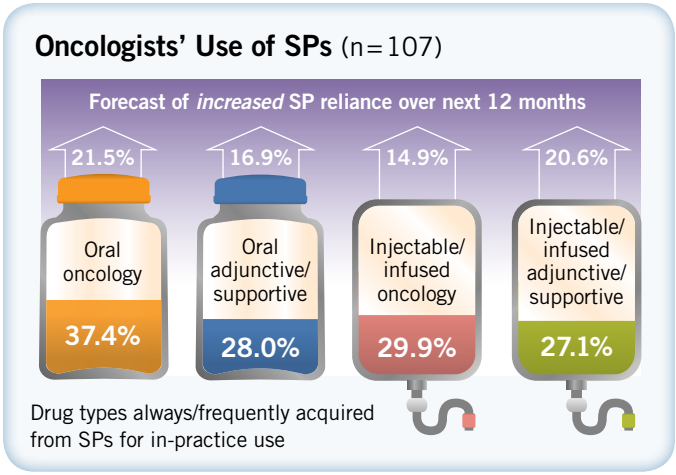
Specialty Pharmacy Use

More oncology practices represented by the surveyed oncologists use SPs instead of buy and bill to source drugs for

Figure 16. In-Practice Oral Oncology Drug Dispensing



More oncology practices represented by the surveyed oncologists use SPs instead of buy and bill to source drugs for in-practice administration in 2015 (52.2%; n=107) compared with the previous study period (46.0%; n=92).



SPs=specialty pharmacies.

More oncologists use SPs instead of buy and bill to source drugs for in-practice use in 2015 (52.2%; n=107) compared with the previous study period (46.0%; n=92). Oral oncolytics are frequently/always *acquired from an SP by 37.4% of these oncologists. Looking ahead, most oncologists forecast steady use of SPs for all drug types over the next 12 months; however, 21.5% of these oncologists predict more reliance on SPs to source oral oncolytics for their patients.*

in-practice administration in 2015 (52.2%; n=107) compared with the previous study period (46.0%; n=92); another eight practices plan to do so in 2016 (3.9%). Most often, SPs are used in response to requirements by payers (55.1%), manufacturers (31.8%) that choose to limit access to their drugs via limited/exclusive distribution networks, or a practice management organization (20.6%). A minority of practices are using SPs as part of a practice strategy to shift *self-administered* (15.9%) or *in-practice–administered drugs* (11.2%) away from the buy-and-bill model. Most often, oncologists turn to SPs to *frequently* and/or *always* source their oral oncolytics compared with other drug types, as illustrated above. In 2016, 21.5% of oncologists expect greater reliance on SPs to source oral oncology drugs compared with other drug types.

Oncology Practice Automation

More than seven in 10 oncologists (76.6%; n=157) work in practices with EHRs. Of the 157 practices, less than half (44.6%) have oncology-specific systems. Two-thirds of the 157 oncologists are working with systems implemented for 5 years or less. Eight oncologists are considering or are in the process of switching to different EHR systems than currently implemented. **Table 4** on page 58 details the EHR features and capabilities as described by these 157 oncologists. The number of systems with patient portals for secure exchange of information with patients continues to rise—69.4% in 2015 compared with 57.8% in the previous study period.

The largest share of oncologists (41.4%; n = 65) experienced no change in the number of patients they are able to see or the quality of face-to-face interaction with their patients since adopting an EHR system. However, one-third of the oncologists have experienced lower productivity (33.7%; n = 52) and 19.8% (n = 31) reported higher productivity since system implementation. Four in 10 (40.8%; n = 64) believe the EHR and associated workflow changes have negatively affected the quality of patient interaction during visits; 17.8% (n = 28) feel patient interaction has improved.

New this survey, oncologists commented on their unmet needs regarding EHR system functionality. Most often reported were a lack of interoperability with the systems of other providers, care organizations and hospital networks; a lack of oncology-specificity; a lack of integration between inpatient and outpatient systems; and the need for integrated internal functions, such as clinical trials participation, treatment guidelines and pathways, preauthorization and billing, infusion center, laboratory, pharmacy/drug inventory, radiology, and the practice management system. A number of oncologists noted the time demands associated with system complexity, user-unfriendliness, redundancy, and lack of flexibility and customization. Specific desired functionality included electronic consent forms, chemotherapy order entry, pediatric-specific chemotherapy order templates, treatment summary and SCP generation, automated PA submission, voice recognition, health plan formulary status, patient education tools, decision support linking diagnosis and stage with treatment recommendations, and support of meaningful use.

Five key challenges, in addition to meaningful-use program requirements, are impeding EHR interoperability, according to a report released in September 2015 by the

Table 4. Oncologists' EHR Features and Capabilities

	Percentage of oncologists (n = 157)
E-prescribing capability	87.9%
Outpatient prescription generation	80.9%
After-visit summary generation	74.5%
Chemotherapy order sets	72.0%
Patient portal	69.4%
Treatment regimen templates	63.1%
Treatment summary (written/printed) as part of SCP	59.9%
Meaningful-use reporting	58.0%
Interoperability/health information exchange with network providers	57.3%
Tumor staging	56.7%
Integrated coding and charge capture with practice management system	54.1%
Pain assessment and supportive care needs	52.9%
Treatment plan generation (written/printed) for patient	52.2%
Patient advance directive	51.6%
Patient education resource integration and/or links	45.9%
Open database with query capabilities	41.4%

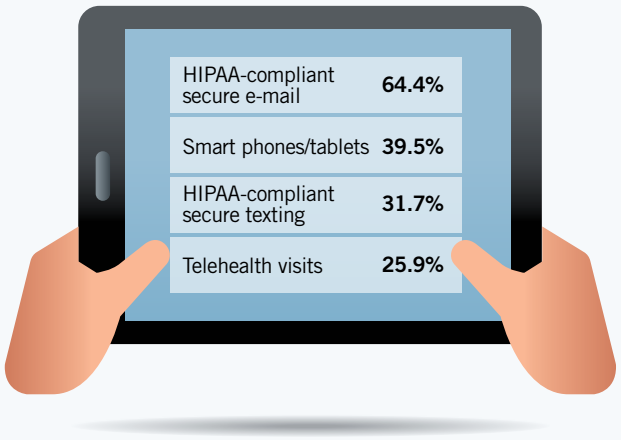
	Percentage of oncologists (n = 157)
Cloud-based computing	39.5%
Genetic counseling consultation recommendations	38.9%
Clinical trial and protocol management	38.2%
Quality metrics reporting for PQRS	36.9%
Survivorship care plan	36.3%
MDx testing order templates	35.0%
MDx testing results and interpretation	35.0%
Quality metrics reporting for QOPI	34.4%
Clinical pharmacy order consult	33.8%
Toxicity assessment and management	33.1%
Treatment preauthorization support	33.1%
Genetic testing results for familial risk, including family pedigree	31.2%
Decision-support integration and/or links to guidelines and pathways	28.7%
Drug inventory and cost management	26.8%
Smart-pump integration	24.8%
ABN generation for Medicare (eg, off-label drug use)	24.2%
Medication patient assistance order consult	22.9%

EHR = electronic health record; SCP = survivorship care plan; PQRS = Physician Quality Reporting System; MDx = molecular diagnostics; QOPI = Quality Oncology Practice Initiative; ABN = Advance Beneficiary Notice of Noncoverage.

Presented with this list of system capabilities and features, the 157 oncologists working with EHRs selected the features included in their systems.

mHealth-Related Capabilities in 2015/ Planned for 2016

(N=205)



HIPAA=Health Insurance Portability and Accountability Act.

Government Accountability Office, based on assessments by representatives from the 18 nongovernment initiatives involved in infrastructure development.[15] These challenges include insufficiencies in interoperability standards, variation in state privacy rules, accurately matching patients' health records, interoperability costs, and need for governance and trust among entities. It was also noted that system enhancements that improve workflow or clinical decision making are needed to extend the clinical value of these systems for users—promoting buy-in, which is necessary to move interoperability forward. In light of these challenges, legislators and others are urging federal officials to delay the final rule for Stage 3 of the meaningful-use program, particularly in light of the complexity and low compliance rate for Stage 2.[16]

mHealth

As illustrated, nearly four in 10 of the 205 oncologists surveyed use (31.7%) or plan to use in 2016 (7.8%) smart phones and tablet technology—known as **mHealth**—as replacements for their laptops, desktops, and pagers for EHR data entry, e-mail and messaging, and patient education. Many are able to communicate with their staff, colleagues, and patients via secure e-mail (58.5%); fewer have secure texting capability in 2015 or plan to have it in 2016 (31.7%). Thirty-four oncologists—17 community-based, seven hospital-based, and 10 academic/medical center-based—provided **telehealth** services in 2015; an additional 19 oncologists plan to do so in 2016. **New this survey**, telehealth use described by these oncologists included stem-cell transplant consultation across multiple states; patient discussions prior to initial consult; genetic counseling; palliative care; patient education; research; for specific populations, such as imprisoned patients or out-of-area patients; routine follow-up visits, and follow-up post-discharge to prevent hospital readmissions.

Health Information Technology-Related Incentive Programs

Oncologists reported participation in the various health information technology-related incentive programs: 56.6% in the 2015 Medicare/Medicaid "meaningful use" EHR Incentive Program, 39.5% in the Centers for Medicare and Medicaid Services 2015 Physician Quality Reporting System, 37.1% in ASCO's Quality Oncology Practice Initiative (QOPI®), 27.3% in ASCO's QOPI Certification Program (QCP™), and 16.6% in the National Committee for Quality Assurance Patient-Centered Medical Home Recognition program.

Beginning January 1, 2015, Medicare-eligible professionals were subject to payment adjustments applied to their Medicare physician fee schedule amount for covered professional services rendered in the year they were unable to demonstrate meaningful use of certified EHRs. Adjustments received in 2015 reflect lack of meaningful use attestation in full year or partial year (ie, 90-day reporting period) 2013 or 2014, depending on the initial year of demonstration. Demonstration must continue each subsequent year to avoid payment reductions in subsequent years.[17] **New this survey**, 28 of the 116 oncologists participating in the EHR incentive program received payment adjustments under Medicare for lack of meaningful use of their EHR; 50 oncologists were unsure.

Nearly four in 10 of the 205 oncologists surveyed use (31.7%) or plan to use in 2016 (7.8%) smart phones and tablet technology—known as mHealth—as replacements for their laptops, desktops, and pagers for EHR data entry, e-mail and messaging, and patient education.

ONCOLOGY PRACTICE MANAGERS
(N=200)

HIGHLIGHTS

Practice Revenue & Drug Purchasing

- 63.3% of OPMs expect revenue growth by year-end compared with 2014; Medicare remains a major payer for most practices; half of OPMs continue to have difficulty verifying coverage for patients with health insurance exchange plans
- 32.5% of OPMs have altered their collection policy regarding out-of-pocket (OOP) drug payments in light of the trend in patients with high-deductible commercial coverage; OPMs were successful in collecting *all* copayments from only an average of 24.5% of patients; OPMs cited control of overall cancer costs and specialty drug costs and escalation in patient OOPs as the top three most pressing cancer challenges
- About one-fourth of drug volume for in-practice use is purchased by specialty pharmacies (SPs) and supplied to practices via white and brown bagging; more than three in 10 OPMs forecast an increase in white bagging in 2015; SP use continues to be driven by payer requirements and financial pressures
- More OPMs (33.5%) reported in-practice oral drug dispensing than the previous study period; almost half of these managers indicated their patients prefer to obtain their oral drugs and oral drug education from the oncology practice staff

Practice-Based Infusion Services

- Uninsured patients' inability to pay and anticipation of *significant* drug revenue loss are leading drivers of hospital outpatient treatment referrals; more than half of the volume of prescribed infusions are administered in-practice across the settings, averaging 64.5% overall
- Ensuring safety and regulatory compliance with USP 797/800 standards related to sterile compounding and handling of hazardous drugs is among the drivers rated *moderately* to *very important* by OPMs regarding current or future reorganization plans

Oncology Operations & Staffing

- 78.0% of managers employ APPs, and hiring more APPs is top of mind for practices adjusting staffing in 2016; nearly six in 10 OPMs reported an increase in patients seen daily by APPs over the last 12 months; more than one-third reported that APPs work at least 1 day per week outside of regular hours catching up on EHR updating, care coordination, and e-mails
- 41.0% of OPMs have hired or assigned staff for *proactive* patient contact at predetermined points of care; two-thirds of OPMs employ palliative care specialists; 56.5% of OPMs provide *some* or *all* patients with survivorship care plans
- ICD-10 transition is top of mind, and more time appealing claims denials is expected by year-end 2015; half of OPMs have taken out a line of credit or are discussing doing so in light of the ICD-10 transition
- 76.5% of OPMs manage practices with EHRs; lack of interoperability and integration with key internal functions top unmet needs; availability of patient portals continues to rise

Demographics

Two hundred oncology practice managers (OPMs) from across the United States completed an online survey of 54 multipart questions fielded from July to August 2015. These respondents were prequalified to ensure they work for an oncology practice in a management or administrative capacity and have knowledge of practice operations, including staffing, billing and reimbursement, and infusion services. The OPMs in this section and the oncologists in the *Oncologists* section do not represent the same practices.

Table 1 details the sample composition. Nearly 43% of the surveyed OPMs manage community-based private practices with an average of 3.7 **sites of care/service** and 7.6 oncologists. Overall, half of the OPMs manage practices with seven or more full- and part-time oncologists, 36.0% manage practices with three to six oncologists, and 13.5% manage practices with two or fewer oncologists. Three-fourths of the OPMs manage **multi–oncology-specialty practices**. The largest practice in the sample is an academic/medical center with 700 oncologists who treat patients across 11 sites. Regionally, surveyed OPMs work in practices that are located as follows: 24.5% in the northeast, 24.5% in the midwest, 27.0% in the south, and 24.0% in the west.

Practice Revenue

OPMs described their patient populations by insurance type and shared forecasts about revenue collection. As illustrated below, Americans with health insurance exchange (HIX) plans grew to 11.7 million in 2015.[1] OPMs' forecasts for collected revenue in full-year 2015 were more optimistic compared with the previous study period. Overall, 63.3% of OPMs expect revenue growth by year-end 2015 compared with performance

Select Estimates Related to Health Insurance Access

11.7 million[a]	Enrollees in 2015 HIXs[1]
71.8 million[b]	Enrolled in Medicaid/CHIP[2]
11.3 million[c]	Unauthorized immigrants[3]
30 million[d]	Uninsured[4]

[a]Pre-effectuated enrollment data, including state-based and federally facilitated HIXs, effective March 2015.
[b]Effective October 2015.
[c]In 2014, based on Pew Research Center estimates.
[d]Adults aged 19-64 years, as of Fall 2014.
HIX=health insurance exchange or marketplace; CHIP=Children's Health Insurance Program.

in 2014; positive forecasts are most frequent among OPMs from academic/medical center-based practices (72.6%) compared with other practice settings.

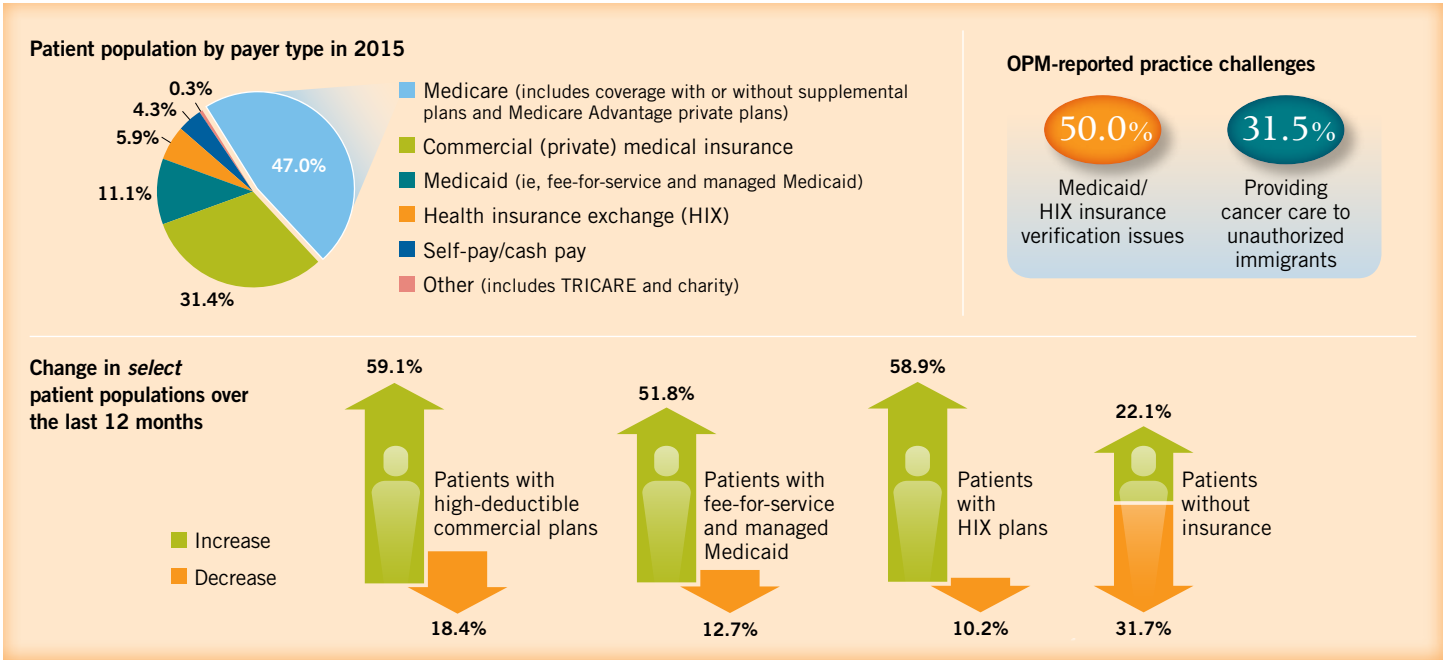
Medicare is a major payer among the various insurers providing revenue to oncology practices for health services rendered to beneficiaries. OPMs estimated that for 2015, Medicare — with or without supplemental coverage or through Medicare Advantage plans — insured an average of 47.0% of their practice's patients (**Figure 1**). The number of patients with high-deductible commercial health plans and plans through the HIXs or marketplaces increased over the last 12 months for six in 10 OPMs; half (51.8%) of them reported growing numbers of patients with fee-for-service (FFS) or managed Medicaid coverage in their practices and 22.1% have larger numbers of uninsured patients.

Table 1. 2015 Sample by Practice Setting and Select Demographics

Practice setting	Percentage of OPMs	Mean number of sites (range)	Mean number of oncologists per practice (range)
Community-based, private (n=85)	**42.5%**	**3.7 (1–25)**	**7.6 (1–100)**
Solo (n=6)	3.0%	1.7	1.0
Single–oncology-specialty group (n=20)	10.0%	2.4	4.5
Multi–oncology-specialty group (n=59)	29.5%	4.3	9.3
Academic/medical center-based (n=54)	**27.0%**	**10.0 (1–60)**	**45.8 (1–700)**
Physician-owned (n=11)	5.5%	5.6	27.3
Hospital/institution-owned (n=43)	21.5%	11.1	50.5
Hospital-based (n=61)	**30.5%**	**5.1 (1–37)**	**13.4 (1–80)**
Hospital-owned, nonacademic (n=30)	15.0%	4.6	12.2
Private, hospital-integrated (n=31)	15.5%	5.6	14.6

The 200 OPMs in the sample manage community-based, private (42.5%), academic/medical center-based (27.0%), and hospital-based (30.5%) oncology practices. The number of oncologists ranged from one to 700 per practice, treating patients across a number of sites ranging from one to 60. Overall, half of the OPMs manage practices with seven or more full- and part-time oncologists, 36.0% in practices with three to six oncologists, and 13.5% manage practices with two or fewer oncologists (data not shown).

Figure 1. Payer Types and Practice Challenges



Nearly half of the patients, on average, have insurance coverage through Medicare, which remains a major source of revenue for most surveyed practices. Patients with Medicaid and/or HIX insurance plans averaged 11.1% and 5.9% of the practice populations, respectively, according to OPM estimates. Half of OPMs reported insurance verification issues for patients with HIX plans or those who churn between Medicaid and subsidized HIX plans. New this survey, three in 10 OPMs face major challenges caring for unauthorized immigrants in their service area.

OPMs' Comments on Challenges Providing Care to Unauthorized Immigrants

"We apply for charity assistance programs through our affiliated 340B-qualified hospital to be able to treat uninsured immigrants." — *OPM of a hospital-owned, nonacademic multi–oncology-specialty practice in the south*

"Immigrants present as self-pay. Failure to pay their bills impacts practice revenue, and quality of care is poor, as many do not complete treatment." — *OPM of an institution-owned, academic/medical center-based multi–oncology-specialty practice in the northeast*

"We see that refugees from African countries are placed on Medicaid right away, while immigrants from Mexico are afraid to seek treatment for fear of deportation." — *OPM of a physician-owned, academic/medical center-based multi–oncology-specialty practice in the midwest*

"Our federal funding requires us to treat. Our patients are very frustrated that undocumented immigrants get services free, while they pay high fees and deductibles." — *OPM of hospital-integrated multi–oncology-specialty practice in the west*

"Treat case by case, sharing the financial burden with the hospital and tapping into special drug programs and ongoing relationships with cross-border partners and nonprofits for funding." — *OPM of hospital-integrated multi–oncology-specialty practice in the west*

Half of the OPMs continue to experience difficulties verifying insurance and proof of premium payment for patients with HIX plans after the second enrollment period of the Affordable Care Act (ACA), particularly for patients whose eligibility churns between Medicaid and subsidized private HIX plans. To control the impact on workload and finances, practices verify eligibility monthly or more frequently and query patients about insurance changes at each visit and/or prior to treatment or procedures. A number of practices ask patients to provide proof of premium payment, particularly before chemotherapy. Some practices verify premium payment with an insurance representative before each visit.

New this survey, 63 OPMs (31.5%) commented on challenges providing cancer care to unauthorized immigrants in their service area, with representative comments illustrated above.

Table 2 on page 66 identifies service reductions/restrictions under consideration in the next 2 to 3 years as reported by 149 OPMs. To improve financial performance, these practices will consider service reductions to patients with Medicaid (23.5%), certain commercial plans (15.4%), no insurance (14.1%), Medicare (12.1%), or health plans from HIXs (8.1%).

Drug Purchasing

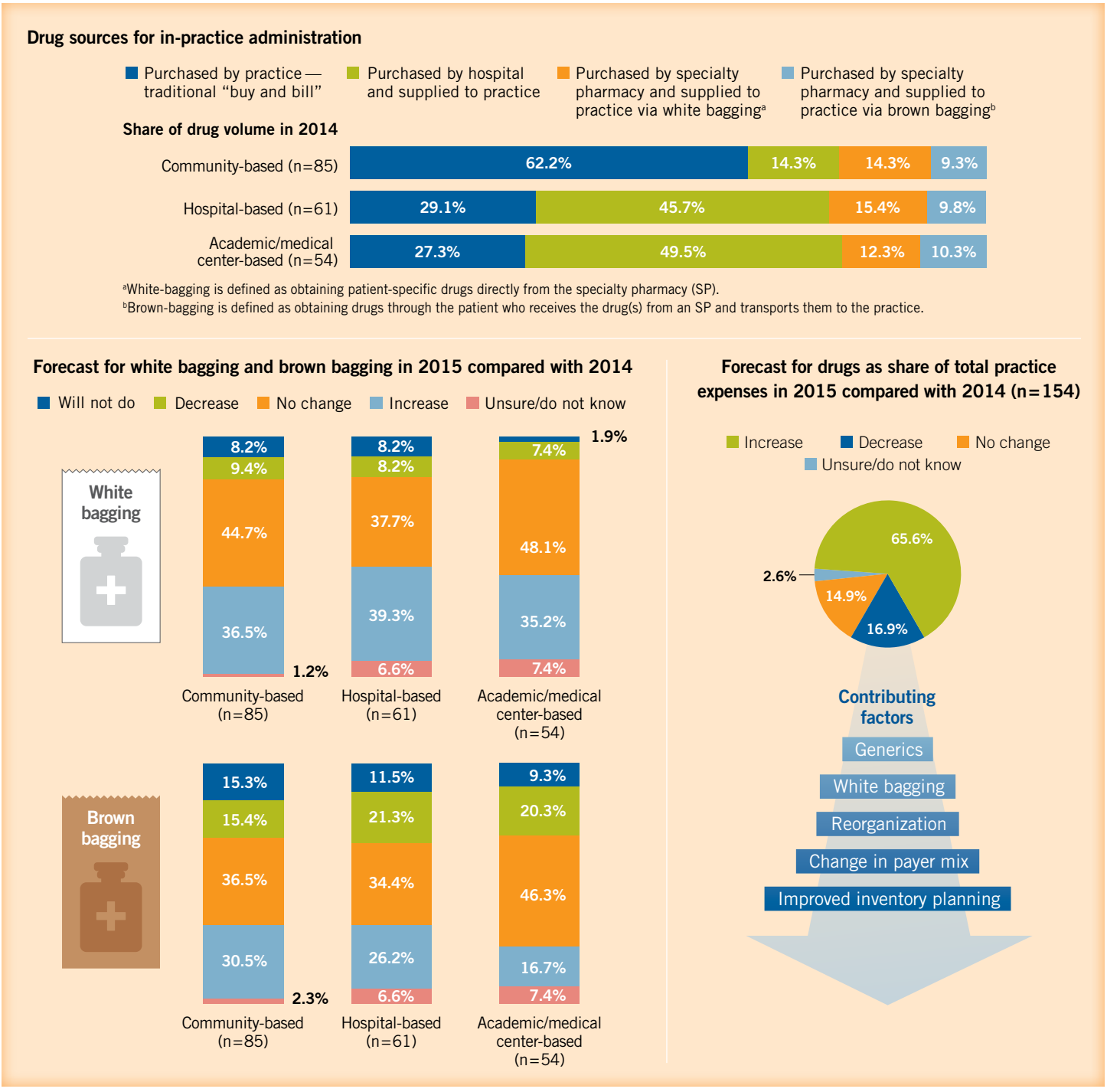
OPM estimates for drug volume purchased via traditional **buy and bill** decreased compared with the previous study, as more practices relied on **specialty pharmacies (SPs)**. About one-fourth of 2014 drug volume, overall, was purchased by SPs and supplied to practices via **white bagging** and **brown bagging**; estimates by practice setting are detailed in **Figure 2**. More than three in 10 OPMs forecast an increase in white bagging in 2015. Traditional buy-and-bill purchasing continues to be highest among community-based private practices compared with other settings, estimated at 62.2% of drug volume sourced for in-practice use in 2014.

More than three-fourths of the practices in the sample (77.0%; n = 154) are responsible for purchasing drugs for in-practice use. OPMs estimated that cancer drugs (eg, chemotherapy and biologics) accounted for 56.3% and cancer adjunctive/supportive drugs (eg, antiemetics, growth factors, hematology agents) accounted for 25.2% of the drugs purchased by practices in 2014, on average. About two-thirds of the OPMs (65.6%) expect drug expenses as a share of total practice expenses to increase by year-end 2015 compared with the previous year (**Figure 2**). A few OPMs (16.9%) forecast lower drug expenses, citing changes in payer mix, use of generics, improved inventory management, practice reorganization, and use of white bagging as contributing factors.

Figure 3 on page 64 details the growing interest regarding **in-practice drug dispensing**. One-third of OPMs (n = 67)—26 community-based, 28 hospital-based, and 13 academic/medical center-based practices—reported their practices purchased and dispensed oral oncology drugs in 2015. Additionally, 36 OPMs plan to do so in 2016 and another 36 OPMs are currently investigating the option. *Patient convenience* remains the most cited advantage. Interestingly, significantly fewer OPMs (34.0% in 2015 compared with 73.1% in 2014) cited *additional practice revenue* as an advantage.

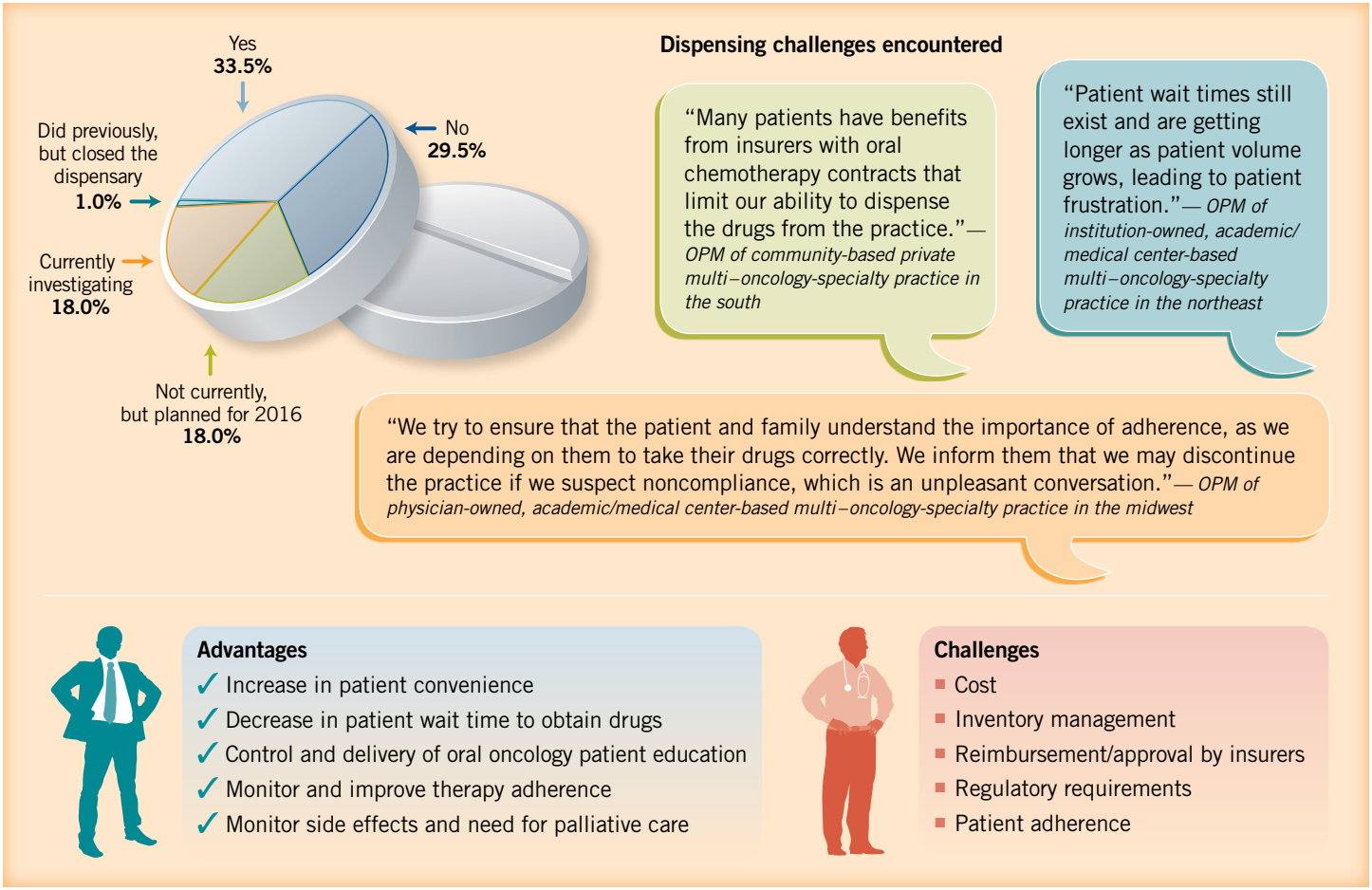
New this survey, two-thirds of the 67 OPMs with in-practice dispensing of oral oncology drugs described challenges they have encountered. Most often, these OPMs reported cost, drug inventory management, approval by insurers to reimburse them for in-practice dispensing, complying with regulatory requirements, and ensuring patient drug adherence.

Figure 2. Drug Sources and Purchasing for In-Practice Administration



OPM estimates for drug volume purchased via traditional buy and bill decreased compared with the previous study period as more practices rely on SPs. About one-fourth of 2014 drug volume for the practices surveyed was purchased by SPs and supplied via white and brown bagging; estimates by practice setting are detailed above. More than three in 10 OPMs forecast an increase in white bagging in 2015. Almost two-thirds of practices (65.6%) expect drug expenses as a share of total practice expenses to rise by year-end 2015 compared with 2014. A few OPMs (16.9%; n=26) forecast lower drug expenses by year-end. They attributed the decrease to changes in payer mix, use of generics, improved inventory management, practice reorganization, and white bagging.

Figure 3. In-Practice Oral Oncology Drug Dispensing (N = 200)



Implementation and investigation of in-practice oral drug dispensing continues to grow. Patient convenience remains the most cited advantage. Significantly fewer OPMs (34.0% in 2015 compared with 73.1% in 2014) cited additional practice revenue *as an advantage (data not shown). New this survey, two-thirds of the 67 OPMs with dispensaries/pharmacies described challenges they encounter.*

The 67 OPMs with oral drug dispensaries or pharmacies in 2015 involve a variety of clinical staff in patient education (**Figure 4**). Only 25 (37.3%) of these OPMs delegate patient education to a single clinical staff category—most often an **advanced practice provider (APP)**. **New this survey**, 46.3% of these OPMs reported their patients prefer to obtain their drugs and education from the oncology practice staff, which they cited as an advantage to in-practice dispensing.

New this survey, more than one-third of these practices have negotiated fees with their insurer(s) for patient education and/or oral drug adherence monitoring—separate from usual evaluation and management fees (**Figure 4**).

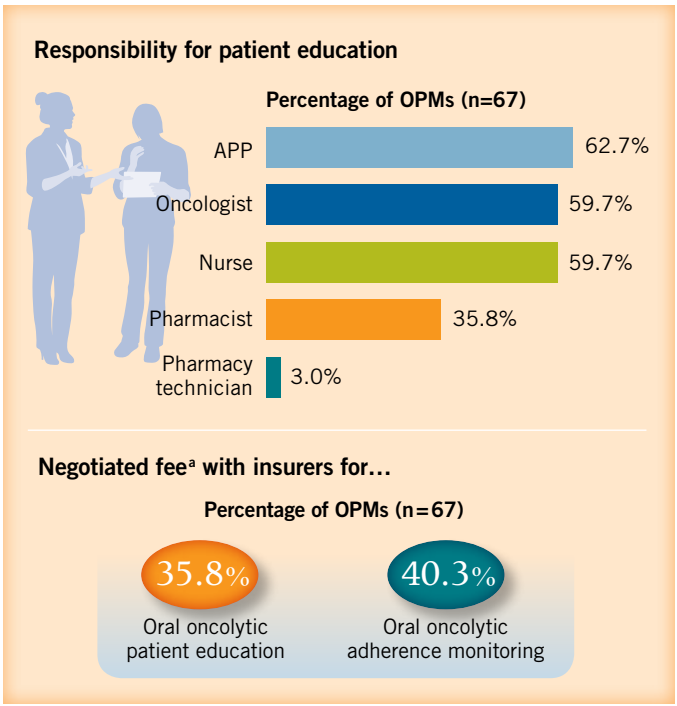
Practice Changes and Reorganization Strategies

Inadequate reimbursement relative to rising expenses, payer restrictions, underinsured patients, quality and technology improvements, staffing an adequate workforce, and a growing patient population all impact the financial health of oncology practices. Three-fourths of the practice managers (n = 149) will consider operational and service expansions and/or restrictions over the next 2 to 3 years to improve financial performance (**Table 2** on page 66); one-fourth (n = 51) anticipate no changes in their practice operations. Clinical trial participation, practice automation, and quality reporting are top of mind, similar to previous studies. However, the number of OPMs who anticipate the addition or expansion of clinical pathways more than doubled—59 OPMs compared with 24 OPMs in the previous study period. Forecasts for clinical guidelines doubled, as well.

New this survey, a number of OPMs across all practice settings expect to add or expand clinical pharmacy services (31.5%) and integrative medical services (20.1%) and offer affiliations to other practices to improve/expand their care services (18.8%).

OPMs from 148 practices reported *current* implementation of, or *plans to consider,* one or more reorganizational strategies: enter a hospital joint venture, join or combine with another practice, or sell their practice to a hospital. As detailed in **Figure 5**, these strategies affect all practice settings. Improving finances, oncologist productivity, and/or practice automation and efficiency are among the major drivers of reorganization, rated *moderately* to *very important* by seven in 10 of these OPMs. **New this survey**, two-thirds of these OPMs identified the implications of insurance inadequacy and patient affordability in light of trends toward high-deductible health coverage and **defined contribution** funding by private insurers as an important driver.

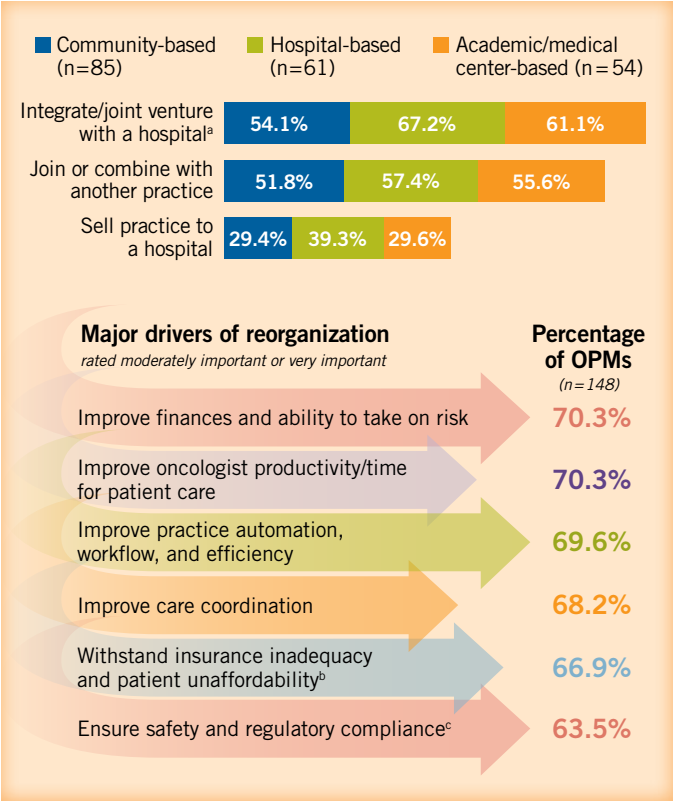
Figure 4. Patient Education About Oral Oncolytics



APP=advanced practice provider.
[a]Fee separate from the usual evaluation and management fee.

The 67 OPMs with in-practice oral drug dispensing involve a variety of clinical staff in patient education. Only 25 (37.3%) of these OPMs delegate patient education to a single clinical staff category—most often, an advanced practice provider (data not shown). New this survey, fees for patient education and/or oral drug adherence monitoring have been negotiated by more than one-third of these practices with their insurer(s).

Figure 5. Reorganizational Strategies Currently Implemented or Under Consideration Over the Next 2 to 3 Years



[a]Relationship established by a physician services agreement.
[b]In light of trend toward high-deductible coverage and defined contribution funding.
[c]Refers to **USP 797/800 standards** for sterile preparation of hazardous drugs.

OPMs from 148 practices reported current implementation or plans to consider one or more reorganizational strategies: enter a hospital joint venture, join or combine with another practice, or sell practice to a hospital. As detailed, these strategies affect all practice settings. Improving finances, oncologist productivity, and/or practice automation and efficiency are among the major drivers of reorganization identified by seven in 10 of these OPMs. New this survey, two-thirds of these OPMs identified the implications of insurance inadequacy and patient unaffordability in light of trends toward high-deductible health coverage and defined contribution funding by private insurers as a major driver.

Joint ventures with hospitals are on the rise; 120 OPMs reported current operation or future consideration of such compared with 93 OPMs in the previous study. Among the 120 OPMs whose practices have currently implemented or plan to integrate or enter a joint venture with a hospital over the next 2 to 3 years, two-thirds rated access to 340B drug pricing as *somewhat* (35.0%), *moderately* (17.5%), or *very* (14.2%) *important* to their decision.

In October 2014, the Community Oncology Alliance (COA), issued its fifth report following the trends in oncology practice consolidations. COA noted a 46% increase in practice mergers

or acquisitions and a 143% increase in practices acquired or with a hospital agreement, since its baseline analysis of activity between 2008 and 2010.[5] Research with community oncology practices commissioned by the COA suggests that mergers between practices are evaluated from a position of strength, such as improving negotiating power, while acquisitions by hospitals more likely occur due to greater financial stress.[6]

Accountable care organizations (ACOs) are provider-led organizations that take on the financial risk for the health of a defined population. A new care model promoted by the ACA, ACOs may provide more efficient, coordinated care that better aligns payment with quality, thereby, generating better outcomes and potential cost savings. According to Leavitt Partners, which has been tracking ACOs since 2010, as of January 2015, there were 744 public and private ACOs across

Table 2. Practice Changes Anticipated in the Next 2 to 3 Years to Improve Financial Performance

Plan to *add* or *expand* the following operations/services:	Percentage of OPMs (n = 149)
Clinical trial participation	40.3%
Clinical *pathways* implementation	39.6%
Electronic health record system	39.6%
Clinical *guidelines* implementation	34.2%
Clinical pharmacy services	31.5%
Electronic prescribing system	28.9%
Participation in the Centers for Medicare and Medicaid Services Physician Quality Reporting System program	26.8%
Blood administration	24.8%
Infusion/shot clinic services	24.8%
Laboratory services (eg, complete blood counts)	24.2%
In-practice oral oncology drug dispensing	24.2%
Patient financial counseling/advocacy	24.2%
Patient navigation services	22.8%
Nutrition services[a]	22.1%
Diagnostic imaging/scans[b]	21.5%
Integrative medical services[c]	20.1%

Plan to *add* or *expand* the following operations/services:	Percentage of OPMs (n = 149)
Survivorship program care services	19.5%
Affiliations with other practices to improve/expand their care/services	18.8%
Participation in ASCO's QOPI® program	18.8%
Participation in new payment models[d]	18.8%
Social worker support and services	18.1%
In-practice high-complexity lab for molecular/biomarker testing	16.8%
Participation in ASCO's QOPI® Certification Program (QCP™)	16.8%
Referrals to hospitals for treatment	16.8%
Radiation treatment	16.1%
In-practice pathologist services	13.4%
Opening of a licensed closed-door pharmacy	13.4%
Outsourcing clinical trial administration	12.8%
Participation in National Committee for Quality Assurance's Patient-Centered Medical Home program	12.8%
Use of specialty pharmacies for brown bagging or white bagging	10.7%

Plan to *reduce* or *restrict* the following operations/services:	Percentage of OPMs (n = 149)
Services to Medicaid patients	23.5%
Clinical trial participation	18.1%
Contracting with certain commercial payers	15.4%
"Buy and bill" of drug therapies	14.8%
Services to uninsured patients	14.1%
Outreach clinics	12.8%
Services to Medicare patients	12.1%
Services to patients with health plans from state/federal HIXs	8.1%
Infusion/shot clinic services	6.0%

ASCO = American Society of Clinical Oncology; QOPI = Quality Oncology Practice Initiative; HIXs = state or federally administered health insurance exchanges.

[a]Nutrition services include on-site/referral screening, assessment, counseling, and education.

[b]Diagnostic imaging/scans includes diagnosis, therapy evaluation, follow-up, and surveillance.

[c]Integrative medical services include aroma and massage therapy, meditation, yoga, and nutrition.

[d]New payment models include patient-centered medical homes, global payments/capitation, and bundled/episodes of care payments.

Three-fourths of the OPMs (n = 149) forecast operational and service changes over the next 2 to 3 years to improve the financial performance of their oncology practice. Forecasts to add or expand clinical pathway implementation doubled compared with the previous study period.

the United States, covering an estimated 23.5 million lives. The majority of lives are covered under commercial and Medicaid contracts; only 7.8 million are part of the Medicare Pioneer and Shared Savings programs.[7] The Department of Health and Human Services (HHS) signaled strong support for the ACO model in its goal and timeline to move Medicare payments to alternative payment models, including ACO-based models, which it announced in January 2015.[7,8]

More than four in 10 OPMs (n = 87) reported that their practices are currently part of an ACO (n = 53), are indirect participants via their primary care referral base that is part of an ACO (n = 25), or have identified partners and are moving forward to organize an ACO (n = 9).

Oncology Practice Staffing

Staff size varies widely across the practices surveyed. The number of oncologists ranges from one to 700; the mean number of oncologists by practice setting is detailed in **Table 1 on** page 61.

Oncologist productivity and efficient coordination of patient care are top-of-mind operational issues for OPMs across all practice settings. As detailed in **Figure 6**, more OPMs (58.5%) support oncologists' productivity by employing, planning to hire, or discussing the use of medical scribes for collaborative electronic health record (EHR) documentation under the direction of an oncologist during in-practice patient visits, compared with 37.4% in the previous study. Similarly, current or future employment of care navigators rose—66.5% in 2015 compared with 51.5% in 2014. **New this survey**, the 58 OPMs who *currently* employ care navigators in their practice described their deployment. While 46 of these 58 OPMs manage multi–oncology-specialty practices, 51.7% deploy their navigators as *generalists*, coordinating the care for different cancers, while 44.8% deploy them as *specialists* (eg, lung or breast cancers). The ratio of navigators per full-time oncologist varies; nearly two-thirds of the OPMs have one or fewer full-time navigators per full-time oncologist (**Figure 6**).

Strategies for Patient Access to Palliative Care

Employ a palliative care physician[a]	26.5%
Employ a palliative care advanced practice provider[a]	23.0%
Employ a palliative care pharmacist[a]	18.5%
Plan to hire a palliative specialist in 2016	16.0%
Refer patients to hospital palliative care clinic	26.5%
Refer patients to home health with integrated palliative care	32.5%

[a]Clinicians with board certification/expertise in palliative care.

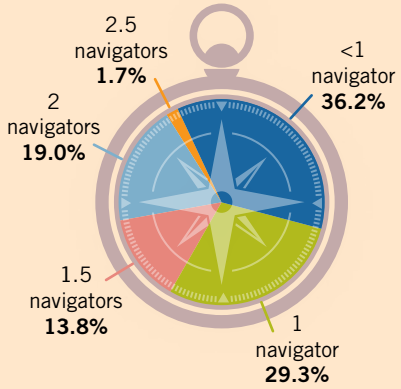
Figure 6. Employment of Medical Scribes and Care Navigators

Practice employment of medical scribes	2014[a] N = 198	2015 N = 200
Employ	19.7%	27.5%
Subcontract with a service	4.5%	16.5%
Planned for next year	6.6%	6.5%
Under discussion	6.6%	8.0%
Total	37.4%	58.5%

Practice employment of navigators	2014[a] N = 198	2015 N = 200
Employ	17.7%	29.0%
Use hospital-employed navigators	20.7%	30.0%
Plan to employ next year	10.1%	6.5%
Plan to use hospital-employed navigators	3.0%	1.0%
Total	51.5%	66.5%

Ratio of care navigators per oncologist[b]

Percentage of OPMs (n = 58)[c]



[a]2014 data from *The 2015 Genentech Oncology Trend Report.*
[b]Defined as full-time navigators per full-time oncologist.
[c]Among the 58 practices that employed navigators in 2015.

Oncologist productivity and efficient coordination of patient care are top-of-mind operational issues for OPMs across all practice settings. Current employment and/or future planning for the use of medical scribes to provide oncologists with collaborative electronic health record documentation support to improve oncologist-patient interaction are in play by a larger number of OPMs this year (58.5%) compared with 2014 (37.4%). Similarly, two-thirds of OPMs reported current or future employment of patient care navigators in 2015, up from 51.5% in 2014. New this survey, among the 58 OPMs that currently employ *navigators, 44.8% assign them to* specific *cancers, while 51.7% adopt a* generalist *(ie, no specific cancer) approach to care coordination. The ratio of navigators per full-time oncologist varies; nearly two-thirds of the OPMs have one or fewer full-time navigators per full-time oncologist.*

Palliative Care Specialists

New this survey, 94 OPMs reported that **palliative care** specialists are employed by their practice. As illustrated on page 67, these include physicians who are board-certified in palliative care (26.5%), APPs (ie, nurse practitioners, physician assistants) with certification in palliative care (23.0%), and board-certified oncology pharmacists with expertise in pain/palliative care (18.5%). Plans to hire a specialist in 2016 were reported by 32 OPMs (16.0%). Nearly six in 10 of the OPMs also refer their patients to hospital palliative care clinics and/or to home health services with integrated palliative care.

Advanced Practice Providers

More than three-fourths of practices across the different settings (n = 156; 78%) employed APPs in 2015. The ratio of APPs per oncologist is variable; 72.4% of these practices across all settings employ APPs at a ratio of 1.5 full-time APPs or fewer per full-time oncologist (**Figure 7**). **New this survey**, OPMs described the variation in responsibilities across the APPs employed as *slight* (42.9%), *moderate* (23.7%), or *significant* (1.9%); 31.4% of OPMs report *no* variation. Few OPMs reported initiatives to standardize their responsibilities.

New this survey, these 156 OPMs across all practice settings (67 community-based, 46 hospital-based, and 43 academic/medical

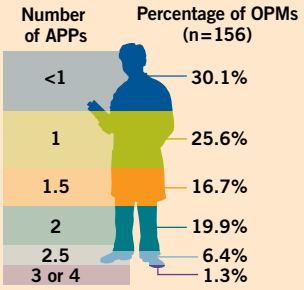
Figure 7. Advanced Practice Providers (APPs)

Average percentage of time APPs spend on tasks during a "typical day"

Task	Community-based, private (n=67)	Hospital-based (n=46)	Academic/medical center-based (n=43)
In-person patient encounters[a]	44.8%	37.3%	38.9%
Care coordination resulting from patient encounters	19.2%	17.6%	18.0%
Electronic health record (EHR) maintenance, notes, test result follow-up	13.8%	17.2%	13.5%
Telephone triage with patients on clinical issues	10.5%	13.5%	13.0%
E-mail with patients on clinical issues[b]	9.1%	12.0%	13.7%
All other tasks	2.7%	2.5%	2.8%

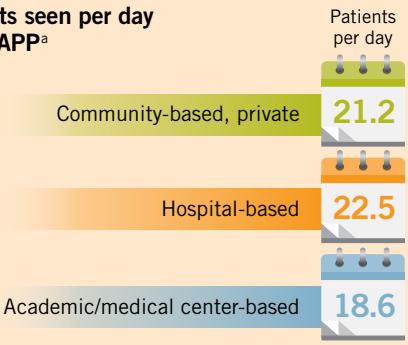
[a]Includes scheduled or urgent care, hospital inpatient, patient education, and procedures.
[b]Includes e-mail responses to patient clinical inquiries via practice/EHR portal directed to APP and/or on behalf of oncologist(s).

Ratio of APPs per oncologist[a]



[a]Defined as full-time APPs per full-time oncologist.

Patients seen per day by an APP[a]



[a]Average during a typical clinic day in 2015.

Work by APPs outside of regular practice hours[a]

	Community-based, private (n=67)	Hospital-based (n=46)	Academic/medical center-based (n=43)
Never/rarely	34.3%	37.0%	25.6%
At least 1 day per week	37.3%	37.0%	34.9%
2 days per week	10.4%	10.9%	18.6%
3 days per week	9.0%	8.7%	11.6%
4 or more days per week	9.0%	6.5%	9.3%

[a]Defined as staying late, reporting early, or taking work home to catch up on EHR maintenance, notes, care coordination, e-mails, etc.

The majority of OPMs (78.0%; n = 156) across all practices settings employ advanced practice providers (APPs). Variation in APP responsibilities were described as slight *(42.9%),* moderate *(23.7%) or* significant *(1.9%); nearly one-third of the OPMs (31.4%) reported* no *variation (data not shown). The ratio of full-time APPs per full-time oncologist varies as detailed. New this survey, OPMs estimated time spent on activities during an APP's typical day that includes clinic days or patient encounters. Overall, an average of 20.8 patients were seen by APPs per day in 2015; estimates by practice setting are detailed above. More than one-third of the OPMs across practice settings reported that their APPs work at least 1 day per week outside of regular practice hours catching up on EHR maintenance, notes, care coordination, and e-mails.*

OPMS' Comments on Variability in APPs' Roles and Responsibilities

"Each physician has a very different practice, and the role of APPs within our company is designed around their needs." —*OPM of a community-based private multi–oncology-specialty practice in the south*

"Our APPs function according to the needs of the oncologist. The only challenge is when an APP has to cross over to another specialty, since they are unable to adapt as easily as needed." —*OPM of an academic/medical center-based multi–oncology-specialty practice in the midwest*

"We are attempting to standardize physician practice habits to make it easier for the APPs to work with each of them." —*OPM of a hospital-based single–oncology-specialty practice in the south*

center-based) estimated the percentage of time their APPs spent on various tasks during a typical day that includes clinic days/patient encounters (**Figure 7**). At least half of an APP's typical day across all practice settings is spent on in-person patient encounters and care coordination resulting from those encounters. At least one-fourth of an APP's day in a hospital-based or academic/medical center-based practice is spent on telephone triage and e-mails with patients regarding clinical issues.

New this survey, APPs work at least 1 day per week outside of regular practice hours (eg, report early, stay late, or take work home) catching up on their EHR maintenance, notes, care coordination task, and/or e-mails, as reported by more than one-third of the 156 OPMs across practice settings (**Figure 7**).

New this survey, 61.4% of OPMs, overall, reported an *increase* in patients seen by their APPs each day in 2015 compared with 2014; 32.2% reported *no change* and 6.3% reported a *decrease*. **Figure 7** details OPMs' estimates for the average number of patients seen per APP during a typical clinic day in 2015 by practice setting. Hiring APPs in 2016 is top of mind among the OPMs who expect to adjust staffing next year in light of anticipated workload (**Figure 8**).

Only 29 OPMs (14.5%) across all practice settings (16 community-based, and six academic/medical center-based practices) expect to hold staffing levels steady in 2016 compared with 2015, while 171 OPMs expect to adjust their staffing levels by adding or reducing staff positions (**Figure 8**). Most often, these managers forecast adding APPs, nurses, and oncologists.

Figure 8. Staff Changes Expected to Handle Practice Workload in 2016 Compared With 2015[a] (n=171)

Expect to Add	Practice staff	Expect to Reduce
66.0%	Advanced practice provider	3.5%
64.9%	Nurse	5.8%
54.9%	Oncologist	7.0%
52.1%	Billing/coding/collections	6.5%
51.4%	Administrative non-billing[b]	6.5%
50.3%	Medical assistant	5.8%
48.5%	Staff processing precertifications, PAs, and predeterminations	5.3%
45.0%	Care navigator	5.3%
44.5%	Financial counselor	7.0%
40.3%	IT specialist	4.1%
38.6%	Pharmacist—distributive, infusion/injectables	5.3%
37.4%	Social worker	6.4%
36.9%	Pharmacy technician—chemotherapy compounding	3.5%
36.9%	Pharmacy technician—dispensing function	4.1%
36.8%	Laboratory staff	3.5%
36.2%	Pharmacist—distributive, oral drugs	4.1%
33.9%	Hospitalist	5.3%
33.9%	Pathologist	4.1%
33.3%	Pharmacist—clinical	4.1%
31.0%	Medical scribe	5.3%
31.0%	Psychologist	5.3%
30.4%	Genetic counselor	3.5%
29.2%	Non-oncologist physician	7.1%

PA=prior authorization; IT=information technology.

[a]Percentages based on number of practices adjusting applicable staff positions.
[b]Includes scheduling and front desk staff.

Overall, 171 OPMs (85.5%) expect to add or reduce their staffing levels pertaining to one or more of the positions surveyed to handle anticipated workload in 2016 compared with 2015. For two-thirds of these OPMs, hiring more APPs next year is top of mind.

Managing Patient Call Volume

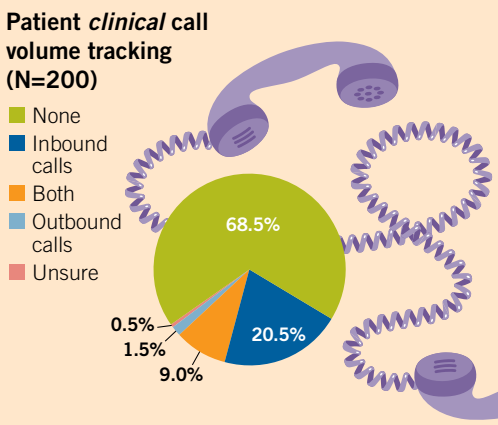
New this survey, OPMs described how they are measuring and managing inbound and outbound patient call volume regarding *clinical* issues (**Figure 9**). About one-third of OPMs track call volume and 32.0% employ nurses on staff *dedicated* to the triage of inbound patient telephone calls—most often at a ratio of one or less full-time triage nurse per full-time oncologist.

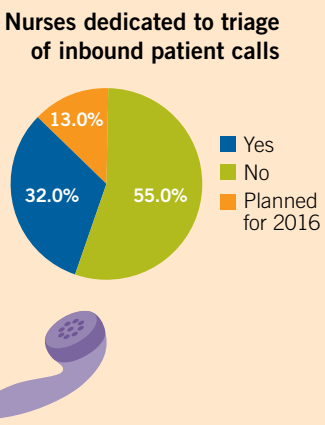
New this survey, 82 OPMs (41.0%) across practice settings have undertaken initiatives to hire or assign staff for *proactive* patient contact at predetermined points of care to avoid potential complications, emergency department visits, and/or hospitalizations; an additional 40 OPMs (20.0%) plan to do so in 2016. Only 32 of these 122 OPMs receive/plan to receive financial incentives or bonuses from payers for improvements in proactive patient contact. **Figure 9** describes points of care that trigger proactive patient contact, as reported by the OPMs.

Practice Hours of Operation

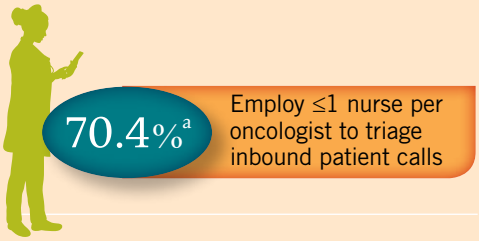
Figure 10 details the variation in hours of operation by practice setting. Overall, OPMs' practices are open an average of 4.9 days and 38.6 hours per week for scheduled patient in-practice visits with oncologists and/or APPs, similar to the previous study. The practices are open for an average of 4.8 days and 36.4 hours per week for infusions and shot clinics for cancer and noncancer therapies. A growing number of practices, although still a minority among the different practice settings, are open 6 or 7 days per week for patient visits (n = 29; 14.5%) and for infusion services (n = 36; 18.8%) in 2015 compared with the previous study period. By year-end 2015, 79 managers—hospital-based (49.2%), academic/medical center-based (41.4%), and community-based (32.2%)—expect weekly office hours for patient visits to increase compared with 2014. Only 4 OPMs expect reduced hours.

Figure 9. Call Volume and Patient Clinical Support





Initiatives to expand patient contact and avoid complications (n=82)	
Hired/assigned staff for proactive patient contact at predetermined points during treatment	65.9%
Expanded schedule for walk-ins/urgent care	40.2%
Extended weekday hours for walk-ins/urgent care	28.0%
Outsourced service for proactive patient contact at predetermined points during treatment	15.9%
Instituted/expanded weekend hours for walk-ins/urgent care	12.2%



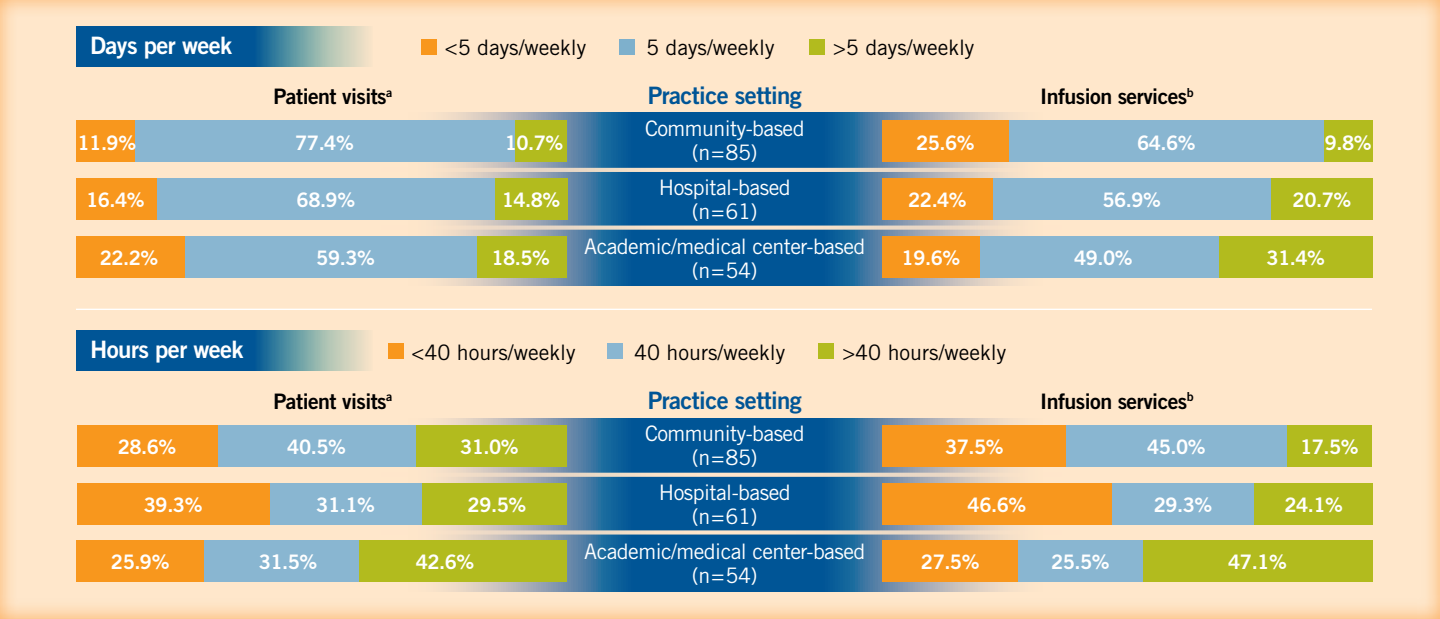
Predetermined points of care that trigger proactive patient contact

- After initiation of *new* treatment[b]
- After *any* treatment[b]
- At start, midpoint, and end of treatment[b]
- Follow-up for surgical referrals yet to be scheduled
- Follow-up for testing referrals yet to be scheduled
- High-risk patients and those with severe symptoms
- Post-hospital discharge
- Post-surgery
- Post-urgent care visit

[a]Based on 64 OPMs who have hired nurses for inbound clinical telephone call triage in 2015.
[b]Includes chemotherapy, radiation therapy, and palliative care.

New this survey, OPMs across all practice settings described their contact with patients outside of in-practice visits to handle clinical *inquiries. Three in 10 OPMs track call volume and have hired nurses dedicated to the triage of patient* clinical *inbound calls, most commonly at a ratio of ≤1 full-time triage nurse per full-time oncologist. Four in 10 OPMs (41.0%; n=82) have hired or assigned clinical staff to* proactively *contact patients at predetermined points of care to avoid complications, and 20.0% (n=40) plan to do so in 2016. These OPMs described various treatment milestones that trigger proactive patient follow-up, as detailed.*

Figure 10. Practice Operations for Patient Visits and Infusion Services



[a]Patient visits include scheduled patient visits with oncologists and/or advanced practice providers.
[b]Infusion services include infusions and shot clinics for cancer and noncancer patients, as applicable.

This figure details the hours of operation by practice setting. Overall, the 200 practices managed by the surveyed OPMs are open an average 4.9 days and 38.6 hours per week for patient visits and 4.8 days and 36.4 hours per week for infusion services (data not shown).

Timely patient access is important to appropriate cancer care. For the practices represented by surveyed OPMs, lead times to schedule a new or an established patient undergoing active treatment and follow-up range from 1 to 90 days. **Figure 11** on page 72 details the average lead times and performance metrics regarding patient scheduling in 2015 compared with 2014. A larger number of appointment slots for new patients were added by OPMs across all practice settings—43.9% overall. Only 10.1% of OPMs reported a shorter lead time to schedule new patients in 2015. OPMs also described the timing of their latest scheduled appointments; few practices schedule appointments after 6 pm for in-practice visits (12.1%) or infusion services (17.5%).

New this survey, 66 OPMs described how they have improved the patient workflow for office visits and infusion services. Approaches are varied and include expanding weekday hours, adding weekend hours, offering early appointments and/or more flexible appointments for patient convenience, and making technology improvements, such as EHRs and scheduling software. Some managers have expanded staff (eg, physicians, APPs, nurses, and navigators), adjusted staff roles, assigned staff exclusively for physician visits versus infusions, and/or assigned scribes or nurses to each physician to support schedule adherence. OPMs reported same-day and different-day scheduling of physician visits, infusions/shots, and labs. Some OPMs routinely schedule new patients in the morning, while others schedule them for the afternoon. Some OPMs insist on pre-visit laboratory testing. Finally, some OPMs have enlarged their infusion center, separated the waiting room for physician visits versus infusion services, designated infusion chairs/beds for short-term care, and offered early morning appointments for long-duration infusions; others have the physician visit with the patient during infusions.

Survivorship Program Care

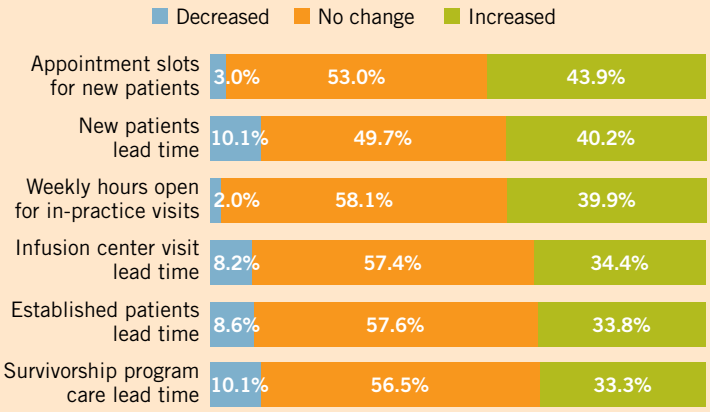
The American Cancer Society estimates that the population of cancer survivors will increase from nearly 14.5 million in 2014 to almost 19 million over the next decade.[9] The transition from a cancer patient to a cancer survivor requires a significant amount of ongoing care to address physical and psychosocial needs, monitor for recurrence, and screen for new cancers. The Institute of Medicine suggests that care coordination between oncologists and primary care physicians (PCPs), in which roles are clarified and survivorship care plans (SCPs) are shared, may be the best model for providing services to this growing population.[10]

Figure 11. Patient Appointment Scheduling

Lead times for patient appointments

	Average number of days	Range
New patients	11.3 days	1–90 days
Established patients	7.1 days	1–49 days
Infusion center visit	6.3 days	1–90 days
Survivorship program care	9.5 days	1–60 days

Patient scheduling performance in 2015 compared with 2014



The source of **survivorship program care** continues to vary across practices (**Figure 12**). Similar to the previous study period, such care is provided by the surveyed OPMs' practices (27.5%), coordinated with the patient's primary care practice (26.5%), delivered by the patient's primary care practice (22.5%), or referred to the survivorship clinic of the hospital that owns or is affiliated with the practice (22.0%).

Care is provided by oncologists, registered nurses, APPs, social workers, care navigators, and/or PCPs. More OPMs provided an SCP to their patients in 2015 (56.5%; n = 131) compared with the previous study period (38.9%; n = 89). Among the 131 practices providing SCPs in 2015, 34.5% provide them to *all* patients and 22.0% to *some* patients. Hospital- and academic/medical center-based practices are more likely to provide SCPs compared with community-based practices. The 131 OPMs providing SCPs or who are involved in a pilot program in 2015 described the resources used to develop their SCPs and the record of care and follow-up care plan elements included in them (**Table 3**).

SCPs will be a phased-in requirement for certification of cancer center programs by the Commission on Cancer. Beginning in January 2015, practices are required to implement a pilot SCP process involving 10% of eligible patients. By January 2016, SCPs must be provided to 25% of eligible patients and expanded annually until January 2019, when *all* eligible patients must receive them.[11]

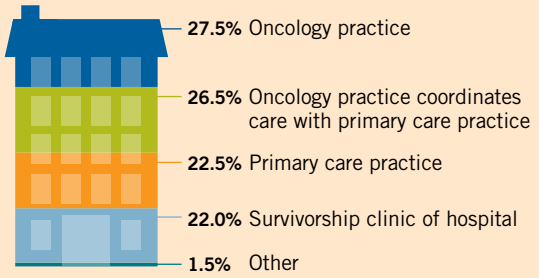
Lack of role clarity, preparation time, and reimbursement for preparation are among the barriers cited by the American Society of Clinical Oncology in its Clinical Expert Statement on Survivorship Care Planning issued in October 2014.[12] One-fourth of the 131 OPMs have received a discrete survivorship program code from their payer(s) to bill for SCP development and services; 22.9% are unsure about reimbursement.

Practice-Based Infusion Services

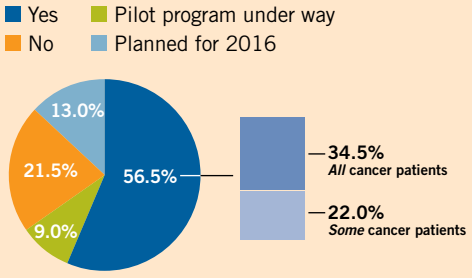
Nearly eight in 10 OPMs (n = 159) manage infusion services, similar to the previous study period, and 11 practices plan to add these capabilities in 2016. Hospital-based (59.6%) and academic/medical center-based (57.4%) practices are more likely to have expanded infusion chair capacity solely

Figure 12. Survivorship Program Care

Primary responsibility for survivorship program care (N=200)



Provision of written/printed survivorship care plan (N=200)



The provision of survivorship program care varies across practices. More than one-fourth of OPMs described their oncology practice as primarily responsible (27.5%), while nearly as many OPMs (26.5%) coordinate care between their practice and the patient's primary care practice. More OPMs (56.5%) in 2015 provided their cancer patients with a written/printed survivorship care plan compared with 2014 (38.9%); 13.0% plan to begin doing so in 2016.

Table 3. Elements of Survivorship Care Plans (SCPs)

Record of care elements included in SCP	(n=131)
Dates of treatment initiation and completion	54.2%
Interventions,[a] including agents used, treatment regimen, and total dosage	53.4%
Diagnostic tests performed and results	52.7%
Tumor characteristics[b]	48.9%
Full contact information on treating institutions and key individual providers	42.7%
Nutritional and other supportive services	40.5%
Indicators of treatment response and toxicities experienced	39.7%
Financial counseling	35.9%
Number and title of clinical trials (if any)	35.9%
Psychosocial services	35.1%
Key point of contact and coordinator for continuing care	31.3%

Follow-up care plan elements included in SCP	(n=131)
Need for ongoing health maintenance/adjuvant therapy	51.1%
Schedule and description of recommended cancer screening(s), testing, and examinations	48.1%
Information on possible signs of recurrence and second tumors	41.2%
Specific recommendations for healthy behavior[c]	37.4%
Information on late and long-term effects/symptoms of treatment	35.9%
Information on possible cancer psychosocial effects and future need for support[d]	35.1%
Likely course of recovery from treatment toxicities	34.4%
Information on potential financial impact of cancer and referral to counseling, legal aid, and financial assistance[e]	34.4%
Identification/recommendation of providers for screenings, testing, and examinations	33.6%
Information on effective chemoprevention strategies for secondary prevention	30.5%
Referrals to specific follow-up providers, support groups, and/or patient's primary care physician	29.0%
Recommendations to inform first-degree relatives about their increased risk and screening needs, as appropriate	29.0%
Information on cancer-related resources and support organizations (telephone and Internet addresses)	26.7%
Information for high-risk patients on genetic counseling/testing, comprehensive surveillance, chemoprevention, and/or risk-reducing surgery	26.7%

[a]Includes surgery, chemotherapy, radiation, transplant, and hormonal and gene therapy.
[b]Includes site, stage, grade, hormonal status, and marker information.
[c]Includes diet, exercise, weight, sunscreen use, immunizations, smoking cessation, and osteoporosis prevention.
[d]Includes effects on relationships, sexual function, work, and parenting.
[e]Includes impact on insurance, employment, and finances.

The 131 OPMs that currently provide or have a pilot program under way to provide SCPs to all *or* some *of their cancer patients have identified the record of care and follow-up care elements included in them.*

for oncology care compared with community-based (44.6%) practices over the past year. Among the 159 practices with infusion services in 2015, most (76.9%) of the 65 community-based practices own their infusion chairs, meaning the private practice buys the drugs and receives the revenue from them. In contrast, only 31.9% of the 47 hospital-based practices with infusion services and 19.1% of the 47 academic/medical center-based practices with infusion services own their infusion chairs. For these practices, more often the chairs belong to the institution that owns the private practice or is integrated with it via joint venture.

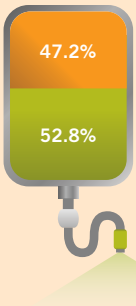
The majority of the 55 private practices that are hospital-based (ie, owned or integrated) or academic/medical center-based are *required* to use the outpatient infusion services of the institution for *all* (43.6%) or *some* (27.3%) of their prescribed infusions.

Half of the practices (52.8%) represented by the 159 OPMs provide infusion services to both cancer and noncancer patients. **Figure 13** on page 74 details the types of noncancer treatments provided. **New this survey**, OPMs reported that the average number of patients a single infusion nurse is responsible for *at any given time*, excluding complex protocols, such as chemotherapy desensitization, ranges between 1 and 50 patients overall, and varies by practice setting (**Figure 13**).

Almost half (47.2%) of the 159 OPMs (31 community-based, 26 hospital-based, and 18 academic/medical center-based practices) reported planning *significant* changes to their infusion services in 2015. For these practices, the most frequently cited changes include adding infusion sites for 44.4% of these academic/medical center-based practices, adding evening hours for 42.3% of these hospital-based practices, and increasing the number of days for infusion services across existing sites for 41.9% of these community-based practices. **Figure 13** details forecasts for key infusion service metrics by year-end 2015 compared with 2014. Nearly six in 10 forecast more cancer patients to be seen daily, and 47.2% forecast higher capacity via more chairs/beds.

Figure 13. Practice-Based Infusion Services

Types of infusions/injections (n=159)

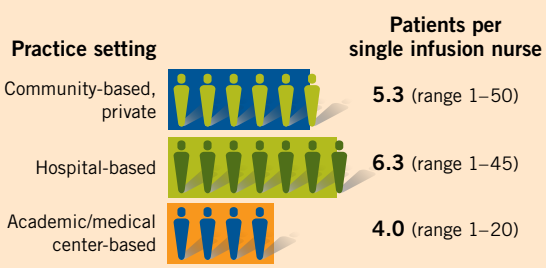


Cancer patients only[a]

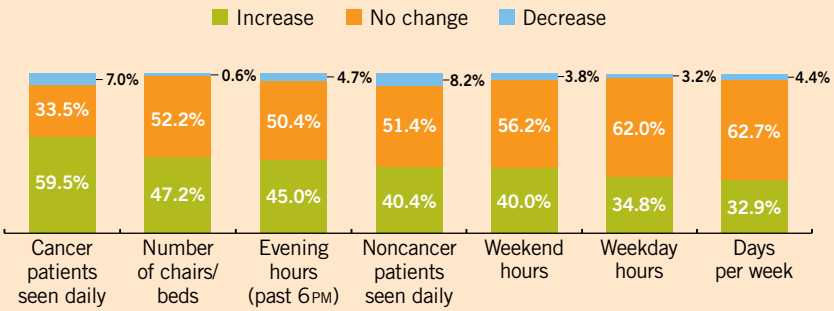
Cancer and noncancer patients

Noncancer infusions/injections (n=84)	
Hydration	82.1%
Iron infusions for anemia	76.2%
IVIG	66.7%
Osteoporosis	57.1%
MS	53.6%
RA	51.2%
Blood transfusions	50.0%
Enzyme-deficiency	42.9%
Post-transplant growth factors	40.5%
Inflammatory bowel disease	39.3%

Nurse-to-patient ratio in an infusion center at any given time[b]



Forecasts for practice-based infusion services full-year 2015 compared with 2014



IVIG=intravenous immune globulin; MS=multiple sclerosis and other neurologic conditions; RA=rheumatoid arthritis and other rheumatologic conditions.

[a]Includes infusions and shot clinic for cancer and noncancer treatments. [b]Excludes complex treatments, such as chemotherapy desensitization.

Among the 159 practices with infusion services, 52.8% (n=84) treat noncancer patients in addition to cancer patients. By the end of 2015, 40.4% expect a higher volume of noncancer patients served compared with the previous year. New this survey, OPMs reported the average number of patients an infusion nurse is responsible for at any given time. *Nearly six in 10 OPMs forecast a higher number of cancer patients seen daily by year-end 2015 compared with 2014. Four in 10 OPMs—19 community-based, 18 hospital-based, and 15 academic/medical center-based practices (data not shown)—forecast expanded weekend hours for infusion services by year-end 2015.*

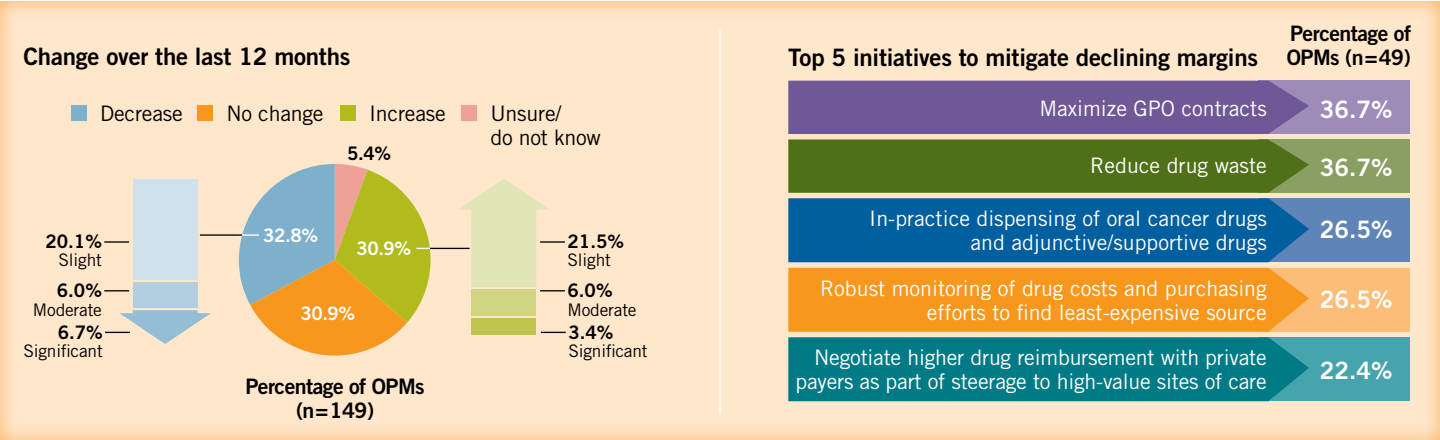
Infusion-Based Revenue

Figure 14 details how the 149 OPMs with infusion services and drug purchasing responsibility described the trend in drug margin over the last 12 months. Fewer OPMs (32.8%; n=49) experienced a decline over the past year compared with the previous study period (48.7%; n=75); half of these 49 OPMs manage community-based private practices. To mitigate the decline, most often, these 49 OPMs maximize their group purchasing contracts and focus on drug waste reduction.

More than half of the volume of prescribed cancer drug infusions are administered in the OPMs' own infusion facilities across the different practice settings, averaging 64.5% overall (**Figure 15**). In-practice administration is highest among community-based practices. Once again, uninsured patients' inability to pay is the leading issue driving hospital outpatient treatment referrals. The anticipation of *significant* drug revenue loss is also a contributing factor; 28.9% of practices overall

Four in 10 OPMs forecast expanded weekend hours for infusion services by year-end 2015.

Figure 14. Drug Margin for Infusion Services



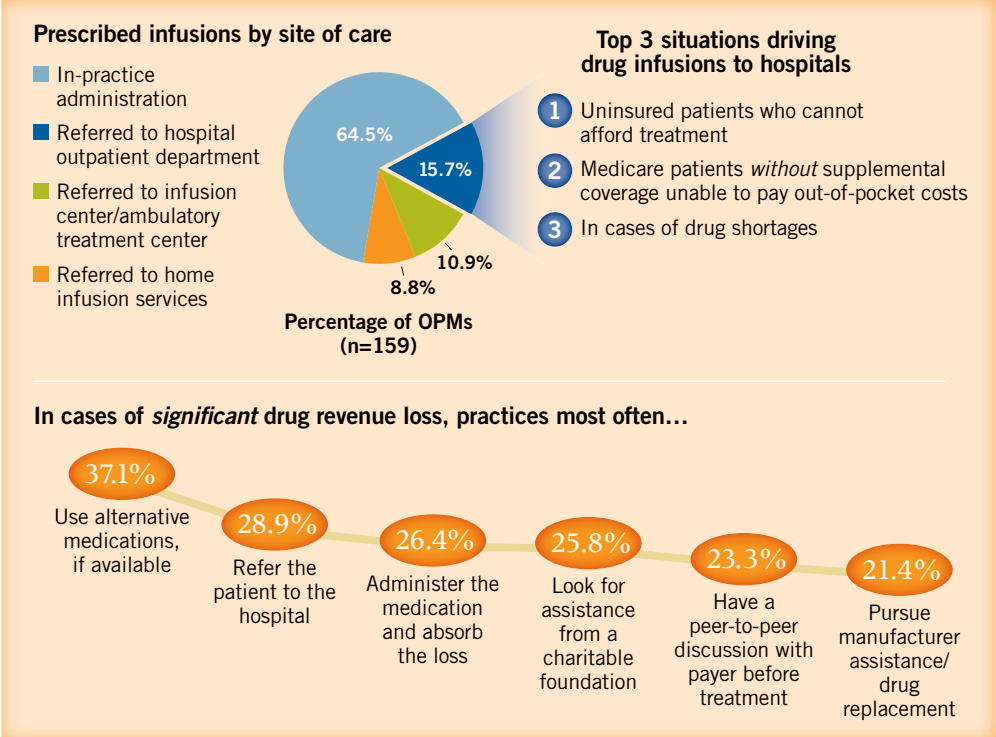
GPO=group purchasing organization.

Drug margin performance among the OPMs with infusion services and drug purchasing responsibility was variable, with near-equal numbers of OPMs reporting higher (n=46), lower (n=49), or steady (n=46) margins over the last 12 months. Most often, the 49 OPMs mitigated their declining margins by maximizing their GPO contracts and reducing drug waste.

will refer patients to hospitals for treatment in these situations, per practice policy.

The Compounding Expert Committee of the United States Pharmacopeia and the National Formulary (USP-NF) has revised the General Chapter 800 regarding the safe handling of hazardous drugs deemed carcinogenic, teratogenic, or genotoxic by staff in health care settings.[13] Final standards will be published in February 2016 and implementation delayed until July 1, 2018.[14] Full enforcement will require acceptance by regulatory bodies, including state boards of pharmacy. With approval and adoption, health care professionals in all types of oncology practices can expect more regulations in the handling, transport, storage, administration, and compounding of hazardous drugs. **New this survey**, the 159 OPMs with infusion services were asked about their current intentions to comply with the revised USP 800 standards at the time of survey completion in July and August 2015.

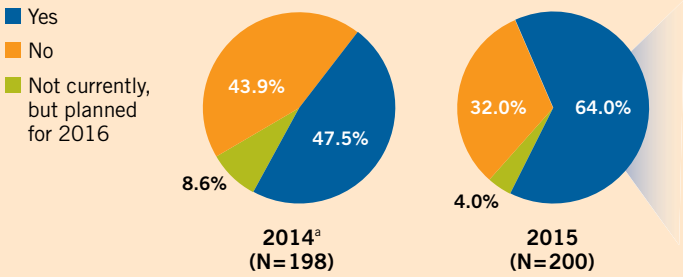
Figure 15. Prescribed Oncology Infusions by Site of Care



The majority (64.5%) of prescribed oncology infusions, overall, are administered to patients in practice-based infusion centers, similar to the previous study. In-practice infusions are highest among community-based practices, averaging 72.3% (data not shown). The inability of uninsured patients to pay for treatment continues to lead the factors most often driving referrals to hospital outpatient infusion centers. Significant *drug revenue loss is also a contributing factor; 28.9% of practices will refer patients to hospitals for treatment in these situations, per practice policy.*

Figure 16. Sourcing Drugs Through Specialty Pharmacies (SPs)

Obtain *some* or *all* drugs from SPs



Leading situations driving SPs as source of in-practice drugs

1. Required by payer
2. Positive impact on practice finances
3. When anticipating coverage issues
4. More convenient than ordering/maintaining drug inventory

Drug types *frequently/always* obtained from SPs	2014[a] (n=94)	2015 (n=128)
Oral oncolytics	36.2%	22.6%
Oral adjunctive/supportive	24.5%	25.0%
Injectable/infused oncology	27.6%	40.6%
Injectable/infused adjunctive/ supportive	30.8%	31.3%

[a]Data from *The 2015 Oncology Trend Report.*

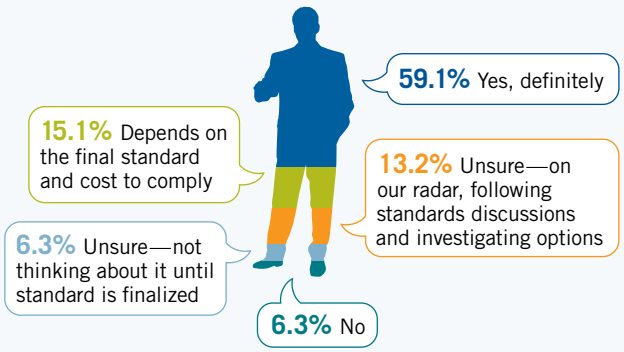
More OPMs (64.0%; n=128) have turned to SPs as an alternative to buying and billing for cancer drugs than in the previous study. Four in 10 of these OPMs frequently/always *obtain injectable/ infused oncology drugs from SPs. Most often, these managers turn to SPs because of payer requirements (32.8%), the positive impact on practice finances (31.3%), in anticipation of coverage issues (28.1%), and to avoid ordering and maintaining drug inventory (24.2%). Few managers use SPs as part of a practice strategy to shift self-administered (n=20) and/or in-practice administered drugs (n=23) away from the "buy-and-bill" model (data not shown).*

As illustrated below, 59.1% of OPMs overall definitely will comply; responses are similar when examined by practice setting. As noted in **Figure 5** on page 65, OPMs reported that ensuring safety and regulatory compliance with the USP 797/800 standards regarding pharmaceutical compounding of sterile preparations and the handling of hazardous drugs in health care settings are among the *moderate* to *very important* drivers of practice reorganization either currently implemented or planned over the next 2 to 3 years.

Figure 16 illustrates the growing trend in sourcing *some* or *all* drugs for in-practice use via SPs. Similar to the previous study period, payer requirements and the positive impact on practice finances are leading situations influencing the trend. Four in 10 of the 128 OPMs using SPs do so *frequently* or *always* to obtain their injectable/infused oncology drug needs. In light of the growing interest in in-practice oral drug dispensing, fewer OPMs sourced oral oncolytics from SPs in 2015 compared with the previous study period, as seen in **Figure 16**.

USP 800 standards

Do you intend to comply with USP 800 standards?[a]

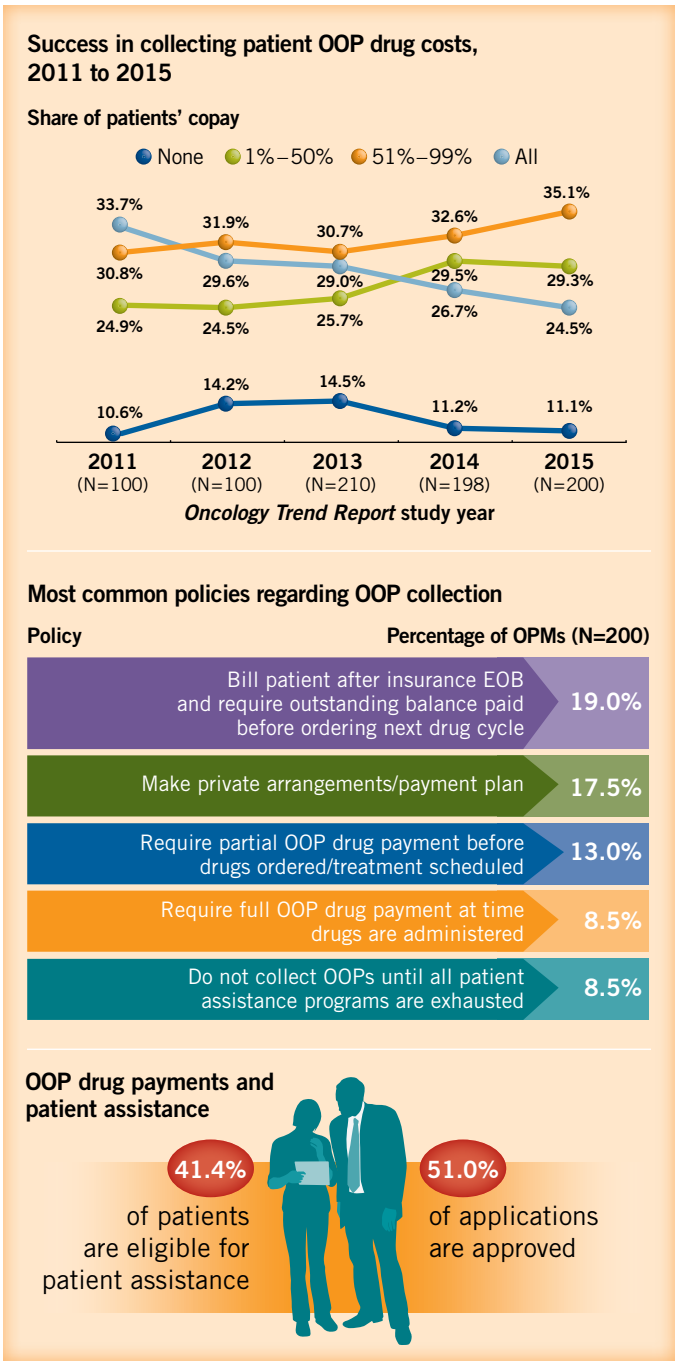


[a]Refers to the proposed revision of General Chapter <800> Hazardous Drugs—Handling in Healthcare Settings in the United States Pharmacopeia and the National Formulary (USP–NF) by the Compounding Expert Committee. This chapter provides standards to protect personnel and the environment when handling hazardous drugs.[13] Final standards will be published in February 2016 and implementation delayed until July 1, 2018.[14]

Claims Processing, Billing, and Reimbursement

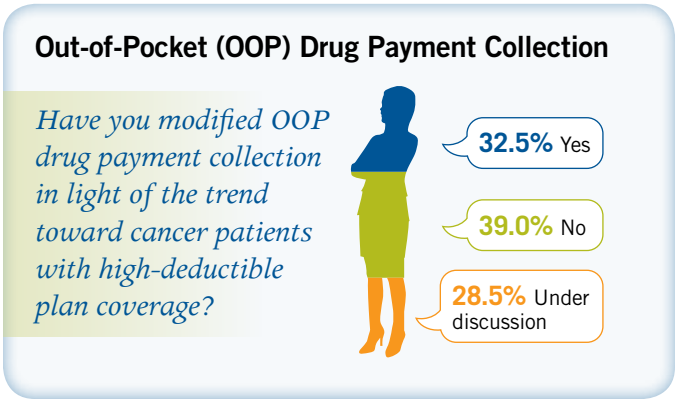
As noted in **Figure 1** on page 61, nearly six in 10 managers reported growing numbers of patients with high-deductible commercial health plans. **New this survey**, all managers were questioned about policy changes in patient out-of-pocket (OOP) drug payment collection, in light of this trend. As illustrated on the next page, 32.5% of the surveyed OPMs have modified their collection policy, and 28.5% are discussing policy changes. Collection policies vary across practices, similar to the previous study period (**Figure 17**). Most commonly, practices arrange payment plans with their patients or bill patients for outstanding balances pursuant to insurance Explanation of Benefits before ordering drugs for each treatment cycle, although some practices require partial or full OOP payments before ordering drugs or before administration.

Figure 17. Patient Out-of-Pocket (OOP) Drug Payments



EOB = Explanation of Benefits.

OPMs estimated collecting all *of the required drug copayments from only 24.5% of patients and no drug copays from 11.2% of patients, on average in 2015. Most managers (71.5%) seek financial assistance for their patients from drug manufacturers, copay assistance foundations, or both (data not shown). Overall, these managers estimated that more than four in 10 of their patients qualify for assistance, on average, and half of the applications are approved.*

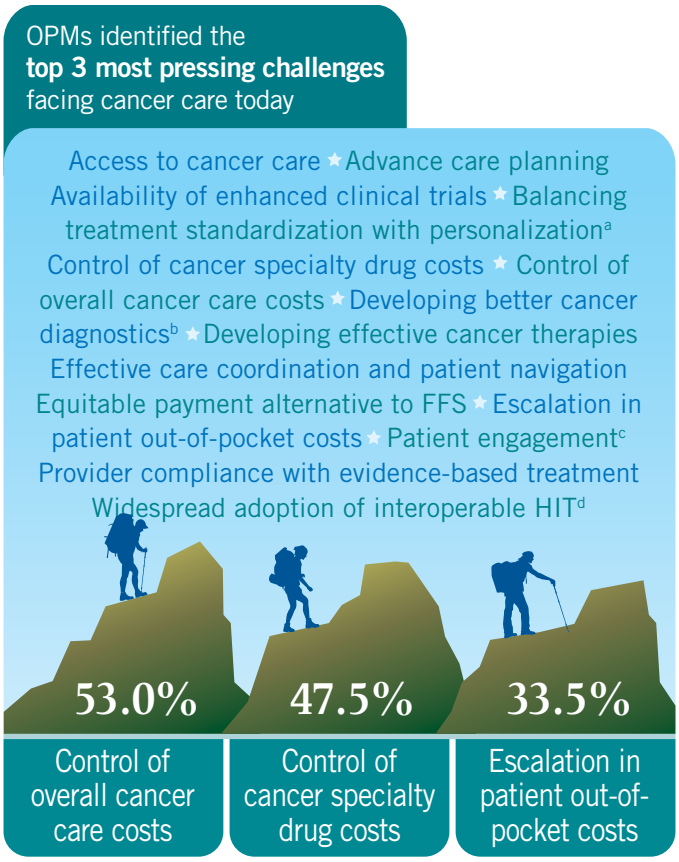


New this survey, a few OPMs (8.5%; n = 17) reported that their practice does not collect payments from patients until all patient assistance resources have been exhausted. OPMs estimated success in collecting *all* copayments from an average of 24.5% of patients.

Patient Assistance Programs

Most managers (71.5%; n = 143) seek financial support for their patients from **patient assistance programs (PAPs)** sponsored by drug manufacturers or copay assistance foundations; an additional 30 OPMs plan to do so in 2016. Growing interest regarding in-practice oral drug dispensing may be fueling the need for patient assistance (**Figure 3** on page 64). In light of the OOP costs associated with pharmacy benefit coverage, a number of OPMs (35.4% of community-based, 45.0% of hospital-based, and 48.9% of academic/medical center-based practices) expect an increase in staff time needed for education, financial counseling, and patient assistance program support for patients on oral oncology agents by year-end 2015 compared with 2014. As noted in **Figure 8** on page 69, 76 OPMs making staffing adjustments in 2016 to handle workload expect to add financial counselors to their staff. OPM estimates of the percentage of patients that meet eligibility criteria for patient assistance programs varies by practice, averaging 41.4% (range, 5%–100%) of patients. OPMs estimated that more than half (51.0%) of applications filed with these programs are approved (**Figure 17**).

OPMs estimated success in collecting all *copayments from an average of 24.5% of patients.*



FFS = fee for service; HIT = health information technology.

[a]Treatment standardization refers to guidelines and pathways; personalization refers to molecular and biomarker testing; [b]Refers to pathology, molecular/biomarker testing; [c]Refers to wellness, prevention, and medical treatment; [d]Refers to technology to support quality improvements and outcomes measurement.

New this survey, OPMs selected the top three issues in cancer care they believe to be most pressing from a list of 14 issues presented to them. As illustrated above, one-third of the managers, overall, agreed that escalation in patient OOP costs is among the top three challenges facing cancer care today.

Billing and Coding Challenges

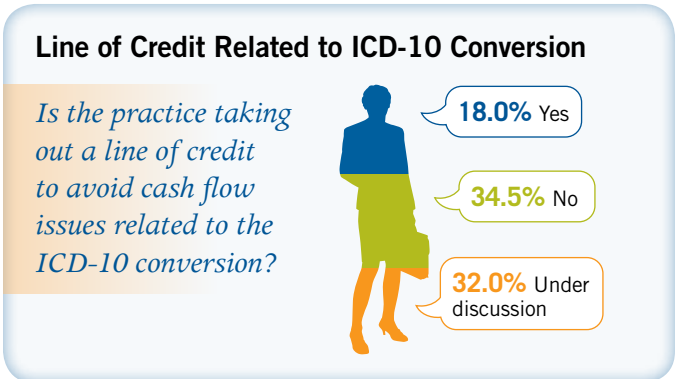
The transition to the International Classification of Diseases, 10th Edition, Clinical Modification/Procedure Coding System (ICD-10-CM/PCS) is top of mind for most managers. After three delays, the deadline for transition to the ICD-10 code sets used to report medical diagnoses and hospital inpatient procedures was October 1, 2015.[15] Inadequate training and staffing, a decline in billing efficiency, delays in payments due to possible preauthorization problems, denials and resubmissions, and concerns about payer readiness are among the concerns expressed by the surveyed OPMs. **New this survey**, half of the practices managed by the OPMs had taken out a line of credit (18.0%) or were discussing the option (32.0%) at the time of survey completion in July and August (see **illustration** to the right). In July 2015, the Centers for Medicare and Medicaid Services (CMS) and the American Medical Association made a joint announcement regarding transition flexibilities, which included a 1-year grace period in which CMS will reimburse physicians under Medicare Part B for claims with incorrect ICD-10 diagnosis codes. However, commercial payers will have to determine whether to offer similar flexibilities.[16]

Six in 10 managers (61.9%) expect staff time appealing claims denials with payers, including documentation requirements and peer-to-peer discussions, to increase *slightly* (37.6%), *moderately* (16.2%), or *significantly* (8.1%) by year-end 2015 compared with 2014. On average, OPMs estimated that in 2015, on the first pass, 20.1% of total claims were incorrectly paid and 15.1% of total claims were denied. More than half of the OPMs (56.5%) estimated that drug claims with specific J-codes were paid by commercial payers within 60 days; 60.0% of OPMs estimated that payments without specific codes were paid within 90 days. Turnaround of payments by commercial payers remain steady for most OPMs; a few experienced longer times to payment for drugs with J-codes (n = 46) and without J-codes (n = 52) over the last 12 months.

Payer Contracts and Incentive Programs

Only 76 OPMs (38.0%) across all practice settings reported practice-specific contracts (as opposed to accepting standard payer contracts) with one or more commercial payers regarding fee schedules and drug payments; an additional 22 OPMs (11.0%) intend to contract this way in 2016. Similar to the previous study, few OPMs (n = 43) directly contract with self-insured employers; however, 15 OPMs expect to do so in 2016. As a consequence of the ACA, 17.5% of practices (17 community-based, nine hospital-based, and nine academic/medical center-based practices) were excluded from a narrow or preferred commercial provider network in 2015; an additional 17 OPMs, overall, expect exclusion in 2016.

More managers (n = 132; 66.0%) across all settings estimated some share of practice revenue tied to payment alternatives to FFS—**bundled payments or global payments**—in 2015 compared with 2014 (n = 80; 40.4%). **New this survey**, less than half (45.5%) of these 132 OPMs indicated that the alternative payments apply to medical oncology services



and chemotherapy; 23 managers are unsure. Share of revenue attributed to payment alternatives was estimated by OPMs as follows: less than 5% of revenue (13.0%), 5% to 10% of revenue (24.5%), 11% to 15% of revenue (17.5%), and 16% to 20% of revenue (11.0%).

In February 2015, the CMS Innovation Center announced its second multipayer specialty care model, the Oncology Care Model, whereby oncology practices enter into payment arrangements that include financial and performance accountability for 6-month episodes of care surrounding chemotherapy administration for cancer patients. CMS expects to select participants for the 5-year model by early 2016.[17,18] **New this survey**, 72 practices managed by surveyed OPMs (36.0%) applied for participation.

For the first time in the history of the Medicare program, HHS set explicit goals for alternative payment models and value-based payments. The goal ties 30% of FFS Medicare payments to quality or value through alternative payment models, such as ACOs or bundled payment arrangements, by the end of 2016, and 50% of payments to these models by the end of 2018.[8]

New this survey, 84 managers indicated their practice is currently participating (n = 55; 27.5%) or expects to participate in 2016 (n = 29; 14.5%) in pay-for-performance (P4P) or cancer quality-of-care programs as part of a joint venture arrangement with a hospital. OPMs described the payments as shared savings, as well as bonus payments or higher payments that may be paid to the practice or individual physicians meeting individually tailored goals. Descriptions of performance or quality targets included patient satisfaction; pain management/palliative care; **end-of-life care/hospice care**; rate of hospitalizations, readmissions, and length of stay; time between visits versus adverse events and rate of relapse; and other sources of cost savings and quality improvements.

Participation in oncology P4P programs sponsored by commercial payers trended upward in 2015, with 125 OPMs providing revenue estimates compared with the previous study (n = 78; 39.4%). **New this study**, the share of revenue attributed to the payer-sponsored P4P programs is estimated as follows: less than 5% of revenue (13.0%), 5% to 10% of revenue (17.0%), 11% to 15% of revenue (18.5%), and 16% to 20% of revenue (14.0%).

Practice Automation, mHealth, and Quality-Improvement Initiatives

Table 4 highlights the adoption by these practices of various forms of health information technology (HIT) and participation in a number of quality-improvement programs available to oncology practices, some of which require HIT capabilities. OPMs across all settings (n = 153) reported the use of EHR systems in 2015, and 59.5% participated in Medicare's EHR Incentive Program. Of these, 42.0% met the criteria for Stage 1 meaningful use, and 42.0% met Stage 2 criteria.

Use of mobile devices, such as smart phones and tablets (ie, **mHealth**), continues to increase among practices (52.5% of OPMs use them in 2015 compared with 28.8% in 2014). Uses include patient check-in, surveys, education, scheduling; laptop or personal computer replacements for EHR charting, ordering, and e-prescribing; and staff communication and access to decision-support tools.

Table 4. Practice Automation, mHealth, and Quality Initiative Participation (N = 200)

	2015	Planned for 2016
Practice automation		
Electronic health record (EHR) system	76.5%	14.5%
Electronic prescribing system	72.5%	17.0%
Decision-support tools	60.5%	18.0%
mHealth capabilities		
HIPAA-compliant secure e-mail	74.0%	9.5%
Smart phone/tablet	52.5%	11.5%
HIPAA-compliant secure texting	39.5%	15.0%
Telehealth visits	25.0%	14.5%
Incentive programs and quality initiatives		
2015 Medicare/Medicaid "Meaningful Use" EHR Incentive Program	59.5%	8.5%
CMS's 2015 Physician Quality Reporting System	58.0%	11.0%
ASCO's Quality Oncology Practice Initiative (QOPI)	52.5%	16.0%
ASCO's QOPI Certification Program (QCP™)	41.5%	15.0%
NCQA Physician Practice Connections–Patient-Centered Medical Home program	39.5%	13.0%

HIPAA = Health Insurance Portability and Accountability Act; CMS = Centers for Medicare and Medicaid Services; ASCO = American Society of Clinical Oncology; NCQA = National Committee for Quality Assurance.

More than three-fourths of OPMs (n = 153) reported having EHR systems in 2015, and 29 managers (14.5%) expect to implement EHR systems next year. Many of the systems (56.2%) are oncology-specific (data not shown). Nearly three-fourths of OPMs reported communications between staff and patients via secure e-mail. More OPMs use smart phone/tablet technology (52.5% compared with 28.8% in 2014) and offer telehealth visits (25.0% compared with 12.1% in 2014). New this survey, 113 OPMs reported participation (41.5%) or plans to participate in 2016 (15.0%) in ASCO's QCP™ certification program. Of the 119 managers reporting practice participation in the Medicare/Medicaid EHR Incentive Program, 42.0% met Stage 1, and 42.0% met Stage 2 criteria for meaningful use in 2015 (data not shown).

Table 5. Electronic Health Record (EHR) Features and Capabilities

	Percentage of OPMs (n = 153)
After-visit summary generation	81.0%
e-Prescribing capability	79.1%
Chemotherapy order sets	78.4%
Patient portal	77.8%
Outpatient prescription generation	72.5%
Treatment regimen templates	72.5%
Treatment plan generation (written/printed) for patient	72.5%
Treatment summary (written/printed) as part of survivorship care plan	71.9%
Meaningful-use reporting	71.2%
Pain assessment and supportive care needs	69.9%
Patient advance directive	68.0%
Interoperability/health information exchange with network providers	66.7%
Integrated coding and charge capture with practice management system	65.4%
Tumor staging	64.1%
Patient education resource integration and/or links	59.5%
Decision-support integration and/or links to guidelines and pathways	57.5%
Quality metrics reporting for PQRS	55.6%
Clinical pharmacy order consult	54.9%
Cloud-based computing	53.6%
Toxicity assessment and management	53.6%
Treatment preauthorization support	51.6%
MDx testing order templates	50.3%
Clinical trial and protocol management	50.3%
Quality metrics reporting for QOPI	49.7%
Open database with query capabilities	49.7%
Medication patient-assistance order consult	48.4%
ABN generation for Medicare (eg, off-label drug use)	47.7%
Survivorship care plan	45.1%
Genetic counseling consultation recommendations	41.8%
MDx testing results and interpretation	39.9%
Drug inventory and cost management	35.3%
Smart-pump integration	35.3%

PQRS = Physician Quality Reporting System; MDx = molecular diagnostics; QOPI = Quality Oncology Practice Initiative; ABN = Advance Beneficiary Notice of Noncoverage.

Presented with this list of system capabilities and features, the 153 OPMs working with EHRs selected the features included in their systems.

Table 5 details the EHR system features and capabilities of the 153 practices that use them; 56.2% are oncology-specific systems. More OPMs (n = 119) reported the availability of patient portals compared with the previous study (n = 98). **Table 6** describes the communication capabilities provided to patients via a patient portal.

New this survey, 73 OPMs commented on their unmet needs regarding EHR-system functionality. Comments most often concern lack of interoperability with the systems of other providers and provider organizations, as well as the lack of integration with internal functions, such as preauthorization and billing, pharmacy/drug inventory, labs, intravenous pumps, and the practice management system. Many managers noted the time demands from EHR use due to navigation complexity, user unfriendliness, and lack of oncology specificity. Some OPMs mentioned a lack of time and training to build or customize templates and/or the time spent on workarounds to compensate for lack of integration.

Table 6. Patient Portal Capabilities

	Percentage of OPMs (n = 119)
Receive reminders (eg, appointment confirmations, follow-up care)	68.9%
View health information (eg, lab results, medication lists)	65.5%
Receive test results (eg, lab, imaging) with secure message	64.7%
Exchange secure e-mail messages with oncologist/clinical staff	64.7%
Download/complete forms (eg, registration, consent)	57.1%
Request prescription drug refills	54.6%
Schedule nonurgent appointments	54.6%
View clinical summaries after each patient visit	53.8%
Exchange secure e-mail messages with nonclinical practice staff[a]	53.8%
Request referrals	47.1%
View account statements and pay medical bills	47.1%
Review medical records and report any inaccuracies to practice staff	46.2%
Update personal/demographic/contact information	45.4%
View patient-specific educational materials	39.5%
Update body-system status prior to appointments	21.8%

[a]Includes billing, financial counselors, and patient navigators.

More than three-fourths of the practice managers (n = 119) reported the availability of patient portals as part of their practice automation in 2015. This table identifies the capabilities afforded to patients through the portal.

EMPLOYERS
(N=200)

HIGHLIGHTS

Company-Sponsored Health Benefits

- 52.0% of employers offered CDHPs in 2015, and one-third of them did so as a *full replacement* for other health options; 42.3% of these employers supplement their CDHP with voluntary benefits, such as cancer or critical care indemnity plans
- Most employers reported stable benefits eligibility and participation in 2015 vs 2014. Looking ahead, *working* spouse coverage leads eligibility changes likely to occur in 2016 or is under consideration prior to 2018
- One-fourth of employers fund *active* employee health benefits via defined contribution. The value companies place on *direct involvement in health benefit management* remained stable or increased for the majority of employers compared with 2014

Cancer Care Coverage

- 36.0% of employers *require* coverage of case/care management for their employees and dependents with cancer
- Four in 10 employers will consider prior to 2018 developing a *formal* second opinion coverage policy for cancer and *requiring* a second opinion for diagnosis and treatment planning involving tumor testing using next-generation sequencing
- One-third of employers have undertaken *direct* contracting with oncology practices, COEs, and/or testing labs in 2015 or likely in 2016; most often, to ensure an adequate specialist network and obtain better data linking diagnosis, costs, and outcomes
- 54 employers (27.0%) work with their vendors on tactics that *directly* address the rising cost trend of cancer specialty drugs; 25.9% have shifted cancer drugs from the medical to the pharmacy benefit, and 57.4% have focused on site of service by establishing *preferred* physician networks
- End-of-life care/hospice care is a top priority in formulating a benefit strategy. Provider reimbursement for ACP consultations, including advance directives, palliative care, and hospice, was provided by 32.5% of employers in 2015 and/or likely in 2016 and an additional 35.0% will consider adopting prior to 2018

Population Health Management, Including Cancer

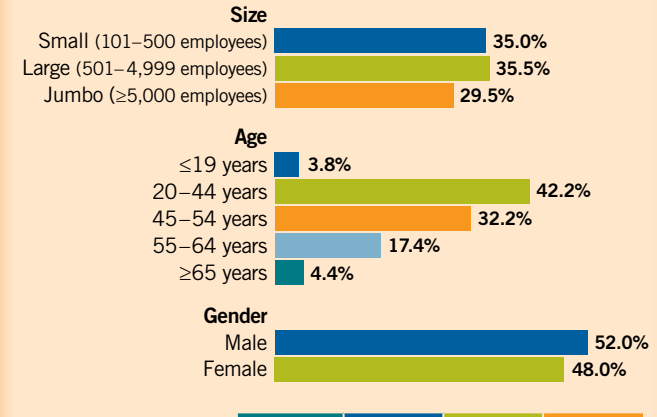
- 64.0% of employers use health risk or well-being assessments; most incentivize completion by offering monetary or nonmonetary rewards
- 52 companies (26.0%) offer a population health management program, and 34 of them focus on cancer, including case management, screening, and cancer prevention education
- Better data about cost, use, and quality led the unmet data needs cited by 41.1% of employers; only 34.0% of employers who receive data from vendors rated their understanding of differential costs by site of service as *very good* or *excellent*
- Employers identified control of overall cancer costs and cancer specialty drug costs and effective cancer therapies as the top three most pressing challenges facing cancer care today

Two hundred employers from across the country completed an online survey of 45 multipart questions fielded from late June to early August 2015. These employers self-insure the medical and drug benefits provided to an active workforce of more than 100 full-time employees. They described their current (2015) workforce demographics and status regarding general health benefits, the coverage of cancer care services, wellness and well-being initiatives, and their expectations for 2016, as well as prior to 2018.

Demographics

All respondents were prequalified to have involvement in and knowledge of their company's strategies and plan design(s) regarding health benefits. Most of the sample (73.0%) is based in service-providing industries, similar to the previous study period, and 27.0% represent goods-producing industries. Their employees work in the following locations: midwest (20.0%), northeast (16.0%), south (19.5%), west (14.0%), and multiregional/national (30.5%). In some of the analyses, employers with 101 to 500 employees as of January 1, 2015, are considered *small* employers; those with 501 to 4,999 employees are considered *large* employers; and those with 5,000 or more employees are considered *jumbo* employers. **Figure 1** describes the workforce characteristics of the surveyed employers.

Figure 1. Workforce Characteristics of Employer Sample



Job Status	Overall (N=200)	Small (n=70)	Large (n=71)	Jumbo (n=59)
Full-time/permanent (ie, ≥35 hours per week)	82.0%	85.0%	82.8%	77.6%
Part-time (ie, ≥30 hours per week)	9.3%	7.2%	8.3%	12.8%
Part-time (ie, <30 hours per week)	8.7%	7.8%	8.9%	9.6%

Workforce characteristics in the 2015 sample are similar to those reported in the previous study period (data not shown). However, the proportion of workers 45 to 64 years of age was higher in 2015 compared with 2014 (49.6% vs 45.4%), as was the proportion of full-time workers (82.0% vs 69.5%).

Company-Sponsored Health Benefits

All of the companies represented in the study self-insure their medical and pharmacy benefits. Only 20.5% of these companies carve out drug benefit administration separately from their medical benefit, which is administered most often by an insurance carrier/health plan (59.0%) and/or a third-party administrator (TPA) (44.5%).

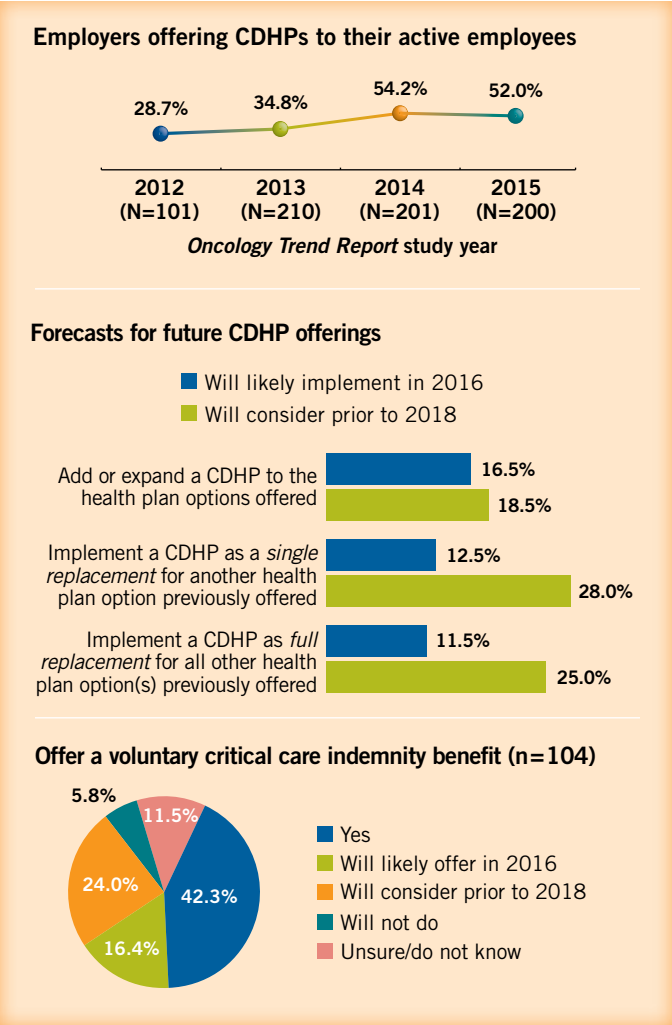
More than nine in 10 employers offer medical and pharmacy benefits to their full-time/permanent employees and dependents; few employers (less than 5.0%) exclude dependent coverage for full-time employees. More than half of the employers (57.5%) offer medical and pharmacy benefits to active part-time workers who work 30 or more hours weekly and their dependents, and approximately 28% do so for employees working less than 30 hours weekly and their dependents. *Small* employers are less likely than *large* and *jumbo* employers to provide benefits to part-time active workers, similar to the previous study period.

Employers of all sizes (52.0% overall; n = 104) offered a **consumer-directed health plan (CDHP)** to their active employees in 2015; one-third of these employers (n = 34) have implemented a CDHP as a *full replacement* for all other plan option(s) previously offered. More employers forecast adding or expanding to include a CDHP in the future (**Figure 2**). **New this survey**, 42.3% of these employers supplement their CDHPs with voluntary (ie, elective) benefits, such as cancer or critical care indemnity plans, as a way to minimize the risk of significant out-of-pocket (OOP) expenses for their employees.

Benefits eligibility and employee participation in 2015 remained stable compared with 2014, as reported by almost eight in 10 of the employers surveyed (**Figure 3**). The majority of the active employees of the surveyed employers (88.4%, on average) are eligible for health benefits, and 79.7% of them, on average, elected to enroll in the plans offered to them in 2015. Under the Affordable Care Act (ACA), a 40% excise tax will be assessed on the cost of coverage for health plans that exceed a certain annual limit—deemed "Cadillac" health plans due to their generous level of health benefits. To avoid this "**Cadillac tax**," employers are already reevaluating their health benefits strategies.[1] Notably, the tax was delayed 2 years, from 2018 until 2020 by the Consolidated Appropriations Act of 2016 passed in December 2015 (after respondents had completed the survey).[2] Looking ahead, changes in *working* spouse coverage led the eligibility changes likely to be implemented in 2016 or considered prior to 2018—41.0% of employers reported elimination and 38.5% reported penalty assessments for coverage of *working* spouses, if coverage is available from the spouse's employer.

Commitment to health insurance sponsorship remains high. As detailed in **Figure 3**, although a number of employers have already implemented or will consider eligibility changes prior to 2018, 53.0% will not adopt a workforce strategy that lowers the number of employees who qualify for benefits, and 68.5% will not discontinue coverage entirely.

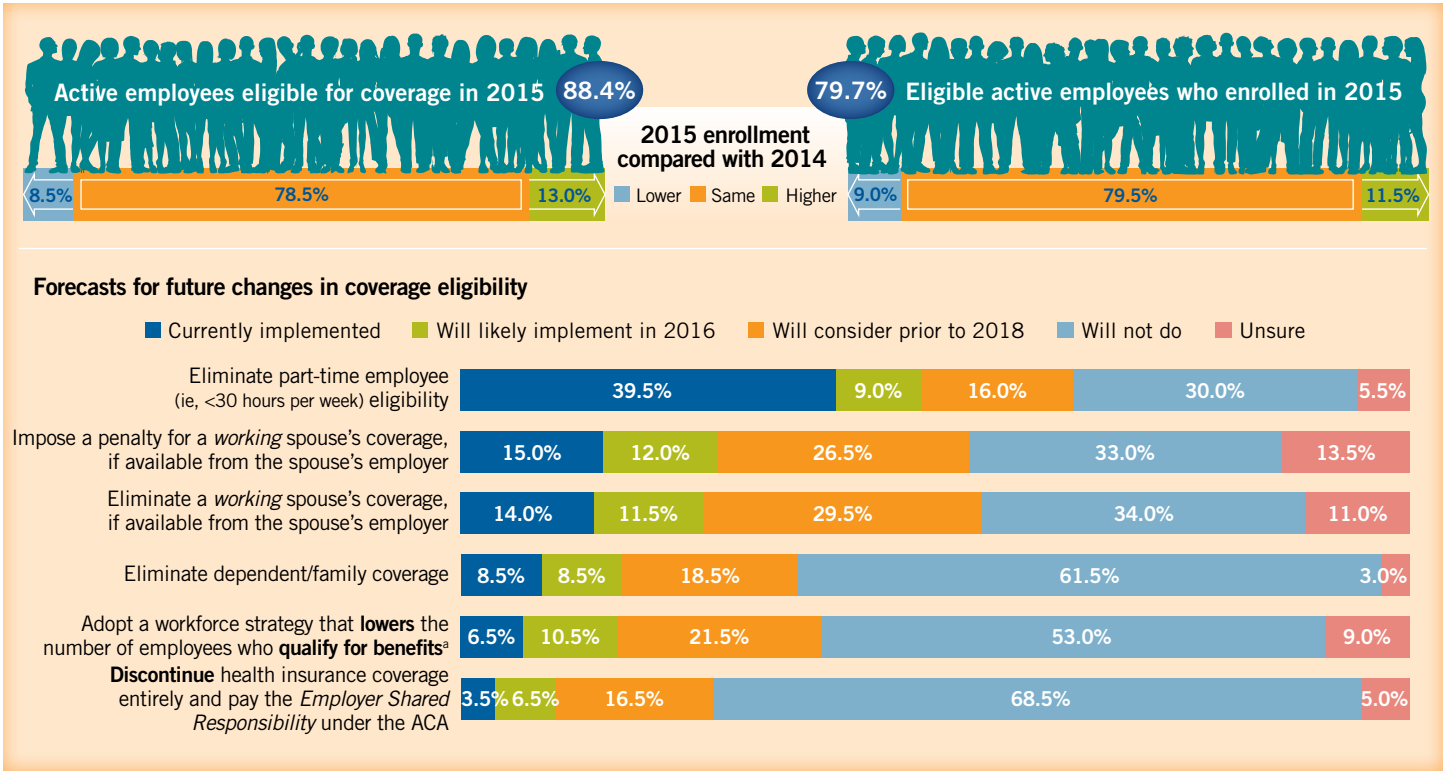
Figure 2. Status of Consumer-Directed Health Plan (CDHP) Offerings



Employers of all sizes (52.0% overall; n = 104) offered a CDHP to their active employees in 2015, and more forecast doing so in the future. Thirty-four employers offering a CDHP (32.7%) did so as full replacement *for health plan option(s) previously offered (data not shown). New this survey, 42.3% of the employers offering a CDHP also offer voluntary (ie, elective) benefits, such as cancer or critical care indemnity, as a way to supplement their CDHP offering and minimize risk of significant out-of-pocket expenses for their employees.*

Although a number of employers have already implemented or will consider eligibility changes prior to 2018, 53.0% will not adopt a workforce strategy that lowers the number of employees who qualify for benefits, and 68.5% will not discontinue coverage entirely.

Figure 3. Eligibility, Participation, and Forecasts for Change



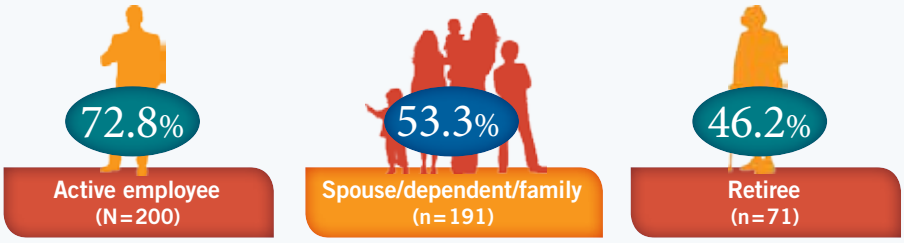
[a]Under the Affordable Care Act (ACA) Employer Shared Responsibility provision, a full-time employee working >30 hours weekly qualifies for benefits.

Active employee eligibility for, and participation in, company-sponsored health benefits remained steady in 2015 compared with 2014 for the majority of surveyed employers. Overall, 88.4% of employees qualified for their company's health benefits in 2015 and 79.7%, on average, enrolled in the plans offered. Looking ahead to 2016 and the changes under consideration prior to 2018—four in 10 employers will eliminate a working *spouse's coverage (41.0%) or impose a penalty for a* working *spouse's coverage (38.5%), if available from the spouse's employer.*

The median share of health benefit costs funded by companies is similar across *small*, *large*, and *jumbo* employers. Overall, employers fund an average 72.8% of the benefit costs for their active employees and 53.3% of the costs for their employees' spouse/dependents, as illustrated. These employers reported median health budget growth between 5.0% and 10.0% and median salary growth between 3.0% and 4.0% over the last year.

One-fourth (n=49) of surveyed employers—10 *small*, 20 *large*, and 19 *jumbo* employers—funded their health benefits for active employees via **defined contribution** in 2015; more employers will consider doing so prior to 2018 (**Figure 4** on page 84). Thirty-four of these employers used a **private exchange** for their 2015 plan offerings, but only six of them delegated the responsibility for managing the quality and cost of health services to the exchange. The value of *direct involvement in health benefit management* remained unchanged (54.0%) or increased (35.0%) for the majority of the 200 surveyed employers over the last year.

Share of health benefit costs funded by surveyed employers in 2015, by beneficiary type



Under the ACA, in the 2017 benefit year, employers with more than 100 employees (ie, considered large employers under the ACA) will have access to plans available from the **public exchanges**, known as the Small Business Health Options Program.[3] Four in 10 employers, overall, forecast definite use (11.0%) and/or consideration of use (29.0%) of public exchanges for health insurance products for their *active* employees, when available. Forecasts are similar when considered by company size.

Employers' *continued* commitment to health benefit sponsorship is most influenced by five factors: company financial health, health insurance cost trend, impact of health care reform legislation, worker health and well-being, and worker recruitment and retention. These results are consistent across company size. **New this survey**, the influence of private and public exchanges to employers' commitment to sponsor health care benefits garnered neutral ratings overall—averaging 5.24 and 4.77, respectively, on a 10-point scale, where 10 denotes a *very strong influence*. Avoidance of the Cadillac tax garnered an average rating of 6.27.

Higher employee cost sharing led the changes to the general health benefit currently implemented in 2015 and/or planned for 2016 by 40.0% or more of the surveyed employers. Employee cost-sharing measures include increasing employee contributions to individual and/or spousal/dependent coverage and increasing office visits copays or coinsurance (**Table 1**). Increasing deductibles for office visits and hospitalizations, reducing the richness of health plan option(s) offered, and raising prescription drug OOP costs led company initiatives under consideration prior to 2018 by four in 10 employers.

New this survey, employers of all sizes (39.5% overall) redesigned benefits in 2015 (19.5%) or will likely do so in 2016 (20.0%) to link an employee's health benefit costs to health interventions, such as completion of health risk or well-being assessments and participation in health management programs. An additional 40.5% will consider doing so prior to 2018. *Large* and *jumbo* employers were more likely to have redesigned benefits in 2015 compared with *small* employers.

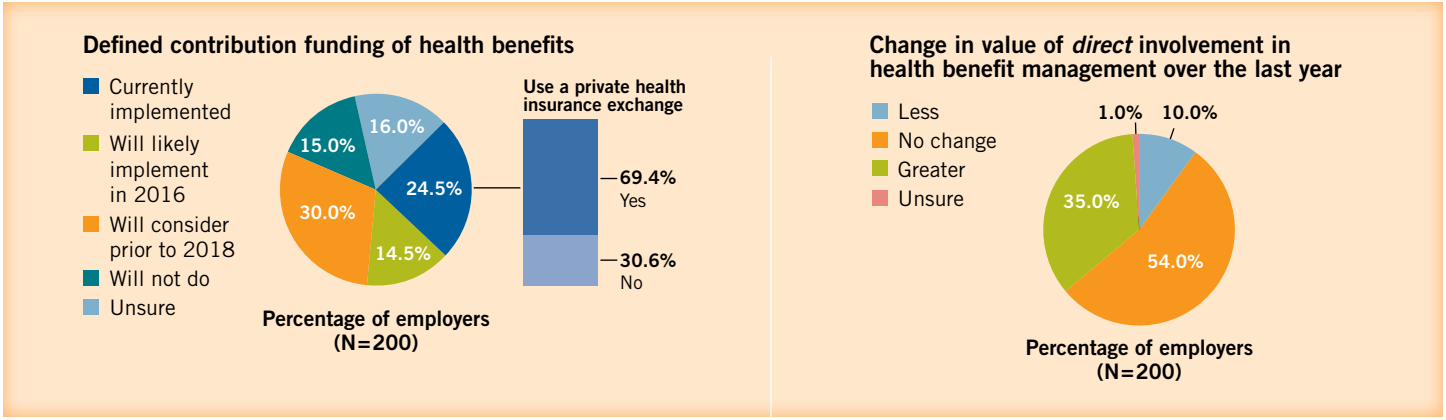
Contracting for health services using alternative payment models to fee for service remain low among employers of all sizes in the near term. Overall, 28.0% of employers contracted with providers in 2015 or will likely do so in 2016 using **bundled payment pricing**; 20.0% of employers use or will likely use **reference-based pricing** in 2016.

Employers also described their **direct contracting** initiatives. About one-fifth of employers contracted directly with primary care clinics (23.5%), providers organized as accountable care organizations (22.0%) and/or centers of excellence (COEs) (21.0%) in 2015 or will likely do so in 2016. At least one-third of employers will consider contracting directly with these entities prior to 2018.

Retiree Health Benefit Coverage

Seventy-one employers (35.5%)—14 *small*, 23 *large*, and 34 *jumbo*—offered retiree health benefits in 2015. The majority of these 71 employers offered benefits to full-time (88.7%) or part-time (16.9%) *early* (pre-65 years of age) retirees; 33.8% of employers offered benefits to full-time Medicare-age retirees. Most of the 71 employers (87.3%) offer a drug benefit. More

Figure 4. Defined Contribution, Private Exchanges, and *Direct* Involvement in Health Benefits Management



One-fourth (n=49) of employers—10 small, *20* large, *and 19* jumbo *—funded their health benefits in 2015 via defined contribution; more employers will consider doing so prior to 2018. Thirty-four of these employers used a private exchange for their 2015 plan offerings, but only six held their private exchange responsible for managing the quality and cost of health benefit services (data not shown). The majority of the 200 employers surveyed value their* direct *involvement in health benefit management at the* same *(54.0%) or* higher *(35.0%) level compared with the previous year. The 34 employers with defined contribution funding and private exchange use in 2015 valued their* direct *involvement similarly (data not shown).*

Table 1. Timeframe for General Health Benefit Changes (N=200)

	Implemented in 2015 or likely in 2016	Will consider prior to 2018
Increase the employee contribution to the health insurance premium	47.5%	34.0%
Increase the employee contribution to *spouse* and *dependent* coverage vs *individual* coverage	44.0%	37.5%
Increase office visit copays/coinsurance	40.5%	39.5%
Adopt health care consumerism, quality, and cost-transparency tools for employee decision making	40.0%	38.0%
Apply *separate* plan deductibles for the pharmacy and the medical benefits	39.0%	36.0%
Increase prescription drug out-of-pocket costs	38.5%	40.5%
Increase deductibles for office visits and hospitalization	36.5%	42.5%
Promote primary care and PCMH as a benefit strategy for care delivery	33.5%	35.0%
Vary the employee contribution to *spouse* and *dependent* coverage, when available from another source	33.5%	37.0%
Shift drug cost sharing from dollar copays to percent coinsurance	32.0%	37.0%
Reduce benefit richness across the available plan options	30.0%	41.0%
Link employee premium contribution to compensation level	29.5%	30.5%
Reduce the number of health plan options offered	27.5%	35.0%
Provide additional compensation/benefits to employees who *decline* health benefits participation	26.0%	26.5%
Expand VBID by raising/lowering the financial barriers for high/low-value clinical services	23.0%	35.0%

PCMH=patient-centered medical home; VBID=value-based insurance design.

than half of the employers (n=37) offer a CDHP, and 15 of the employers do so as a *full replacement* for all other retiree health benefit option(s) previously offered. Half of the employers offering a CDHP also offer a voluntary (ie, elective) cancer or critical care indemnity option.

Twenty employers funded their retiree benefits via a defined contribution in 2015, and 17 of them used a private exchange for their retiree plans. Most hold the health plan/insurer responsible for managing the quality and cost of retiree health benefit services. Similar to active employee benefits management, these 71 employers value their direct involvement in retiree benefit management at the *same* (47.9%) or a *higher* level (36.7%) compared with 2014.

Figure 5 details respondents' forecasts regarding their company's future sponsorship of health benefits for their retirees.

Cancer Care Coverage and Contracting

A minority of employers of all sizes covered COE programs for bone marrow or stem cell transplants (26.5%) and/or expanded coverage for other high-cost cancer treatments beyond transplants (26.0%) in 2015 or are likely to do so in 2016. Twenty-four employers (12.0%) covered the costs of medical travel to COEs for cancer treatment in 2015. **New this survey**,

Figure 5. Forecasts Regarding Retiree Health Benefit Sponsorship

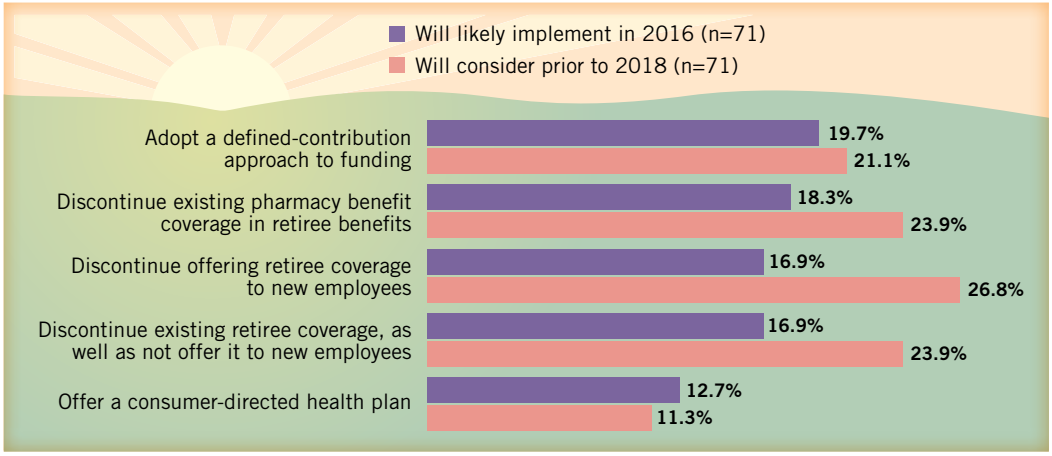
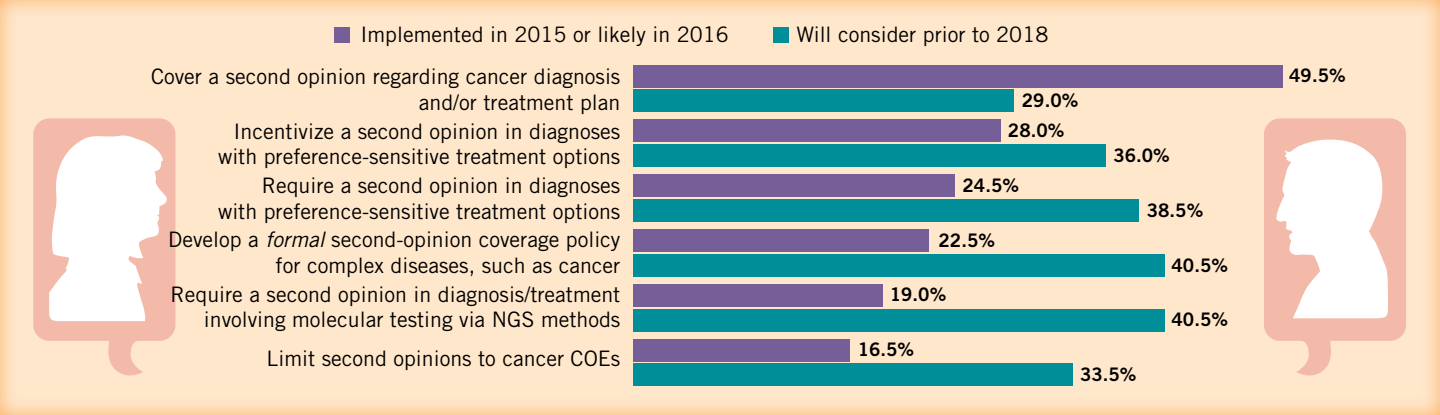


Figure 6. Second Opinions in Cancer Diagnosis and/or Treatment Planning (N=200)



NGS=next-generation sequencing; COEs=centers of excellence.

the few employers who encouraged COE participation in 2015 did so by offering an e-mail knowledge series, online training, financial incentives, and nurse case manager support.

Coverage of a second opinion regarding a cancer or suspected cancer diagnosis and/or treatment plan was covered by half of the employers in 2015 or likely in 2016 (**Figure 6**). **New this survey**, four in 10 employers will consider, prior to 2018, developing a *formal* second-opinion coverage policy for such complex diseases as cancer and *requiring* a second opinion in cases of diagnosis and targeted treatment planning involving molecular tumor testing using **next-generation sequencing**.

Employers were presented with a list of clinical cancer care services, and **Table 2** details their timeframe for coverage implementation. **New this survey**, 36.0% of employers *required* case/care management for their employees/dependents with cancer, and 28.0% covered **telemedicine visits** in 2015 or are likely to do so in 2016. Comparatively fewer employers *required* **molecular/biomarker testing** with a proven role in care according to evidence-based guidelines in 2015 or likely in 2016 (18.5%); however, three in 10 employers will consider requiring such testing prior to 2018.

Table 2. Implementation Status of Coverage of Clinical Services in Cancer Care (N=200)

	Implemented in 2015 or likely in 2016	Will consider prior to 2018
Hospice for employees/dependents with estimated life expectancy of ≤6 months	48.0%	28.0%
Home health services, when clinically appropriate and part of the treatment plan	43.5%	31.5%
Active promotion of behavioral health services for employees/dependents with cancer	39.5%	31.5%
Require case/care management for employees/dependents with cancer	36.0%	35.0%
Nutrition therapy and counseling	36.0%	34.0%
Provider reimbursement for advance care planning consultations[a]	32.5%	35.0%
Hospice for employees/dependents with estimated life expectancy of >6 months	30.0%	36.0%
Telemedicine visits	28.0%	37.5%
Genetic testing and counseling according to evidence-based guidelines to inform genetic risk	26.0%	35.5%
Standard fertility preservation treatment, when cancer treatment causes infertility	23.5%	28.0%
Molecular/biomarker testing with a proven role in care, according to evidence-based guidelines	23.0%	36.0%
Require molecular/biomarker testing with a proven role in care, according to evidence-based guidelines	18.5%	31.0%

[a]Includes advance directives, active treatment, palliative care, and hospice.

This table identifies the timeframe for implementation of a number of coverage options for cancer care presented to respondents. New this survey, required *case/care management of employees/dependents with cancer was implemented in 2015 or is likely in 2016 by 36.0% of employers; 28.0% cover or are likely to cover in 2016 telemedicine visits.*

Figure 7. Cancer Provider Contracting and Reimbursement (N=200)

	Implemented in 2015 or likely in 2016	Will consider prior to 2018
Contract *directly* with a testing laboratory for molecular/ biomarker testing and/or genetic testing and counseling	25.5%	33.0%
Develop provider reimbursement strategies tied to compliance with cancer treatment *guidelines*	25.0%	34.0%
Contract *directly* with a cancer center of excellence (COE)	24.0%	33.0%
Contract with cancer COEs using alternative payment models[a]	24.0%	31.0%
Contract with community-based oncology practices using alternative payment models[a]	22.0%	36.0%
Contract *directly* with an oncology practice or network	21.5%	34.0%
Develop provider reimbursement strategies tied to compliance with cancer treatment *pathways*	21.5%	36.5%

Top Reasons for *Direct* Contracting With Cancer Care Providers (n=67)

- 50.7% Ensure an adequate cancer specialist network
- 46.3% Better data linking diagnosis/stage, costs, and outcomes
- 37.3% More involvement over **quality** of care
- 35.8% Designate practices of excellent care for employees
- 32.8% Ensure use of evidence-based treatment *guidelines* and/or *pathways*
- 32.8% More involvement/control over **cost** of care

[a]Refers to bundled and global payment models.

Employers of all sizes (n=67) contracted directly *with one or more providers, such as oncology practices, COEs, and/or testing laboratories, in 2015 or plan to do so in 2016. Their leading reasons to do so are to ensure an adequate cancer specialist network and, new this survey, to obtain better data linking diagnosis/stage, costs, and outcomes. A number of employers have developed in 2015 or plan to develop in 2016 strategies to reimburse cancer providers for compliance with evidence-based cancer treatment guidelines (25.0%) and/or pathways (21.5%).*

Figure 7 details the timeframe for implementation of contracting and provider reimbursement initiatives. Employers of all sizes (33.5%, n=67 overall) have undertaken **direct contracting** with one or more cancer providers, such as oncology practices, COEs, and/or testing laboratories, in 2015 or are likely to do so in 2016 to ensure an adequate cancer specialist network for employees and dependents. **New this survey**, 46.3% of the 67 employers did so to obtain better data linking diagnosis/stage, costs, and outcomes. More than two in 10 of these employers developed strategies in 2015 or are likely to do so in 2016 linking provider reimbursement to evidence-based cancer treatment *guideline* (25.0%) and/or *pathway* (21.5%) compliance.

A value-based insurance design (VBID) that lowers/raises the cost sharing (ie, deductibles, copayments, coinsurance) for high-/low-value clinical services, drugs, and facilities has been implemented by a minority of employers representing companies of all sizes (24.5% overall; n=49) in 2015 or is likely in 2016; 38.0% will consider implementing a VBID prior to 2018. **New this survey**, 22.0% of employers have incorporated site-of-service steerage within their benefit design, which favors lower-cost sites (eg, community-based oncology practices instead of hospital outpatient facilities) in 2015/likely in 2016; 41.0% will consider doing so prior to 2018.

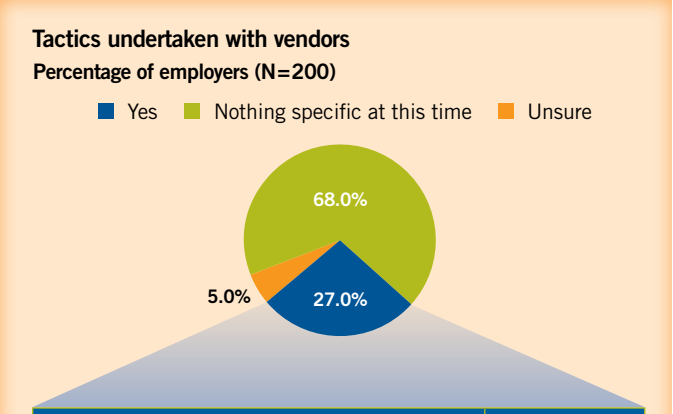
A minority of employers (27.0% overall; n=54) representing companies of all sizes (17 small, 19 large, and 18 jumbo) have worked with their vendors to directly address the rising costs of cancer specialty drugs.

Less than three in 10 employers established parity in 2015/ likely in 2016 between employee cost sharing for in-network community-based versus academic/medical center-based oncology providers (28.0%) and between employee cost sharing for cancer drugs covered under both the medical and pharmacy benefits (23.0%).

Cancer Drug Coverage and Management

A minority of employers (27.0% overall; n=54) representing companies of all sizes (17 *small*, 19 *large*, and 18 *jumbo*) work with their vendors to *directly* address the rising costs of cancer specialty drugs. More than six in 10 employers had *not* undertaken any specific tactics in 2015. As detailed

Figure 8. Tactics Undertaken With Vendors to Directly Manage the Rising Costs of Cancer Specialty Drugs

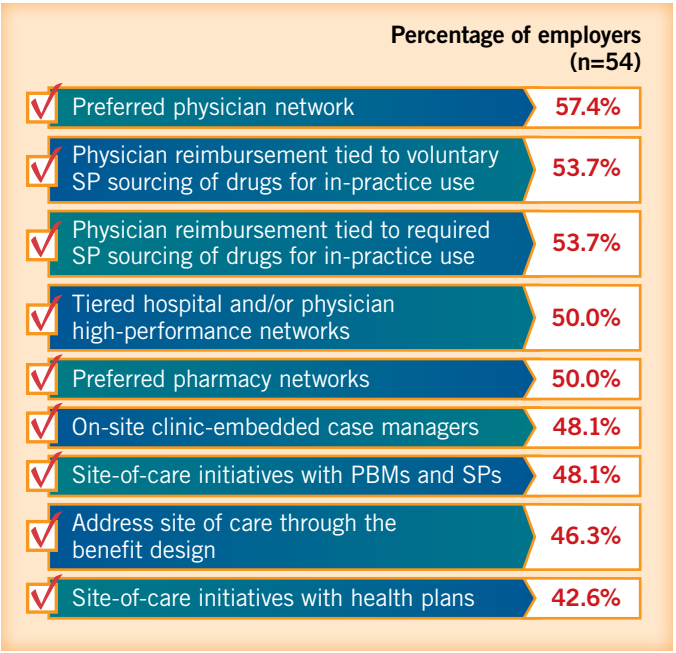


Tactics undertaken in 2015 or likely to undertake in 2016	Percentage of employers (n=54)
Encourage generic drugs, mail services, and/or preferred SPs	83.3%
Encourage use of biosimilars via benefit design	70.4%
Work with a PBM's specialty drug program	68.5%
Manage some/all *oral* cancer drugs via SP	61.1%
Manage some/all *in-practice injectable/ infused* cancer drugs via SP	61.1%
Shift cancer drugs from the medical to the pharmacy benefit for better UM and reporting	61.1%
Integrate medical/pharmacy drug management	59.3%
Implement a separate tier for specialty drugs	57.4%
Manage some/all *supportive/adjunctive* drugs via SP	57.4%
Manage some/all *self-injectable* cancer drugs via SP	55.6%
Implement a split-fill program to reduce waste	53.7%
Leverage the PBM/SP to manage medical benefit cancer drugs	51.9%
Offer on-site case management for employees with cancer	48.1%

PBM=pharmacy benefit manager; SP=specialty pharmacy; UM=utilization management.

The majority of employers have not undertaken specific initiatives with their vendors to directly *address the rising costs of cancer specialty drugs. The 54 employers who have done so—17* small, *19* large, *and 18* jumbo *companies—described their tactics undertaken in 2015 or likely in 2016. Most often, these encourage the use of generic drugs, biosimilars, mail services, and SPs.*

Figure 9. Site-of-Care Initiatives in 2015 or Likely in 2016



SP=specialty pharmacy; PBM=pharmacy benefit manager.

A number of the 54 employers working directly *with their vendors to mitigate rising cancer specialty drug costs are focused on site-of-care management. Most often, for 57.4% of the 54 employers this involved the establishment of preferred physician networks in 2015 or likely in 2016. Looking ahead, 37.0% will consider site-of-service initiatives with their health plans prior to 2018 (data not shown).*

in **Figure 8**, most often, the tactics undertaken by these 54 employers encourage the use of generic and biosimilar drugs, mail services, and specialty pharmacies (SPs). **New this survey**, a number of the 54 employers have shifted cancer drugs from the medical to the pharmacy benefit in 2015 (25.9%) or will likely do so in 2016 (35.2%) to improve utilization management and reporting. A number of the 54 employers are focused on site-of-service management (**Figure 9**). More than half (57.4%) of these 54 employers reported the establishment of preferred *physician* networks. Looking ahead, 37.0% will consider site-of-service steerage initiatives with their health plans and 33.3% with pharmacy benefit managers (PBMs) and SPs prior to 2018 to ensure that the highest-value site(s) of cancer services (eg, oncology practices, COEs, hospital outpatient facilities, ambulatory infusion centers, and home care) are used.

End-of-Life Care

Among the cancer care issues to consider when formulating a health benefit strategy, **end-of-life/hospice care** ranks fourth in priority ratings, behind cancer screening and early detection, case management and care navigation, and diagnostic and therapeutic radiologic care. Employers reported on their initiatives to provide access to, facilitate understanding of, and

support awareness of end-of-life care in 2015 or planned for in 2016. Seven in 10 employers covered *inpatient* (69.5%) and *outpatient* (74.5%) hospice services in 2015 or plan to do so in 2016. As detailed in **Table 2** on page 86, 48.0% of employers covered hospice care in 2015 or are likely to do so in 2016 for employees and their dependents with an estimated life expectancy of 6 months or less, similar to the previous study period. Three in 10 employers covered hospice care in 2015 or are likely to do so in 2016 for a life expectancy exceeding 6 months.

More than half (55.5%) of the employers provide coverage for end-of-life counseling in the health benefit or through the Employee Assistance Program (EAP), and 43.0% provide ready access to **palliative care**. Provider reimbursement for **advance care planning** consultations, including advance directives, palliative care, and hospice, was provided by 32.5% of employers in 2015 or are likely in 2016, and an additional 35.0% of employers will consider provider reimbursement prior to 2018 (**Table 2** on page 86). To build awareness of the services available, 56.5% of employers provide communications promoting their EAP. Most often, plans for 2016 focus on measuring the impact of end-of-life care on corporate health care and disability costs (21.5%), providing managers with tools and training to guide interactions with employees with terminal illness or loss of a family member (21.0%), and providing support tools for employees regarding end-of-life and completion of advance directives (19.5%).

Preference-Sensitive Care and Survivorship

Treatment options available for such conditions as prostate cancer and early-stage breast cancer are numerous and diverse. Choice may be a matter of patient preference, requiring a full understanding of the range of options. Almost three-fourths of employers (73.5%) provided resources to support decision making regarding **preference-sensitive care** in 2015, similar to the previous study period. These resources include a 24/7 nurse hotline (43.5%), resources provided by the insurance carrier and/or TPA (34.5%), and health coaching for major medical conditions (22.0%). **New this survey**, a number of employers *incentivize* or *require* a second opinion in diagnoses involving preference-sensitive cancer treatment (**Figure 6** on page 86).

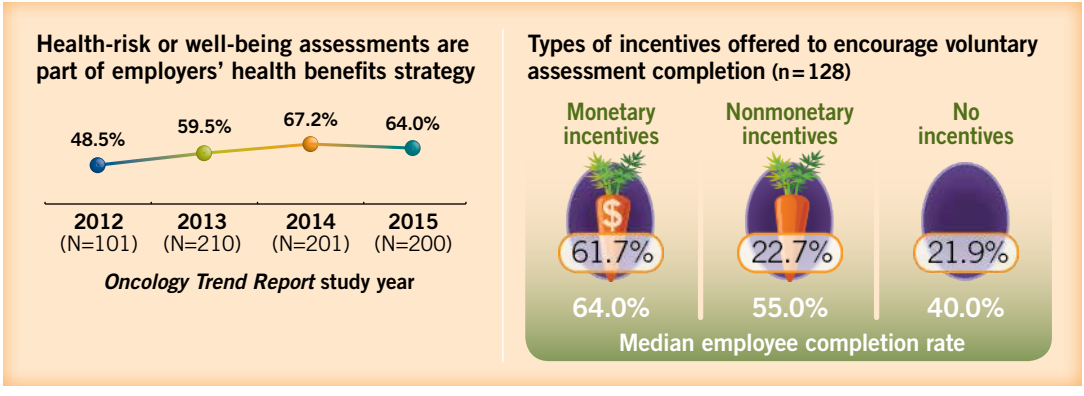
Being able to work during and after active treatment is a realistic outcome for many cancer survivors in light of earlier diagnosis and the precision of personalized cancer care. Three-fourths of employers (n = 151) help these employees and their dependents meet the challenges of returning to the workplace through survivorship resources provided by their health plan (15.0%), EAP (23.5%), or both the health plan and the EAP (37.0%). *Large* and *jumbo* employers are more likely to provide resources compared with small employers. Still, 30 employers, overall, provide no cancer survivorship support currently nor plan to do so in 2016.

Health-Risk and Well-Being Assessments

A healthy and productive workforce is essential to a company's performance. Growing evidence suggests that workforce productivity is correlated with a range of factors and health is not only the absence of physical symptoms and disease, but also reflects the broader construct of overall well-being at work and at home.[4] Health-risk or well-being assessments provide employers with a way to engage their employees and dependents in their health care and to better understand the overall well-being of their insured population.

Employers of all sizes (64.0%; n = 128) used a health-risk or well-being assessment as part of their health benefits strategy in 2015, and an additional 23 employers (11.5%) plan to do so in 2016 (**Figure 10**). Six in 10 of the 128 employers offer their employees monetary incentives to complete the assessment. Twenty-five employers do not track participation rates. Completion rates vary among the employers tracking participation; the median is highest among companies offering monetary incentives, similar to the previous study period.

Figure 10. Health-Risk or Well-Being Assessments as Part of a Health Benefits Strategy



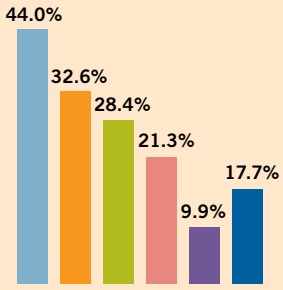
Employers of all sizes (64.0%; n = 128) used a health-risk or well-being assessment as part of their benefits strategy in 2015; an additional 23 employers (11.5%) plan to do so in 2016 (data not shown). Most of the 128 employers (61.7%) offer monetary incentives to their employees to encourage completion, and the median completion rate is highest among the companies that did so.

Figure 11. Employer Use and Unmet Needs Regarding Vendor Reports About Cancer Care Among Their Workforce

Metrics related to cancer care	Health plan/ TPA (n=120)	Data warehouse (n=40)	PBM/SP (n=103)	Disability carrier (n=80)
Hospital inpatient medical spending	70.0%	62.5%		
Outpatient medical spending	65.0%	65.0%		
Drug spending for cancer	65.0%	65.0%	78.6%	
Trend in hospital inpatient medical spending	62.5%	65.0%		
Cancer screenings among benefit enrollees	61.7%	67.5%		
Trend in drug spending	60.8%	65.0%	69.9%	
Trend in outpatient medical spending	55.8%	60.0%		
Cancer prevalence rate	54.2%	57.5%		
Trend in cancer screenings	49.2%	65.0%		
Trend in cancer incidence rate	46.7%	60.0%		
Employee satisfaction with cancer care	37.5%		35.0%	36.3%
Disability associated with cancer diagnosis and treatment				55.0%
Trend in disability associated with cancer diagnosis and treatment				52.5%

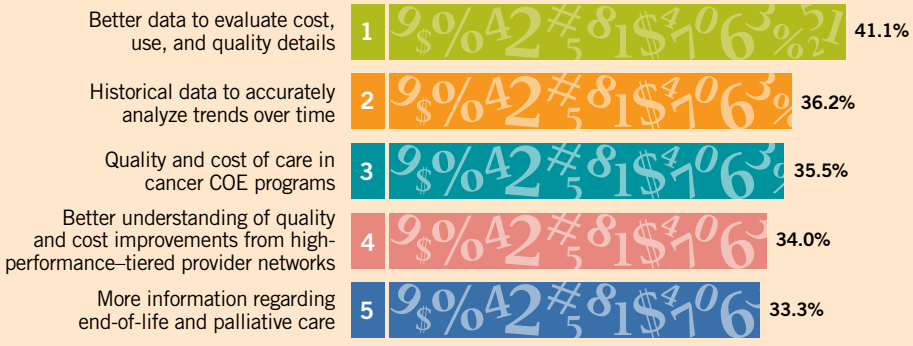
Use of vendor reports regarding cancer care (n=141)

- Cancer care as a share of total *medical* expenses
- Cancer care as a share of total *pharmacy* expenses
- Understand impact of benefit strategy on cost trend
- Plan for future health benefit needs
- Identify/ensure the *highest-value* sites of cancer services are used
- Not using data at this time



Only 34.0% of these employers rated their understanding of **differential costs by site of service** as *very good* or *excellent*

Top 5 unmet data needs regarding cancer care (n=141)



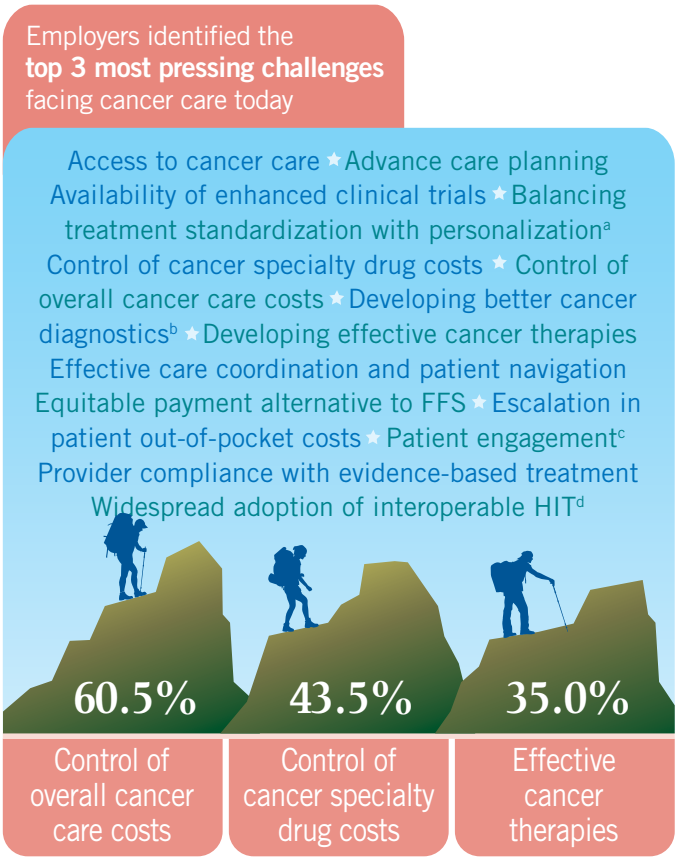
TPA=third-party administrator; PBM=pharmacy benefit manager; SP=specialty pharmacy; COE=center of excellence.

Employers of all sizes (70.5%; n=141) receive reports based on claims analyses related to cancer care from one or more of their vendors. Most often, the reports are used to understand the impact of cancer care on total medical and pharmacy spending. New this survey, only 34.0% of these 141 employers rated their understanding of cost variation across cancer sites as very good *or* excellent. *Data related to cost and quality of cancer care in COE programs and high-performance provider networks are among the five most frequently reported unmet needs.*

Population Health Management, Including Cancer, Among Health Benefits Enrollees

In 2015, 70.5% (n = 141) of employers surveyed receive reports based on general claims analyses across their insured populations related to cancer care from one or more of the vendors as detailed in **Figure 11**. Most often, these 141 employers use the information to improve their understanding of the impact of cancer on their total medical (44.0%) and pharmacy (32.6%) expenditures. **New this survey**, 28.4% use the reports to identify and understand the impact of their benefit strategy on their cost trend. Fewer employers (9.9%, n = 14) are informed about the use of highest-value sites of service from their vendor reports, and 25 employers are not using the data to influence their cancer care benefit strategy.

New this survey, only 34.0% of these 141 employers rated their understanding of differential costs across sites of cancer care as *very good* or *excellent*. Data related to cost and quality of cancer care in COE programs and high-performance provider networks are among the five most frequently reported unmet data needs by one-third or more of these employers (**Figure 11**). **New this survey**, 24.1% of employers identified an unmet need for information on avoidable cancer costs, such as preventable emergency department visits or hospitalizations, and 23.4% would like to see data about participation rates in designated cancer COE programs.



FFS = fee for service; HIT = health information technology.

[a]Treatment standardization refers to guidelines and pathways; personalization refers to molecular and biomarker testing; [b]Refers to pathology, molecular/biomarker testing; [c]Refers to wellness, prevention, and medical treatment; [d]Refers to technology to support quality improvements and outcomes measurement.

Twenty-eight of the 34 companies with cancer programs encourage their employees/dependents to participate by offering financial incentives.

For most workforces, levels of health risk and employee health interests are variable. Through population health management programs, employers can target their wellness efforts toward employee-focused initiatives that drive employee participation. Employers of all sizes (26.0%; n = 52) offered health benefits with population health management programs in 2015, and 34 of them offered a cancer program. Most often, the 34 employers with cancer programs include case management (n = 21); cancer screening and prevention education (n = 17); an oncology nurse line for supportive services (n = 17); counseling/coaching services regarding behavioral health (n = 17), nutrition, and lifestyle (n = 16); and end-of-life/hospice counseling (n = 15). Similar to the previous study period, few of these programs include health care consumerism, quality, and cost transparency tools.

These 34 companies encourage their employees/dependents to participate by offering **financial incentives**—28 are more inclined to offer greater financial rewards, and 15 are more inclined to offer **financial penalties** to influence participation in these cancer programs compared with a year ago. Most often, these 34 employers engage their employees in participation through e-mail communications (n = 19), nurse outreach (n = 17), and direct mailings of printed materials (n = 16). **New this survey**, 14 also use communications from health plans, PBMs, or SPs. A number of the 34 employers track employee participation (n = 20), program costs (n = 14), and trends in medical claims of participants (n = 10), as well as measure employee satisfaction (n = 11). Participation rates vary across employers, averaging one-third of the eligible employees with a cancer diagnosis.

Surveyed employers were asked to identify the top three challenges facing cancer care today based on their experiences, from a list of issues presented to them, as illustrated.

Table 3. Leading Wellness and Well-Being Initiatives (N = 200)

Smoking cessation	
Counseling services	49.5%
Educational resources about smoking and its link to cancer	26.0%
Coverage of over-the-counter quit aids	26.5%
Healthy diet and weight management	
Healthy snack choices in vending machines	32.0%
Educational resources about unhealthy diet and obesity and its link to cancer	28.0%
Healthy menu choices in company cafeteria	27.5%
Free or subsidized off-site fitness center membership	24.0%
Physical activity	
Promote walking program	34.5%
Free or subsidized on-site fitness center membership	28.0%
On-site locker rooms/showers	26.5%
Sponsor after-work sports teams/activities	24.5%
Promote participation in fundraising events	23.5%
Free or subsidized off-site fitness center membership	22.5%
Educational resources about sedentary lifestyle and its link to cancer	21.5%
Behavioral health[a]	
Employee Assistance Program (EAP)	53.5%
Stress management programs	27.5%
Alcohol and substance abuse programs	26.0%
Work-life balance programs	23.0%
Disease prevention through immunizations	
Sponsor on-site vaccine clinics (eg, seasonal flu)	37.0%
Vaccination at on-site medical clinics	27.0%
Educational resources about adult vaccinations	20.5%

[a]Behavioral health includes work-life balance, substance abuse, stress management, and EAP-related support.

While six in 10 employers have formal wellness programs in place, more employers of all sizes sponsor initiatives to promote health behaviors among their workforce. This table details the leading efforts, reported by at least two in 10 or more of the 200 surveyed employers, which may or may not be part of a formal *program.*

Wellness and Well-Being Initiatives

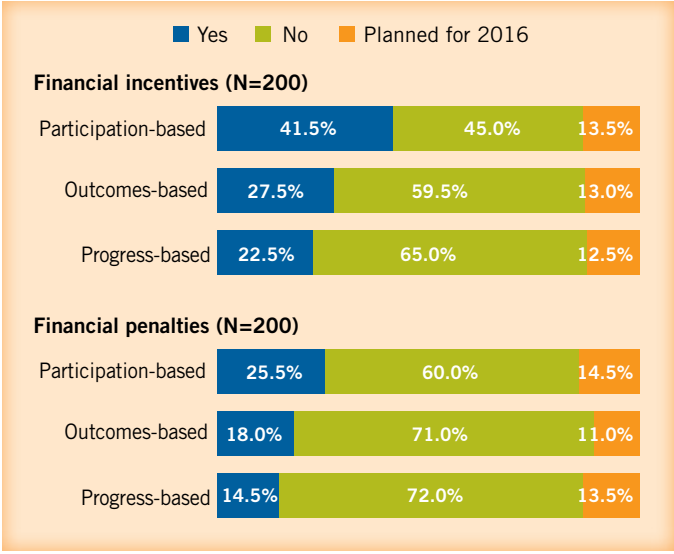
One hundred twenty-one (60.5%) of the surveyed employers, similar to the previous study period, sponsored a *formal* wellness program in 2015, and 11.0% will introduce a program next year. These 121 companies are stratified by size as follows: small (n = 32), large (n = 48), and jumbo (n = 41). Most often these programs are available to all employees or all employees and their dependents; fewer than 12% of employers limit the wellness programs solely to benefit plan enrollees.

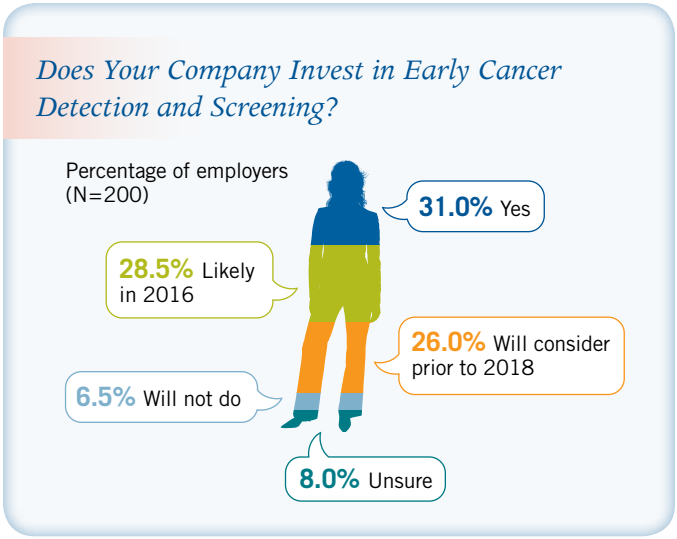
Many employers of all sizes fund programs that address their employees' physical and mental well-being, even if these select initiatives are not part of a *formal* wellness program. **Table 3** details the most frequently reported initiatives. Similar to the previous study period, EAP programs supporting behavioral health and smoking cessation counseling services are the most common.

Data and outcomes measurement vary by program and are undertaken by a minority of employers offering them. Tracking employee participation and program costs and measuring employee satisfaction are the more common metrics; fewer than 12% of employers measured their programs' impact on employee productivity and medical claims in 2015. Tracking participation (40.9%) and company costs (31.1%) was highest for immunization programs. Across the initiatives surveyed, about two in 10 employers measured satisfaction with their program offerings.

Companies of all sizes may encourage the well-being of their workforce and/or the attainment of measurable health-related goals by assessing financial *incentives* or financial *penalties*

Figure 12. Wellness and Well-Being Program Engagement Through Financial Incentives vs Penalties





that are **participation-based**, **outcomes-based**, and **new this survey**, **progress-based** (**Figure 12**). Overall, employers favor incentives versus penalties to encourage healthy behaviors. In 2015, these incentives were most often tied to program participation (41.5%) compared with achievement of a measurable outcome (27.5%) or progress toward a measurable goal (22.5%). Employers that apply participation-based financial incentives rated their importance higher (7.75) than those employers that did not apply them (5.44), using a 10-point scale where 10 denotes *very important*.

Cancer Screenings

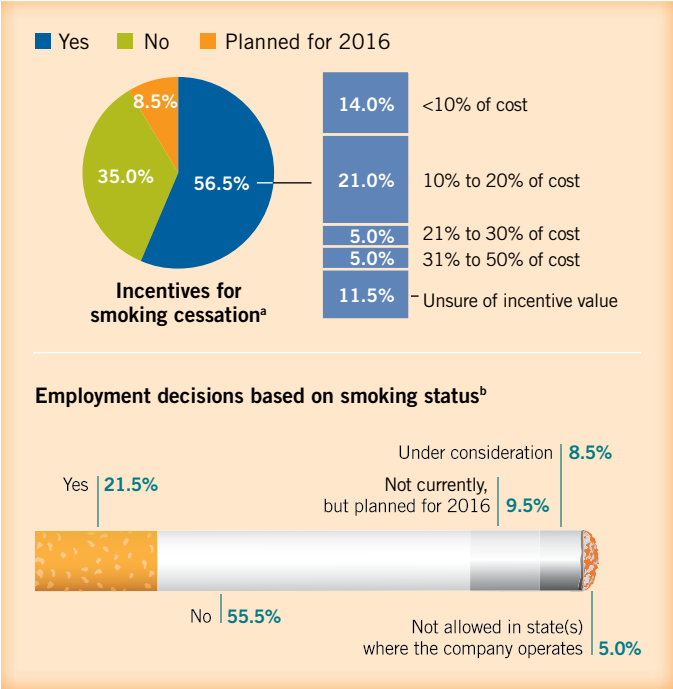
Sixty-two employers (31.0%) invest in early detection and cancer screening promotion as part of their wellness initiatives, supplementing health plan resources, and as illustrated above, more will likely do so in 2016 and prior to 2018. These 62 employers rated their corporate commitment to early cancer detection highly, averaging 8.32 (using a 10-point scale, where 10 indicates the highest support level), with 20 employers rating this commitment a 10. The employers promote early screening through company newsletters (46.8%), third-party communications from health plans and cancer awareness organizations (45.2%), company intranet reminders and/or health fairs (43.5%), and employer-sponsored workplace campaigns in conjunction with national cancer advocacy campaigns (30.6%). They also provide flexible schedules (41.9%) or paid personal days off for medical appointments (35.5%) and sponsor on-site screening events, such as mammography vans (37.1%). Nearly one-fourth of the employers (24.2%) offer financial incentives for cancer screenings.

Tobacco Use and Smoking Cessation

Smoking remains the leading preventable cause of death and disease in the United States. Additionally, the nation pays enormous financial costs because of smoking. Productivity losses from premature death due to smoking exceed $150 billion annually, and losses due to secondhand smoke exposure are estimated at $5.6 billion annually.[5]

In 21 states, it is legal to implement a non-nicotine policy when considering employment. The remaining 29 states and the District of Columbia have laws that treat smokers as a protected class.[6] Four in 10 of the surveyed companies are making employment decisions based upon smoking status—currently (21.5%), planned for in 2016 (9.5%), and/or are considering doing so (8.5%). Ten companies operate in states in which smokers are a protected class. As detailed in **Figure 13**, 56.5% of companies are applying health insurance premium differentials to financially incentivize smoking cessation.

Figure 13. Insurance Premium Differentials for Employees Who Smoke



[a]Value of incentive applied to cost of individual health coverage.
[b]In states in which it is legal to do so.

More than half of the employers (56.5%) apply insurance premium differentials to employees who smoke. These employers offer employees who smoke financial incentives applied to the cost of their individual health coverage to encourage smoking cessation. Two in 10 of the surveyed employers currently consider smoking status when making employment decisions, and more will consider doing so in the future.

GLOSSARY

340B Prescription Drug Discount Program was created in 1992 (Section 340B of the Public Health Service Act) and expanded under the Affordable Care Act to allow eligible entities (eg, disproportionate share hospital, critical access hospital, qualified free-standing cancer hospital) to obtain at a substantial discount drugs administered in the outpatient setting to eligible patients (including oral drugs distributed through contract pharmacies, as well as physician-administered drugs such as cancer drugs).

Advance care planning (ACP): A process of communication between individuals and their health care agents to understand, reflect on, discuss, and plan for future health care decisions for a time when individuals are not able to make their own health care decisions.

Advanced practice providers (APPs) are defined as nurse practitioners and physician assistants.

Brown bagging is an alternative to the buy-and-bill process whereby patient-specific drugs are dispensed by the specialty pharmacy directly to the patient, who assumes responsibility for the safe storage and transportation of the drug to the provider (eg, oncology practice) where it will be administered. The specialty pharmacy adjudicates the claim and collects any patient copayment. The provider does not purchase the drug or seek drug reimbursement.

Bundled payment refers to an alternative to fee for service whereby payment for all services delivered by multiple providers during a defined episode of care are bundled together into a single payment that may be divided among the providers or reconciled against a bundle budget to disburse any surplus savings. The multiple providers assume the financial risk for delivering care if it exceeds the bundled payment.

Buy and bill refers to a business model whereby an oncology practice will **buy** cancer drugs directly from a drug supplier and will **bill** the payer (ie, patient's insurer) directly for the drug (J-code) and drug administration fees. The practice assumes responsibility for maintaining drug inventory and preparing the drugs for patient administration.

Cadillac tax: Under the Affordable Care Act, a 40% excise tax will be assessed on the cost of coverage for health plans that exceed a certain annual limit, deemed "Cadillac" health plans due to their generous level of health benefits. The tax has been delayed from 2018 until 2020 by the Consolidated Appropriations Act of 2016 passed in December 2015.

Cancer treatment guidelines are comprehensive, multidisciplinary clinical algorithms and supporting documents that represent the universe of integrated interventions based on high-level evidence and expert judgment. As such, they offer oncologists a broad range of options and ready access to synthesized information to support clinical decision making. Examples include the *American Society of Clinical Oncology Clinical Practice Guidelines* and the *NCCN Clinical Practice Guidelines In Oncology (NCCN Guidelines®)*.

Cancer treatment pathways are narrowed selections (ie, subsets) of the universe of options outlined in broader guidelines (eg, National Comprehensive Cancer Network® [NCCN®] or American Society of Clinical Oncology). As such, they offer oncologists actionable (ie, prescriptive) guidance to consult when creating patient care plans. These selections seek to include the most cost-effective treatments, while minimizing toxicity and side effects. Examples include Value Pathways powered by NCCN and P4 Pathways.

Choosing Wisely® is an initiative of the American Board of Internal Medicine Foundation that recognizes the importance of evidence-based care and physicians engaging their patients in conversations to make wise choices in their diagnosis and care management. Many national organizations have published lists of commonly used procedures, tests, and treatments for early stage through advanced cancers, as well as during end-of-life and palliative care; these procedures, tests, and treatments are not supported by evidence and are not recommended for use.

Closed-door licensed pharmacy is a pharmacy that provides services to patients and employees of the practice but is not available to the public at large. Often used by practices to dispense oral oncology drugs to their patients on an outpatient basis, licensure and operation are regulated by each state.

Consumer-directed health plan (CDHP): Also referred to as account-based health plans. A high-deductible plan that is accompanied either by a health reimbursement arrangement (HRA) or is eligible for a health savings account (HSA). HRAs and HSAs serve similar functions but have different rules and implications for the consumer. HRAs are owned by the employer and only the employer is allowed to make unlimited contributions, which are excluded from an employee's gross income and not subject to taxes. Unused funds may accumulate from year to year but revert to the employer upon termination of employment and/or change in health plan. HSAs are owned by the individual, making them portable across employment situations and health plans. Both employer and employee contributions to HSAs are excluded from the employee's taxable income.

Copay assistance programs (also called copay coupon or copay offset programs) refers to pharmaceutical manufacturer-sponsored programs for branded drug products directed at the commercially insured patient population. These programs may cover (ie, offset) all or part of the drug copay up to a specified amount. Certain restrictions and eligibility requirements apply (eg, recipients of Medicare or Medicaid are not eligible).

Defined contribution refers to an approach to employer-sponsored health insurance whereby the employer sets a fixed-dollar contribution toward coverage, thereby placing their eligible employees in control of benefit choices. This is an alternative to the most prevalent approach today of defined benefit, where the employer controls the benefit choices and contributes a percentage of the health plan cost set by the insurance carrier, which is subject to changes in health care trends.

Direct contracting refers to the efforts of a self-insured employer to contract/negotiate directly with providers of oncology services (eg, cancer centers of excellence, community-based oncology practices, and diagnostic testing laboratories) for the care they will provide employees/dependents, instead of relying on a plan administrator (eg, health plan or third-party administrator) to do this. This allows direct interaction/discussions with providers about cost and quality issues important to the employer, as the payer (eg, payment reforms, network structure, performance measures), which might otherwise not be communicated when delegating provider network contracting to a plan administrator.

End-of-life care/hospice care includes the medical, psychological, and spiritual care and support to allow a patient to die with peace, comfort, and dignity.

Financial incentives or rewards may include reductions in health care premiums, reductions in medication or treatment out-of-pocket costs via value-based insurance design, cash contributions to health savings accounts, cash gifts, and points toward merchandise.

Financial penalties may include loss of employer subsidization of program costs or higher employee insurance costs, such as premiums, deductibles, and cost sharing.

Genetic testing and counseling in oncology refers to DNA analysis of genetic disease risk and the process of helping people understand and adapt to the medical, psychological, and familial implications of a genetic contribution to cancer.

Global payment or global capitation refers to an alternative to fee for service whereby a provider organization is paid a single payment for an array of predefined services for a patient population over a time period (eg, per-member-per-month fee). The organization assumes the financial risk for delivering care if it exceeds the capitated payment.

Health care reform legislation refers to the Affordable Care Act signed into law on March 23, 2010, and the Health Care and Education Reconciliation Act of 2010 (HR 4872), signed into law on March 30, 2010.

Hospital-integrated private practice is defined as a private practice that integrates with a hospital through joint venture, thereby providing services to the hospital through contracts and physician services agreements while operating as an independent legal business entity (ie, non-hospital–owned). This is in contrast to a practice that is fully owned by a hospital.

In-practice drug dispensing refers to drug dispensing by a physician to a patient from the practice/clinic (ie, the point of care). The oncology practice determines the breadth of drug inventory, which may be limited to select oral oncology drugs and oncology supportive drugs or include specialty drugs outside of oncology, as well as maintenance drugs for chronic conditions (eg, hypertension). Regulations regarding licensing and operations vary from state to state. Some states allow a dispensary to operate under the physician's license/national provider identifier, while others require a dispensing license and fee, or require the practice to be licensed as a closed-door pharmacy (ie, "closed" to the general public by serving patients and employees only) and staffed by a pharmacist. Pharmaceutical manufacturers may also require licensed closed-door-pharmacy status to be eligible to access particular drug(s)/programs.

mHealth refers to mobile health, which is the use of such mobile communication devices as smart phones and tablet computers for health services and information. This includes the collection of community and clinical health data; delivery of health care information to practitioners, researchers, and patients; real-time monitoring of patient biometrics; and direct provision of care (via mobile telemedicine).

Molecular/biomarker testing refers to testing for the presence of biologic molecules in the blood, other body fluids, or tissues as a sign of a normal or abnormal process, condition, or disease. Clinically, in cancer care, these tests (eg, HER2, BRAF, and KRAS mutation testing) have a variety of uses, including confirmation of diagnosis, identification of cancer subtype, estimation of prognosis, prediction of effectiveness and/or side effects of a targeted treatment (eg, companion diagnostics), and monitoring disease progression while in treatment.

Next-generation sequencing (NGS) refers to high complexity and comprehensive molecular testing, including whole genome or whole exome sequencing.

Outcomes-based initiatives tie rewards or penalties to achievement of a health standard for biometric measures (eg, blood pressure, body mass index, cholesterol levels).

Palliative care is defined as the medical specialty focused on relief of pain, stress, and other symptoms of serious illness in order to offer patients the best quality of life and ability to function during their treatment.

Participation-based initiatives tie rewards or penalties to participation in an activity (eg, walking program, use of fitness center, undergoing recommended cancer screenings).

Patient assistance programs (PAPs) refers to assistance offered by nonprofit organizations/foundations and pharmaceutical manufacturers to help patients in need access prescribed drug treatments. Typically, these programs are intended for patients who are uninsured and do not qualify for Medicare and/or Medicaid or have been denied coverage by their commercial health plans. Financial eligibility criteria vary by program and typically are based on a percentage of the federal poverty level.

Preference-sensitive care refers to patient selection among treatment options for conditions that have a multitude of treatment options available and significant tradeoffs regarding quality of life (eg, mastectomy or lumpectomy in early-stage breast cancer; surgery, external beam radiation, or brachytherapy in prostate cancer). As

a result, the treatment plan should reflect the patient's personal values and preferences and be determined in partnership with the provider only after the patient has enough information to make an informed choice.

Prehabilitation is defined as a process on the cancer continuum of care that occurs between the time of cancer diagnosis and the beginning of acute treatment and includes physical and psychological assessments that establish a baseline functional level, identify impairments, and provide interventions, such as nutrition, exercise, and psychological strategies designed to improve physical and mental health to reduce the incidence and/or severity of future impairments. Such services can improve patient outcomes and focus on survival with good quality of life.

Private exchange: A marketplace of health insurance and other related products for individuals and employer groups promoted by private industry stakeholders (eg, payers, benefits consultants), generally with options for employers to administer defined-contribution arrangements. An exchange can be a single-carrier, featuring the products of a single payer, or a multicarrier with either a single quilted network or multiple network options. These latter exchanges are promoted by third-party intermediaries (ie, brokers, benefits consultants) and feature a broad range of options.

Progress-based initiatives set a health goal for individuals when a standard biometric measure is not met. Rewards or penalties can be tied to progress made toward an individual goal (eg, percentage reduction in weight or cholesterol measures).

Public exchanges: Marketplaces of health insurance offered by the state, federal, or both government(s) as sources of health insurance for individuals and/or employer groups as required by the Affordable Care Act. Four types of metals plans are available, which vary by the average share of covered services paid by the insurer: bronze (60%), silver (70%), gold (80%), and platinum (90%). A catastrophic plan with minimal coverage is also available to some people under 30 years and those with hardship exemptions.

Reference-based pricing for services refers to a reimbursement approach adopted by employers/payers to address price variation by placing a cap, known as a reference price, on clinical services. Employees pay the difference for provider services above the reference price.

Single–oncology-specialty practice is comprised of oncologists from a single specialty, such as medical oncology. A **multi–oncology-specialty** practice may include physicians from a wide range of oncology specialties such as gynecologic, hematology, hematology/oncology, medical, pediatric hematology/oncology, and surgical.

Site of care/service refers to the various locations where cancer patients can be treated, including a community oncology practice, center of excellence, hospital outpatient facility, ambulatory clinic, and home health service. Treatment costs vary across these sites, and reimbursement management of specialty cancer drugs and other cancer services often includes site-of-care management, along with benefit design and clinical strategies, to ensure that the highest value site(s) of service is utilized.

Specialty pharmacies (SPs) are an alternative channel to deliver cancer drugs directly to a practice and/or patient. SPs assume the responsibility for drug inventory, storage and handling, drug preparation, and billing the payer for the drug. They also monitor patient compliance and offer 24/7 patient support and education. The payer can require the practice and/or patient to use a designated SP(s) to obtain specific drugs. Some drug manufacturers only distribute select drugs through an exclusive or limited number of designated SPs.

Split-fill program: A method of dispensing intended to reduce drug waste due to patient intolerability whereby drugs known for high drop-off rates upon initiation are eligible for less than a full-month supply at a time (eg, a short fill for 1 week, 10 days, 2 weeks). These programs are available pursuant to insurance plan approval. The duration of the short-fill option may be for the first month of treatment or extended over a longer time period.

Survivorship program care refers to follow-up care after active cancer treatment, including periodic physical exams, imaging and endoscopy studies, lab work, and behavioral screenings to check for recurrence or metastasis; side-effect monitoring, early detection of other types of cancer; and/or the physical and psychosocial effects that may develop months to years after treatment ends.

Telehealth is the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration.

Telemedicine visits refer to synchronous visits where face-to-face communications between the oncologist and patient are enabled through vocal/video interaction using mobile technology.

USP 797/800 standards focus on the importance of proper pharmaceutical compounding of sterile preparations (797) and protecting health workers, patients, and the environment through proper handling in health care settings of hazardous drugs that are carcinogenic, teratogenic, or genotoxic (800). Public comments about proposed revisions to the General Chapter 797 standard will be collected until January 31, 2016. The final revisions to the General Chapter 800 will be published in February 2016, and implementation delayed until July 1, 2018.

White bagging is an alternative to the buy-and-bill process whereby patient-specific drugs are dispensed by the specialty pharmacy but shipped directly to the provider (eg, oncology practice), which stores/tracks the drug until the patient arrives for treatment. The specialty pharmacy adjudicates the claim and collects any patient copayment. The provider does not purchase the drug or seek drug reimbursement.

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