

# Provider and Patient Insights Into the Cancer Care Journey

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The CDC reported 1.7 million new US cancer diagnoses in 2019; this number is expected to increase to 2.3 million by 2030.<sup>1</sup> Health care stakeholders must strive to optimize the patient and provider experience surrounding a patient's cancer care journey, as well as the quality and cost of care. After a cancer diagnosis, the patient must quickly determine, with the help of their primary care provider (PCP), which oncologist or oncology practice is the best match for their specific needs. Finding the most appropriate oncologist can quickly become a daunting task under emotional stress if a patient with newly diagnosed cancer does not have the necessary tools to guide them.

Generally, the cancer care journey is complicated and confusing, with multiple unknown outcomes. Once an oncologist is selected, and after numerous consultations and referrals, the patient is introduced to an overwhelming number of choices, treatment options, care appointments, adverse effects (AEs), and potential end-of-life decisions. Some of these decisions may include participating in a clinical trial, a decision usually guided by an oncologist.<sup>2</sup> Before the cancer diagnosis, the PCP is deeply involved in the patient's care plan and plays a crucial role in maintaining care. However, once a patient receives a cancer diagnosis, the PCP's involvement decreases as the oncology team takes primary responsibility.<sup>3</sup> Patients commonly consider their oncologist to be their primary provider during treatment, leading to a loss of continuity in care with their PCP.<sup>4</sup> Without access to all of the patient's relevant health information, transitioning care from the oncology team back to the PCP can be difficult once survivorship is established.<sup>5</sup> Continuity of care is a key aspect of providing patients with high-quality health care.

As health care costs continue to rise,<sup>6</sup> there is pressure on the health care system to reduce costs while maintaining high-quality care for patients. In value-based care, payment corresponds to (or is commensurate with) the quality of the care provided.<sup>7</sup> An example of value-based care is the Oncology Care Model developed by CMS, which moved provider reimbursement from simple fee-for-service toward a quality-based approach.<sup>8</sup> Value drivers of this program include access to and continuity of care throughout all stages of cancer, including survivorship and end-of-life care, care coordination,

## ABSTRACT

**OBJECTIVES:** To assess provider and patient preferences for an oncologist selection tool, value-based care, involvement in cancer care, and end-of-life planning.

**STUDY DESIGN:** We conducted a cross-sectional survey of primary care providers (PCPs) and insured patients with cancer.

**METHODS:** We asked PCPs about their method of oncologist referral; utilization of an oncologist selection tool that directs patients to high-quality, high-value oncologists; involvement in cancer care and value-based care; and when an advance directive should be established. We asked patients to reflect upon their personal experience when selecting their oncologist, utilization of an oncologist selection tool, and establishing an advance directive.

**RESULTS:** PCPs tend to refer patients to oncologists who are part of their health system (67.9%). Most PCPs (79.2%) were not currently utilizing an oncologist selection tool; most (77.3%) expressed a willingness to use such a tool. Most PCPs (69.8%) believe the best time to talk about an advance directive is at the time of cancer diagnosis. Patients ranked a PCP referral (52.7%) as "very important" when selecting an oncologist. One-third of patients used a web-based oncologist selection tool; 65.2% responded that an oncologist selection tool would be "somewhat" or "very" important. Most (54.5%) patients had an advance directive.

**CONCLUSIONS:** These results present a compelling rationale for developing a data-driven oncologist selection tool, optimizing patient and provider involvement in care, and expanding the portion of patients who have an advance directive at the start of their cancer care to optimize their cancer journey.

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care planning and management, patient and caregiver engagement, and team-based care.<sup>9</sup> Critics of this approach are concerned that providers may be inappropriately assigned accountability for services out of their control; this would financially penalize providers for treating patients with complex health problems and fail to provide actionable information that hospitals need to identify opportunities to control health care spending without harming patients.<sup>10</sup> Additionally, there is pressure to develop new, innovative treatment options to treat cancer.

A clearer understanding of PCP and patient preferences regarding critical decisions in the patient's cancer journey is needed. The purpose of this study was to assess provider and patient preferences for an oncologist selection tool, involvement in cancer care, value-based care, and end-of-life planning.

## METHODS

### PCP Sample

In June 2019, we conducted a cross-sectional survey of 53 PCPs across the United States. PCPs were included if they (1) identified their primary specialty as family medicine, general medicine, internal medicine, or obstetrics/gynecology; (2) practiced for at least 2 years; (3) planned to continue to practice for the next 5 years; (4) saw at least 50 patients per week; (5) had referred at least 1 patient with cancer in the last 12 months to an oncologist; and (6) had some level of involvement in recommending/referring their patients to an oncologist.

### Patient Sample

We conducted a cross-sectional study of 112 patients with current or previous cancer in June 2019 across the United States. Patients were included if they (1) were 25 years or older, (2) had health insurance (defined as Medicare, insurance purchased directly from an insurance company or the exchanges, and/or insurance through an employer or union), and (3) were currently undergoing or had completed chemotherapy.

### Surveys

The PCP survey evaluated oncologist selection, value-based payment models, and their involvement in cancer care pertaining to end-of-life planning discussions. The patient survey assessed the patient's oncologist referral, utilization of an oncologist selection tool that identifies high-quality and low-cost providers, and guidance in creating an advance directive during their cancer care journey. A 5-point scale was used to determine oncology selection criteria and cancer treatment and care. The surveys were administered by a third-party market research supplier (participants were not aware who was conducting the survey) and included multiple-choice and free-response questions.

## TAKEAWAY POINTS

Once a patient receives a cancer diagnosis, they are faced with many decisions that can be overwhelming without proper navigation and support. A survey was conducted to determine what tools and programs may be necessary to aid in difficult decisions, assess provider attitudes toward alternative payment models, and determine the desired level of involvement for a primary care provider (PCP).

- ▶ PCPs typically refer patients with cancer to oncologists within their health system, but PCPs and patients would be interested in using a tool to help select an oncologist.
- ▶ Advance care planning is most appropriate to talk about at the time of cancer diagnosis; however, less than 50% of patients have such plans in place.

### Data Analysis

PCP and patient data were analyzed separately; descriptive statistics were used to characterize PCP demographics, practice characteristics, and role involvement, as well as patient characteristics and demographics. Calculations included means with SDs, medians with IQRs, and percentages.

## RESULTS

### PCP Results

**Practice demographic information.** The mean (SD) number of years in practice among PCPs was 20.8 (9.0). PCPs saw a mean (SD) of 94.5 (11.5) patients per week and reported referring a mean (SD) of 27.9 (15.3) patients to oncologists per year.

**Oncologist selection and interest in use of a digital tool.** PCPs were asked about their relationship with the oncologist(s) to whom they referred patients. Thirty-six (67.9%) reported being part of the same health network, 21 (39.6%) reported relationships developed through networking events or conferences, 16 (30.2%) knew them from personal connections, and 15 (28.3%) went to the same medical school (**Table 1**). The survey asked PCPs to rank several criteria in order of importance when selecting an oncologist. As seen in **Figure 1**, PCPs ranked the following criteria as "very" important: past patient experience (n = 34; 64.2%), recommendations from other providers (n = 24; 45.3%), what health network they are affiliated with (n = 19; 35.8%), the ranking of their cancer institution (n = 16; 30.2%), the cost of care (n = 12; 22.6%), a personal connection (n = 12; 22.6%), and which medical school they attended (n = 5; 9.4%). PCPs were also asked about any current use of a digital selection tool to support the referral of patients to high-value oncologists. The majority of PCPs (n = 42; 79.2%) reported not using an oncologist selection tool; however, 41 (77.3%) reported that the use of an online tool would be "very" or "somewhat" important.

**Involvement in cancer care.** Concerning involvement in their patient's cancer treatment plan, 29 (54.7%) PCPs reported minimal involvement the majority of the time; however, 29 (54.7%) reported their willingness to be involved. Of the PCPs who wanted to be involved in their patient's cancer treatment plan, 49 (93.1%) reported high or somewhat high value in receiving symptom tracking and AE management information from their patients. When asked how

## CLINICAL

**TABLE 1.** Provider Characteristics (N=53)<sup>a</sup>

Provider demographics	
Years in practice, mean (SD)	20.8 (9.0)
Patients/week, mean (SD)	94.5 (11.5)
Referrals to oncologists/year, mean (SD)	27.9 (15.3)
Affiliated with health system, n (%)	20 (37.7%)
Affiliated with an accountable care organization, n (%)	24 (45.3%)
Single-specialty practice, n (%)	33 (62.3%)
Currently using an oncologist locator/tool, n (%)	4 (7.5%)
Oncologist selection	
In general, how do you know the oncologist(s) to whom you refer patients? Please select all that apply.	n (%)
Same health system/provider group	36 (67.9%)
Networking events	21 (39.6%)
Personal connection	16 (30.2%)
Colleague in medical school/residency	15 (28.3%)
Other	3 (5.7%)
Involvement in cancer care	
Once a patient is referred to an oncologist, are you involved in the care plan for that patient?	n (%)
Yes, minimally	29 (54.7%)
Yes	19 (35.8%)
No	4 (7.5%)
Not sure	1 (1.9%)
Would you like to be involved in the care plan for a patient once the patient is referred to an oncologist?	n (%)
Yes	29 (54.7%)
How valuable would it be to receive updates such as symptom tracking and adverse effect management for your patients with cancer? <sup>b</sup> (n=29)	n (%)
Very valuable	17 (58.6%)
Somewhat valuable	10 (34.5%)
Neutral	2 (6.9%)
How would you prefer to be informed or updated on patient progress after a patient is referred to an oncologist? Select all that apply. <sup>b</sup> (n=29)	n (%)
Electronic health record	17 (58.6%)
Fax	10 (34.5%)
Phone call	10 (34.5%)
Patient	12 (41.4%)
Email	9 (31%)
Nurse	4 (7.5%)
Where do your patients go for support or help managing symptoms and adverse effects associated with chemotherapy? Select all that apply. <sup>b</sup> (n=29)	n (%)
Oncologist	22 (75.9%)
Primary care provider	16 (55.2%)
Oncology pharmacist	9 (31%)
Internet resources	7 (24.1%)
Local pharmacist	6 (20.1%)

(continued)

they would prefer to receive that information, 31 (58.6%) preferred communication via the electronic health record. We asked PCPs where their patients most commonly go for support of cancer AEs and symptoms; 40 (75.9%) reported that patients go to their oncologist's office.

**Value-based payment.** PCPs were asked how important it would be to refer a patient to an oncologist who was contracted with a health plan with a value-based payment model. Twenty-four (45.3%) reported value-based metrics as "somewhat" or "very" important. When asked why they selected "somewhat" important, answers included "such a system would be beneficial to patients and possibly allow the oncologist to receive more substantial reimbursements than they would otherwise due to the quality of their care." Another response was "a dislike for working under a pay-for-performance system because they wanted the health insurance to have less control over their practice and had a lack of trust in quality metrics." Of the providers surveyed, 24 (45.3%) said they were affiliated with an accountable care organization (ACO), 22 (91.7%) of whom reported that their quality of care was measured and 100% of whom were compensated based on their quality outcomes.

**End-of-life planning.** PCPs were asked when advance care planning discussions should happen. Thirty-seven (69.8%) providers stated that the discussion should be established after diagnosis; 7 (13.2%) said if the patient has a poor prognosis or fails second-line treatment; 6 (11.3%) said if the patient fails third-line treatment, is admitted to hospice, or the cancer metastasizes; and 5 (9.4%) said if the patient fails first-line treatment. When asked to select all who should initiate an advance directive discussion, 34 (64.2%) said the PCP and 30 (56.6%) said the oncologist.

## Patient Results

**Demographics.** The mean (SD) patient age was 57.3 (14.1) years; 56 (50%) patients were college educated and 68 (60.7%) were female. When asked what type(s) of health insurance they had, 52 (46.4%) stated that their employer's health plan covered them, 50 (44.6%) were covered by Medicare, and 33 (29.5%) had insurance through an exchange.

**Oncologist selection and interest in use of a digital tool.** Patients were asked to select all the

various criteria they used when selecting their oncologist after their cancer diagnosis. The most common selection route was a referral from their PCP (41.9%), followed by a referral from the provider who confirmed their diagnosis (33.0%), an assignment by the hospital (29.5%), internet research (25.0%), driving distance to the provider (23.2%), recommendations from a friend/family member (17.9%), and other (2.7%) (Table 2). When asked to specify “other” with a written response, patients reported selecting oncologists in their insurance network or knowing the oncologist personally. Patients ranked the following criteria as “very” important when selecting their oncologist: a PCP referral (52.7%), followed by travel distance (43.8%), treatment cost (40.2%), online research (33.9%), and lastly a family/friend recommendation (21.4%) (Figure 2). Thirty-seven patients (33%) used a digital tool, such as a website or mobile application, for their oncologist selection. When asked how important it would be to use a website or app that ranked quality, cost, and travel distance, 73 (65.2%) reported it as being “somewhat” or “very” important. Patients were asked how influential each of the following would be when deciding to select an oncologist or treatment location online: quality measures, cost, and list of services. Quality measures (53.6%) were the most important criterion, followed by list of services (43.8%) and cost (34.8%).

**End-of-life planning.** Of the patients surveyed, 61 (54.5%) had an advance directive, and of those with an advance directive, 33 (54.1%) had one before their cancer diagnosis. When asked who initiated the conversation to establish an advance directive, the most frequently reported response was family/friends (n = 13; 46.4%), followed by their oncologist (n = 11; 39.3%) or PCP (n = 11; 39.3%). When asked where patients keep their advance directives, 43 patients (70.5%) reported keeping a paper copy at home.

## DISCUSSION

### Oncologist Selection and Interest in Use of a Digital Tool

Survey results show that providers typically refer their patients to oncologists in the same health system or those they know through networking events. PCPs report that past patient

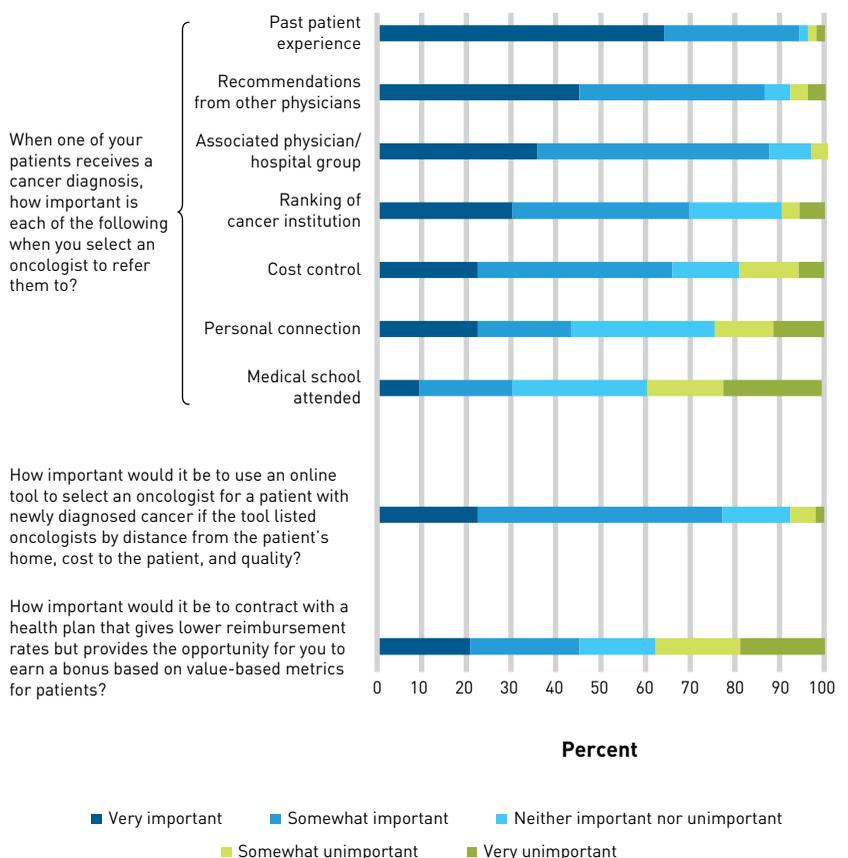
**TABLE 1.** (Continued) Provider Characteristics (N=53)<sup>a</sup>

Advance directives	
At what stage in the treatment of cancer should advance directives be put into place? Select all that apply.	n (%)
Newly diagnosed	37 (69.8%)
Poor prognosis	7 (13.2%)
Fails second-line treatment	7 (13.2%)
Fails third-line treatment	6 (11.3%)
Cancer metastasizes	6 (11.3%)
Admittance to hospice	6 (11.3%)
Fails first-line treatment	5 (9.4%)
Other/not sure	3 (5.7%)
Who is the best person to initiate a discussion about an advance directive? Select all that apply.	n (%)
Primary care provider	34 (64.2%)
Oncologist	30 (56.6%)
Family member/caregiver	11 (20.8%)
Attorney	3 (5.7%)
Other	2 (3.8%)

<sup>a</sup>Due to rounding, percentages may not add up to 100%.

<sup>b</sup>Only those who wanted to be involved were surveyed.

**FIGURE 1.** Provider Responses



**TABLE 2.** Patient Characteristics (N=112)<sup>a</sup>

Patient demographics	
Age in years, mean (SD)	57.3 (14.1)
Female, n (%)	68 (60.7%)
College degree, n (%)	56 (50.0%)
Type of insurance, n (%)	
Current or former employer, n (%)	52 (46.4%)
Medicare, n (%)	50 (44.6%)
Purchased through insurance company, n (%)	33 (29.5%)
Oncologist selection tool	
People use a variety of ways to select their doctors. Thinking about when you had to select your oncologist, how did you go about choosing? Please select as many of these options as needed.	n (%)
Primary care provider referral	47 (42%)
Doctor who confirmed diagnosis	37 (33%)
Assigned by hospital	33 (29.5%)
Internet research	28 (25%)
Distance from home	26 (23.2%)
Recommendation from family/friend	20 (17.9%)
Other	3 (2.7%)
Did you use a website or app on a smartphone or tablet for choosing your oncologist?	n (%)
Yes	38 (33.9%)
Cancer treatment and care	
Which of the following types of treatment did you receive/are you receiving for your cancer?	n (%)
Chemotherapy infusion	77 (68.8%)
Oral chemotherapy	53 (47.3%)
Radiation therapy	56 (50.0%)
Surgery	57 (50.9%)
Other	7 (6.3%)
Advance directives	
Do you have an advance directive?	n (%)
Yes	61 (54.5%)
Did you have the advance directive before you were diagnosed with cancer? <sup>b</sup> (n=61)	n (%)
Yes	33 (54.1%)
Where do you keep the advance directive? <sup>b</sup> (n=61)	n (%)
Paper copy at home	43 (70.5%)
Provider has a copy	35 (57.4%)
Shared with family friends	27 (44.3%)
Electronic copy	19 (31.1%)
Other	2 (3.3%)
Which of the following best describes who suggested you have an advance directive after you were diagnosed with cancer? <sup>c</sup> (n=28)	n (%)
Family/friend	13 (46.4%)
Oncologist	11 (39.3%)
Primary care provider	11 (39.3%)
Other	3 (10.7%)
Attorney	1 (0.9%)

<sup>a</sup>Due to rounding, percentages may not add up to 100%.

<sup>b</sup>Only patients with advance directives were surveyed.

<sup>c</sup>Only patients who made an advance directive after cancer diagnosis were surveyed.

experiences and other provider recommendations are important when referring a patient to an oncologist. Our survey shows that oncologist selection is not based on metrics surrounding quality of care. PCPs reported a willingness to use an oncologist selection tool that describes the value of care provided by individual oncologists or practices and support the utility that an oncologist selection tool could bring.

Results also suggest that patients frequently place their trust in their PCP to refer them to the most appropriate oncologist and do not take it upon themselves to do further research. However, a study evaluating oncologist selection methodology in 2015 reported that although older patients with cancer tend to use the oncologist they were referred to, patients younger than 55 years will typically do their own research and choose the oncologist they deem to be most suitable for their needs, considering variables such as cost.<sup>11</sup> In the current study, 64% of respondents in the sample population were 55 years or older. The findings of this survey are similar to those of the 2015 study in which patients preferred to utilize an oncologist to whom they were referred by their PCP.

### Involvement in Cancer Treatment

As the number of cancer cases continues to rise, there is a growing question of whether the current oncology workforce can meet the growing needs of patients with cancer. PCPs play a key role in the cancer care journey.<sup>12</sup> This study found that most PCPs were only minimally involved in their patients' cancer care plans; however, they would like to be more involved. Nearly all providers who wanted to become involved in cancer care reported that symptom tracking and AE management information on their patients would be valuable, particularly if available via the electronic health record. However, the roles of PCPs are not necessarily limited to symptom and AE management; they can also play an integral part in the cancer care pathway by directing patients to well-managed oncology practices and initiating conversations about advance directives and hospice care.<sup>12</sup> Providers also reported that patients most frequently go to the oncologist's office or their office for symptom and AE management from chemotherapy and minimally use other providers. This finding

highlights the opportunity to increase the role of physician extenders, nurses, and pharmacists in oncology care.

**Value-Based Care**

Survey findings suggest that PCPs are divided on the worth of value-based reimbursement relationships. Of the providers who responded, 39% described distrust in health plans; quality metrics seem to be the main reason that providers do not support pay-for-performance agreements. However, providers affiliated with an ACO offering quality-of-care measures all stated that they receive fair compensation for providing care. Any provider in a value-based arrangement must be well versed in the metrics and how they will be calculated to understand and trust the value-based model. Various organizations, such as the American Society of Clinical Oncology and the National Quality Forum, have published and endorsed quality metrics to help drive improvements in care quality and reductions in cost of care.<sup>13,14</sup>

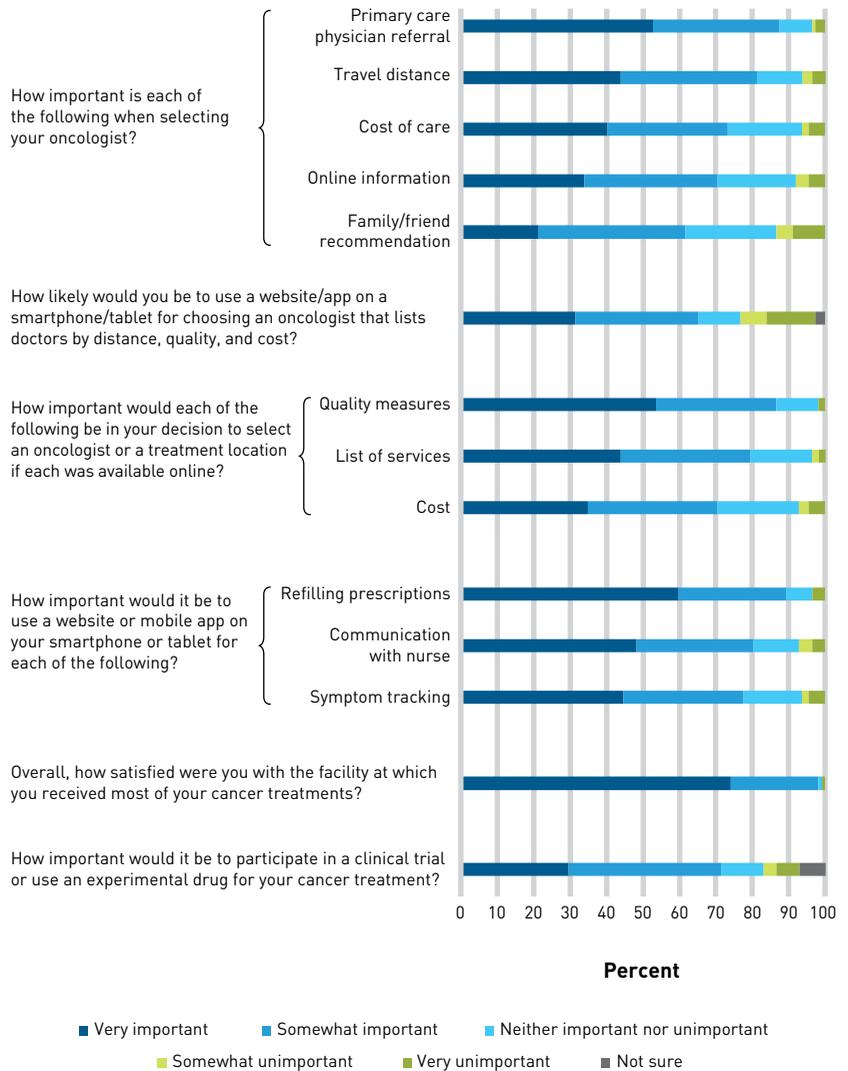
**End-of-Life Planning**

During the cancer care journey, providers believe an advance directive should be established; however, the number of patients with cancer who have one in place and when this is accomplished are misaligned. Possible reasons for this disparity could be a patient's unwillingness to define and document an end-of-life care plan. The results from our survey show that often, when a patient completes an advance directive, it is influenced by their family urging them to do so vs their treating physician. Studies show that patients who have an advance directive and discuss end-of-life care and quality of death participate more in decision-making and are more likely to receive care according to their choices.<sup>15</sup> End-of-life planning is a process in which a patient, in consultation with their health care providers and family members, makes decisions about their future health care.<sup>16</sup> Perhaps establishing an advance directive would be more effective if the patient included their treating physician in addition to their family members in these conversations.

**Limitations**

This study has limitations. A possible limitation to the PCP survey is that respondents were clinicians who are probably more likely to be interested and engaged in oncology care. Thus, our survey results are likely to have an inherent selection bias. We might not be adequately capturing data from PCPs who are not motivated

**FIGURE 2. Patient Responses**



to participate in oncology care. Furthermore, this cross-sectional survey used a single point of time; therefore, recall bias may have affected the findings.

**CONCLUSIONS**

This study assessed provider and patient preferences for an oncologist selection tool, involvement in cancer care, value-based care, and end-of-life planning. Support is required for providers in offering quality, affordable care via validated quality metrics and granting high visibility into reporting methods affecting reimbursements. A digital tool may be helpful to guide decision-making and increase accessibility to provider ratings, quality measures, cost, and a list of services. ■

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**Authorship Information:** Concept and design (SM, MJ, CS, KAJ); acquisition of data (SM, KAJ II, EAF); analysis and interpretation of data (SM, KAJ II, EAF, MJ, KAJ); drafting of the manuscript (SM, EAF, EA-R, KAJ); critical revision of the manuscript for important intellectual content (SM, KAJ II, MJ, CS, EA-R, KAJ); statistical analysis (EA-R, KAJ); obtaining funding (SM); administrative, technical, or logistic support (SM, KAJ II); and supervision (CS, KAJ).

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## REFERENCES

1. Cancer facts & figures 2019. American Cancer Society, 2019. Accessed January 2, 2020. <https://www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2019.html>
2. Fenton L, Rigney M, Herbst RS. Clinical trial awareness, attitudes, and participation among patients with cancer and oncologists. *Community Oncol*. 2009;6(5):207-213, 228. doi:10.1016/s1548-5315(11)70546-0
3. Dossett LA, Hudson JN, Morris AM, et al. The primary care provider (PCP)-cancer specialist relationship: a systematic review and mixed-methods meta-synthesis. *CA Cancer J Clin*. 2017;67(2):156-169. doi:10.3322/caac.21385
4. Aubin M, Vézina L, Verreault R, et al. Patient, primary care physician and specialist expectations of primary care physician involvement in cancer care. *J Gen Intern Med*. 2012;27(1):8-15. doi:10.1007/s11606-011-1777-7
5. Kacik A. Healthcare costs increasing at unsustainable pace. *Modern Healthcare*. June 13, 2018. Accessed October 29, 2019. <https://www.modernhealthcare.com/article/20180613/NEWS/180619961/healthcare-costs-increasing-at-unsustainable-pace>
6. Regenbogen SE. Introduction: value-based reimbursement. *Semin Colon Rectal Surg*. 2018;29(2):50. doi:10.1053/j.scrs.2018.01.001
7. Quality Payment Program. CMS. Updated December 1, 2021. Accessed November 16, 2019. <https://www.cms.gov/Medicare/Quality-Payment-Program/Quality-Payment-Program.html>
8. Booz Allen Hamilton. Oncology Care Model: key drivers and change package. CMS. Updated June 1, 2020. Accessed December 5, 2019. <https://innovation.cms.gov/files/x/ocm-keydrivers-changepkg.pdf>
9. Six serious problems with "value-based" purchasing and how to solve them. Michigan Health Policy Forum. Accessed January 2, 2020. <https://michiganhpf.msu.edu/index.php/2-uncategorised/28-six-serious-problems-with-value-based-purchasing>
10. Klabunde CN, Amba A, Keating NL, et al. The role of primary care physicians in cancer care. *J Gen Intern Med*. 2009;24(9):1029-1036. doi:10.1007/s11606-009-1058-x
11. Unger JM, Cook E, Tai E, Bleyer A. The role of clinical trial participation in cancer research: barriers, evidence, and strategies. *Am Soc Clin Oncol Educ Book*. 2016;35:185-198. doi:10.1200/EDBK\_156686
12. Institute of Medicine. *Transforming Clinical Research in the United States: Challenges and Opportunities: Workshop Summary*. The National Academies Press; 2010. doi:10.17226/12900
13. NQF's work in quality measurement. National Quality Forum. Accessed January 3, 2020. [http://www.qualityforum.org/about\\_nqf/work\\_in\\_quality\\_measurement/](http://www.qualityforum.org/about_nqf/work_in_quality_measurement/)
14. Quality Oncology Practice Initiative. ASCO Practice Central. Accessed January 3, 2020. <https://practice.asco.org/quality-improvement/quality-programs/quality-oncology-practice-initiative>
15. de Freitas ED, de Almeida Rocha A, Nunes R. Advance directives in cancer patients. *Hosp Palliat Med Int J*. 2018;2(2):84-88. doi:10.15406/hpmij.2018.02.00061
16. Bestvina CM, Polite BN. Implementation of advance care planning in oncology: a review of the literature. *J Oncol Pract*. 2017;13(10):657-662. doi:10.1200/JOP.2017.021246

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