

# Cornerstone Health Care: Becoming a Value-Driven Healthcare Delivery System

Part 1: Improving Our Patients' Experience and Outcomes

BY GRACE TERRELL, M.D.

*In October 2015, Cornerstone Health Care, P.A. was named the recipient of the American Medical Group Foundation's 2015 Acclaim Award for its initiative, "Becoming a Value-Driven Healthcare Delivery System." Here, they share some insight and highlight two projects that were part of their plan to transform the way they deliver health care in order to more fully achieve the AMGA High-Performing Health System™ attributes, improving both the quality and cost of care.*

On October 1, 2015, we celebrated our 20th anniversary at Cornerstone Health Care. The seven physicians who met together as a steering committee in 1993-1995 to create the governance structure that led us to merge our practices together and form Cornerstone Health Care never imagined that 20 years later our medical group would win AMGF's prestigious Acclaim Award, designed to recognize and celebrate the successes that medical groups and other organized systems of care have achieved in improving the value of healthcare services they provide to their communities. But we did recognize that high-quality health care is best provided by healthcare providers working together in team-based, patient-centered systems. From that starting point, our organization has grown and changed with the turbulent changes in the healthcare delivery system, but has remained laser-focused on improving our patients' experience and outcomes from the care we provide.

In 2010, the physicians of Cornerstone Health Care decided to become a value-driven health delivery system. We believed that three things would be necessary to succeed in our efforts: we needed to redesign the way we delivered care; we needed to invest in information system integration, analytics, and predictive modeling; and we needed to convert our payment contracts to ones that reward us for

providing high-value care rather than simply focusing on fee-for-service.

Our organization's vision statement declares that we want to be the model for physician-led health care in America. That is a lofty aspiration, but one that we take seriously. Five years ago, we began our journey to transform health care, ambitious to achieve the lofty goals of the Triple Aim—improve the quality of care for our patients, improve the patient experience, and reduce the overall cost of care for our patients. Along the way, we were recognized and awarded for our progress.

- In 2012, all of our primary care practices were recognized by the National Committee for Quality Assurance (NCQA) as a Level 3 Patient-Centered Medical Home™ (PCMH) under the 2008 PCMH standards and again in 2014 under the 2011 PCMH standards.
- The organization was also recognized by Press Ganey Associates, Inc. as a 2012 Success Story Award® winner for patient satisfaction.
- In July 2012, we were selected to participate in the Medicare Shared Savings Program (MSSP) sponsored by the Centers for Medicare and Medicaid Services (CMS).
- We were ranked 6<sup>th</sup> in the nation on Quality in 2014.



*Cornerstone Health Care team accepting the 2015 Acclaim Award (left to right): Elisabeth Stambaugh, M.D., Chief Medical Officer; Mitchell Isaac, M.D., Physician and Service Line Medical Director; Grace Terrell, M.D., President and Chief Executive Officer; Danielle Mahaffey, M.D., Medical Director and Vice President, Board of Directors; Stacy Connor, Executive Assistant Supervisor; Yates Lennon, M.D., Chief Quality Officer; and Glenda Billings, NP-C, Chief Operating Officer*

- In 2015, we were selected to participate in the Next Generation ACO.

And recently, winning the 2015 Acclaim Award confirmed that we are indeed headed in the right direction.

Patients at Cornerstone experience a team approach to their health care that includes the right service by the right providers at the right time and in the right place. In an effort to better serve the needs of our patients, we:

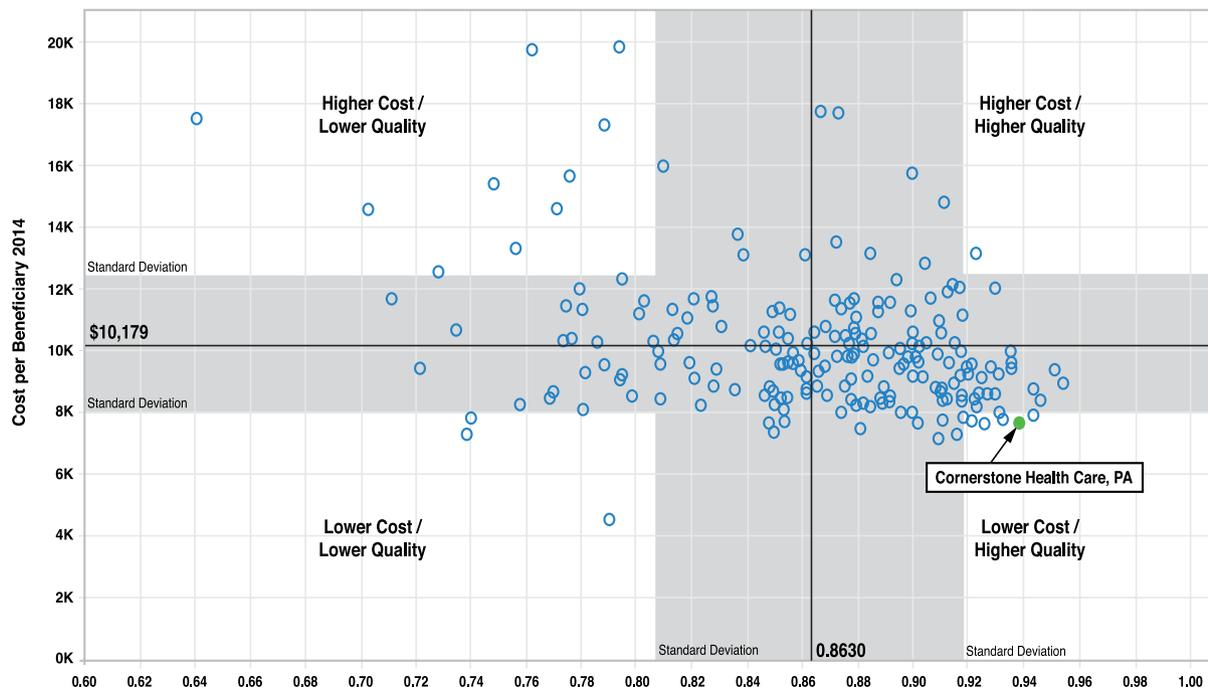
- Expanded access of care
- Increased coordination of care
- Developed disease specific, evidence-based care models
- Enhanced patient education for prevention and treatment of chronic disease
- Added sophisticated technological support which closely monitored the care of our patients and worked with them on how to properly and more effectively manage their conditions
- Implemented smart care teams to positively impact the health of our patients by extending the traditional reach of providers and their clinical care teams, intervening with the most vulnerable populations

Actively monitoring our results, we have seen our patient satisfaction, at its lowest in 2011 (51%), reach 93% in 2015. Our quality scores were just as low in late 2013 (67.3%), but increased in 2015 to 94%, ranking us 6<sup>th</sup> in the nation on quality (see Figure 1). Implementing our care models resulted in more than \$3,000 per patient savings and more than \$6 million dollars in total savings. Our results thus far are encouraging, with improvement in costs, patient satisfaction, and quality scores.

We have much more to do to achieve the Triple Aim in our country, and we hope our efforts to be a high-performing healthcare delivery system will be a significant part of the changes needed in the communities we serve. We have learned so much from our colleagues in other medical groups in the country and hope that in our continued efforts to be the model for physician-led health care in America, others may learn from our journey also.

*Grace Terrell, M.D., is president and chief executive officer at Cornerstone Health Care, P.A.*

**FIGURE 1**  
**2014 ACO Cost Per Beneficiary vs. Quality Score**



# Cornerstone Health Care: Becoming a Value-Driven Healthcare Delivery System

## Part 2: 2015 Acclaim Award Recipient's Vision in Action

Founded in 1995 as a physician-led and -owned organization with 42 physicians in 15 practices, Cornerstone Health Care, P.A. has grown to more than 300 physicians and advanced practice providers in more than 85 practices in the central and western regions of North Carolina. In 2010, the organization decided to become a value-driven healthcare delivery system, focused completely on the experience of patients.

Patients experience a team approach to their health care that includes the right services by the right providers at the right time and in the right place. Individual care models, specific to chronic diseases (such as diabetes, chronic obstructive pulmonary disease, and congestive heart failure) help patients receive the expert care they need to manage their chronic conditions.

The organization continues to establish more disease-specific care models to help address specific health populations and to establish partnerships with other healthcare organizations to provide more integrated services to help comprehensively address the healthcare needs of the communities they serve.

In October 2015, Cornerstone Health Care was named a recipient of the AMGF 2015 Acclaim Award. As part of the application process, the organization was asked to highlight two narratives describing the design and deployment of two major components—projects, phases, or tactical plans—that were part of their plan to transform the way they deliver health care in order to more fully achieve the AMGA High-Performing

Health System™ attributes, improving both the quality and cost of care.

### Development of Care Models

Moving to value-based health care required fundamentally changing the way Cornerstone cares for patient populations so that the right care is delivered at the right time in the right setting with the right resources. Their goals are as follow:

- To reduce fragmentation
- To reduce unexplained variation in care
- To optimize patient engagement
- To use best available evidence as the basis for care
- To apply resources to the most appropriate level
- To improve satisfaction for both the patient and the provider

The best method for achieving these goals was to develop care models that addressed specific patient populations. Cornerstone followed a disciplined process to identify areas of opportunity and to quantify savings for each care model.

Since 2012, they have developed six specific care models that have resulted in more than \$3,000 per patient savings and more than \$6 million dollars in total savings since inception on a total of 461 patients (see Table 1).

**TABLE 1**  
**Transformation Program Care Model Performance**

Select Programs	Per Patient (Savings) or Increase Total		Extrapolated (Savings) or Increase	
	Overall Change in TCOC	Inpatient Hospital	Overall Change in TCOC	Inpatient Hospital
All Care Models Combined	(\$3,521)	(\$4,527)	(\$6,896,469)	(\$9,785,874)
Care Outreach Model	(\$3,811)	(\$2,574)	(\$994,643)	(\$671,997)
Heart Function Clinic Model	(\$5,529)	(\$9,219)	(\$1,774,920)	(\$2,959,359)
Extensivist Model	(\$5,473)	(\$3,701)	(\$1,428,545)	(\$966,023)
Personalized Primary Care Models	(\$739) (\$4,076)	(\$3,097) (\$5,730)	(\$501,238) (\$2,197,123)	(\$2,099,944) (\$3,088,551)

Each care model begins with a pre-launch phase during which patient population and success metrics are identified and documented by a team of physicians, advanced practice providers, executive administrative staff, and clinical data analysts. Gap analysis, baseline measurements, provider education, counseling, physician buy-in, and role assignments are also a part of the pre-launch phase.

A variety of analytic and predictive modeling tools—including Teradata Data Warehouse™, Optum™ Impact Suite, Humedica MinedShare™, Tableau Business Intelligence™, and Lightbeam™ software—help this transformation team identify specific population metrics and benchmarks. They also help guide the medical staff in determining which patients need additional care or intervention. Ongoing support and metric measurement is provided for each care model, sometimes resulting in care model redesign based on outcomes and patient feedback.

### **Heart Function Clinic**

The Heart Function Clinic was one of the first care models implemented. The model started out as a separate clinic that thrived on referrals from internal cardiologists. Ideally, the cardiologists would refer a patient to the clinic to help manage the patient's chronic heart conditions and to offer additional resources (pharmacy, behavioral health, nutrition, and social work) outside a typical office visit, all under the supervision and expertise of a nurse practitioner.

One of the struggles they experienced with this model was the process of referring patients to the clinic, which involved transferring care to the heart function clinic from the traditional office practice of the cardiologists. The cardiologists struggled with referring patients to the clinic and saw referrals to the clinic as a sign of “giving up” on their patients rather than co-managing their care.

Another barrier was the additional copays that were required for each billable service provided (at a specialist co-pay level, which is often higher than that for primary care). After a referral to the clinic, some patients refused to schedule follow-up office visits with the nurse practitioner because their insurance required an additional copay.

Also, the plans to offer remote monitoring for weight to help guide therapy had to be put on hold because of the upfront costs of the monitoring that were not covered by fee-for-service gainshare economic models.

Despite these early challenges, savings on a per-patient basis were astounding as a result of greatly

reduced numbers of hospitalizations. However, a certain enrollment number was necessary to offset operational costs. The organization struggled to approach this enrollment number for multiple reasons including patients who exited the program and difficulties in securing referrals. For this model to achieve cost savings, and to break even, the clinic needed significantly more patients to be enrolled in the model. The current workflow was not achieving this, so they began a redesign phase to address these and other issues.

The team had to rethink the workflow and enrollment criteria to encourage physicians to refer patients to the clinic and increase patient enrollment. The organization is currently working with their full-risk contracts to appropriately waive copays for qualified high-risk patients, and the team is engaging physicians to identify the best possible workflow for co-management of care.

Despite the struggles and slow enrollment, this care model has had a great impact on the patient population and cost of care. Since implementation, this care model has seen a per-patient cost of care savings of \$5,500 and overall cost of care savings of \$1.7 million. Most of these savings are based on comparing the total cost of care for the patients before they entered the program and their total cost of care after enrolling in the program. A reduction in hospital admissions because of improved outpatient management is the critical factor in the overall cost savings.

### **Care Outreach Model**

To encourage a reduction in frequent ED use and hospitalization, the next model targeted the patient population that frequented the hospital most, Cornerstone's lower-income patients. North Carolina's population was 17.5 % below poverty level in 2013 ([www.census.gov](http://www.census.gov)), so the Care Outreach Model is designed to help patients with lower incomes and Medicare and/or Medicaid with complex medical needs and primary care needs. This model offers dual-eligible patients additional resources beyond what is typically seen in traditional primary care offices. Some of the resources include transportation to and from office visits/pharmacy, multi-language interpretation services, social workers, and behavioral health consultants.

Patients seen at this clinic typically have low literacy, which can limit their knowledge of healthcare issues that may impact them. The clinic offers diabetes and nutrition education in a manner that is sensitive to education barriers. The model also offers an embedded health navigator to answer patients' questions and concerns about their healthcare needs. Based upon routine

PHQ-9 screening of each patient at each visit, the clinic also provides a depression care program to all patients who have been diagnosed with depressive disorders.

Working with this population, Cornerstone realized that something as simple as lack of transportation can keep patients from receiving the appropriate health care they need. Both clinical and clerical staff are trained to work with the different struggles that most patients face in getting to the clinic and the difficulty that some of them face making it to their appointments.

To prevent unnecessary emergency room visits and/or inpatient visits, the front office staff and nurse triage staff are trained to triage or case manage the patients' immediate needs or feelings of crisis to discern if an office visit is necessary or if the crisis can be handled over the phone by speaking with a nurse or provider. In its first year of operation, this clinic has seen a total savings of more than \$670,000 just in preventing inpatient hospitalizations and an overall savings of close to \$1 million.

### **Extensivist Model**

The Extensivist Model is comprehensive care for patients with complex healthcare needs. Patients who use this model are usually referred by either the primary care physician or one of our hospitalists after the patient is discharged. Patients will be seen within one to three days of hospital discharge or referral from their primary care physician. Typical visits range from 30 to 90 minutes, during which the physician discusses and reviews the patient's history, medications, and personal concerns. Using a team-based approach, the team (health navigator, behavioral care coordinator, social worker, clinical pharmacist, and nurses) provides whole-person care and support during the transition back into the home or to a nursing facility when necessary. Once a plan of care is established and the patients have met their goals, the patients may return for follow-up appointments and wellness exams with their preferred primary care physicians.

The organization is working to establish in-home visits with patients who are unable to leave home for follow-up care and to establish in-home medication management to educate patients on their current medications. The goal of in-home medication management is to eliminate unnecessary prescriptions or expired, harmful medications with the underlying benefit of reducing the medications the patient currently takes and thereby eliminating unnecessary costs.

Cornerstone has seen significant savings in the Extensivist Model, with a per-patient cost savings of \$5,400 and total savings of \$1.4 million. Reducing

inpatient hospitalization costs was the primary driver of savings for this model.

### **Oncology Model**

The Oncology Model, designed to target breast and lung cancer patients and other oncology needs, was one of the organization's earlier care models. Having a limited number of available controls and lacking analytical software at the time of implementation, they had difficulty identifying a baseline by which to measure the impact of the model on this patient population.

In the beginning, patients would be referred to this care model based on positive pathology results instead of diagnosis code, and case-to-control matches were not matched based on specific diagnosis code or acuity but rather on age and sex. Not having captured the proper baseline metrics in the beginning, it is difficult to determine the impact on patients, other than through patient feedback. Future studies will investigate if the program has a favorable impact on the overall cost and quality of care for these patients.

### **Other Models**

The COPD Care Model and the Nephrology Medical Home Care Models are both new, having been implemented in 2015. Baseline metrics for these models have been obtained, and Cornerstone is confident that they will see positive outcomes in these programs as they have with the other care models.

### **Development of Strategic Transformation Partnerships**

Transforming health care across the region is a team-based approach that Cornerstone realized early on. To better care for patients, the organization partnered with several area healthcare organizations, hospitals, surgical centers, and home health agencies across the state to ensure that patients receive the highest quality of care.

### **Cornerstone Health Care Foundation**

Knowing that proper healthcare education should begin at an early age, the organization formed the Cornerstone Health Care Foundation in 2008 with the mission of supporting, educating, and encouraging children's general well-being. Realizing the broad opportunity this mission presented, the foundation set forth in establishing collaborations with other like-minded organizations throughout Cornerstone's servicing area. Middle school trips have been sponsored, in partnership with regional hospitals, to encourage students with an interest (and those who are undecided) to perhaps one day seek careers in a healthcare profession.

In keeping with its goals, the foundation funds a week-long medical camp for rising high school juniors who have expressed an interest in a medical profession. Along with a local area university, the foundation sponsors an annual free symposium geared to those who work with and support youth in sports activities. In support of not only the children, but the community at large, the foundation provides the funding for an annual blood drive with the American Red Cross. The future of the foundation is in constant pursuit of endeavors that lend to Cornerstone's mission and thus lead to a more nurturing environment for children and the community as a whole.

### **Cardiology Services**

In 2010, Cornerstone developed a co-management agreement for cardiology services with one hospital, designed to improve the cost and quality of cardiac care in the inpatient setting. As a result of these efforts, quality results improved such that the hospital was named a Top 50 Heart Hospital. A single redesign of a chest pain protocol improved chest pain management such that patients received appropriate triage and testing and greatly reduced unnecessary non-cardiac chest pain admissions from 17% to 4%. Redesigning the atrial fibrillation protocol also was successful. A new protocol assisted in determining which patients needed to be admitted and which ones could be sent home and seen as outpatient. The protocol resulted in a direct cost savings of \$4,378 per patient. In addition, average length of stay was reduced from 1.11 to 0.69 days. As a result, the organization subsequently established a co-management agreement for oncology services.

### **LabCorp**

In 2011, Cornerstone established a relationship with Laboratory Corporation of America (LabCorp), the world's leading healthcare diagnostic company that provides comprehensive clinical laboratory services. In 2013, they furthered the relationship with LabCorp, entering into a Technical Support Agreement to manage all of their laboratories. Because of LabCorp's national presence and buying power, they have benefitted from economies of scale, the ability to offer full on-site lab services and standardization of lab practices across the entire organization. Labcorp's ability to provide data integration for ACO patients who receive labwork outside of the organization will further enhance Cornerstone's ability to improve patients' care.

### **Rite Aid**

In November 2013, Cornerstone also partnered with Rite Aid Health Alliance, a health management

collaborator with various healthcare providers that provides comprehensive care and support to individuals with chronic and poly-chronic health conditions and helps them achieve health improvement goals established by their physicians. Patients with chronic and poly-chronic conditions—such as congestive heart failure, COPD, high cholesterol, and diabetes—are recommended to the program by their primary care physicians. Rite Aid pharmacists and specially-trained care coaches located in Rite Aid pharmacies work with the physicians and patients on an ongoing basis to improve the patient's overall health and self-management abilities. Cornerstone has seen positive results with the 1,467 patients whom providers have thus far referred to this program, including improved adherence to medication, smoking cessation, and weight loss.

### **FastMed Urgent Care**

In early 2014, the group partnered with FastMed Urgent Care, the largest urgent care facility in the state, offering patients weekend and evening walk-in access hours 365 days a year. With more than 38 clinics within the state, this FastMed partnership helps patients who do not have an already established primary care provider gain access to routine and established primary care providers through Cornerstone's medical home, ensuring that patients receive the right care at the right time. Since the partnership, more than 600 patients visited a FastMed Urgent Care facility and more than 130 new patients decided to visit one of Cornerstone's physicians for follow-up care, resulting in additional revenue. The organization has seen more than \$900,000 in savings from this partnership.

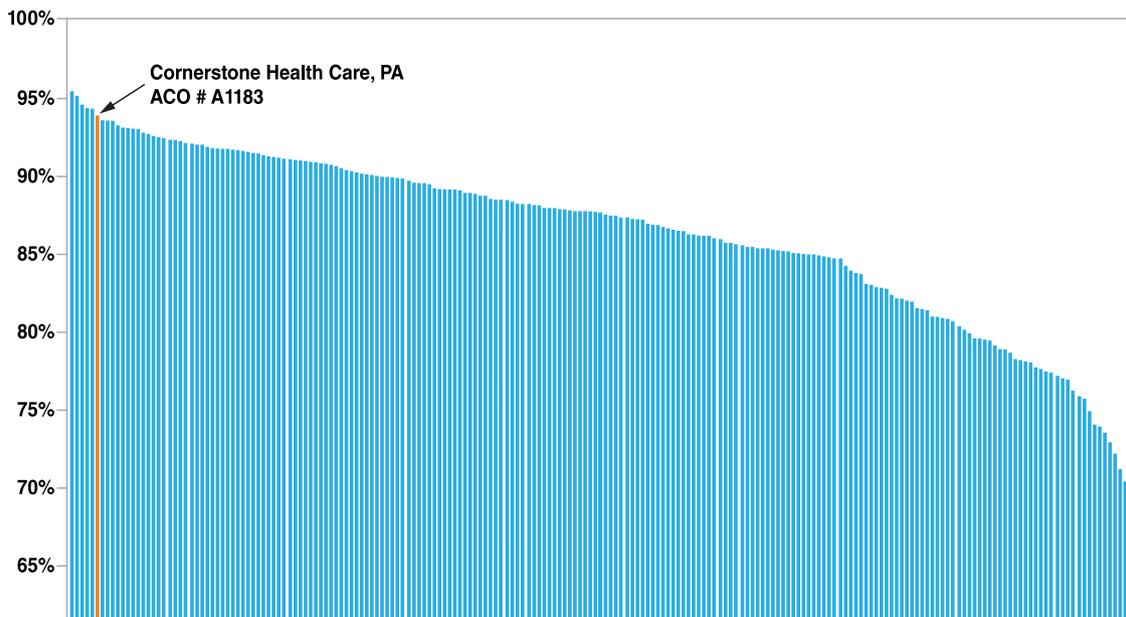
### **TouchCare**

Pilot phases have begun for TouchCare™, a telemedicine application that connects patients to their healthcare professionals using a mobile device, computer, iPad, or tablet. Beginning with just a few physicians in the pilot program and offering the pilot only to patients with Blue Cross Blue Shield, TouchCare has received positive feedback from both patients and providers, and Cornerstone now offers it to all patients and providers and continues to receive positive feedback.

### **Livongo Health**

Cornerstone also is now working with Livongo Health, a cellular-based diabetes tool that helps patients track their blood glucose levels and other healthcare data, enabling patients to have access to their medical data in the palm of their hand. It also provides an easy way to stay in touch with their healthcare provider. This partnership is currently in the pilot phase.

**Figure 2:**  
**MSSP ACO Quality Result Comparison**



### Anceta Collaborative

Cornerstone believes that they can improve through publically reporting outcomes, costs, and quality and by benchmarking results with other organizations. They have participated with the AMGA Anceta Collaborative since 2010 to benchmark clinical outcomes with high-performing healthcare delivery systems and to participate in continual learning. They have actively participated in a blood pressure measurement project and Anceta collaborative efforts in improving rheumatoid arthritis care and diabetes care management. They participated in the Medicare PQRS program since its inception, achieving \$1.7 million in payments from the first two years of participation. Cornerstone has successfully attested 100% of providers for Stage 1 Meaningful Use and awaits their EHR vendor's upgrade to attest for Stage 2 this year. Their MSSP has allowed them to benchmark quality and cost results with other groups across the country. In 2013, Cornerstone performed in the top 20<sup>th</sup> percentile among MSSP ACOs in the country in their quality results (see Figure 2).

By building on the foundation of the ACO's participation from the inception of the Medicare Shared Savings Program in 2012, the organization led creation of a regional Shared Savings Program ACO, which began in January 1, 2015.

### Risk Contracts

By 2015, incremental revenue associated with risk-based and gainshare contracts in Cornerstone's

value-based payment models has continued to grow, with the cumulative revenue from pay-for-performance, chronic care management, and cost reductions exceeding \$17 million (see Table 2). The organization has successfully implemented gainshare and shared savings arrangements for all of their Medicare Advantage and commercial contracts. These contracts have resulted in cumulative gainshare dollars exceeding \$24 million during 2015. They have also, over the past three years, doubled the Medicare Advantage lives covered under these contracts by partnering with payers to help patients understand the benefits and advantages of these plans. In 2015, the group entered into their first full-risk contracts, taking on the full management of patient care for almost 9,000 lives.

### Summary

Since establishment in 1995 and the transition to value-based medicine in 2010, Cornerstone Health Care has focused on ensuring that patients and the community receive the highest quality of care at the right time and place at the lowest cost while increasing patient and provider satisfaction. Through hard work from their providers, quality team, clinical data science team, information technology team, administrative staff, and healthcare partnerships, they have achieved positive outcomes and believe that they are on the right track for transforming health care in their community, state, and nation.

**TABLE 2**  
**Value-Based Payment Revenue**

Sum of Amount for Report Type	2010	2011	2012	2013	2014	2015 (Oct YTD)
Care Coordination Fee	0	5,544	300,228	708,863	1,248,618.1	1,256,064
Consulting Fee	0	0	0	40,000	0	0
Eprescribe	95,448	474,748	42,035	92,662	18,989	52
Gainshare	0	0	65,048	1,562,125	982,291	5,471,243
HPSA	2,888	132,680	34,642	51	12	1,289
HSIP	0	1,568	6,061	3,358	1,811	-17
Meaningful Use	0	0	2,685,260	1,912,127	1,522,424	1,137,712
Med Condition Forms	0	2,475	4,425	23,625	3,600	7,350
Med Records Value Contract	0	1,180	1,830	6,300	960	1,960
Medication Adherence Incentive	0	0	0	650	6,100	2,950
Metrics	0	8,700	51,740	181,332	0	580,554
PCIP	0	150,653	381,467	447,500	449,760	403,522
PCMH Program						88,080
PQRS	447,343	621,780	284,081	159,089	145,321	131,219
SOAP Reports	0	0	0	0	31,600	65,400
<b>Total by Year</b>	<b>545,679</b>	<b>1,339,328</b>	<b>3,856,815</b>	<b>5,137,682</b>	<b>4,441,486</b>	<b>9,147,377</b>
<b>Rolling Total by Year</b>	<b>545,679</b>	<b>1,945,007</b>	<b>5,801,822</b>	<b>10,939,504</b>	<b>15,380,990</b>	<b>24,528,367</b>

David Blumenthal has stated that clinical strategies likely to result in well-coordinated, cost-effective, patient-centered, high-value services include proactive management in between visits; good information systems with clinical decision support; predictive analytics to identify patients most likely to benefit from intervention; use of patient registries; care teams that include a variety of clinicians; strategies to address the nonmedical determinants of health; management of patient experience, informed by patients surveys; and an emphasis on shared decision making.<sup>1</sup> Cornerstone believes that Dr. Blumenthal's analysis is spot on, and they continue to focus their efforts on developing each of these capabilities. The results thus far are encouraging, with improvement in costs, patient satisfaction, and quality scores. We have much more to do to achieve the Triple Aim in our country, and Cornerstone hopes that their efforts to be a high-performing healthcare delivery system will be a significant part of the changes needed for our patients.

### Organizational Overview

- 195 physicians
- 128 advanced practice providers
- 36 specialties
- 1,650 employees
- 21 practices with extended hours
- Affiliated with 15 hospitals in 8 separate health systems
- 29 primary care practices recognized by NCQA as PCMH Level 3

### References

1. L. Binder. 2015. Value-based purchasing versus consumerism; navigating the riptide. *American Journal of Accountable Care*, 3(1): 11-14.

*Adapted from the Acclaim Award application of Cornerstone Health Care, P.A., submitted by Grace Terrell, M.D., president and chief executive officer.*