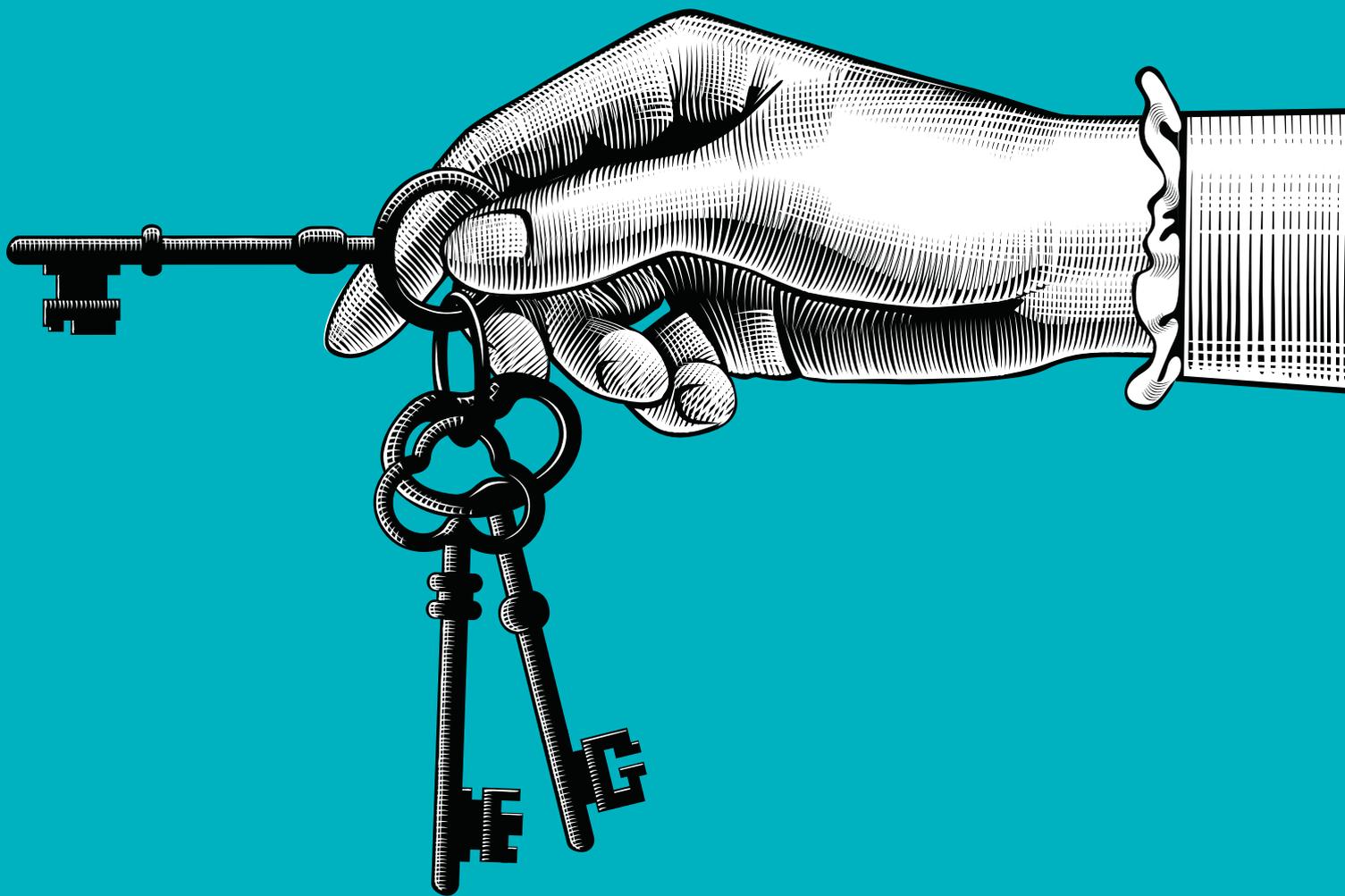


Technology Unlocks Untapped Potential in a Financial Navigation Program



Results of a pilot study at one community cancer center

Abstract

Background: Patients with cancer are experiencing rapidly rising out-of-pocket costs. The term *financial toxicity* has emerged to describe the negative impact of these costs on patients with cancer, such as impact on quality of life, treatment adherence, and greater risk of mortality. As patient out-of-pocket expenses have increased, hospitals have increasingly incurred bad debt resulting from unpaid financial obligations. Cancer programs have implemented financial navigation programs to ease the negative impact of financial toxicity on patients and the negative impact of lost revenue on healthcare organizations. The manual nature of financial navigation, however, has limited the ability for navigators to assist patients at risk for financial toxicity and demonstrate value for both patients and healthcare organizations. Though efforts are made to identify financially at-risk patients, most patients self-select into these types of programs. As a result, those with the greatest financial need or collection risk may not receive available assistance.

Objective: The objective of the pilot study was to analyze the effect of automating financial navigation programs using the TailorMed Financial Navigation Platform (tailormed.co).

Methods: The TailorMed Platform analyzed 4,616 patients at the Cowell Family Cancer Center, Traverse City, Mich. The software identified 244 “high-priority” patients based on high out-of-pocket responsibility, risk for financial toxicity, and qualification for available navigation opportunities. Financial navigators pursued assistance opportunities for these patients using the TailorMed Platform and accounted for the different forms of awarded assistance in patient benefits and organizational financial performance.

Results: The study ran for 8 months, during which 244 patients were reviewed by Cowell Family Cancer Center financial navigators. Of the 244 patients, 181 (74 percent) received one or more forms of assistance based on financial opportunities identified by the software. Financial navigators secured a combined total of \$3,553,453 in “approved savings” (defined as the total value of aid secured through the financial navigation process); \$1,524,562 of this savings accounted for community benefit (defined as direct patient benefits such as aid to offset living expenses, transportation costs, provide free or replacement drugs, or aid for services that are not billed by the hospital, such as oral drugs); and \$259,593 contributed to revenue increase (a direct benefit to the cancer center). The financial navigation team also reported improvements in productivity, workflow, and internal organization alignment.

Conclusion: Technology can play a major role in advancing financial navigation programs by freeing financial navigators to focus on proactive financial counseling, decreasing out-of-pocket costs for patients, increasing revenue for healthcare organizations, and automatically tracking that value creation for management.

Financial Toxicity: A Growing Concern

In the United States, healthcare costs are expected to grow at an average rate of 5.6 percent within the next decade (2016-2025). Cancer represents a significant proportion of the total U.S. healthcare spending, accounting for roughly \$87.8 billion dollars in 2014. For patients and their families, the costs associated with direct cancer care are constantly rising due to increases in cost-sharing and the percentage of private health insurance enrollees in high-deductible health plans.^{1,2}

In a survey of patients with cancer, 20 percent of the respondents spent more than \$10,000 out of pocket on treatment and medical care expenses. Approximately 1 in 10 patients stated that they had decided “to not have a recommended cancer treatment because it was too expensive;” this increased to 1 in 4 for individuals with an income of less than \$40,000 a year.³

Research from Washington State has shown that patients with cancer are 2.65 times more likely to experience personal bankruptcy than those without cancer.⁴ One startling follow-up study revealed that patients with cancer who declared bankruptcy had a 79 percent greater mortality risk than those who had not.⁵ Since this revelation, researchers have focused on understanding the full impact of financial distress on health outcomes, with studies associating significant out-of-pocket costs with decreases in quality of life and treatment adherence.^{6,7} The term *financial toxicity* was coined to describe the negative personal financial impact of cancer care, spurring additional research into how patients experience financial burden.⁸

Financial Challenges of Cancer Care Delivery

Though most research has focused on patients, we know that providers and healthcare organizations are also feeling the financial impact of increased cost sharing. A study aimed at understanding the provider burden found that for out-of-pocket patient obligations above \$200, only 66.7 percent of the average balance was paid within a year, and 16.2 percent of the average balance was written off as bad debt.⁵ *Bad debt* refers to debt that is deemed unlikely to be paid and is consequently written off as a loss. For high-cost care such as cancer treatment, this can amount to significant losses for the organization and is expected to increase as a result of evolving healthcare market dynamics, according to the Advisory Board.⁹

The Importance of Financial Navigation

Considering these challenges, healthcare providers are establishing financial navigation programs to ease patients’ financial distress and mitigate organizational financial challenges. According to the Association of Community Cancer Centers Financial Advocacy Services Guidelines, financial navigators provide a range of services that include evaluation of health insurance benefits, identifying and enrolling patients in assistance programs, and providing financial education on health insurance coverage.^{10,11}

The addition of financial navigation services holds a great deal of potential for both patients and providers. A study of financial navigation programs across four hospitals with trained financial navigators found that financial navigation can significantly benefit

patients through decreased out-of-pocket expenditures and mitigate financial losses for healthcare institutions.¹²

However, there is significant variability among financial navigation programs and in the role of the financial navigator. The role itself is usually not well defined, staff often receive little to no financial navigation training, and navigators have a wide range of educational backgrounds. Because of the manual nature of the work, navigators’ workflow is focused on serving patients who seek out assistance or are referred by other members of the care team (e.g., social workers); thus, navigators are not necessarily allocating their resources to patients at the highest risk of financial toxicity and bad debt.¹³

Financial Navigation at the Cowell Family Cancer Center

The Cowell Family Cancer Center at Munson Healthcare, the largest healthcare system in northern Michigan, has operated a financial navigation program since 2013. The program’s two financial navigators conduct insurance optimization, assist with insurance and other program enrollment, and seek out other forms of financial assistance through foundations and free drug programs. The navigators serve 20 percent of the patient population and secure an estimated \$4 million in aid each year.¹⁴

Financial navigation staff and administrators recognize, however, that the manual, multi-step, decentralized, and resource-intensive nature of their work places limitations on patient reach and program efficiency. Though efforts are made to identify financially at-risk patients, most patients self-select into the program. As a result, those with the greatest financial need or collection risk may not receive assistance.

An additional challenge identified by the cancer center’s navigators and administrators is ongoing tracking of the program and the measurement of its benefit to the organization. Metrics such as “approved savings” do not necessarily reflect the program’s actual contribution to organizational financial performance. This makes it difficult to measure the return on investment of the financial navigation program and convey its importance to senior leadership.

In January 2018, the Cowell Family Cancer Center piloted a new financial navigation platform, TailorMed, that automates and streamlines the financial navigation process. The eight-month pilot study’s objective was threefold:

1. Evaluate how technology can be used to improve financial assistance for patients.
2. Evaluate the impact of using technology on financial navigation workflows.
3. Measure the associated benefits for organizational financial performance.

TailorMed Financial Navigation Platform

The TailorMed platform is a web-based software solution that interfaces with the cancer center’s electronic health record (EHR) and uses clinical, insurance, and demographic data to project the patient’s out-of-pocket expenses across the entire medical journey and enables the utilization of multiple cost reduction opportunities.

A patient's specific out-of-pocket estimation relies on real-time pricing data, the patient's insurance benefits (which are automatically investigated), and the actual orders that are recorded in the EHR for the diagnosis, treatment, and follow-up phases of the patient journey. The estimation is dynamic and is updated with any changes to the patient treatment plan and insurance coverage.

The platform supports a variety of cost reduction opportunities covering the full scope of financial navigation, including insurance optimization, enrollment in financial assistance programs, pharmaceutical-sponsored programs (e.g., co-pay assistance, free drugs, drug replacement), and government plans.

The platform enables a proactive financial navigation workflow by identifying "high-priority" patients with the highest out-of-pocket responsibility, financial toxicity, and billing risk. Patients are identified as high priority based on the following patient-specific data:

- *Diagnosis.* Diagnoses are investigated to identify diagnosis-specific optimization opportunities and identify patients with multiple conditions as potentially higher risk.
- *Treatment plan.* Treatment plans are used to screen for high-cost services (e.g., specialty drugs) and for uncovered services.
- *Insurance type.* Existing insurance policies are compared for potential optimization opportunities and their eligibility criteria (e.g., commercial insurance for co-pay assistance, Medicare eligibility for government plans).
- *Insurance benefits.* Insurance benefits are evaluated to identify cases of under-insurance (e.g., high cost-sharing or high-deductible plans).
- *Demographics.* Financial status is used to identify financial burden and risk levels as well as eligibility for available opportunities.

In addition to the financial navigation software, the TailorMed platform includes an analytics dashboard (TailorMed Financial Insights) that enables ongoing tracking, measuring, and reporting of key performance indicators.

Measuring the Impact of Financial Navigation

As part of the study, the Cowell Family Cancer Center developed a methodology to account for the various forms of assistance awarded to patients in the financial navigation program. Previously, tracking and measuring the outcome of financial navigation was mostly based on the "approved savings" metric. Though it provides some insight into the value of the financial navigation program, this metric does not accurately indicate how different types of savings contribute to the financial performance of the organization and is often perceived as inflated. This new methodology differentiates between "revenue increase" and "community benefit."

Community benefit includes aid which benefits the patient directly and not necessarily the hospital, such as aid that is intended to offset living expenses, provide free services (e.g., free or replacement drugs) or aid for services that are not billed by the hospital

(e.g., oral drugs). "Community benefit" may be capped by the patients' out-of-pocket expenses for a certain service, while "approved savings" will capture the total value of the awarded assistance.

Revenue increase includes aid that benefits the financial performance of the hospital. This is aid that has a direct impact on the hospital's ability to collect revenue—in other words, expenses that would not have otherwise been paid by the patient and are either sent to collections or written off as bad debt by the hospital. Revenue increase is calculated based on the patient's individual medical and financial circumstances and subsequent likelihood to pay for all or part of their treatment-related expenses. Each savings type (e.g., manufacturer co-pay programs, premium assistance, insurance optimization, etc.) was evaluated to determine the direct contribution to the hospital revenue. For example, an approved free drug program would have different implications than an approved co-pay assistance program, as the financial risk to the hospital is different.

In addition to quantitative data analysis, qualitative data were collected over the course of the eight-month pilot through monthly feedback meetings, where management used the TailorMed Financial Insights dashboard to track relevant key performance indicators. During these meetings, team members were asked to assess the software and their responses were recorded. Feedback on ease of use, impact on workflow, and impact on productivity was collected.

Study Results

The financial navigator software analyzed 4,616 patients who visited the Cowell Family Cancer Center during the study period (see Figures 1-3, page 42, for demographic, insurance, and diagnosis distribution). Of those 4,616 patients, 244 were identified as high priority and were reviewed by financial navigators.

Of the 244 patients reviewed by the cancer center's financial navigators, 181 patients (74 percent) received at least one form of assistance. The remaining 63 patients were either ineligible for assistance due to their income or no available funds were receiving applications at the time.

In total, the approved savings for all 181 patients was \$3,553,453—an average of \$19,632 per patient, representing an increase of more than \$2,000 of average savings per patient compared to previous years.¹⁴ About \$1,525,500 was attributed to community benefit or direct patient support, and \$259,593 was measured as revenue increase.

Financial aid was obtained through the following six categories:

- Co-pay assistance programs (including manufacturer and foundation co-pay assistance)
- Free and replacement drug programs
- Living expenses (e.g., non-medical support)
- Insurance optimization
- Government programs
- Premium assistance programs.

(continued on page 43)

Figure 1. Gender Distribution (n = 4,616)

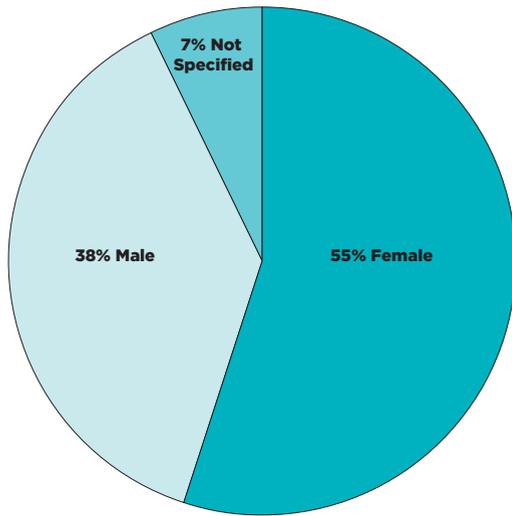


Figure 2. Payer Mix (n = 4,616)

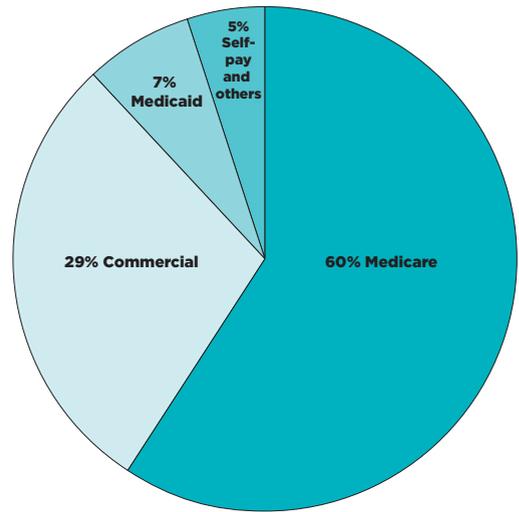
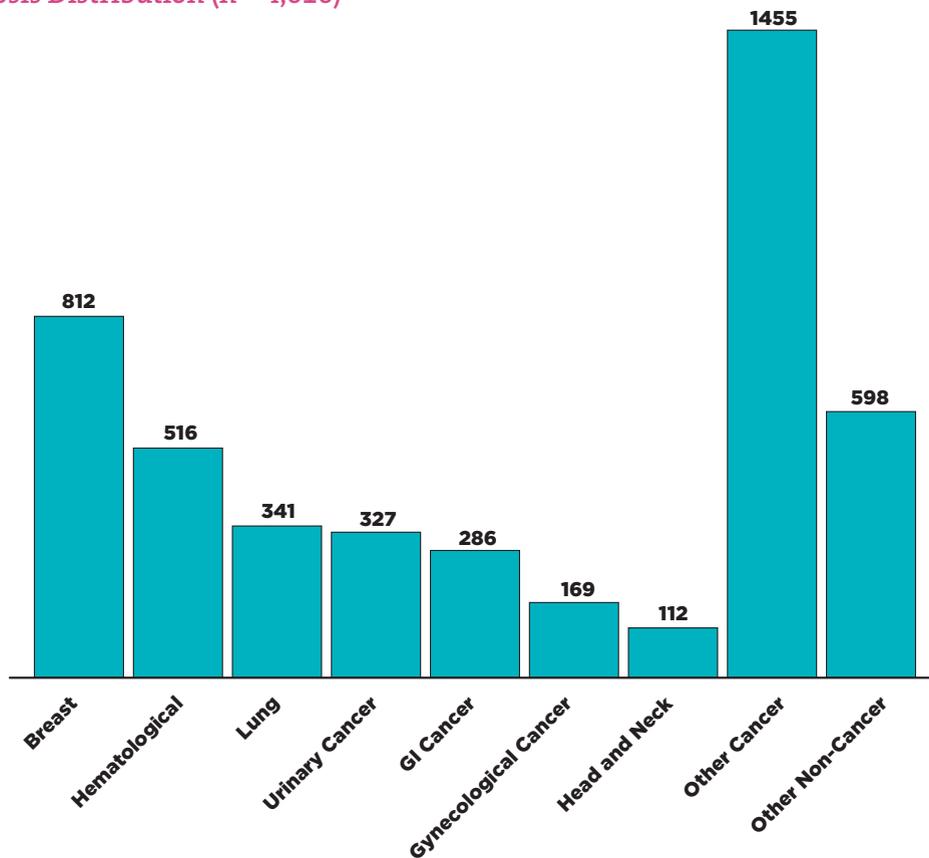


Figure 3. Diagnosis Distribution (n = 4,616)



(continued from page 41)

Financial assistance was used to support a variety of medical services that were part of the patient’s treatment course. Figure 4, below, summarizes the distribution of medical services for the study population.

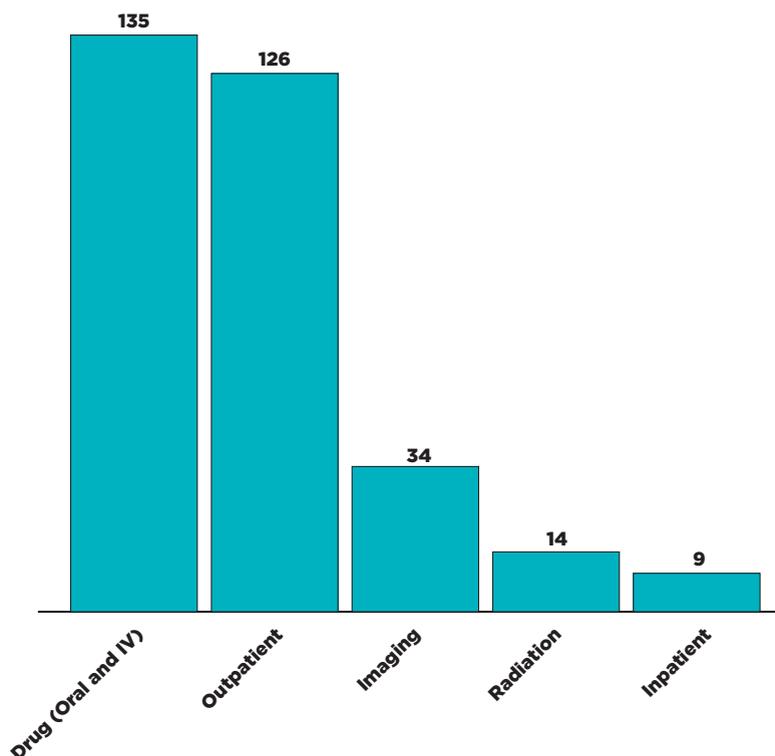
Of the 181 patients identified by the software as high priority, 52 patients (28.7 percent) received co-pay assistance, 8 patients (4.4 percent) were enrolled in government insurance plans, and 46 patients (25.4 percent) received free drug or drug replacement assistance; 74% of approved free drug programs were for oral drugs and 26% of approved free drug programs are for IV drugs. Eighty-five patients (47 percent) received assistance with living expenses, and 12 patients (6.6 percent) received other forms of assistance. Twenty-two patients (12.2 percent) received more than one form of assistance. Table 1, right, breaks down the distribution by assistance categories.

It is important to note that the pilot did not take place during an open enrollment period. Had the pilot taken place during open enrollment, there may have been an increase in the number of patients benefiting from insurance optimization. For patients who benefited from insurance optimization, the software suggested opportunities such as enrolling in Medicare (for patients turning 65) and enrolling existing Medicare patients in Medicare Part D, Medicare Advantage with Part D, or Medicaid. Figures 5-7, pages 44-45, show the demographic, insurance, and diagnosis distribution for the assisted population.

Table 1. Distribution of Assistance Categories

Intervention	Number of Patients	Average Savings per Patient (\$)
Co-pay programs	52	12,582
Free drug programs	46	60,607
Insurance optimization	10	3,709
Government plans	8	4,000
Premium assistance	2	3,300
Nonmedical financial assistance	85	419

Figure 4. Distribution of Medical Services



In addition, the navigation team was able to begin tackling the transportation need at the cancer center, using the TailorMed Platform calculated transportation costs and the resources generated by the available navigation opportunities.

Further Discussion

This eight-month pilot study documented the use and impact of an automated financial navigation software.

Using the software, financial navigators at the Cowell Family Cancer Center were able to conduct an analysis of all active patients and determine their level of financial distress and potential impact of different financial navigation activities. Previously, with only two financial navigators, we largely relied on patients self-referring into the financial navigation program regardless of financial risk or potential match for aid opportunities. As a result, among the patients who were classified as high-priority, 74 percent received some form of financial assistance during the study. This percentage can be attributed to the financial navigation software’s ability to identify patients for the navigation program, screening not only for those at risk of financial toxicity but also for eligibility for current aid opportunities.

Furthermore, the tracking and reporting capabilities of the software’s analytics dashboard improved ongoing tracking and recording of the financial navigation process and its outcomes. Establishing an agreed-upon and sustainable method of measurement created alignment among financial navigators and cancer center administration and leadership, driving process improvement.

Through the software, existing workflows were evaluated and, in some cases, modified. Navigators no longer needed to manually search for relevant financial opportunities and keep track of the application status for each patient participating in the financial navigation program. The software allowed navigators to directly access any opportunities for which a patient was a match, displayed the entire life cycle of the application process, and allowed the navigator to immediately track the value of any captured benefit. Furthermore, the use of technology cut down on administrative work for the navigators by consolidating multiple work lists, spreadsheets, and applications.

Management also highlighted additional software capabilities that could potentially benefit financial navigation programs, suggesting that future iterations attempt to address inefficiencies in the tracking and ordering of free drugs and streamlining the billing process for approved financial resources.

Closing Thoughts

Rising healthcare costs in the United States continue to outpace growth in the gross domestic product. The burden of these staggering expenses is particularly acute for patients with cancer. Financial navigation has been looked to as one solution to mounting financial challenges for both patients and healthcare organizations. Though many financial navigation activities are done manually—limiting potential benefits of the program for both patients and the organization—it was our experience that automating the financial navigation processes helps to:

Figure 5. Gender Distribution (n = 181)

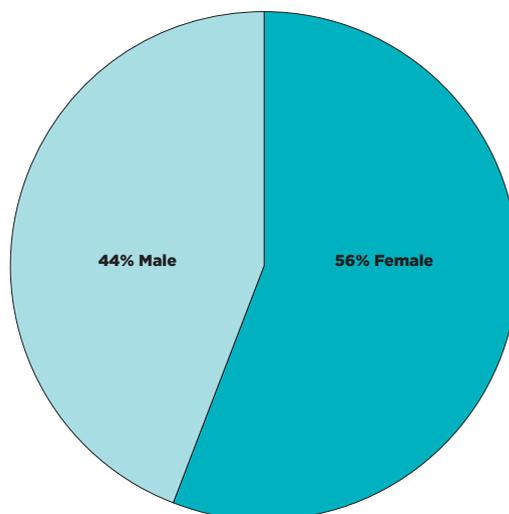
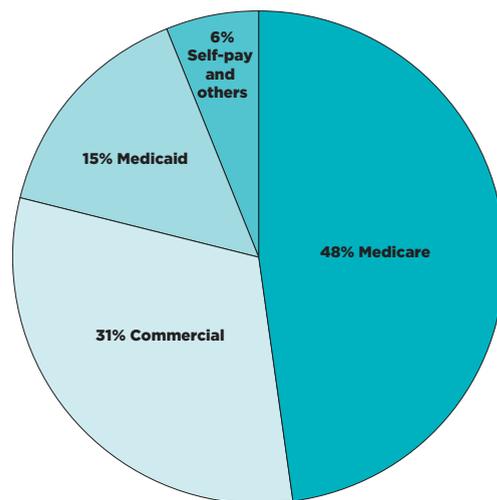


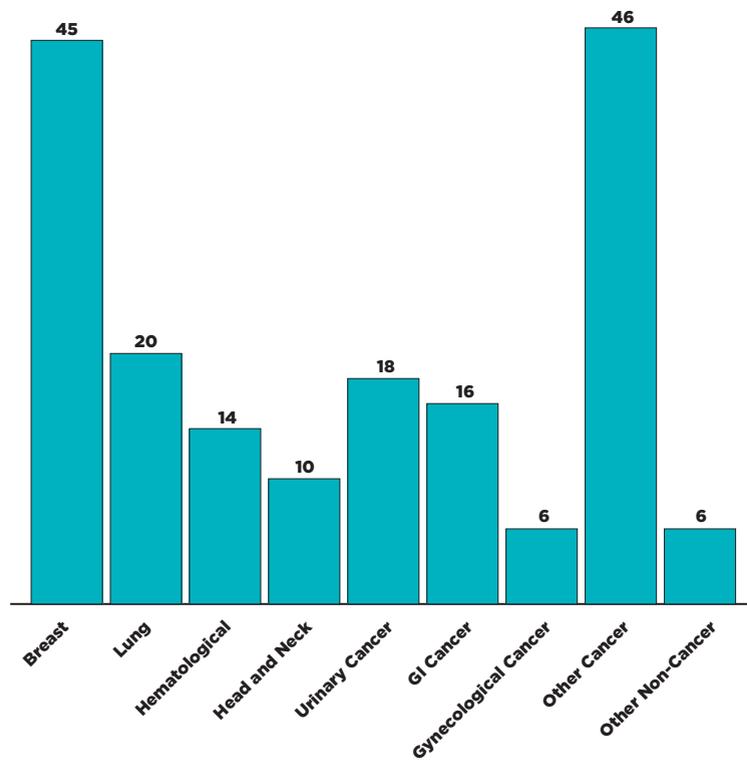
Figure 6. Payer Mix (n = 181)



- Secure additional financial assistance for patients.
- Reduce the workload associated with ongoing navigator tasks.
- Strengthen the focus on patient outreach and financial counseling.
- Accurately measure the impact of financial navigation on the organization’s financial performance.

It is our conclusion that technology can play a major role in improving financial navigation services and programs at cancer programs across the United States by decreasing out-of-pocket costs for patients, increasing revenue for hospitals, and quantitatively measuring the “value” of these services, allowing management to collect and report on return on investment. 

Figure 7. Diagnosis Distribution (n = 181)



Clara Lambert, BBA, OPN-CG, is one of the founding oncology financial navigators for the Cowell Family Cancer Center, Traverse City, Mich., currently working at Advocate Good Samaritan Hospital, Bhorade Cancer Center, Downers Grove, Ill. Scott Legleitner, BA, LPhT, SST, is an oncology financial navigator at the Cowell Family Cancer Center, Traverse City, Mich. Kathleen LaRaia, MS, is the executive director of the Cowell Family Cancer Center, Traverse City, Mich.

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