Chronic Care Management

A Health Plan Changes Health Care Delivery for Members with Multiple Chronic Diseases With Positive Clinical Outcomes and Reduced Costs

Escalating costs and the complications of comorbidities are a constant problem for patients with chronic disease. Capital Health Plan (CHP), of Tallahassee, Florida is facing down the issue with a new evidence-based health care delivery model. Early results are positive –with high member satisfaction, better compliance with treatment protocols and reduced costs.

The Growing Problem of Chronic Disease

Chronic diseases, such as diabetes, asthma, heart disease, mental illness and cancer, plague American society. These clinical conditions are the most costly and treatable of all health care problems. In 2000, 57 million Americans had multiple chronic diseases. Experts predict that this number will increase to 81 million by 2020. (Wu, Rand 2000).

According to Dr. Nancy Van Vessem, Chief Medical Officer at Capital Health Plan, the numbers are escalating because the American health care system takes a reactive approach to treating chronic disease. "The American health care system addresses the problem of chronic disease by choosing to use 'rescue care' or 'illness care' rather than preventative care. "Rescue care doesn't meet the many needs of people with chronic illness and it is financially unsustainable," says Dr. Van Vessem.

Dr. Van Vessem says that the fragmentation of the American health care system, results in patient care that is treatment-focused rather than patient-focused. It is delivered by multiple physicians in multiple settings, prescribing multiple drugs mainly to "rescue" people with multiple chronic conditions while creating unacceptable risk and expense. The focus of care moves towards reacting to an illness instead of preventing it. Patients are treated in the ER, and/or inpatient setting, where often treatment does not involve wellness or lifestyle education, even when evidence shows it may be the most successful treatment. Dr. Van Vessem notes that despite all the wellness education and information available to the public, whether from health plans, schools, community health care organizations, and in the general media, Americans today are more obese, and more prone to developing serious chronic illness.

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A Different Approach

Capital Health Plan (CHP), a non-profit HMO with 111,000 members in the Deep South – "a place where fried foods reign and it is too hot to exercise" - believed they could reorganize the way health care was delivered to members with multiple chronic diseases.

Under Dr. Van Vessem's leadership, CHP decided to take a proactive approach to these members by shifting the paradigm from "rescue care" (reactive medicine) to "health" care (preventative/proactive medicine). The plan was to test a new evidence-based delivery model that would identify and manage members with multiple chronic diseases, establish quantifiable improvement; determine sustainability; and then determine if "being different is being better."

When asked why CHP decided to take on this approach, Dr. Van Vessem answers, "we think we can do better. We know that care is variable among physicians despite years of chronic disease education and distribution of best evidence guidelines to both physicians and patients. And we know that the top sickest (1%) of our membership accounts for 23% of the costs."

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Building the Case for a New Delivery Model

Capital Health Plan began by identifying the members that suffer from multiple chronic diseases. They identified them using predictive modeling software developed by DxCG, Inc. of Boston. DxCG software creates a risk score that characterizes the illness burden of members. Members in the highest DxCG risk categories were profiled using the DxCG clinical classifications to determine their chronic diseases.

Using the DxCG risk score, CHP found that, on average, members in this group of people with multiple chronic conditions were expected to cost more than $25,000 a month. Their average age was 53. Although this group was sicker than the general population, they visited their Primary Care Physician no more frequently than the general population. Their DxCG clinical profiles revealed this group as:

45%	Diabetics
56%	Hypertensives
40%	Coronary Heart Disease
21%	Congestive Heart Failure
19%	Renal Failure

Using patient surveys, CHP found that Primary Care Physicians were not closely following these patients with multiple chronic conditions. Members surveyed reported their Primary Care Physicians had too many patients to manage and were handing off their chronic cases to specialists.

The survey also found these members with multiple chronic illnesses experienced high levels of emotional and financial stress. According to the survey:

39.5 %	said their illness interferes with the ability to work.
44.4%	had symptoms of depression.
39.7%	said their illness seriously interfered with their independence.
26.7 %	needed help with routine needs at home.

Changing the Paradigm: The Center for Chronic Care

CHP decided to change the paradigm of care for their members with multiple chronic conditions. Even though the average age of the members to be treated was just 53 years old, CHP recruited a geriatrician with a multi-disease specialty who had the patience and interest to care for this complex population.

The office of the new physician became The Center for Chronic Care ("CCC"). Opened in 2003, the CCC is a multi-disciplinary care program providing a comprehensive program of services, including assessments of mental health, functional status and nutrition, pharmacist review of medications. CHP designed the CCC to give the physician the time and staffing resources to see patients when they need to be seen. Patient appointments were scheduled for 20 to 60 minutes. Since a CCC physician was on salary, this did not impact him financially.

CHP employed a focused primary care physician model in the CCC with a strong emphasis on using evidence-based medicine. Each CCC patient is actively involved in the care planning process. A written care plan is designed by the geriatrician with help from dieticians, pharmacists and others. The care plan is then reviewed with the patient. It is also updated regularly.

Good Clinical and Financial Results

Members eligible for the Center for Chronic Care were identified using DxCG predictive models. The primary care physician for each member identified received a summary clinical profile based on DxCG clinical classifications at the member level. CHP gave the primary care physicians the option to invite their patients to join the CCC. Not surprisingly, the response was mixed. Some physicians thought that their patients could benefit from the CCP multi-disciplinary approach. Others were concerned over the loss of patients in their practices.

Eventually, 185 members joined the CCC and 528 decided to stay with their usual care. The top diagnoses seen in the CCC, as assessed by DxCG predictive modeling software, were high blood pressure, hyperlipidemia, obesity, diabetes, depression, coronary artery disease and congestive heart failure.

Early clinical results are impressive. 97% of the CCC patients surveyed said that their chronic conditions are being well managed; 82% said their overall health had improved. The percent of coronary heart disease or heart failure patients on an ACE inhibitor increased from 60% to over 90%. The percent of patients with good blood pressure control improved from 40% to 80%.

In addition to an improvement in health status and member satisfaction, the CCC has resulted in net savings for CHP. While the frequency of physician visits is higher in the CCC, there have been decreases in specialist visits, Emergency Room visits and hospital utilization. In total, there was a 33% reduction in per member per month costs. Overall, the CHP estimates a 2:1 return on investment from the CCC.

"DxCG methodology helped us to identify members that do benefit from a change in the delivery system, says Dr. Van Vessem. "We will continue to invite those patients who qualify to the Center for Chronic Care."

[2]The progress of the patients was measured through the tracking of each patient's functional status (SF-36), patient satisfaction, disease specific quality measures and utilization/financial measures of inpatient, emergency room, outpatient, referral and pharmacy services as compared to a control group.