



Congestive Heart Failure Management Program

The Congestive Heart Failure Program is the third statewide disease management program developed by CCNC. The clinical directors reviewed prevalence and outcome data for several chronic diseases and reviewed the evidence for disease management models for cardiovascular disease and heart failure. The consensus of the clinical directors was to build on the success of the asthma and diabetes programs and to design an initiative to improve the quality of care and health outcomes for North Carolina's heart failure population. Several heart failure disease management models exist that have clearly demonstrated improved outcomes, including decreased mortality, hospitalizations, enhanced quality of life and decreased cost.

National Burden of Illness

Patients with heart failure are frequently hospitalized and suffer from chronic shortness of breath and fatigue thus having a tremendous impact on individuals' functional status and quality of life. Nationally, heart failure is the most common cause of hospitalization for the elderly and accounts for 5.4 percent of healthcare expenditures or \$38 billion. Ten percent of congestive heart failure patients are re-hospitalized within six months.

North Carolina Data

In North Carolina, heart failure is the second leading cause of preventable hospitalization and expenditures per individual far exceed those for individuals with diabetes or asthma. Furthermore, more than half of the hospitalizations are thought to be avoidable (note: lack of adherence to medications and diet accounts for 41 percent of hospitalizations due to heart failure). About 3,000 individuals in CCNC are identified with heart failure, while there are more than 17,000 enrollees with either diabetes or asthma. However, the annual mean Medicaid expenditure for individuals with heart failure is \$27,000, while it is \$7,900 and \$12,000 for people with asthma and diabetes, respectively.

Fortunately, heart failure is a treatable condition with several proven strategies that can improve health outcomes, to include promotion of evidence-based therapies, self management, and access to the medical home. These strategies there are very familiar to CCNC as key components of all our disease

management initiatives. In addition, networks work with providers through care management to reduce modifiable factors leading to hospital readmissions such as:

- Inadequate patient and caregiver education and counseling – especially around medications
- Poor communication among healthcare providers
- Failure to organize follow-up care
- Clinician failure to emphasize non-pharmacologic aspects of heart failure care (e.g., diet, activity and symptom monitoring)

Heart Failure Program Design Summary

In 2006, CCNC set forth to implement the heart failure initiative and by 2007 it was a program-wide effort.

The overall goals are to provide optimal disease management, focused on:

- care management of high-risk individuals to promote adherence and self-management
- working with clinicians to follow evidence-based clinical practice guidelines
- monitoring of symptoms and daily weights
- reporting any decline in health status and facilitating prompt access to their healthcare provider for medication adjustment in attempt to prevent hospitalizations

After careful review of several heart failure clinical practice guidelines, CCNC the clinical directors adopted the ACC/AHA [Guidelines for the Evaluation and Management of Chronic Heart Failure in the Adult](#) statewide. Working with clinical experts in heart failure, Community Care developed a Heart Failure Toolkit to promote best practices in heart failure management. Each network has a designated primary care physician champion and a cardiology physician champion. These physician champions work alongside the clinical director, network leadership, and care managers to promote quality of care and implementation of best practice in the medical homes for heart failure patients. Networks also partner with community resources such as hospital-based heart failure programs, home health, telemonitoring programs and other case management services to leverage resources and better serve the patients' needs.

Key Components of the Heart Failure Initiative

Identifying the Population through Medicaid claims, physician referrals, and real-time data exchange with hospital inpatient and ED departments

Effective Care Management aimed at frequent contact with this high-risk population, to include:

- Face-to-face (preferred) or phone contact in a timely manner once patient is identified. As part of CCNC's Transitional Care process, frequently the patient is visited at bedside, prior to hospital discharge to facilitate patient engagement, establish a rapport, and make preparations for a post-discharge home visit or joint PCP visit.

- Weekly follow-up for approximately six months for patient education focused on diet and medication adherence, self-management, disease process, symptom and exacerbation management
- Use of the CMIS Heart Failure Module “Managing Your Heart Failure” - a patient-centered tool kit developed to promote self-management. Individuals are assessed with a Web-based assessment tool that is integrated into the Case Management Information System (CMIS). The tool determines the clinical status of the patient, educational needs, medication adherence and psychosocial needs. This module allows care managers to assess individuals over the phone and then transmit messages and tasks to local care managers who can address individual needs. Measures are collected in the module that are used in evaluating the effectiveness of the program.

Practice and Provider Supports aimed at facilitating a successful heart failure program that will have a substantial impact on improving both the quality of life and health outcomes for Medicaid recipients with heart failure. There is also opportunity to garner savings by decreasing hospitalization rates and improving the efficiency of utilization in this population.

The Community Care Heart Failure Program capitalized on the relationships that have been fostered between network care managers and physicians and the collaborative learning process that occurs between networks. The majority of heart failure disease management programs designed by payers are “carve out” programs where case managers work remotely from patients and do not have established relationships with physicians, hospitals, or public health. Community Care found the local relationships and networking an essential component of the model.

Measuring Improvement using evidence-based measures that are effective in changing practice and improving outcomes. These measures evaluate whether an accurate diagnosis is made, whether patients are prescribed evidence-based therapies, medication adherence, utilization, cost and whether care managers assess individuals regularly. Heart failure performance reports are available to networks and providers via the Informatics Center (IC). This data is reviewed and discussed at the network level on a regular basis in effort to evaluate the program.

Heart Failure Program Performance Measures

Community Care has adopted performance measure to monitor progress of enrollees in different disease categories. Performance measures are defined by the Clinical Directors to measure the ability of providers and networks to establish quality processes and to achieve quality outcomes for the core program initiatives. Measures are reviewed on an annual basis and are not intended to capture every aspect of good clinical care. Rather the goal is to identify a broad set of quality measures with: 1) clinical importance (based on disease prevalence and impact, and potential for improvement), 2) scientific soundness (strength of evidence underlying the clinical practice recommendation; evidence that the

measure itself improves care; and the reliability, validity, and comprehensibility of the measure), and 3) implementation feasibility, and 4) synergy with other state and national quality measures or quality improvement programs. Thus, the outcome and process measures for the Heart Failure Disease Management Program have changed over time based on the above. The following are key indicators of the 2011 measure set:

Chart Review Measures

- Left Ventricular Function (LVF) Documentation - Quantitative or qualitative results of LVF assessment recorded in PCP chart
- ACE Inhibitor/ARB Therapy - percent of patients with an Ejection Fraction (EF) <40%, that are prescribed ACEI or ARB therapy
- Beta Blocker Therapy – percent of patients with EF<40%, that are prescribed Beta Blocker therapy

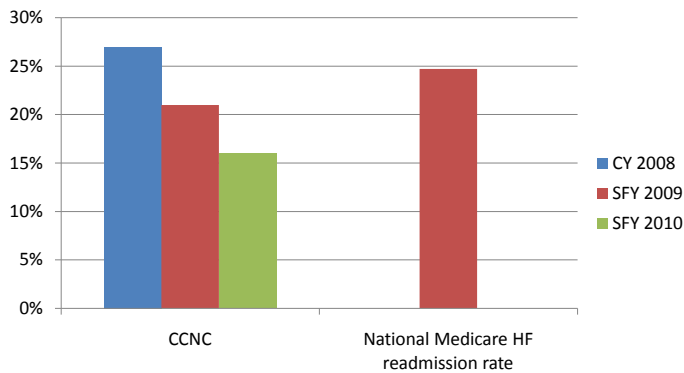
Claims Review Measures

- LVF assessment - evidence of echocardiogram, cardiac cath, sestimibi, RNV in claims history
- Heart Failure Admissions - Hospital admissions with CHF primary or secondary diagnosis, per 1000 member-months
- Heart Failure 30 day readmissions - Hospital admissions within 30 days of prior discharge date with CHF primary or secondary diagnosis, as percent of CHF hospital discharges

Summary of Results

Despite several challenges encountered in working with the Medicaid Heart Failure population, baseline performance data illustrates that North Carolina health care providers caring for this population are prescribing evidence-based therapies at high rates compared to national benchmarks. Among people prescribed heart failure medications, however, only half take them regularly. These data reinforce the need for care managers to support self-management and medication adherence. The program also relies heavily on contacting patients frequently by phone. Medicaid recipients often are difficult to contact and may move frequently. Networks use their established relationships with practices, social services, and hospitals to engage these individuals. According to the sharp decline in heart failure readmissions, the efforts implemented through the heart failure initiative are proving successful. Additionally, CCNC improved in 3 out of 3 measures derived from chart reviews.

Heart Failure Readmissions have declined sharply under CCNC's Heart Failure Initiative



Heart Failure Measure	2009		2010	
	Denominator	Results	Denominator	Results*
LVEF documented in PCP chart	906	81.9%	800	86.8%
ACE/ARB use	250	87.6%	288	87.8%
B blocker use	250	90.4%	288	92.4%

Heart Failure	YEAR ENDING	IP CHF RATE PER 1000 MM	IP CHF 30 DAY RE-ADMISSION PERCENT	LVF ASSESSMENT PERCENT
ALL NETWORKS	Sep 2009	34.8	21.4%	94.8%
ALL NETWORKS	Sep 2010	38.8	20.3%	96.4%

Heart failure patients can remain healthy if they learn to self manage their disease and work closely with healthcare providers to adhere to optimal therapies. Community Care's networks are well designed to improve the health outcomes and quality of life for North Carolina Medicaid's heart failure population through improving quality of care in Community Care practices and through case management of individuals with heart failure.

The following attachments and resources are relevant to Community Care's Heart Failure Program:

- Heart Failure Guidelines.
- Cardiovascular Health Guide (English).

- Cardiovascular Health Guide (Spanish).
- Know Your Numbers (English).
- Know Your Numbers (Spanish).
- UNC/CCNC Congestive Heart Failure Toolkit (10 pages for patient).
- UNC/NIH Heart Failure Toolkit (31pages with scripts—updated version available at:
<http://www.nchealthliteracy.org/hfselfmanage.html>