Physician Collaboration & Quality Improvement Outcomes

Through the Establishment of Disease-Site Teams

by Marcy A. Cent, MBA, and Katherine Shivers, MPH

hysician collaboration is a concept that has become increasingly associated with efforts to improve quality outcomes of health systems nationwide. In the oncology community, which is largely supported by private practice physicians, this collaboration can be difficult to achieve. The reality of cultural norms combined with payment incentives can force physicians to prioritize the bottom line rather than the patient experience. To remain competitive and fiscally strong, physicians and hospitals should proactively address several current trends in the public and private sectors. Examples include governmental health reform initiatives that are focused on:

- Developing electronic medical records
- Conducting studies on clinical effectiveness
- Containing costs through potential new methods of paying for care delivery, such as "episodes of care," in addition to pay for performance.

As revenue streams are reduced, patient-centered care and payment initiatives will foster and support collaborative physician and hospital working models. In other words, to enhance competitiveness in the marketplace while responding to changes in the regulatory environment, hospitals will need to find creative solutions to engage physician support for their vision to provide quality cancer services.

Developing Disease-Site Teams

To effect a change in physician collaboration and enhance quality care, some community cancer centers have used an approach built around disease-site teams. The concept of multidisciplinary disease-site teams is not new. Many institutions are beginning to understand that this care approach can help differentiate cancer services within the community and dictate quality, clinical outcomes, and patient satisfaction. Disease-specific teams have generated more recent attention with the establishment of the



National Cancer Institute's (NCI's) National Community Cancer Centers Program (NCCCP), which requires pilot sites develop such teams. Several recent journal articles have presented anecdotal reports on how physician collaboration of care delivery can improve the quality of care and the patient care experience. Until recently, many disease-site programs had not been in existence long enough to provide data on their qualitative and quantitative impact on improvement in care.

Many forms of physician collaboration exist: multidisciplinary clinics, multidisciplinary teams, tumor boards, and cancer conferences, just to name a few. The multidisciplinary team approach to physician collaboration is already established at many community cancer programs across the country. For this article, Oncology Solutions asked six of the cancer programs with whom we have worked over the past several years to share valuable information on outcomes data from their programs, including how the establishment of disease-site teams and the resulting physician collaboration has directly impacted positive changes in care delivery and program growth. For a brief description of these programs, see box at right.

What is a Multidisciplinary Disease-Site Team?

The term-multidisciplinary disease-site team-can be interpreted several different ways. In this article, we define the multidisciplinary disease-site team as a group of physicians and allied health profession members that collaboratively develop protocols and processes for enhanced cancer care delivery for a particular disease site. Most commonly, disease-site teams are formed around breast, lung, colorectal, and/or genitourinary cancers. The composition of the multidisciplinary team is dictated by the needs of each disease site. Teams may include medical oncologists, radiation oncologists, surgeons, radiologists, pathologists, primary care physicians, urologists, gastroenterologists, certified oncology nurses, patient navigators, clinical research representatives, and other disciplines, as appropriate. This multidisciplinary approach can enhance patient care delivery and satisfaction across the care continuum-from prevention and screening through diagnosis, treatment, follow-up care, and beyond. Disease-site teams are physician-driven and succeed through physician engagement and the active support of administration. Multidisciplinary disease-site teams are often only one component of a hospital's over-

Programs-at-a-Glance

While we were unable to directly reference each community cancer center in this study due to competitive and confidentially concerns, the programs below reflect a good cross section of community programs of differing sizes and geographic regions. Here is a brief description of the six programs.

- 1. Alamance Regional Medical Center, Alamance Regional Cancer Center in Burlington, N.C., is an ACoS-approved Community Hospital Comprehensive Cancer Program. Alamance has had a Lung Cancer Team in place since 2007.
- 2. The Cancer Center at Exempla Lutheran Medical Center (ELMC) in Wheat Ridge, Colo., is a 344-bed hospital in the Denver area. The cancer program sees over 1,100 analytic cases annually as an ACoSapproved Community Hospital Comprehensive Cancer Program. A Breast Team has been in place since 2008 and a Lung Team was recently initiated.

The goal of our Breast Disease-Site Team is to make sure that everyone is on the same page and participating and focusing on the care of the patient. The patient is the main priority. The Team has been instrumental in accomplishing efforts that we likely would not have done otherwise, such as all the physicians committing to provide multidisciplinary case conferences for all our patients prior to treatment. This initiative and other Breast Team initiatives would have been difficult to implement without having the multidisciplinary disease forums.

> —Juhi Asad, MD, breast surgeon, The Cancer Center at Exempla Lutheran Medical Center, Wheat Ridge, Colo.

all strategy for enhancing cancer care delivery and can be combined with other strategic initiatives to enhance overall programmatic success.

Putting Your Team Together

When establishing a disease-site-specific team, it is important to first have a physician champion to act as the team chairperson. The team chair serves in a critical leadership role to motivate and shape the direction of the team's initiatives and goals.

Typically, this team will meet monthly. Initially, the

- 3. The Robert and Beverly Lewis Family Cancer Care Center of Pomona Valley Hospital Medical Center (PVHMC) in Pomona, Calif., serves Los Angeles, Orange, San Bernardino, and Riverside counties. This ACoS-approved program sees over 800 new cancer cases annually and has both a Lung Cancer Team and a GI Cancer Team.
- 4. Hospital A is a comprehensive community cancer program in the Eastern U.S. that established disease-site teams starting in 1994 to include breast, GI, GU, lung, and head and neck cancers. This program is a pilot site of the NCI's NCCCP program.
- 5. Hospital B is a comprehensive community cancer program in the mid-West that has established both Lung Cancer and Breast Cancer disease-site teams.
- 6. Hospital C is a freestanding cancer center and comprehensive program in the Northeastern U.S. with established Breast, Colorectal, Prostate, and Lung Teams starting in early 2007.

team will need to map the patient's journey through the overall health system and determine guiding principles for the team's efforts. Establishing this shared vision gives the physician members a clear view of what drives the team, e.g., a focus on patient-centered, evidence-based care and best practices. Members can then set goals and objectives for the team to achieve over a period of several months. Initial goals set by disease-site-specific teams might include:

- Increasing patient confidence and improving patient satisfaction
- Creating greater interaction among the participating physicians
- Reducing time from cancer detection to treatment
- Diagnosing cases at an earlier stage of disease
- Improving survival rates
- Providing higher clinical quality
- Offering more integrated, comprehensive care
- Increasing clinical trial enrollment
- Establishing a patient navigator program
- Developing a genetics counseling program
- Improving cancer survivorship services
- Enhancing education on prevention and screening in the community
- Improving market share.

Often, disease-site multidisciplinary teams will work for several months on strategies and initiatives to accomplish specific cancer program goals. Typically, teams will assess patient pathways for process improvement opportunities and implement standard screening and treatment guidelines. Some teams will develop multidisciplinary clinics or conferences.

One critical initiative implemented by many teams is the tracking and monitoring of outcomes and performance measures on a "dashboard" or "report card" (see Figure 1, page 32). These dashboards incorporate indicators that help team members know whether or not they are succeeding in meeting established goals. Benchmark data provide a comparison to credible sources such as the American

Figure 1. The Colon and Rectal Cancer Program Multidimensional Quality Scorecard

Monitor

Program Growth	First Quarter 2009	2008	2007	2006	2008/2009 Variance	Action
1. Colon Cancer Inpatients	37 (*148)	134	137	114	10%	
2. Colon Cancer Outpatients	191 (*764)	797	727	724	-4%	
3. New Colon Cancer Cases	18 (*72)	75	69	66	-4%	•
4. New Colon Cancer Case Service Area Market Share (primary and secondary service areas only)	21%	21%	21%	20%	N/A	0
*Annualized 12 months						

Outcome Metrics	2001-2006	State Benchmark	National Benchmark	Action
5. 5-year Survival Rate for Colon Cancer Cases	51.8%	NCDB: 52%	NCDB: 52%	\bigcirc

Clinical Improvement Measures	First Quarter 2009	2008	2007		nchmark/ aseline	Action
 6. Appropriate histological assessment of Stage I, II, and III colon cancer (percentage of patients with ≥ 12 lymph nodes resected) 	83% (10/12)	87% (40/46)	78% (29/37)	63% (24/38)	86% with > 12 lymph nodes ¹	
 Adjuvant chemotherapy is administered within 4 months (120 days) of diagnosis for patients under the age of 80 with AJCC Stage III (lymph node positive) colon cancer 	100% (1/1)	89% (8/9) (One patient not recom- mended)	100% (8/8)	79% (11/14)	Not Available	
8. Percentage of colon cancer cases diagnosed at advanced Stage III or IV	S III = 28 % (5/18) S IV = 17% (3/18)	S III = 24% (18/75) S IV = 17% (13/75)	S III = 19% (13/69) S IV = 22% (15/69)	S III = 29% (19/66) S IV = 17% (11/66)	NCDB: S III = 22.4% NCDB: S IV = 17%	

¹Results of the National Initiative for Cancer Care Quality: How Can We Improve the Quality of Cancer Care in the United States? *J Clin Oncol.* 2006;24(4):626-634.

Cancer Society (ACS), the Institute of Medicine (IOM), the National Quality Forum (NQF), and the National Cancer Database (NCDB). These dashboards can also help hospital administration assess whether physician collaboration is having the added benefit of improving overall service quality, volumes, and market share.

Disease-site teams can benefit community cancer centers in many ways, including enhancing the program and cancer service line, improving clinical outcomes, establishing process improvement projects, and helping to analyze volume and trends.

Physician Buy-in

Building a strong, collaborative disease-site program requires a high level of physician participation and accountability. Several disease-site teams chose to develop and sign Several program enhancements resulted from the implementation of our lung cancer disease-site team and navigator program. Physician outreach and community awareness has been a very obvious enrichment. During physician conversations, as well as community educational programs, all have expressed increased levels of knowledge and competence of lung cancer and the importance of early diagnosis.

- Crystal Fogleman, patient navigator, the Lung Program at Alamance Regional Cancer Center, Burlington, N.C.

Figure 2. How Disease-Site Teams Can Help Enhance Your Program

Program Enhancements	Exempla Lutheran Medical Center	Pomona Valley Hospital Medical Center	Alamance	Hospital A	Hospital B	Hospital C
Patient Navigator	•	•	•	•	•	•
Survivorship	٠					•
Genetic Counseling	•		•		•	•
Accreditations	•			•	•	•
Participation Agreements		•	•	•	•	•
Outcomes Dashboards	•	•	•	•	•	•
Technology Enhancements		•	•	•	•	•
Multidisciplinary Conferences	•	•	•	•	•	•
◆ service already underway ● new initia	ative					

Physician Participation Agreements—a set of guidelines and criteria selected by physician members who demonstrate their commitment to quality patient-centered care and the success of the oncology service line. Physician accountability, guided by the implementation of participation agreements, can play a large role in establishing a successful disease-site program and achieving programmatic goals.

Physician collaboration and support for those elements that are essential to overall patient quality and satisfaction can also help program administrators develop a case for necessary capital expenditures. Consider this example. Marketing a growing and successful breast program can help increase patient volume. The program can then use this increased volume to garner hospital leadership support for the acquisition of new digital mammography equipment. Disease-site teams can be helpful in making the case for other capital expenditures such as medical information technology systems, EHRs and e-prescribing software, and endoscopic ultrasound equipment. Hospital administration can be more confident in making these types of capital investment when groups of committed physicians come to valid consensus about their technology needs.

The physician collaboration generated through multidisciplinary disease-site teams has allowed many community cancer centers to enhance programs and services within the cancer care continuum that otherwise would not have been possible (see Figure 2).

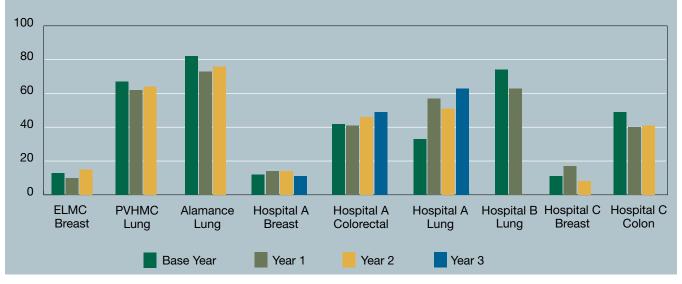
Multidisciplinary Conferences

Community cancer centers typically begin by developing multidisciplinary conference(s) to enhance quality of care. In fact, multidisciplinary case presentation remains a major American College of Surgeons (ACoS) criteria to achieve cancer center accreditation, which requires that 10 percent of all newly diagnosed cancer cases be presented, and 75 percent of these cases be presented prospectively.

Many community cancer centers have established multidisciplinary disease-site specific case conferences in addition to general tumor boards. For example, Exempla Lutheran, in Wheat Ridge, Colo., implemented its breast multidisciplinary case conference in early 2009. The program went from presenting approximately 60 annual breast cases each year to presenting an estimated 315 cases after the multidisciplinary conference was established.

Another community cancer center that we worked with created disease-specific multidisciplinary cancer clinics for breast and colorectal cancers. The colorectal cancer multidisciplinary team increased from 4 retrospective case reviews in the first year to 48 prospective case reviews by year three. In addition to initiating multidisciplinary cancer clinics, the breast team moved to present all positively diagnosed breast cases prospectively. Prospective reviews by these teams include assessing cases pre-surgical intervention—not just pre-adjuvant therapy. This format helps to ensure that patient quality is enhanced by having a team of multidisciplinary specialists to provide professional opinions regarding the best treatment regimens. Because of the

Figure 3. Percentage of Patients Diagnosed at Stage III and IV



increased number of prospective case reviews and various improved program enhancements, these programs are able to achieve and retain ACoS accreditation.

Patient Navigation

Today, many community cancer centers are developing patient navigation programs to help guide patients through their cancer care journey. Disease-site teams can help enhance these navigation services. Physician team members typically define the role the navigator will play in the care of their patients and at what stage navigation services should begin.

Our team has worked with several programs in which patient navigators play an essential role in following lung cancer patients that have presented at the hospital with a solitary lung nodule, incidentally found on CT or chest X-ray, to ensure that these patients receive the proper work-up and care in a timely manner. Other community cancer centers may choose to involve the navigator at the time of diagnosis to facilitate the treatment planning and coordinating process. A patient navigator program helps support more timely diagnoses, diagnosis of patients at earlier stages of disease, and retention of patients within the hospital system.

Accreditation Efforts

Multidisciplinary disease-site teams can help community cancer centers achieve or seek accreditation from various organizations. One program that we worked with was selected for both a state-wide cancer data measurement initiative, as well as one of the NCI's NCCCP pilot sites, partly as a result of having established several multidisciplinary disease-site teams with physician support. Community cancer centers may consider pursuing one or more of the following accreditations:

- National Accreditation Program for Breast Centers
- National Consortium of Breast Centers
- American College of Surgeons Commission on Cancer
- NCI's National Community Cancer Centers Program
- BlueCross BlueShield Blue Distinction Centers for Complex and Rare CancersSM

 American College of Radiology Breast Imaging Center of Excellence.

Clinical Outcomes

While program enhancements certainly enrich patient care, demonstrable clinical outcome improvements are a more concrete measure of success. Some clinical outcomes are being tracked by the National Quality Forum as adopted by the ACoS Commission on Cancer. Disease-site teams can regularly monitor these and other outcomes.

Sentinel node examination is one area of focus. One community cancer center that we worked with started tracking this outcome via their quality dashboards for breast, colon, and rectal cancers. For colon cancers, in the first year of the program, 63 percent of Stage I, II, and III colon patients had \geq 12 lymph nodes resected. This rate increased to 83 percent by year four. Another community cancer center was able to increase its resection rate from 71 percent in year one to 88 percent by year three.

Other community cancer centers were able to generate increased clinical trial accruals. After establishing diseasesite teams, Exempla Lutheran, grew its breast accruals from 3 percent of the total new breast cancer cases to 14 percent in the most recent year. Another community cancer center that we worked with also increased accruals to breast trials from 1 percent to 9 percent in years one and three, respectively, although the program was not successful in achieving growth to its colon or rectal trials, due, in part, to lack of physician buy-in regarding use of clinical trials. Education of both the physicians and the patients can play a vital role when attempting to increase clinical trial accruals at a cancer program.

For many community cancer centers, one important outcome to track is the ability to reduce late-stage diagnosis of cancers as a result of initiatives put in place by the program. Figure 3 above illustrates how, through the efforts of the disease-site teams, late stage diagnosis of these cancers declined. Earlier diagnosis offers the best opportunity for treatment and potential cure. After just one year of program implementation, the lung program at one of the hospiExempla Lutheran's Breast Multidisciplinary Care Team achieved considerable improvements for our breast program. The team made enhancing the patient experience for all breast care patients a priority, which set the tone for everything the team pursued. The ultimate goal was to improve patient care—and the time from suspicious finding to diagnosis is a critical time in the patients' life. As a community hospital, we really needed the physicians' help to be able to streamline the processes in the Breast Care Center and could not have achieved this without them. Much education occurred with the team to develop an understanding of what the care path was, and obtain the physicians' ideas on what they could do differently and what we as a hospital could do differently as well. Organizationally, the Breast Care Center resides under Medical Imaging rather than the cancer program, and the disease-site team process helped bring Imaging and Breast Care together to build a better experience for patients from screening through to diagnosis and treatment.

> —Denise Black-Andersen, director of Oncology and Specialty Services, The Cancer Center at Exempla Lutheran Medical Center, Wheat Ridge, Colo.

tals we worked with was able to increase diagnosis of Stage I lung cancers from 20 percent of the total to 26 percent; Stage II from 4 percent to 22 percent; and, in turn, decrease late Stage III and IV cancers from 74 percent to 63 percent combined, with Stage IV diagnoses reduced from 52 percent to 35 percent. Lung teams at both Alamance Regional Cancer Center in Burlington, N.C., and Pomona Valley Hospital Medical Center in Pomona, Calif., introduced patient navigators and solitary lung nodule work-up and pre-treatment case conferences, which allowed both programs to see declines in advanced-stage diagnosis as well. Results such as these motivate physicians and administrators to continue developing programs and invest in resources that build upon these successes.

Process Improvements

Physician collaboration provides opportunities to focus on the care process for cancer patients and how each physician and the hospital contribute to the various components of this care. Typically, disease-site teams start by establishing a map or pathway of the current experience for a breast, colon, lung, or prostate patient as he or she has a suspicious finding, works through the system to obtain a diagnosis, receives treatment, and then follow-up care. The teams identify critical points in this pathway where changes can be made to enhance the quality or timeliness of the care provided.

When Exempla Lutheran initiated its Breast Team, it took six weeks for a patient to schedule a screening exam and an average 26-day delay from the time of an abnormal mammogram finding to receiving a definitive diagnosis. Combined with physical renovations to the breast screening and diagnostic centers that were already underway, team efforts led to:

 Implementing revised breast center order pads and physician preference profiles, which allowed referring physicians to provide standing orders to obtain all tests needed to reach a diagnosis.

- Increasing educational efforts to the referring physician community.
- Making operational and scheduling changes in the breast center.

Today, breast patients at Exempla Lutheran can obtain a screening mammogram in a much shorter time frame, even the same day, if desired. Patients with an abnormal finding can receive a diagnosis in an average of six to seven days.

The Breast Program at another health system we engaged with made a significant investment in assessing the care path for its breast cancer patients and achieved similar outstanding results. The team implemented several changes to their processes, resulting in a decrease in the wait time for a screening mammogram from their high-volume breast center from seven weeks to just one week (or earlier on request). Diagnostic exams can be scheduled within one day or less. The physicians on the breast cancer team also committed to ensure that any patient could obtain a surgical consultation within 48 hours.

For lung cancer teams, several opportunities exist to improve the timeliness of lung cancer care. The pathway for a patient who has a lung nodule found on a chest X-ray or a CT to reach a diagnosis is complex and time-consuming. The patient works his or her way through multiple physicians: from the primary care physician, to a radiologist, a pulmonologist, and then to a surgeon or an oncologist. In our experience, this "path" can take anywhere from 11 days to up to 45 days or more to reach a diagnosis. Even worse, some patients—if they do not obtain the information and recommendation for follow-up testing for an abnormal finding—may "fall through the cracks" before they even start on this journey. The lung cancer team at Alamance Regional Cancer Center set a goal to improve the timeliness of lung cancer diagnosis in its healthcare system. Physicians

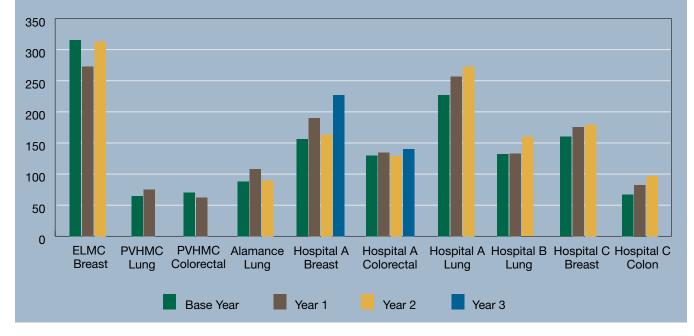


Figure 4. Number of Analytic Cancer Case Trends by Hospital

realized that patients were not being seen quickly enough. Patients were waiting an average of 23 days to diagnosis and were choosing to leave the community for their care. The lung cancer team collaborated with the Radiology Department to develop a mechanism for radiologists to identify suspicious nodules, and then proceed, with an automated electronic referral of the patient to the thoracic patient navigator and/or hotline. The navigator follows these patients, bringing their cases in front of a weekly solitary lung nodule case conference for multidisciplinary recommendations and referrals for all the testing needed to bring the patient to a quick diagnosis. With the navigator's assistance, the lung team reduced the pathway to less than 9 days to reach a definitive diagnosis.

The pathway from diagnosis to lung cancer treatment can also be a lengthy process for patients to endure, as they work their way through multiple work-up tests and multiple physicians before they proceed with treatment. Several lung cancer teams we've engaged with addressed this issue by agreeing to implement standardized work-up processes based on evidence-based guidelines, such as those developed by the National Comprehensive Cancer Network (NCCN). Pomona Valley Hospital Medical Center used this approach. With assistance from its lung patient navigator, the hospital reduced its diagnosis-to-treatment time from 51 days down to 20 days. Another community cancer center that we worked with used its lung cancer team, patient navigator, and multidisciplinary case conference to reduce its time from diagnosis to treatment from more than 30 days to just 13 days.

Volume Trends

As the previous indicators show, physician collaboration and disease-site teams can help improve overall quality care in several specific areas. For community cancer centers, however, these results often require an investment of both time

Table 1. Percentage Change from Pre toPost Disease Team Implementation

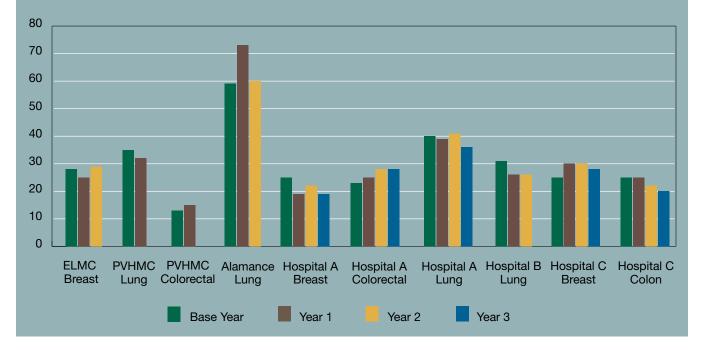
Program Name	Inpatient Volume	Outpatient Volume
ELMC Breast	34%	-8%
PVHMC Lung	-25%	-10%
PVHMC Colorectal	-39%	12%
Hosp A - Breast	-27%	19%
Hosp A - Colorectal	-3%	-11%
Hosp A - Lung	2%	11%
Hosp C - Breast	-27%	53%
Hosp C - Colorectal	44%	19%

and money. To justify this funding, hospital administration also looks to the potential for increased patient volume and corresponding financial gains from this investment.

Several of the programs we worked with experienced a positive impact to their service lines through higher volumes and market capture. Success was not universal, however, since programs are affected by several external factors that compete for program volumes.

Of the 6 programs and 10 disease-site teams we assessed, all experienced some level of cancer program growth of analytic cancer cases, with the exception of Exempla Lutheran's Breast Team, which remained relatively constant, and Pomona Valley Hospital Medical Center's Colorectal Team. While the declines for Pomona's Colorectal Team were minimal, down from 70 to 62 cases, this team struggled with the reality that the main network of referring physicians continued to direct patients elsewhere for colonoscopies, resulting in many diagnoses not being captured within the hospital's tumor registry. The hospital also lost a major payer contract in





2008, contributing to difficulties retaining patients to the entire program.

Pomona's Lung Program, bolstered by the strength of their thoracic surgeons and other committed physicians, a new patient navigator, and development of a multidisciplinary lung nodule and pre-treatment case conference, is seeing some program cancer case growth. However, Pomona's inpatient and outpatient volumes reflect a different experience, with the lung program showing declines and the colorectal program increasing its outpatient volumes. (Actual volumes are not shown to protect confidential hospital information). However, lung surgical inpatient volumes—the most profitable of cases—saw a 32 percent growth over the same period. Colorectal outpatient cases increased, showing that even though some colonoscopy cases were lost, much of the downstream cancer care was still being treated at Pomona.

Exempla Lutheran's breast program saw relatively constant analytic breast cancer case volumes from the base year (the year before the disease-site team was established) to the current year, and a slight decline in its market share. The decline in the middle year was due to capacity constraints created by departmental renovations. The overall lack of positive growth was anticipated, as the Breast Center and cancer program reside in a highly competitive environment and had not yet been marketed externally to the community to generate greater awareness of program enhancements. However, the team made improvements in providing better access to breast screening and diagnostic services that kept this decline to a minimum, and more recent months are beginning to show an upward trend. Inpatient breast volume grew over the same period, although the program has struggled to retain its outpatient volume.

Alamance Regional Cancer Center's lung cancer team saw minimal volume increases to its program, with unanticipated significant growth in year one of the program, a trend seen in other service lines throughout the hospital that year. Market share for Alamance increased in the primary service area, but declined within its secondary region, a trend the hospital is working to change through creation of a satellite diagnostic and treatment facility.

Overall, these programs experienced varying levels of success, with 90 percent growing their analytic cancer case volume; 50 percent increasing their market share; more than 60 percent increasing outpatient volumes; and 37 percent growing their inpatient business. For more information, see Figure 4 and Table 1 (page 36) and Figure 5 (page 37).

Future Considerations

While many of the community cancer centers we worked with to enhance physician collaboration experienced positive results and outcomes, this scenario is not always true. Some programs initiate disease-site teams or other collaborative efforts, but find little physician support or participation. Other programs have a very engaged group of physicians, but an administration that is unable to deliver on the operational or promotional needs required to generate proven successes. Additionally, several external factors may come into play, such as payer contracts, competition, loss of key physicians, or the need to recruit additional physicians or patient navigators to support a program.

If a community cancer can resolve these issues, however, improving the communication and collaboration between physicians and the hospital can provide both qualitative and quantitative benefits to justify the investment.

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