

Improving Care Coordination

A Model for Lung Cancer

Executive Summary

In 2016, the Association of Community Cancer Centers (ACCC) received a three-year grant from the Bristol-Myers Squibb Foundation (BMSF) to develop a model that would help healthcare entities improve care coordination for lung cancer patients covered by Medicaid.

Leading the project Advisory Committee were co-principal investigators Christopher S. Lathan, MD, MS, MPH, Medical Director, Dana-Farber at St. Elizabeth's Medical Center, and Randall A. Oyer, MD, Medical Director, Oncology Program, Penn Medicine Lancaster General Health.

The process for model development encompassed three phases: research and beta model development, testing the model, and data analysis and outcomes.



Research and beta model development began with an environmental scan to better understand the current state of care access and coordination for patients covered by Medicaid, identify barriers and challenges, and review existing studies suggesting potential strategies to improve care coordination for this patient population. The scan incorporated a literature review as well as insights from members of the project's interdisciplinary Advisory Committee, a lung cancer survivor and patient advocate, and multidisciplinary health professionals from two ACCCmember cancer programs. In June 2016, ACCC published the full environmental scan, "Optimal Care Coordination Model for Lung Cancer Patients on Medicaid," on the ACCC website, along with a brief that highlighted the following key findings:

1 The financial and social barriers that Medicaid beneficiaries face in pursuing lung cancer treatment are significant, detrimental to outcomes, and largely unaddressed. These include:

- Accessing reliable transportation
- Taking time off from work/lost incomes
- Procuring childcare or other family support
- Covering out-of-pocket expenses for services and drugs

- 2 Medicaid beneficiaries have unequal access to high-quality care. Disparities in care access can be attributed to multiple causes, including how patients typically access the healthcare system.
- 3 Increasing patient engagement is critical to improving outcomes but will require a tailored approach given the unique challenges Medicaid beneficiaries face.
- 4 Integration of patient navigators into the care team can promote Medicaid beneficiaries' access to timely, high-quality care. Both clinical and nonclinical navigators may play a key role in ensuring access to care, coordination of services across providers, education, and follow-up to promote adherence to treatment recommendations.
- 5 Multidisciplinary teams are key to improving care coordination. Opportunities may exist to strengthen and build on the team approach to caring for patients with lung cancer.
- 6 Improvement is needed to promote timely access to supportive services for this patient population, including attention to biopsychosocial needs, palliative care needs, survivorship issues, hospice, and end-of-life care.



Results from the environmental scan were used by the Advisory Committee and ACCC staff to develop an application and criteria for the selection of Development Sites, and to create an interview guide to compile information in a standardized format across programs.

The following ACCC Cancer Program Members participated as Development Sites:

- Florida Hospital Memorial Medical Center
- Genesis HealthCare System, Genesis Cancer Care Center
- MaineGeneral Health
- Mary Bird Perkins Our Lady of the Lake Cancer Center
- Sidney Kimmel Cancer Center at Thomas Jefferson University

The ACCC project team traveled to the five Development Sites to conduct comprehensive interviews with cancer program staff, including both clinical and administrative personnel; patients insured through Medicaid; palliative care and hospice providers; the interdisciplinary care team involved in the diagnosis and treatment of patients with lung cancer; and healthcare staff from referring practices and healthcare facilities. Through this process, ACCC project staff were able to map some of the existing care pathways for Medicaid patients with lung cancer.

Comprehensive reports based on the information gleaned during these site visits provide snapshots of successes and challenges in delivering care for patients with lung cancer, with a focus on individuals insured by Medicaid or without healthcare coverage. The Development Site reports, outlining the findings from each site visit, were published online on the ACCC website.

Informed by the environmental scan and the Development Site reports, the project's expert Advisory Committee convened an in-person meeting in November 2016 to discuss key findings in the context of model development. Ultimately, consensus developed around the concept of a beta "Optimal Care Coordination Model for Patients with Lung Cancer on Medicaid" built directly upon the Multidisciplinary Care (MDC) Assessment Tool created by the National Cancer Institute (NCI) Community Cancer Centers Program (NCCCP), a project funded by NCI from 2007-2014.

The NCCCP pilot, which eventually engaged 30 participating hospitals and health systems across the country, sought to build a community-based research platform to support a wide range of basic, clinical, and population-based research on cancer prevention, screening, diagnosis, treatment, survivorship, and palliative care at community hospitals–contributing to enhanced quality of care for patients and advancing cancer research. (See *The NCCCP–Enhancing Access, Improving Quality of Care, and Expanding Research in the Community Setting,* available at accc-cancer.org/publications.) In drafting the model, project stakeholders aimed for a framework that could benefit cancer programs of all resource levels interested in improving care for patients with lung cancer.

To enrich Model development, ACCC formed a Technical Expert Panel (TEP) chaired by Thomas M. Asfeldt, MBA, RN, BAN, Director, Outpatient Cancer Services and Radiation Oncology, Sanford USD Medical Center. All members of the TEP were former NCCCP pilot participants. The TEP collaborated with the Advisory Committee and the ACCC project team to create a beta version of the Optimal Care Coordination Model (the Model). The beta Model consisted of 13 assessment areas with high impact on optimal care for patients with lung cancer covered by Medicaid. The Model was designed to provide a framework that could be used to evaluate care coordination for lung cancer patients from the time of initial patient referral to cancer services through survivorship and end of life. Each assessment area had five levels, with level 1 representing the most basic provision of care and level 5 representing optimal best practice.

Testing the Model

Through an application process that required submission of quality improvement (QI) projects within the beta Model's assessment areas, ACCC Cancer Program Members* were invited to apply to serve as Testing Sites for the Model. As part of the Testing Site application process, programs used the beta Model for program self-assessment, and then submitted quality improvement project(s) that would utilize one or more of the Model's 13 assessment areas. The following seven ACCC Cancer Program Members were selected as Testing Sites:

- Advocate Lutheran General Hospital Cancer Care Program
- Ascension Wheaton Memorial Medical Center (Formerly, Ascension Wheaton Franciscan Cancer Care)
- Cowell Family Cancer Center, Munson Healthcare
- Florida Hospital Memorial Medical Center
- Genesis HealthCare System, Genesis Cancer Care Center
- Northwest Medical Specialties, PLLC
- Southern Ohio Medical Center, Southern Ohio Medical Center Cancer Care



Over a 12-month period, from October 2017 through September 2018, the Testing Sites deployed the beta Model, participated in data collection, and reported challenges and progress to the ACCC project team while executing one or more QI projects.

In November 2018, the Advisory Committee met with leaders from the Testing Sites, the ACCC project team, and members of the Technical Expert Panel to review the experiences of the seven programs in implementing the Model for quality improvement. During this meeting, the Testing Sites also offered input on potential approaches for Model dissemination. (Four Testing Sites describe the impact of using the Model for quality improvement on pages 60-67.)

In early 2019, the ACCC project team reconvened the Technical Expert Panel for a live working session to review and incorporate the findings from the Testing Sites and the output from the fall 2018 Advisory Committee meeting to finalize the Model. For more information on the Model development process, visit accc-cancer.org.

*Under the terms of the grant, programs in the following states were excluded from participation in this project: AL, GA, KY, MS, NC, TN, SC, and WV.

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Ascension Wheaton Memorial Medical Center

Snapshots of the Testing Site Experience

ACCC would like to thank the seven member programs that served as Testing Sites for the beta Model. *Oncology Issues* interviewed four of the participating cancer programs for a deeper dive into lessons learned and how the experience impacted care coordination for lung cancer patients, with a focus on patients covered by Medicaid.

13 Assessment Areas of the Beta Care Coordination Model

This version of the Model was implemented by the Testing Sites to conduct 12-month QI projects.

- 1. Patient Access to Care
- 2. Prospective Multidisciplinary Case Planning
- 3. Financial, Transportation, and Housing
- 4. Management of Comorbid Conditions
- 5. Care Coordination
- 6. Treatment Team Integration
- 7. Electronic Health Records (EHRs) and Patient Access to Information
- 8. Survivorship Care
- 9. Supportive Care
- 10. Tobacco Cessation
- 11. Clinical Trials
- 12. Physician Engagement
- 13. Quality Measurement and Improvement

Leveraging Technology for Prospective Case Planning

In 2016, Wheaton Franciscan Healthcare joined Ascension to create Ascension Wisconsin–a healthcare system encompassing 23 hospitals and more than 19,000 associates, including 1,000 physicians and 110 clinics. Ascension SE Wisconsin Hospital in Milwaukee is part of that system.

Ascension's cancer center offers diagnostic techniques, innovative cancer treatments, comprehensive supportive services, clinical trials, and integrative therapies. Its survivorship program focuses on wellness and the management of long- and late-term treatment side effects. Its cancer rehab program proactively addresses the rehabilitation needs of Ascension's post-treatment patients. Ascension chose to develop quality improvement (QI) projects for two of the Model's 13 assessment areas: patient access to care and prospective multidisciplinary case planning.

When staff from Ascension began evaluating their program to identify the areas they wanted to target for improvement, they took a holistic look at their entire continuum of cancer care services. Sherri Costa, MS, RN, AOCNS, Manager of Cancer Support Services & Quality Improvement Coordinator, explains, "We looked at how our lung cancer patient services should ideally fit into a whole lung program, from diagnosis through the end of treatment."

"The care coordination tool [the Model] really helped us formally evaluate our program," adds Costa. "We knew that patients diagnosed with lung cancer were getting lost in our system. We had a lot of late-stage lung cancer patients, and we needed to improve our case planning so we could identify those patients sooner." Costa and her colleagues decided that they could best address this shortcoming by strengthening the multidisciplinary case planning they relied on to create optimal care plans for patients.

Assessment Area: Prospective Multidisciplinary Case Planning

The Ascension oncology team wanted their strategy to focus on increasing the number of lung cancer patients reviewed by the multidisciplinary care team. But this strategy would require busy providers to squeeze yet more time out of their already full schedules, cutting into time that could be spent on direct patient care. Costa says she and her colleagues saw a solution in technology, and they set out to create a virtual tumor board that physicians could easily access when their schedules allowed.

At the start of Ascension's Improving Care Coordination project, lung cancer patients who entered the cancer

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program were often evaluated by a single provider or specialist, with multidisciplinary discussions taking place after the start of treatment. The program's tumor board reviewed a limited number of cases, many of which were retrospective. A lack of data meant that the program did not know whether the work of the tumor board was influencing patient care.

To enhance its multidisciplinary patient case planning capabilities and not overtax its providers with the additional time required for more in-person tumor boards, Costa says the Improving Care Coordination team committed to developing, implementing, and piloting a virtual tumor board (VTB). Costa says the VTB is capable of overcoming a number of obstacles: "Because the system is asynchronous, providers can access it on their own schedules, overcoming the challenges posed by bringing providers from multiple locations and specialties physically together."

Tumor board participants can access the VTB from a variety of technology, including desktop computers, laptops, and phones. The interactive platform allows users to edit information, attach images, and leave audio notes. The VTB has caught on quickly with Ascension's clinical staff, and the number of cases they review has increased, enhancing patient care management and coordination. During the one-year testing period (October 1, 2017 - September 31, 2018), 100 percent (75/75) of patients with newly diagnosed lung cancer were presented to the VTB–four times as many as were previously presented to Ascension's traditional tumor board. Sixty-seven percent of those patients were presented before the start of any treatment.

Costa says the VTB has had wide-ranging effects on Ascension's treatment of lung cancer patients. "It has formalized our patient pathway and allowed us to better visualize and assess our program and goals," explains Costa. "Our lung cancer program has been elevated to a systematic, patient-focused approach. It has opened our eyes to doing things a different way. Now our GYN oncologists also want to use it in their specialty. Another physician wants to use it across the state to help rural providers who don't have access to a multidisciplinary team; it will be interesting to see where this goes next."

Assessment Area: Patient Access to Care

Costa says that Ascension approached its goal to enhance patient access to care by looking retrospectively at the previous year's caseload of lung cancer patients to gain a better understanding of the patient experience and treatment timeline. "That really helped us better understand what our program looks like from a patient's perspective," says Costa.

Ascension's lung cancer care team decided it could make the most impact by enhancing appointment availability, strengthening relationships with referring providers, and developing a formal strategy for internal reporting on referral patterns. To accomplish this, the Improving Care Coordination team developed a clinical pathway that defined care expectations. This resulted in a structured process to ensure patients receive timely and seamless care and provided a method to evaluate and measure the program.

As the team members developed and implemented strategies to accomplish the goals they outlined for themselves, they began to formulate and facilitate how lung cancer patients move throughout their system. This allowed the leaders of the lung cancer program to better define their expectations of care, evaluate and measure their program, and identify opportunities for improvement.

Subsequently, Ascension's lung cancer program developed a framework for patient care and a formal patient tracking process. As a result, the number of lung cancer patients offered navigation services increased, and the time from detection or confirmed diagnosis to first treatment decreased.

Costa says that evaluating patient patterns gave Ascension's lung cancer program a comprehensive view of its processes that it had not previously had. "I highly recommend taking the time to evaluate how patients enter and move through your system," says Costa. "Is cancer identified incidentally, through a screening, or another way?"

Costa attributes many of the successes achieved by Ascension's lung cancer program to the ACCC Improving Care Coordination project grant and Model. "Having a grant and specific expectations helped us get this accomplished in our system," says Costa. "There can be a lot of barriers to making such large changes; but being able to use a tool such as the Model allowed us to evaluate our program and show leadership where we could improve. Physician champions contributed to the success of our projects. By looking at our projects from an outcome perspective, this enabled us to create a plan for effective change."

Genesis Cancer Care Center Genesis Hospital, Genesis HealthCare System

Prove It: Using Data to Formulate Goals and Successes

Genesis HealthCare is an integrated healthcare delivery system based in Zanesville, Ohio. The system includes the not-for-profit Genesis Hospital in Zanesville, a network of more than 300 physicians, and multiple outpatient care centers throughout the rural region.

The largest healthcare provider in six counties in southeastern Ohio, Genesis Cancer Center offers patients medical oncology, radiation oncology, and integrated palliative care services. Genesis chose to develop quality improvement (QI) projects for two of the Model's 13 assessment areas: prospective multidisciplinary case planning and tobacco cessation.

Within the six counties served by Genesis, more than 22 percent of the population are smokers, versus approximately 18 percent nationally. During the 12-month Model testing period, 109 patients with lung cancer were treated at Genesis, 29 of whom were Medicaid/Dual Eligible. Of those 29 patients, 18 (60 percent) were active smokers; of those, 10 (56 percent) expressed a readiness to quit. This data demonstrated to Genesis' leadership the extent of the need for tobacco cessation services for their patients.

Assessment Area: Tobacco Cessation

While Genesis has had a lung cancer screening program for the past five years, the health system did not offer tobacco cessation services in its cancer center before participating in the ACCC Improving Care Coordination project. Today, Genesis Cancer Care Center screens each patient who comes through its doors for tobacco use, and it offers tobacco cessation services while the patient is in the cancer center.

Pebbles Thornton, RN, BSN, OCN, Director of Cancer Services, Palliative Medicine, and Hospice Care at Genesis, says Genesis Cancer Care Center was able to offer these services after getting four of its employees certified in smoking cessation training. "Pending available funding, we hope to have two additional employees certified next year," says Thornton.

"As a result of this effort, we have helped more patients quit tobacco," says Thornton. She explains that by incorporating questions about tobacco use and cessation readiness into each patient visit assessment, Genesis can now identify the patients who are ready to quit smoking. "We built questions about smoking into our review of systems questionnaire that every patient receives," Thornton explains, "and answers to that questionnaire are entered into our EHR."

While Genesis Cancer Care Center's new tobacco cessation services have given patients additional motivation to help them quit smoking, Thornton says the cancer center's limited resources make it difficult to keep up with demand for the counseling. "We run into the problem that the people we train in smoking cessation still work fulltime giving direct patient care, so it's difficult for them to find time for all of their responsibilities," says Thornton.

On the positive side, coming out of the Care Coordination project, Genesis Cancer Care Center is now able to bill for its tobacco cessation counseling services, which will help make the program more sustainable in the long term. Also, if patients express a desire to quit, Genesis Cancer Care Center now has the means to provide same-day smoking cessation



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services on site, including cessation medications from its retail pharmacy (as opposed to elsewhere within Genesis).

Assessment Area: Multidisciplinary Case Planning

Prospective multidisciplinary case planning is the second assessment area Genesis selected from the Model. Before participating in the program, physicians at Genesis Cancer Care Center held monthly tumor boards to discuss individual patient cases. Between these monthly meetings, Genesis' oncologists took a mainly ad-hoc approach to individual patient case planning. These informal consultations took the form of brief huddles held before patient appointments to discuss current treatment and status.

"Our multidisciplinary case planning model doesn't really fit into any of the description boxes out there," says Thornton. "As external groups [from the Model project] witnessed how we do things, they found that our way of doing it did not follow the Model. Most places schedule conferences at a set time where everyone comes together and participates either in person or virtually. With us, many times we have spontaneous huddles in which our physicians check in with, for example, the pulmonologist and the surgeon right before seeing the patient."

Thornton said this care planning model, though convenient to some providers, did not allow Genesis to effectively capture patient information, quantify services, or determine outcomes. "We were doing what needed to be done, but in our own way to meet the needs of patients in a hospital with not as many resources as a large urban health system," says Thornton.

Before participating in the Care Coordination project, Thornton says, given the frequency of its multidisciplinary "huddles," Genesis providers felt it sufficient to hold tumor boards once a month. During the course of testing the Model, Genesis increased the frequency of its tumor boards to biweekly. This decreased the average number of days from patient diagnosis to board presentation from 25 to 11.

"These more formal multidisciplinary conferences include approximately 15 people," says Thornton, "including oncologists, surgeons, oncology nurse navigators, and palliative care. In each conference, 10 to 12 cases are presented, depending on how many we've seen that week. Now that we're doing this twice a month, we have better collaboration among our providers, and referrals have sped up."

Thornton adds that Genesis' providers continue to huddle with one another for the purposes of consultation before patient appointments if necessary, but that communication is now supplemented with a more formal exchange of information. Thornton says Genesis' leadership is looking for additional ways to enable more efficient multidisciplinary collaboration. "We are currently investigating with our IT department the possibility of creating a virtual tumor board," says Thornton. "That would help us avoid the barrier of time constraints."

The Value of Data

Thornton says participating in the Care Coordination project has taught her and her team the importance of collecting and analyzing data to make a solid case for desired improvements. "We learned the importance of collecting a specific set of data points and being able to report on outcomes," says Thornton. "You can say we do something great, but, unless you prove it with data, that means nothing."

"In this project, we used the data we collected to make the case for holding tumor boards twice a month, and we were able to get funding to send more people to smoking cessation training," says Thornton. "We learned how to look broadly at our processes from an external point of view. It gave us the ability to identify where we needed to improve and take the steps to meet our goals."

Thornton says Genesis' participation in the ACCC Improving Care Coordination: A Model for Lung Cancer project has had a long-term effect on how she approaches her job: "Now I am always looking for data, figuring out how to make a case for the things we need by identifying where I want to be and how to get there."

Northwest Medical Specialties, PLLC

Meeting Patients Where They Are

A private, dual-specialty practice encompassing medical oncology and infectious disease physicians, Northwest Medical Specialties (NWMS) has five clinic locations serving the South Puget Sound area in Washington state. Each site is staffed with board-certified oncologists/hematologists, advanced registered nurse practitioners, physician assistants, and specially trained nurses and administrative staff.

The practice is one of the founding practices of the Quality Cancer Care Alliance Network, a clinically integrated oncology network of 20 practices that have championed practice transformation as the healthcare system transitions to value-based care. NWMS participates in both commercial value-based models and the CMMI Oncology Care Model (OCM). It therefore brought to the project experience with care coordination and an infrastructure for data collection.

The quality improvement project developed by NWMS to test the Model was focused on achieving decreased emergency room utilization by lung cancer patients insured through Medicaid. The QI project evaluated the practice's patient education, access to care management services, expanded clinic hours, and patient navigation for lung cancer patients with Medicaid. Key project staff for the QI project included a physician champion, executive-level champion, case manager, patient navigator, project point of contact, the practice's Director of Quality and Value-Based Care, and a data collection team of five patient care coordinators.

In early 2016, NWMS had identified the need to expand patient support services, and it had approved full-time positions for social work, care coordination, case management, and patient navigation. Reducing patient ER visits and hospital admissions was recognized as a primary practice goal.

Several factors influenced NWMS' decision to apply as a testing site for the ACCC Model, says Amy Ellis, Director of Quality and Value-Based Care, NWMS: "Patient navigation was already of great interest. We were already starting to scratch the surface. If we were to provide non-clinical navigation and RN navigation, could we reduce our hospital ER use?" NWMS believed that serving as a Testing Site would be an opportunity "to learn from ourselves and from others."

As an OCM participant, NWMS was already striving to reduce ER and hospital readmissions. In many ways, Ellis says, participating as a Testing Site for the ACCC Improving Care Coordination Model went "hand in hand" with the practice's OCM goals. NWMS was also motivated to apply because of its comparatively small size as an independent community oncology practice. Support services, such as social work and patient navigation, are not reimbursed, and affording these additional FTEs is challenging. "If you only have an RN navigator, you potentially have someone paid at an RN salary helping patients with transportation," says Ellis. "We thought it would be a better use of nurses' time to spend all their time on clinical tasks." This would allow the lay navigator to help patients with barriers to care, such as obtaining housing and transportation, administering distress screening, and coordinating visits and appointments.

Assessment area quality improvement objectives:

- Calculate the proportion of patients who use NWMS Saturday Acute Care Clinic expanded hours.
- Summarize navigation attempts.
- Estimate the number of ER visits.

These objectives involved three of the Model's Assessment Areas: patient access to care, supportive care, and care coordination.

Analyze, Improve, Repeat

Participation as a Testing Site helped NWMS learn how to integrate lay navigation into the practice's oncology care team, adjusting the workflow process to provide multiple layers of support without creating redundancies. The QI project supported bringing resources together for this patient population. To identify qualifying patients, custom reports were built into the practice's electronic medical record (EMR). Because NWMS had previously targeted ER visits as an area for improvement, it already had a tracking process in place using PreManage and had implemented a care management platform to meet OCM requirements.

Among the lessons learned in testing the Model: Figuring out the workflow process between the case manager and the navigator so that there was no overlap or role confusion.

"In the beginning, we had a team that screened for eligible patients, and then notified the case manager and the lay navigator," recalls Ellis. "There was no workflow for who called the patient first. The case manager would call, and the navigator would call." Patients would wonder why they were receiving multiple calls. Establishing the workflow for the interaction between these roles addressed the problem. "April [the lay navigator] always calls first, and she explains her role and Teri's [the case manager] role to the patient." This created a warm hand-off between support staff and smoothed the patient experience.



"Patients have their own agenda. You have to meet them where they are."

- Amy Ellis, Director of Quality and Value-Based Care, NWMS

The practice often faced basic challenges in contacting its Medicaid patients, which is critical to understanding and eliminating barriers to care access. Through the Testing Site experience, NWMS learned to rethink its process for contacting this patient population, as these patients may not have a permanent home, address, or phone number. The patient navigator began trying to meet with patients in the infusion room. To improve communication/contact with difficult-to-reach patients, the navigator conducted drop-in visits during the patient's scheduled clinic visit.

To further ease access for this Medicaid population, NWMS had originally proposed utilizing remote navigation. "We wrote this picture-perfect [QI] proposal," says Ellis. "When you go to implement [your plan], you think, 'This is what should happen with the patient.' Patients have their own agenda. You have to meet them where they are. I moved away from the project with the mindset that we have to meet patients where they are to be successful."

One unexpected benefit from conducting the QI project "that we should have expected," says Ellis, "is that we became a project team." Their QI team included a physician champion, clinical manager, nurse, navigator, a single point of contact, and five staff responsible for data entry. "All of these people had to work seamlessly together," Ellis says. Another benefit from deploying the Model, she adds, is that "we got really good at figuring out how to communicate."

Continuing Impact

One year after the conclusion of the testing period, NWMS has kept the lay navigator model in place with two lay navigators and two RN case managers. The practice has a centralized triage with two first responders and two triage nurses and is continuing to scale the navigation program to all NWMS patients. Although the 12-month testing period did not result in a reduction in ER visits, NWMS has mined the QI project data to understand where opportunities to improve lie.

NWMS continues to track ER data to understand utilization trends and to seek solutions to the challenges of how best to meet these patients where they are. Another area NWMS would like to explore is possible approaches for improving patients' health literacy levels so that they are better motivated to participate in their own care. As a step toward this, in early 2019 the practice implemented the Patient Activation Measure (PAM) survey. NWMS provides the 10-question survey during new patient orientation. The PAM survey gauges the patient's level of engagement in their healthcare, which NWMS anticipates will help to proactively assess patients more likely to have worse outcomes and flag those in need of more intensive support.

"I think it was extremely beneficial for our practice to participate as a Testing Site," say Ellis. "The support from ACCC...not just doing QI project but having the team support experiences outside of the practice. Because of the way we wrote our application and QI project, we had to create a very structured patient navigation program. We had to learn what navigation was, quality metrics in that space, that helped us. We had one clinical navigator before participating in the ACCC Care Coordination project. Testing the model through implementing a lay navigator helped NWMS learn how to build that program and formalize our navigation services."

REPLICABLE TAKEAWAYS

- 24-hour post-chemo infusion calls by nurse case manager to patients
- 24-hour post-hospital use calls to patients by nurse case manager
- Wellness screenings
- PHQ9
- NCCN Distress Thermometer
- Checking "PreManager" daily for ER use

Data Drives Process Improvement

Southern Ohio Medical Center (SOMC) in Portsmouth is a 234-bed non-profit healthcare organization serving rural southern Ohio and northern Kentucky. The hospital is located in Scioto County, an area classified by the Appalachian Regional Commission as economically distressed. The region has one of the highest smoking rates in the nation. Lung cancer incidence per 100,000 people in Scioto County is 71.8, compared to 67.2 (statewide) and 58 (nationwide). Lung cancer mortality rates per 100,000 people are 63 vs. 48 and 41 (statewide and nationwide, respectively).

The SOMC Cancer Center is accredited by the American College of Surgeons Commission on Cancer and has had a lung cancer screening program since 2015.

When the opportunity to apply to test the Care Coordination Model arose, the timing was ripe for SOMC, says Wendi Waugh, BS, RT(R)(T), CMD, CTR, Administrative Director of Cancer Services & Community Health and Wellness. "Several things were coming together within the organization," she recalls. "We had recently hired a talented thoracic surgeon, Dr. Jeremiah Martin. We'd started our lung-cancer screening program, but we didn't have many patients in our database. We wanted to reduce the stigma that lung cancer patients often experience, and we were passionate about identifying patients early when the patient's likelihood for cure was increased."

The cancer center had just finished the National Accreditation Program for Breast Centers (NAPBC) accreditation process, Waugh says, and fresh from that experience, "we recognized the difference engaging a team to focus on our breast cancer services had made. We had a physician champion in Dr. Martin, and we were looking for something to pull the team together." From the start, the SOMC Lung Health Leadership Team had commitment from leadership in coordinating departments (radiology, pulmonology, inpatient care) and buy-in for the QI project from the SOMC Executive Team.

Meaningful Measuring

Participating as a Testing Site for the Care Coordination Model "gave the team a good baseline to assess where we were with our program," says Waugh. The model also provided a framework for reference to look at future opportunities and set goals.

"We were already measuring detection-to-diagnosis and diagnosis-to-treatment elapsed days on our lung health dashboard prior to participating in the Care Coordination Model," says Waugh. "But it seemed like we had plateaued and the information was not granular enough to guide us to further improvement. I felt like we'd made the easy improvements." A critical area that remained unclear: Why and where were the delays in patients accessing care occurring?

Testing the Care Coordination Model offered SOMC the opportunity to conduct a QI project that could provide some clarity. In testing the Model, SOMC focused on the assessment area: patient access to care. The SOMC QI project would provide data on timeliness measures: detection-todiagnosis (D to D) and diagnosis-to-treatment (D to T).

The project team at SOMC chose to study timeliness because they believed measuring and tracking of these metrics would be fairly easy to implement, and timeliness would serve as a surrogate for system efficiency. The QI project data could also potentially help support their requests for more resources and bring providers together to improve care for patients with lung cancer.

As Waugh and the team at SOMC discovered, however, measuring and tracking timeliness was not easy. The QI project required SOMC to create a more rigorous system for data measurement, abstracting data stored in different platforms, and to mount a significant team effort. "With the Model, we cast a wider net," says Waugh, "more discrete fields, better definitions. Our data went from giving us some information to giving us more accurate information."

Through the process of refining data collection and measurement, SOMC's QI project ultimately yielded a more reliable picture of the average time from detectionto-diagnosis and diagnosis-to-treatment for this patient population. "I learned so much from participating in testing the Model," says Waugh, "how to distinctly define dates, measures, and get all of us talking the same language."

Letting the Data Speak

The QI study testing the Model enrolled 105 participants (37% Medicaid Dual Eligibles, 40% Medicare, and 23% commercially insured). Medicare patients on average were older than age 70, while Medicaid patients were younger (median interquartile range [IQR], years). Nearly half (48%) of study patients were active smokers, 42% were former smokers, and 7% were never smokers.

SOMC's baseline data showed a median time from detection to diagnosis of 16 days, with no significant difference in timelines across insurance types. Diagnosis-to-treatment baseline data presented a similar picture: the time from diagnosis-to-treatment was not significantly different among different insurers.

The team at SOMC did identify a trend in their detectionto-diagnosis data: the more contact a patient had with the healthcare system, the longer the time to diagnosis. Simply

"What we created here gives us a real-time snapshot for the navigator to stay on someone who has had an abnormal finding."

- Wendi Waugh, BS, RT(R)(T), CMD, CTR, Administrative Director of Cancer Services & Community Health and Wellness

put, the more times the patients engaged with the healthcare system for any reason, the longer the delay to diagnosis. Fragmentation of care was one factor driving these delays.

Data from SOMC's QI project demonstrated positive results on three related quality measures:

- Clinical results tracked in EMR 100% of study patients were captured (105/105)
- Bronchoscopy within 7 working days of decision to perform - 89.7% (35/39)
- Histologic subtype included on pathology report - 100% (102/102)

Waugh attributes a transformative programmatic impact to SOMC's participation in testing the Care Coordination Model. Prior to working with the Model, the SOMC care process for lung patients was fragmented, says Waugh. Learnings from conducting the QI project provided a framework for improvement and demonstrated how key navigation is to efficiency and to reaching patients.

Over the 12-month period that the SOMC team conducted its QI project using the Model, the program created a video spot for local TV with a different approach to encourage screening for lung cancer. Rather than focusing on negative health consequences, the video asked patients to reflect on what they value in their lives, and to consider screening so they can be there for their families and what matters most to them.

Although the focus of SOMC's QI project was measuring timeliness, working with the Model organically created a natural progression toward recognizing that additional navigation resources were needed. "Data showed that the patients were out there in the community," recalls Wendi Waugh. "The challenge was figuring out how to help patients come into the health system." Team building and team learning were positive side effects of working with the Model.

It became a complex project, says Waugh: "We learned a lot from the foundation for setting up [the QI project]. We still use that baseline spreadsheet that we developed during the Model testing period to track the measures we report out now."

"We had navigation on the screening side for lung cancer," says Waugh. "With the QI project findings, we were able to make the case to the executive team to add navigation to treatment and to assist those with incidental findings. We went from assisting a small percentage of our lung cancer population to assisting all of our lung cancer patients."

From refining the data collection and reporting process, navigators now use the tool to improve access, says Waugh. "What we created here gives us a realtime snapshot for the navigator to stay on someone who has had an abnormal finding." Through the testing experience, SOMC lung navigators now have a map to ensure that patients have "effective appointments" with a focus on how much can be scheduled in one day.

Reflecting on SOMC's experience in using the Model for QI, Waugh says, "I think it shaped our lung cancer care program. It helped us make the financial case to add lung navigation resources. It initiated the formation of a comprehensive lung cancer leadership team. The networking and value that we found continues today."

Since the conclusion of the testing project, several initiatives are underway at the direction of the lung health leadership at SOMC, including increasing access to smoking cessation support, enhancing access to clinical trials related to smoking cessation, and developing an organizational mechanism for providers to write an order for patients to stop smoking.

Testing the Model took a commitment of time and effort, and Waugh admits, "I really didn't know what we were getting into." It can be daunting to undertake this work, when "we're so pressed for time as administrators," she says, "but I think you just have to go for it. I'm happy to talk to anyone about the experience, because there's always something to be learned from each other."

- Process mapping/following the patient can serve as a surrogate for patient access to care.
- Navigation is critically important, but will likely be slightly different at every program.