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Resource Paper

Reinventing the HMO: The Next Generation of Medicaid Managed Care

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274

Table of Contents

Introduction

In May 2001 the Neighborhood Health Plan (NHP) launched a new clinical program for MassHealth enrollees with disabilities and chronic illnesses at the Brightwood Health Center in Springfield, MA. NHP's clinical program, the Community Medical Alliance (CMA), provides services through teams of nurses, nurse practitioners, mental health and addiction counselors, and support service staff, who work with primary care providers (PCPs) to address the complex needs of health plan members with specific disabilities or chronic illnesses. At Brightwood, the NHP/CMA program was expanded to embrace the cross-disability and chronic illness needs of the Health Center's entire MassHealth membership.

NHP invested funds to provide enhanced primary care services, mental health and addiction treatment, care coordination and support services at Brightwood for its MassHealth membership. The funding for these services came from the standard capitation payment NHP received from Massachusetts Medicaid. NHP reallocated funds from the inpatient hospital portion of the capitation payment to pay for the health center-based outpatient services, taking a calculated gamble that this reallocation would prove to be cost-neutral and at the same time improve member health and quality of life.

This Resource Paper briefly outlines how the Brightwood demonstration project was designed and summarizes major challenges the program faced in serving members with complex medical and behavioral health needs. The majority of the paper focuses on the results of the program evaluation that examined whether prepaid rather than fee-for-service care is best suited to meet the needs of people with chronic conditions. While ultimately the project could not be sustained by NHP (due to reasons unrelated to the success of the pilot program) and it was transferred to a PCCM program in August 2003, the program reduced inpatient utilization, improved access to primary care services, and improved member health and wellbeing, demonstrating significant promise for improved care for people with complex health care needs.

Program Model Development

Together, Brightwood Health Center, NHP, and CMA program staff developed a range of clinical interventions for program participants, including:

- Telephonically administered health risk assessments for each new NHP Supplemental Security Income (SSI) member, inclusive of questions about diagnoses, needed support services, behavioral health needs, hospital use, etc. Health risk assessments were provided by both plan and site-based case management support staff.
- Reminder calls from program support staff for preventive services such as mammograms, pap smears, etc., triggered by member information regularly provided by NHP.

- Follow-up after emergency room visits and inpatient admissions provided by support staff, based on member information regularly provided by NHP, which included indication of whether the emergency room visit was of an emergent or non-emergent nature.
- Chart reviews on each SSI member enrolled in NHP to assist in the identification of individuals whose needs would warrant referral to the NHP/CMA Brightwood Program, performed by nurse practitioner staff.
- Intensive care management of individuals with complex medical needs, provided by added clinical and support staff available through the program.
- Enhanced bilingual behavioral health services provided by added professional and advocacy staff available through the program.

Additional interventions were developed and incorporated into the program model as implementation proceeded and members' needs were more fully identified.

By the spring of 2003, a total of 1,450 Brightwood Health Center patients were enrolled in NHP, including approximately 350 people receiving Medicaid and SSI benefits, 1,000 Medicaid TANF members, and 100 Medicaid members with HIV/AIDS. Of this group, all of the enrollees with HIV/AIDS and 150 enrollees with complex medical conditions received intensive care management services through the CMA program. Another 40 individuals received enhanced behavioral health services and coordination, and 949 members had been "touched" by other preventive health activities.

Major Challenges

Enrollment

In May 2001, in conjunction with the implementation of the Brightwood project, Medicaid conversion activity took place at the Brightwood Health Center in which Brightwood's TANF and long-term unemployed PCCP membership (Medicaid's Primary Care Clinician Plan) were automatically "converted," through written notification, to NHP membership. Membership conversion activity took place with the understanding that an individual could voluntarily opt out of enrollment in the new plan if the Medicaid enrollment broker was actively notified by the member; however, if the member took no action the conversion was automatic. The original planning for the Brightwood program projected a robust growth of TANF membership into NHP through this conversion activity; revenues associated with the volume of TANF membership were intended to support the slower, steadier voluntary enrollment into NHP of SSI members with more intensive needs. Achievement of NHP enrollment goals proved challenging for the following reasons:

- The PCCP conversion of the TANF and long-term unemployed population included some complications in the administration of certain benefits, particularly in relation to pharmacy. Due to minor delays in the updating of eligibility files, the local pharmacy was not always able to obtain up-to-date, "real time" access to member coverage information, a difficulty which the pharmacy treated with little

flexibility. In other instances, due to the transfer of incorrect address information, member ID cards were not received by members in a timely fashion. Both NHP and Brightwood staff resources were immediately deployed to "troubleshoot" with newly enrolled members, as well as with the local pharmacy and NHP's Pharmacy Benefit Manager in order to resolve the difficulties. Most of the problems were resolved quickly; however, because the community's early experience was shared rapidly through word of mouth, these issues may have had an impact on initial enrollment volume.

- In contrast, SSI enrollment into NHP took place individually and voluntarily as the result of a discussion between the patient and the primary care provider. The state's MCO enrollment process is done through an independent enrollment broker; a member must personally contact the broker via telephone and voluntarily choose their MCO enrollment option. As Brightwood patients began contacting the enrollment broker to indicate their interest in enrolling in NHP, it became clear that the broker process presented a number of barriers to NHP enrollment, including:
    - Lengthy waiting time on the telephone prior to reaching the broker;
    - Language barriers for Spanish speaking patients needing to reach brokers with appropriate language skills; and
    - Broker misconception and lack of understanding with regard to NHP's Brightwood program and its potential benefits for members.
- Brightwood members reported that enrollment broker staff were not always willing to affect the enrollment change into NHP as requested by the member. In fact, some members reported that they were actively discouraged from enrolling into NHP for various reasons (e.g. lack of certain specialist availability, limitations in certain benefits, other MCO options were "better," etc.). Due to these difficulties, NHP staff approached the Massachusetts Division of Medical Assistance and arrangements were made for Brightwood staff members to provide a face-to-face orientation for enrollment broker staff regarding the structure and benefits of the NHP/CMA Brightwood program. Subsequent to the meeting, problems encountered with the enrollment broker process were reduced.
- The Medicaid redetermination process requires annual recertification for eligibility continuation. Although the state attempts to ensure that continuity of care is maintained if eligibility is interrupted, in fact members whose Medicaid redetermination is not completed frequently lose their MCO coverage as a result. Brightwood Health Center's NHP enrolled Medicaid population experienced these difficulties due to the redetermination process, resulting in enrollment "churning." Consequently, community outreach workers were deployed to work with members to ensure that redeterminations were completed in a timely manner and that health care coverage was maintained. However, frequent address changes, language barriers and temporary residencies contributed to the difficulty of this work, and the barriers, described with the enrollment broker process (see above) when re-enrollment was necessary added to the enrollment challenges.

Program Model

NHP's clinical program, the Community Medical Alliance (CMA), provides services through teams of nurse practitioners, specialized clinicians, and support staff who work with primary care providers to address the complex needs of plan members with highly specific conditions such as HIV, severe physical disabilities, etc. The challenge presented by the NHP/CMA Brightwood program was that of taking this "boutique" model to "scale:" taking a highly intensive approach to caring for those with particular chronic illness and generalizing it to encompass the provision of differing levels of care management to the general health center population. The CMA model brought significant expertise with regard to community outreach, the integration of primary and mental health care, teaching, care coordination, and linkage to specialized services, such as detoxification and substance abuse resources. Other aspects of the traditional CMA model, such as the open-ended ability to follow patients indefinitely, were difficult to preserve when addressing the needs of a larger population. The following issues presented the greatest challenges in implementing the program model:

- *Identification and Stratification:* Several mechanisms were used to identify Brightwood members' relative needs and determine appropriate intervention strategies for care management follow-up. Among these mechanisms were chart reviews, telephonic and/or face-to-face health needs assessments, NHP cost/utilization data review, direct provider referral, etc. However, because the May 2001 conversion activity (described above) resulted in the rapid enrollment of several hundred new members into NHP during the first months of program start up, a more comprehensive, systematic approach to patient identification and stratification would have been beneficial as an ongoing part of program operations.
- *Case Mix Intensity*: Of the more than 900 SSI patients at Brightwood, those who enrolled in the demonstration program were the individuals whose primary care provider thought they might benefit from the specialized services and care management offered by the program. Those individuals who had more routine care needs or who rarely presented for services were not as likely to have been referred for enrollment. Clearly, although the program was designed to care for those with complex needs, such an enrollment focus purposefully led to adverse selection and a case mix of great intensity. While such a program design best addressed both patients' and providers' clinical and care management needs, the ability to ensure program sustainability over time without financial recognition of case mix adjustments is not yet clear.
- *Unmet Mental Health Needs:* Although there was general recognition that Brightwood Health Center members' mental health needs were not being adequately addressed prior to program implementation, as the program enrollment proceeded, the extent of unmet mental health needs among the enrolled population became overwhelmingly clear. The historical lack of culturally and linguistically appropriate mental health resources in the area contributed to an immediate and intense need to address the mental health and substance abuse issues presented by the enrolled population. Consequently, though mental health

staffing had been built into initial program design, added resources to address mental health and substance abuse issues were an immediate necessity, as well enhancements to the traditional mental health program model. Program staffing was adjusted to include an addictions advocate whose focus was outreach and advocacy and professional staff who provided mental health/addiction treatment counseling and care coordination, follow up visits with individuals admitted to detoxification units or inpatient psychiatric facilities and intensive care coordination with primary care practitioners.

Political Environment

Over the course of the implementation of this project, a number of larger strategic and political issues within the NHP organization and external to it presented significant challenges. These issues included:

- *Internal NHP Debate*: The launch of NHP's clinical program for MassHealth enrollees with disabilities and chronic illness at Brightwood was the culmination of several months of internal debate and struggle over the organization's financial risk in making such an investment. The funding for NHP's added investment in enhanced primary care and behavioral health services at Brightwood initially came from the standard capitation payment NHP received from Massachusetts Medicaid (a partial subsidy for this investment became available to NHP in 2002 through a newly implemented program which was funded through DMA). NHP took a calculated gamble that the reallocation of funds from the inpatient hospital portion of the capitation payment would prove to be cost-neutral and at the same time improve member health and quality of life. While the decision was made to support the Brightwood investment, there continued to be great concern within the organization about the consequences and financial risk associated with the program.
- *SSI Disenrollment from NHP*: In November 2002, due to the fact that capitation payments received from the state for disabled members were not adequately covering NHP's costs of caring for the disabled membership, DMA and NHP made the decision to disenroll the majority of SSI members from NHP. Although it was decided to continue NHP membership for the approximately 350 SSI members enrolled at the Brightwood Health Center, new SSI members were no longer enrolled in NHP, therefore limiting the potential SSI membership at Brightwood. During this period, the disenrollment of SSI membership from NHP served to underscore the financial vulnerability of the organization as well as isolate the program development focus of the Brightwood care management model from the overall policy direction of NHP.
- *State Disenrollment of Long Term Unemployed from MassHealth*: Massachusetts, like many states, has experienced a severe budget crisis in the past few years. As a consequence, in April 2003 Massachusetts disenrolled 50,000 long-term unemployed members from its MassHealth (Medicaid) program. Several thousand of these members, who often suffer from complex mental health and substance abuse conditions, had been enrolled in NHP and other managed care

organizations, and a small number received care management through the Brightwood program. Although these members are now no longer eligible for Medicaid benefits, they remain patients of Brightwood and other community health centers and are presently uninsured.

- *Medicaid Redetermination Initiative:* As discussed above, the Medicaid redetermination process requires annual recertification for eligibility continuation. One of the by-products of the Massachusetts' state budget crisis has been an aggressive Medicaid eligibility termination policy through the redetermination process. Because the period of Brightwood program implementation coincided with this state budget crisis, the intensive focus on Medicaid redeterminations had a significant impact on Brightwood membership, causing members to lose their NHP coverage as a result of the loss of Medicaid eligibility. Such "churning" in NHP membership presented barriers to care continuity and program participation.
- *Baystate Medical Center's termination of NHP Contract:* In April 2003 NHP was informed by Baystate Medical Center that they were terminating their contract with NHP as of July 2003 (this was subsequently renegotiated to September 2003); this contract termination included the Brightwood Health Center. As Brightwood Health Center was no longer an NHP contracted provider after September 2003, NHP, Brightwood Health Center and DMA worked together to address the strategic, programmatic and operational issues necessary to disenroll the NHP membership at Brightwood. NHP's Brightwood project terminated as of 8/31/03 due to Baystate's contract termination. In order to save the program, and the assembled clinical infrastructure at the health center to support it, Massachusetts Medicaid (MassHealth) asserted extraordinary leadership given the time sensitivity of the contract termination and state officials were able to find a way to continue the program in the context of the current PCCM program, under a cost reimbursement contract to a newly formed health care delivery system, Commonwealth Care Alliance, in lieu of the financing provided by NHP from its managed care premiums.

Evaluation Overview

The evaluation of the Brightwood demonstration was designed to examine whether prepaid rather than fee-for-service approaches are best suited to transform the primary care delivery processes, in order to better meet the needs of patients with complex health care and psychosocial needs. We used a mixed-methods approach to evaluate the impact of the Brightwood intervention, including both a quantitative analysis of claims and encounter data, and qualitative analysis of enrollee experiences.

We tested the following hypotheses in evaluating the Brightwood program:

- The program model will result in overall maintenance or reduction in costs for the enrolled population;
- Cost reductions will occur in emergency room visits and inpatient hospital days;
- Cost increases will occur in primary care services, care coordination, and outpatient mental health and substance abuse treatment; and

- Enrollees will report improved access and improved health under the program model.

Cost and Utilization Comparison of Prepaid vs. Fee-for-Service

Of 590 individuals who participated in the program over a two-year period, we obtained informed consent to access both Massachusetts Medicaid and Neighborhood Health Plan (NHP) enrollment and claims data from 225 individuals (38 percent).[1] The Medicaid fee-for-service and NHP managed care enrollment and claims data for these 225 individuals were entered into an SPSS (Statistical Package for the Social Sciences) database for statistical analysis. We included 104 individuals in our final analysis who met the following criteria:

- At least six months of eligibility in the Medicaid fee-for-service program prior to enrollment in NHP (pre-period).
- At least six months of enrollment in the NHP program at Brightwood, following their Medicaid eligibility (post-period).
- No lapses in Medicaid eligibility in either the pre-or-post-period of greater than three months.
- Medicaid eligibility category, at the end of the study period, was either SSI or Rating Category 5, a designation for individuals who were both low income and unemployed for at least a year (generally, single adults with no custodial children, often homeless, and/or addicted to drugs, in many states known as the General Assistance or General Relief population).

In order to create expenditure variables, we first identified a Medicaid fee-for-service window (pre-test) and an NHP managed care enrollment window (post-test) for each person. The fee-for-service window for each individual started on the date that they obtained Medicaid eligibility or May 1, 1999, two years before the intervention began, whichever came later. The managed care start dates ranged from May 1, 2001 (the intervention start date) to November 30, 2002, six months prior to the end of the intervention study date, April 30, 2003.

Claims information was abstracted from both Medicaid (for the fee-for-service period) and NHP (for the managed care period). Claims for both periods collapsed into the following categories:

- Inpatient services
- Outpatient services
- Physician services
- Pharmaceuticals
- Transportation

[1] Some of the 590 individuals who participated in the demonstration were no longer enrolled in either the Medicaid program or NHP at the time consent was requested (November 2002 – February 2003).

- Other medical services (e.g. equipment, supplies, therapies, home health)
- Emergency room care
- Behavioral health services

The cost of care in each category of service was totaled for each individual, first for the fee-for-service period, and then for the managed care period. Each total was then divided by the number of months of enrollment in either the fee-for-service or managed care period for each individual to calculate a per member per month cost for each service category in both time periods. In addition, for the intervention time period, the cost of the intervention was added to the other managed care costs.

The cost of the intervention was calculated by taking the medical and behavioral health services budget for the program enhancement in calendar year 2002, which consisted primarily of additional staff resources, fringe benefits, and program operating costs such as malpractice insurance and supplies, and dividing these costs by the number of enrollee member months in 2002 (6,869). Table 1 shows the intervention costs, broken down into two categories – the enhanced medical care (primary care and care coordination) and the enhanced behavioral health care. It is important to note that overhead costs are not included in these calculations, but they were also excluded from the Medicaid fee-for-service period.

Table 1. Intervention Costs

Medical Component	**FTEs**	**Cost**	**PMPM**
RNP	3.33	$199,588	
Clinical Assistant	1.8	55,672	
Clinical Support	1.125	34,240	
Management Support	0.375	35,366	
Fringe Benefits @ 23%		74,719	
Operating Costs		39,375	
TOTAL		$438,960	$63.90
Behavioral Health Component	**FTEs**	**Cost**	**PMPM**
BH Clinician	0.88	$55,209	
Addications Adv.	0.8	32,320	
Clinical Support	0.375	11,413	
Management Support	0.125	11,789	
Fringe Benefits @ 23%		25,468	
Operating Costs		13,125	
TOTAL		$149,324	$21.74
GRAND TOTAL		$588,284	$85.64

Table 2 summarizes the cost and utilization experience of the 104 participants with a minimum of six months experience in both the pre- (Medicaid fee-for-service) and post - (managed care) periods, who were members of the SSI disabled or long-term unemployed eligibility categories.

Table 2. Comparison of Cost of Experience

	Fee-for-Service	Managed Care
Inpatient PMPM	$842.57	$163.08
Outpatient PMPM	$84.43	$24.65
Emergency Room PMPM	$11.61	$16.99
Physician PMPM	$80.88	$135.37
Transportation PMPM	$4.38	$7.35
Pharmacy PMPM	$164.86	$314.49
Behavioral Health PMPM	$56.89	$173.02
Other Medical Costs PMPM	$35.38	$156.51
Cost of Intervention PMPM	$0.00	$85.64
Total PMPM	**$1,281.00**	**$1,077.10**
Total member months	**2,693**	**1,908**
Behavioral Health Penetration	52%	54%
# of ER Visits PMPM	0.08	0.1

Results show that expenditures under the managed care intervention were $204 PMPM lower than fee-for-service expenditures for the same population, even when adding in $86 PMPM for the enhanced costs of the intervention under managed care. All of the reduction in expenditures was due to decreased inpatient and outpatient hospital costs. All other costs - physician, transportation, pharmacy, behavioral health and other medical services - increased under the intervention.

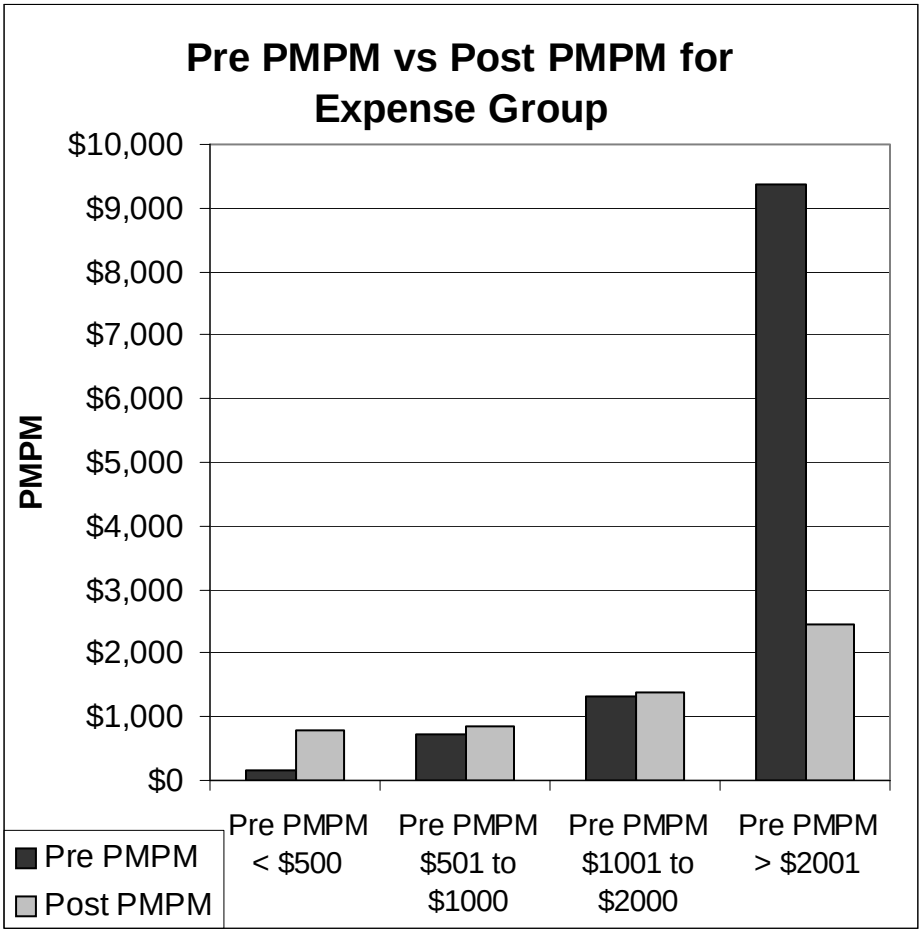
Thus, two of our hypotheses were borne out by these results: that inpatient hospital costs would decrease, while outpatient primary care and behavioral health care costs would increase. A third hypothesis turned out to be not true, because emergency room costs increased from approximately $12 to $17 PMPM under the demonstration, in part due to increased utilization of emergency room services.

Skewed Nature of Cost Distribution

Upon closer examination of the cost and utilization experience of members enrolled in the demonstration and the study, it became apparent that the decline in inpatient hospital costs could be attributed to a very small number of enrollees, and that, in fact, for the majority of enrollees costs actually increased under the intervention.

For this analysis we divided the study population into four groups based on their Medicaid fee-for-service experience: those whose expenditures were under $500 PMPM, those with expenditures from $501-$1,000 PMPM, those with expenditures from $1001-$2,000 PMPM and those with expenditures over $2,000 PMPM. Table 3 shows these results.

Table 3. Cost Changes by Subgroup



The majority of enrollees (63 percent) incurred fee-for-service costs prior to enrollment of less than $500 per member per month. Average fee-for-service costs for this group were about $162. During the intervention period, costs for this group increased to about $775 per person per month. For enrollees with fee-for-service costs prior to enrollment of $500 to $1,000 or $1,000 to $2,000 per person per month (24 percent of enrollees), intervention costs remained fairly stable.

However, for enrollees with fee-for-service costs prior to enrollment of greater than $2,000 per person per month (13 percent of enrollees), costs for the intervention period declined considerably, from about $9,400 to about $2,500. Of the 14 individuals in the highest cost group, all but one had a decrease in expenditures from their fee-for-service to

their managed care experience. In this group, as well as for the other two of the three more expensive subsets, participants used fewer hospital-based services.

Because we were concerned that those in the highest fee-for-service cost group, for whom hospital costs declined dramatically during the managed care period, might be individuals who experienced a catastrophic event or a major surgery that would not be expected to repeat itself in the demonstration period, we examined the top three diagnoses and surgical procedures for this group of individuals in both the fee-for-service and the managed care periods. All but one of the 14 most expensive cases had a hospitalization in the pre-period. In the post-period, seven of the cases were not hospitalized. In addition, we found that nearly every hospital admission in the fee-for-service period was related to complications of fairly common chronic illnesses, and that hospitalizations during the managed care period were similar, but much fewer in number. The greatest number of admissions one of these patients had in the pre-period was nine (average was 3.9 admissions), but only five in the managed care period (average was 1.3 in the managed care period). Most individuals were hospitalized multiple times in the fee-for-service time period for complications related to asthma and diabetes – these same individuals had only one or no hospitalizations during the managed care period. Another individual had multiple admissions related to HIV in the fee-for-service period, and none in the managed care period, suggesting that the illness had been stabilized and the individual was receiving appropriate medications. In fact, the one admission that would not be expected to repeat itself occurred during the managed care period, an amputation.

We also examined other cost changes for this high cost group, and found that while their physician visits and pharmacy costs declined, in contrast with other demonstration participants, these costs were already very high to begin with. However, outpatient behavioral health costs increased over six-fold, suggesting that appropriate attention to and treatment of mental health problems or drug addiction might have a strong impact on physical health status. In addition, costs for other medical services, including durable medical equipment and supplies, therapies, and home health services also increased dramatically, suggesting that additional resources to provide appropriate home and community-based treatment of chronic medical conditions can be effective in preventing complications of disability. Table 4 below shows the fee-for-service and managed care cost experience by service category for those individuals with the highest fee-for-service costs.

Table 4. Service Costs for the 14 Highest Cost Individuals in the Fee-for-Service Period

	Fee-for-Service	Managed Care
Inpatient PMPM	$7,774.00	$709.37
Outpatient PMPM	$265.76	$48.84
Emergency Room PMPM	$36.86	$38.44
Physician PMPM	$404.32	$327.45
Transportation PMPM	$25.45	$28.67
Pharmacy PMPM	$608.49	$544.66
Behavioral Health PMPM	$33.20	$204.41
Other Medical PMPM	$229.72	$464.01
Cost of Intervention PMPM	$0.00	$85.64
TOTAL	**$9,377.80**	**$2,451.49**

Finally, we also examined the cost experience of those individuals who used the least amount of health care services in the fee-for-service period, less than $500 PMPM as shown below in Table 5.

Table 5. Service Costs for the 65 Lowest Cost Individuals in the Fee-for-Service Period

	Fee-for-Service	Managed Care
Inpatient PMPM	$0	$27
Outpatient PMPM	$50	$20
Emergency Room PMPM	$5	$13
Physician PMPM	$34	$93
Transportation PMPM	$1	$3
Pharmacy PMPM	$64	$251
Behavioral Health PMPM	$4	$164
Other Medical PMPM	$5	$118
Cost of Intervention PMPM	$0	$86
Total	**$162**	**$775**

As a group, these individuals used far more services when enrolled in the managed care intervention. The greatest areas of increase in services for this group included physician visits, pharmacy, outpatient behavioral health, other medical services, and of course, the cost of the intervention. Thus, an important aspect of the managed care intervention increased access to care and outpatient services for a large group of low income people with disabilities, who had perhaps underutilized services in the past. And, given the number and complexity of chronic illnesses and disabilities among this group, it is quite possible to imagine that over time, without improved access to primary, preventive, and behavioral health care, this group could become the next wave of very high utilizers.

Rating Category Changes

A secondary objective of the demonstration project was to ensure that members were receiving all of the health and income benefits to which they were entitled. In Massachusetts, individuals who received Medicaid benefits as a result of being single adults, with no dependent children, and a long history of unemployment, qualified for a more limited set of health care benefits than other Medicaid recipients. In addition, they did not receive the cash benefits that accompany the Medicaid eligibility categories of TANF or SSI. It is widely acknowledged that many of these individuals with a long history of unemployment have a disability, but for one reason or another have never completed the paperwork to receive these benefits. Furthermore, it is also acknowledged that some people who receive Medicaid benefits as a result of TANF eligibility have serious chronic illnesses, and might also qualify for SSI benefits. SSI benefits are slightly more generous, stable, and long-term than TANF benefits.

Thus, upon enrollment in the demonstration, care managers worked to ensure that individuals were enrolled in Medicaid through the eligibility category that maximized benefits for each individual. Of the 104 people included in this study, nearly 25 percent moved from a less stable, or less generous, eligibility category, to more stable health care and income benefits. The table below shows this movement.

Table 6. Rating Category Changes

Original Eligibility Category	Final Eligibility Category	Number of People
Long Term Unemployed	SSI	14
Long Term Unemployed	TANF	1
TANF	SSI	9

A total of 14 individuals moved from the state sponsored long-term unemployed eligibility category to SSI, representing 50 percent of those in the long-term unemployed group at the start of the intervention.

Provider Involvement

As part of the qualitative evaluation of the NHP/Brightwood Demonstration Project, we developed a provider survey to be conducted in the early stages of the demonstration and after two years of implementation. The objective of the survey was to learn how providers at Brightwood Health Center (BHC) cared for patients with complex health needs prior to the demonstration program implementation and to document provider perceptions of the impact of the demonstration on health care practices. What follows is the information obtained from the initial provider survey.

The survey was sent by mail to 35 providers at Brightwood. These 35 providers included all physicians, nurses, nurse practitioners, mental health providers, and any other staff who provide direct clinical care to BHC patients. The survey was implemented between

March and May 2002. A total of 30 surveys were returned, for a response rate of 86 percent.

Of the 30 respondents, the largest groups were physicians (37 percent), followed by NP/PA (17 percent) and RN (13 percent) (see Table 7). The remaining providers included:

- Medical Assistants
- Pharmacists
- Optometrist
- Nutritionist
- HIV Case Manager
- Mental Health Clinician
- Social Worker

Most of the providers who responded to the survey (53 percent) specialized in adult primary care. Other specialties included pediatrics (21 percent), midwifery (10 percent) and OBGYN (10 percent) (see Table 8).

Table 7.

Professional Training	Freq.	%
MD	11	36.7
RN	4	13.3
NP/PA	5	16.7
Ph.D.	1	3.3
Nutrition	2	6.7
Nurse training	2	6.7
Other	5	16.7
Total	30	100.0

Table 8.

Area of Specialization	Freq.	%
Adult primary care	10	35.7
Adult prim care and pediatrics	6	21.4
Behavioral health	1	3.6
Family practice	2	6.7
OBGYN	3	10.0
Midwife	3	10.0
Triage - support	2	6.7
Other	2	6.7
Total	28	100.0

Most (69 percent) of the providers were aware of the Brightwood CMA program to improve primary care and care coordination for NHP enrollees. They learned about the project mainly through meetings (85 percent) or being directly involved in the project (30 percent). Half of the providers said they had referred patients to the demonstration. The median number of patients referred was 15, although the range of patients referred was five to 160.

Five of the providers who had not referred patients to the demonstration explained their reasoning. Either their patients were not appropriate for referral, or they heard that patients ended up being referred back to their PCPs, or they were not clear about the purpose of the program.

Approximately half of the providers (47 percent) described obstacles they encountered when referring clients to the program. The most common obstacles reported were:

- Difficulty getting prescriptions filled;
- Patient ineligible for the program due to Medicare coverage;
- Hassles with the enrollment process and changes required; and
- The fact that NHP was not accepted as insurance coverage by some external providers.

All of the providers cared for patients with disabilities or chronic illness at Brightwood. Nearly half of the providers reported that over 50 percent of their patients had a disability or chronic illness. Furthermore, 80 percent of the providers said 25-75 percent of their NHP patients need behavioral health services but less than half of those providers said that patients who need these services receive them.

Only one provider thought that it was more difficult for patients enrolled in NHP to access behavioral health services than other health center patients. Most of them thought it was as difficult (52 percent) or easier (44 percent). Providers mentioned several obstacles encountered when helping patients access behavioral health services. The most common obstacles were that there were not enough Spanish speaking clinicians (reported by 57 percent of the providers), long waiting lists (44 percent of the providers) and not enough behavioral health providers in general.

Table 9.

Obstacles when helping patients access behavioral health services	Frequency
Not enough Spanish speaking providers	13
Not enough providers	5
Long wait list	10
Transportation	2
None	4
Other	5

Most providers reported that it was easier to arrange services for patients with complex health care needs if they were enrolled in NHP as they had access to this demonstration program. It appeared that NHP membership was more likely to facilitate clients' access to medical services than behavioral health services.

Table 10.

For patients with complex care needs it is _____ if they are in NHP	Freq.	%
Easier	18	72.0
Same	5	20.0
More difficult	2	8.0
Total	**25**	**100.0**

Providers were asked what expectations they had for the demonstration. About half of the providers responded to this open-ended question and reported that they hoped to achieve better physical and mental health outcomes for the patients, improved care coordination, education and skill building, and decrease in emergency room visits and hospitalizations (see Table 11). Four of the providers who had positive expectations added that they had some concerns about not having enough case managers (1), pharmacy related problems (1), and limited access/eligibility to the demonstration (2). Only one provider reported that their expectations had not been met by the demonstration.

Table 11.

Expectations of the Program	Frequency
Better care coordination	4
Better physical and mental	5
Improved education and skill	4
Decrease in ER visits, hospitalizations	3
Other	1

Providers were asked to rate the impact of different aspects of the demonstration from 1 to 5, according to the scale: 1- negative impact, 2- somewhat negative, 3- no change, 4- somewhat positive, 5-positive impact (see Tables 12 and 13).

Table 12.

How the demonstration affected	Mean	Median	Min	Max
YOUR PATIENTS				
ER utilization	4.06	4.00	3	5
Number of patient crises	4.05	4.00	2	5
Ability to connect patients to services	4.40	4.00	3	5
Ability to address barriers to health and well-being	4.30	4.00	3	5
Promotion of use of preventive services	4.20	4.00	3	5
Improvement of patient compliance	4.20	4.00	3	5

Table 13.

How the demonstration affected	Mean	Median	Min	Max
YOUR OWN PRACTICE				
Time you need to spend with each patient	3.64	3.50	3	5
Number of patient encounters	3.64	4.00	3	5
Time you spend in follow up activities	3.86	4.00	3	5
Availability of clinical expertise	3.86	4.00	3	5
Interruptions during the day	3.38	3.00	2	5
Number of no-shows	3.45	3.00	2	5
Number of people you need to talk/day about patient care	3.67	4.00	2	5
Communication among BHC staff	4.27	4.00	3	5

On average, providers rated the impact of the demonstration on their patients as slightly more positive than the impact of the demonstration on their own practice. The major effects of the demonstration on patients were the ability to connect patients to services (4.4) and the ability to address barriers to health and well-being (4.3). Regarding impact on their own practice, providers gave rates slightly above "no change" for most aspects, maybe due to the early stages of the demonstration. Communication among staff had the highest mean scores (4.2) while interruptions during the day and number of no-shows had the lowest scores (3.4, almost no change).

In conclusion, the results from this baseline assessment seem to indicate that the majority of providers were aware of the demonstration project, and felt that it had the potential for a positive impact on patients. However, there were some providers who were not fully aware of the program, or who had encountered difficulty in referring patients to the program. If these issues were addressed, the number of referrals to the project might have been improved.

Member Experience

Although the ultimate test of viability for the Brightwood program is its cost-neutrality, the main purpose of the CMA program at Brightwood is to improve the health and quality of life of program members, particularly those members with complex health and social needs. Bilingual researchers interviewed eighteen people receiving services through the Brightwood CMA program in May 2003. Potential participants were informed about the study by registered nurses (RN) and nurse practitioners (NP) from the CMA program and were asked if they wanted to participate. The first people to volunteer for the study were scheduled for the interviews. Thus, the sample for this study is strictly a convenience sample.

Interviewers collected basic demographic information including race, gender, age, primary language, and years as a patient at Brightwood. The interview sample of 18

people consisted of 16 females and two males.[2] Their ages ranged from 25 to approximately 65 years (one participant did not remember her age) with an average age of 47. Sixteen participants were Puerto Rican; one was Colombian and one was Caucasian. Three interviews were conducted in English and the remainder in Spanish. Study participants averaged 10 years as a patient at Brightwood, with a range from 1.5 years to over 30 years. Most participants spontaneously offered information about their current illnesses, previous experiences with doctors, and other life stressors, even though none of the interview questions covered these topics. The information provided below helps to put the participants' experiences with the CMA program in perspective.

All participants mentioned at least two concurrent illnesses. The most frequent illnesses were diabetes, asthma, arthritis, high blood pressure, depression, and heart problems. Thirteen of the 18 interviewees mentioned suffering from depression, the nerves or a more severe mental health problem. The list of health/mental health problems[3] mentioned by participants during the interview included:

- Diabetes (8)
- Pain (8)
- Mental health problem (8), Depression (7), Addiction (2)
- Asthma (7), Respiratory problems (4)
- Heart problems (4)
- Cholesterol/High blood pressure (4)
- Arthritis (4)
- Eye problems (4)
- Kidney infection (3)
- Cancer (3)
- Obesity (2)
- Physical disabilities (blind/hearing impairment) (2)
- Digestive problems (1)
- Seizures (1)
- Rare syndrome (1)
- Other medical (e.g. skin, thyroid, migraines, memory loss)

Of the 16 Puerto Ricans interviewed about half spoke some English but felt much more comfortable talking in Spanish. Most of the visits that were conducted at home were within Latino populated neighborhoods that seemed like a part of Puerto Rico transplanted to the U.S. The degree of adaptation to the U.S. varied among participants. Some had been in the U.S. for years and still did not know any English. Many talked about how their health conditions created a barrier to learning, or attending classes to learn English.

[2] CMA staff reported one of the males was a transgender individual.
[3] This list is not comprehensive. The interviewers did not ask about specific health conditions. Rather, this information was volunteered by participants as they told their stories.

Reasons for Joining the Program

We asked members how they heard about the CMA program, why they decided to join[4], and what reservations they might have had about joining the program. Most people learned about the program from their primary care physician or a nurse. All participants, except one, said *complications/crisis* in their health or mental health prompted their referral to the program:

> "I was arrested at the clinic because of an incident with some of the workers and Dr. S put me in touch with M, who introduced me to the program."
>
> "I started in the program when they operated on me. I was in bed for nine months."
>
> "The nurse that attends my mother saw I was bad and heard from my mother that I was so sick and he began to visit me and help me with medication… I thought I was going to die because I was making a lot of mistakes with the medications and I couldn't get out of bed."

Differences in the Care Received

Prior to joining the program most participants reported that managing their health was an overwhelming task. They could not get the services they needed when they tried to access care on their own. Previous negative experiences with the health care systems in Puerto Rico or Massachusetts also deterred them from seeking help. Language was another barrier to care for many individuals who were monolingual in Spanish or not comfortable talking about health or mental health concerns in English. CMA acted as their link to the health care system, and made an important difference in their care-seeking behaviors, understanding of their health conditions and treatment, and the coordination of their care.

Ability to keep appointments

Fourteen of the 18 participants said they were making and keeping more medical appointments since joining CMA. Some typical comments included:

> "Before I only went to the doctor when I was feeling bad…. Before I would go to see a doctor every six months and now I can see the doctor with more frequency."
>
> "I was sick many times and missed appointments. I was at the hospital several times and I needed follow up with diabetes. My problem was to go to the clinic. I couldn't get out of bed."
>
> "Now I look forward to getting better and taking medications, or seeing a specialist. I used to find excuses not to go. Now I make sure I go to the appointments. I look forward to going to the appointments because I know I'm going to get better."

[4] By joining CMA, individuals enrolled in a managed care organization.

Fewer hospital admissions or emergency room visits
Eight people mentioned that they had less frequent visits to the hospital or the emergency room as a result of the continuous support from the CMA program. The time spent in the hospital or the ER was time wasted for people and they felt grateful that their frequent outpatient medical visits reduced the number of emergencies they experienced. Some examples include:

> "Before T [CMA nurse] I went to the emergency room. It has been a long time since I went to the emergency room – about three years."
>
> "Before I started the program my health was out of control. Four years back I used to go to the hospital every month, or two to three times every month. I had to leave my kids alone in the house. Now I go every six months or one year. I haven't been in the hospital for two years."
>
> "I am not going to the hospital with such frequency as before, when I was only going to the front clinic [at Brightwood]."

Better understanding of their condition and treatments
Thirteen participants said they had a better understanding of their conditions and treatments. Understanding their conditions gave people a sense of control, increased their hope of getting or feeling better, and encouraged them to follow the treatment more carefully.

> "She [M] teaches me what is wrong and what is right. I have bipolar disorder and I was addicted to drugs. J works for CMA and teaches me about drugs and staying out of drugs. I am clean from drugs [nine months] since I went to the hospital."
>
> "I am very sick. After I joined the program T found out I had a rare syndrome and if it wasn't for T I think I would be dead or sicker. He has gone out of the way to find out things about the syndrome and helped me with meds. I would ask him the side effects of prednazone and he would tell me the truth. He even goes to the appointment with me. The doctor talks and T would break it down so I would understand. T explained to me the medicines and side effects. If I take prednazone my diabetes would be awful. If I don't, the syndrome would come back."
>
> "I have diabetes five years. I was worried I didn't have any care with insulin medications. I had questions. When T arrived he asked me if I have questions about the medications. He explained to me so I understood better. Millions of things I never knew. I learned so much with him. He explains how to take my medicine, he explains about my insulin, I am more aware and I learned a lot."

Overall, participants were satisfied with the connection established with the CMA staff. They felt that CMA staff kept their PCPs debriefed about their conditions and as a result, some participants felt their PCPs knew more about their health. Most PCPs at

Brightwood speak Spanish; thus all but two of the participants did not feel language was a barrier to receiving primary care.

People also appreciated the connections created and maintained among the CMA staff and all their providers inside and outside the Brightwood Health Center. Ten participants felt that the care coordination and integration between various physical and mental health needs contributed to their overall well being.

> "Right now in CMA I have a doctor. If I can't call Dr. S I can call C and he can be my doctor and they talk to each other and I get advice right away."
>
> "I don't have to call the pharmacy, I don't have to look for medicines, I couldn't live without them; they are my lifeline… R and D come and bring my medicines. They come quickly and they call Dr. O if needed."
>
> "Before I joined CMA I thought my physical health and mental health was not connecting. It was hard for me to remember what I needed. K remembers for me, [he] has done a fantastic job in keeping everyone up to date. When I am charged with managing everything it takes longer. I am not sure I can do it myself.

Meeting Member Needs on Time

We asked participants if they were able to get the care they needed when they needed it. At this point in the interview, many individuals had already spoken about how this was one of the major differences in care that they experienced when they joined the CMA program. Participants reported that CMA helped them make appointments and referrals (18), came to their home (17), helped them get medications (14), explained how to take the medications (13), called to check up on them (13), accompanied them to appointments (11), helped them with transportation (9), and was available 24 hours to respond to their calls (8).

In short, most participants felt the CMA program facilitated their access to the medical services they needed. Participants made a distinction between the clinic and the CMA program. They felt the clinic and the pharmacy sometimes failed to meet their needs but the CMA staff intervened to solve their problems. They felt that even if they could not reach their main CMA contact, there was someone else who could help them when they needed it.

> "I get appointments when I need them, and J helps me with appointments. Before it was different; I had to wait and sit for hours. Now I come and I have my appointment and leave."
>
> "My care before CMA… I would call (the clinic) I would have to wait; and then they tell me to come tomorrow...with CMA I can get squeezed in… I see Dr. S quite often…"

"When I have a problem with my medicines I call J….J got medication quickly and fixed it. J finds the doctor quickly when I need it. I can control my diabetes now."

"If there is an emergency immediately someone answers me. The girls answer the telephone in emergencies and someone brings me to the hospital. They constantly help me. I hope to stay part of this program. I don't know what I would do without it."

Changes in Health and Health Related Quality of Life

Many people reported improvements in their health and their overall quality of life. Twelve participants reported their physical health was better; four said it was the same; and two said it was poorer. Fourteen people talked about improvements in their mental health. Some of the common statements were feeling less worried about their health, relieved of the energy required to deal with complications, less depressed about their situation, more supported, and stronger. Some examples include:

"My health is better: [my problems] with alcohol, with cholesterol, with diabetes, are much better. Three years I have no problems with alcohol."

"I have conditions. They call me and I can stay in my house… Thanks to them I have an apartment, they help me with my feet, my fatigue, my health conditions have improved and I am stable… CMA helped me get a machine and other medications to help me with my asthma. Without this equipment and medications I didn't know what I was going to do."

"Before M and D came I stayed sick. They helped me with my self-esteem. I was feeling bad. I was disoriented and without animation, I couldn't go out. They helped me a lot."

"At the time before the program I needed help. I was very sick, I was in my house. I feel stronger, cared for, and I receive attention. I don't cry, before I was very depressed and in pain because of my hip injury. Now I've returned to be a person. I go out of the house."

Improvements occurred on different levels. While some people reported that they are finally able to get out of bed or out of the house, others said that they are now beginning to do other things that matter to them, freed from some of the burdens of their health care needs or depression:

"Before the nurses I had problems with my high pressure, fat, pains in the legs. I couldn't breathe. My pressure is much better for the attention at the clinic. Before I felt bad, now I'm going to do exercise. I was depressed before, but now I can dye my hair and I don't go to the emergency room."

> "My physical health has not changed a lot. My mental health is far better. Having K to help me figure out what services I have and can get access to, I have more social time. I have more energy, I can get out of bed more easily and I don't have to wrestle with insurance companies."
>
> "[My health has] improved since this program, it was a big change. Now my asthma is controlled. I thought I was going to die. I was making a lot of mistakes with the medications and I couldn't get out of bed. T helped me with the pharmacy when I had an attack I am more animated, more trusting… [Now] I work in the church as a volunteer."

Other Improvements in Quality of Life

Nearly all of the participants spoke about the help that CMA provided in accessing transportation and providing interpretation during medical appointments. In addition, CMA assisted many participants in accessing other services that improved their quality of life such as health insurance, welfare and disability benefits; handicapped plates and accessible bathrooms; applications for citizenship; finding schools and special programs for children; getting food, clothes and toys for the children; finding affordable housing; and dealing with the Department of Social Services (DSS). Some examples of this help include:

> "She [D] is really helpful for sitting down and listening and she is aware with the kids' food and clothing. AJ needed a jacket and boots and she got it… and she asks if the kids need milk and if I can't go out she will get it."
>
> "Where I lived before there was drugs, prostitution. Someone threatened to kill me. I called the police. Better mental health now – I have peace. You can't buy this with money. M, D, J, all took me to look for new apartments."
>
> "Some days I used to get out in the world real nice; other days I couldn't talk to the neighbor. I used to fight with the kids. [Now] I take medication. That has been controlling me. DSS came in the house and wanted to take out the children [15-year-old son and 14-year-old daughter]… M talked to DSS to close the case. DSS is going to close the case."
>
> "I have chronic diarrhea… I want to go to the bathroom upstairs but I can't reach it on time. K gave me a letter for handicap for a bathroom below and I got it."

Suggestions for Improvements

Ten participants said they were completely satisfied with the program and they would recommend it to anyone. Participants said they wished more people like them were able to receive services from CMA. Several said they did not know what they would do without the program. Those who were not completely satisfied voiced concerns about waiting too long for appointments at the clinic or medications at the pharmacy.

Three participants recommended CMA hire more staff or extend the hours of service as they felt the number of people was increasing and the CMA staff was getting busier:

> "Now there are more people in the program so D does not have as much time. Maybe they should get more nurses to serve more people.… I have diabetes, asthma, I have nerve problems. It is not so bad but there are always problems and I need help. If you [CMA] extended more people like M so then she doesn't have to cancel her appointment with me."

> "Maybe they could extend the hours of service. If I call for an emergency [after hours] they send an ambulance… They have one person on call always but they can't come if they have to see more people…When I had to go to the emergency room last week maybe CMA could have called to ask them to see me quickly."

Three participants suggested improving the services in the pharmacy at Brightwood and the clinic. They reported problems getting their medications on time. CMA staff assisted them when needed but they felt the pharmacy should serve them better. Regarding the clinic, they complained about the long waits to see the doctor and about the staff at the front desk. Complaints about the front desk staff included talking to people disrespectfully and failing to answer the phone, call back, or deliver their messages:

> "I want that they fix the waiting time at the clinic. By telephone I have a problem; every time I want to get my medications I have to wait. I have to wait two hours for an appointment when all I need is a prescription. I don't know why I can't call. After the appointment I have to wait to schedule the next appointment."

Summary

For most people involved in the demonstration project, health care expenditures increased slightly, but for many of the right reasons. Those who received little or no care in the fee-for-service period, and thus could be considered at high risk for complications given their underlying disability, received much more care during the demonstration period. Their outpatient medical visits increased, as did their prescription drug use. Outpatient mental health counseling and substance abuse treatment also increased dramatically, suggesting much more active engagement in care among demonstration participants. Thus, from a preliminary examination of costs and utilization, it can be suggested that the demonstration began to take some steps to reduce health disparities for this low-income, largely Spanish speaking inner-city population, by engaging them in care and supporting them to adhere to treatment of their common chronic health conditions.

For a small subset of people, costs declined dramatically. Those with extraordinary inpatient hospital costs in the fee-for-service period did not have many repeat hospital admissions in the managed care period, with one exception. Upon closer examination, the inpatient diagnoses for this group were nearly all related to complications of asthma, diabetes, hypertension, and HIV disease, rather than catastrophic events or major surgeries. For this group, outpatient physician visits and pharmacy costs, already high to

begin with, also declined, in contrast with the other program members. However, outpatient behavioral health utilization soared, increasing over six-fold, suggesting that attention to the psychiatric or emotional needs of people with severe chronic illnesses may have dramatic impact on their physical health.

The one area in which the demonstration was not successful was in reducing emergency room visits. In fact, visits increased slightly during the demonstration period. Some of this is due to structural issues and program capacity – perhaps there was not sufficient capacity, either at the health center or among the intervention team, to respond to all urgent care requests in a timely manner, thus sending more people who were perhaps less involved with the intervention to the emergency room. In any case, this is an area where there is room for improvement.

In summary, the demonstration clearly indicates that a comprehensive, preventive care approach, one that places an equal emphasis on physical health, behavioral health, and care coordination for people with chronic health conditions, holds promise for the future. Although all of the people enrolled in the demonstration had serious health issues, only one experienced significant inpatient hospital utilization, down from 14 in the fee-for-service period, suggesting that a preventive care approach with a strong infusion of resources to ensure that preventive care takes place, can, in fact, keep people from become sicker earlier.