

Broward Regional Health Planning Council

An Evaluation of the Community Access Program (CAP)
Phase Three - March 2001 to February 2003

August 2003

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Acknowledgements

This evaluation is the product of a collaborative effort that mirrors the implementation of the Community Access Program (CAP) in Broward County. From the very beginning, the partners that make up the Broward Regional Health Planning Council's Healthcare Access Committee, which wrote the proposal for a CAP Grant in Broward County, identified the need for an evaluation and established the criteria that should be used, based on desired program outcomes. These same partners supplied most of the information used to assess those outcomes, although the compilation and interpretation was carried out by the staff of the South Florida Regional Planning Council.

Information requirements for the evaluation were substantial. Information and referral data for calls to First Call For Help were tracked in accordance with their relevance to the targets of the CAP objectives. Memorial Healthcare System and North Broward Hospital District provided data that allowed the basic enrollment and demographic information for each patient to be linked to their individual clinical test scores, quality of life survey scores, and hospital usage types and costs.

While First Call For Help had an existing information system to track calls, both of the hospital districts developed specific systems capable of producing all of the information required for monitoring the implementation of the disease management program and ensuring availability of the information required for the evaluation. In each case, this entailed pulling data from disparate mainframe systems into a separate database, and populating that database with additional data not available in the mainframe systems (such as quality of life survey scores). The Broward Regional Health Planning Council contributed substantially to the development of the database that does this for the North Broward Hospital District.

While many people contributed to the success of this endeavor, special mention goes to Mike De Lucca, Michelle Rosiere and Myles Henderson at Broward Regional Health Planning Council; John Benz, Jessica Black, Marilyn Miceli, Gale Fehse and Amy Pont at Memorial Healthcare System; Lori Kessler at North Broward Hospital District; and Betty Kukin and Steve Strickland at First Call For Help. Without the long hours and dedication of these individuals, this evaluation could not have been produced. More importantly, without the dedication of the case managers and medical personnel serving the patients, the positive results of the disease management program highlighted in this evaluation could not have been achieved.

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Introduction

The uninsured and underinsured often have complex medical needs, remain outside organized systems of care, and have insufficient resources to obtain care. They may defer care or not receive needed services, and they are about half as likely to receive a routine check-up as insured adults. The uninsured and underinsured also rely heavily on expensive emergency rooms, and, because they lack a routine source of care, they often do not receive needed follow-up services.

Many of the uninsured and underinsured rely on the nation's institutions, systems, and individual health professionals that provide a significant volume of health care services without regard for ability to pay. In many communities, these providers are struggling to care for the increasing numbers of uninsured and underinsured individuals. They face many challenges such as uneven distribution of the burden of uncompensated care, the fragmentation of services for the uninsured, insufficient numbers of certain types of providers, reduced revenues due to the pressures of managed care, and a growing need for the mental health and substance abuse services.

The Community Access Program (CAP) is an initiative of the Health Resources and Services Administration of the U.S. Department of Health and Human Services. Its purpose is to support public and private organizations in bridging service gaps and improving health outcomes for the uninsured and underinsured. Initial CAP grants were made to 23 organizations in 22 states, beginning in September 2000. In Fiscal Year 2001, additional funding enabled 53 new grants beginning in March 2001 (including Broward County) and another 60 in September 2001. The Community Access Program was funded again by Congress in Fiscal Years 2002 and 2003, which has enabled HRSA to extend the program to new grantees, while ensuring on-going support for successful current grantees. HRSA maintains an extensive website to support sharing of information among participating grantees around the country (www.capcommunity.hrsa.gov - login required).

Broward County's Community Access Program (CAP) Grant

The Broward Regional Health Planning Council - BRHPC (www.brhpc.org) received an initial CAP grant for the period from March 1, 2001 to February 28, 2002. The grant was then renewed to extend the period through August 31, 2003. The grant applications resulted from the collaborative work of BRHPC's Healthcare Access Committee, which convenes the primary health care providers in Broward County once a month. In the grant proposal, the partners established three goals:

1. **improved access to health care services** through promotion of a centralized eligibility and referral system and increased awareness of existing resources;
2. **improved data management and case tracking for the uninsured population** through an enhanced information management system; and
3. **improved care for the uninsured** through better care management (disease management) at the service delivery level for diabetes, asthma, and HIV/AIDS.

The Broward Regional Health Planning Council set out to use the Community Access Program to enhance existing disease management programs for the uninsured and underinsured in Broward County by focusing on the management of episodic clinical events, high utilization patterns and health care costs, and by taking a comprehensive look at the entire continuum of care and health care costs for three target diseases: asthma, diabetes and HIV/AIDS. A strong component of outreach to clients was included to ensure project success.

Disease management and patient care in this program are provided by Broward County's two publicly-supported hospital districts. Disease management programs were initiated at the North Broward Hospital District (www.nbhd.org) in 1998 and at Memorial Healthcare System (www.mhs.net) in 2000. Today, aside from the CAP grant, disease management in Broward County is funded by the State of Florida's Provider Service Network (Medicaid), Broward County's Department of Human Services (\$150,000 over 3 years), and the Health Foundation of South Florida (\$50,000 over two years).

The Disease Management Program delivers a coordinated approach in the care for patients with chronic disease, focusing on asthma, diabetes and HIV/AIDS. Financial resources are reallocated in a proactive manner to enhance the quality of life while simultaneously maximizing the efficiency of the Broward County resources. The result is healthier and more educated patients and their families. A care management program is the central component of the DMP. Disease-specific clinical care managers facilitate quality care and outcomes by coordinating services, using clinical pathways and verifying patient progress according to individual care plans. The DMP care managers serve as the pivotal point of communication and follow up for the system of clinical services, behavioral health care providers and supportive services.

The CAP grant proposal established its expected results, target populations and specific action steps as follows.

Anticipated Outcomes:

- Increased eligibility determinations;
- Increased enrollment in existing health and human service programs;
- Reductions in uninsured population;
- Reduction in run around and multiplicity of providers serving an individual or family;
- Decreased inappropriate health care utilization (and resultant cost savings);
- Improved referrals for health care needs;
- Better health outcomes for targeted special health populations (diabetes, asthma, and AIDS);
- Decrease in the percentage of adults who needed to see a doctor, but could not because of cost; and
- Decrease in the percentage of adults who were kept from their usual activities by a physical or mental health problem.

Target Populations:

- Macro - Entire uninsured population of Broward County
- Micro - Uninsured diverse ethnic/minority groups and residents of targeted neighborhoods (Carver Ranches, Collier City, Dania Beach, Davie, Hallandale, Miramar, and Zip Codes 33311, 33313, and 33319 - populations with low health status indicators and with a large percent of uninsured)

Helplines:

- 24-hour Helplines will be answered by trained counselors who assess the caller's needs, perform preliminary eligibility screenings, and make referrals to appropriate health and community services. First Call For Help (FCFH) envisions three types of responses/processes for calls coming into the Helplines:
 - Basic information and referral service for callers who are not willing/interested in further screening or assistance;
 - Basic information and referral service for callers who are willing/interested in further screening or assistance, but do not verbally consent to create a client record and share information; and
 - Basic information and referral service for callers who are willing/interested in further screening or assistance, and verbally consent to create a client record and share information.

Marketing Plan:

- Develop and implement a marketing plan which will:
 - publicize centralized eligibility and referral system and points of access for health care services;
 - publicize the 24-hour health Helpline; and
 - utilize the Neighborhoods and Community Program, Kid Care, health providers, Broward County, the Florida Department of Children and Families (DCF), the School Board and others as distribution points as appropriate.

Health Care Providers:

- Follow-up on referrals made by FCFH;
- Complete intake, eligibility determination, and enrollment process;
- Provide health care or human services, refer to disease care manager if appropriate;
- Track clients/services in the system;
- Identify wasteful duplication of services;
- Focus on disease management to improve coordination for uninsured patients throughout the system. (sharing information, education, tracking, and monitoring, coordinate care, ensure compliance, and educate patient to help build self-management skills and improve clinical outcomes.);
- Recognizing the importance of education as an empowerment strategy, patients will be educated about the significance of laboratory tests to monitor health, the importance of regular medical visits, the importance of timeliness in the filling and taking of prescriptions as prescribed, and the role of a well-balanced diet and exercise program;
- Collection of data on hospital days and emergency room visits;
- Follow-up satisfaction questionnaires;
- Recognize that addressing social needs in addition to, or apart from, health care needs may additionally improve long-term health outcomes for the uninsured;
- Identify potential health insurance program participants and coordinate their enrollment/application; and
- Develop a plan for caring for undocumented residents, including documenting the size of the population since they will remain uninsured.

Software Development:

- Standardization of data, eligibility screening criteria, and eligibility processes to standardize the process for the uninsured to obtain health care and other needed human services;
- Consistently and appropriately adhere to confidentiality standards.

This description of the CAP grant proposal is the backdrop against which the evaluation has been developed.

Evaluation Methodology

The Health Resources and Services Administration (HRSA) established a national evaluation process early in the program. **The premise of the Community Access Program (CAP) is that community coalitions with federal support for infrastructure development can increase the capacity of the safety net and improve the quality of services.** The program did not prescribe specific infrastructure-building activities, thus allowing grantees to pursue a wide variety of investments such as automated information sharing, disease management, community-wide enrollment, new or expanded services. The expectation is that these investments will lead to more integration of service providers and founders of care, systems that are more responsive to clients, greater efficiency, increased financial support and stability.

HRSA determined that a number of program characteristics precluded developing a classic evaluation in which there is a single set of measures applicable to all grantees, which describe the effectiveness of the program as a whole. These program characteristics include the wide variety of goals and activities selected by grantees; uncertainties surrounding the duration of CAP appropriations, the number of grantees, and grant continuity; the difficulty of objectively measuring the broader goals of the program; the similarity of CAP programs to other programs in the community making it difficult to attribute program effects; and the wide differences in grantees in terms of stage of development of their initiatives at the beginning of the grant.

Therefore, HRSA adopted a strategy whose foundation is a “logic model” and monitoring reports. The logic model makes explicit the relationship among resources, activities, and expected outcomes. This establishes a clear picture of what the community plans to do, why they want to do it, what needs to happen to accomplish the goals, and what a good outcome would look like (the Broward County CAP logic models can be found at www.brhpc.org/pages/programs/cap/matrix.pdf). The semi-annual Project Update, the tool utilized for program-wide monitoring, is an extension of the logic models. The report asks the grantees to document progress in planned activities along with the things that are hindering or facilitating progress. Grantees are also asked to report on measures of accomplishment, which they themselves have suggested. These outcome and output indicators are the metric by which the community will itself judge its success.

In its CAP grant proposal to HRSA and in its logic matrix, BRHPC identified clear action steps to carry out and outcome measures – these became the basis for the evaluation of the CAP grant. They can be grouped in the following five categories: (1) recruitment of uninsured and underinsured patients of the 3 target diseases; (2) improvement in clinical indicators for the

chronically ill served by the program; (3) improvement in the quality of life of the clients; (4) satisfaction of the clients with the services received; and (5) reduction in the inappropriate use of healthcare services with a consequent reduction in the overall cost of providing care. The South Florida Regional Planning Council was asked to conduct the evaluation.

CAP Grant Results in 2001-03

The results of the Community Access Program in its first two years of operation have been clearly positive. Over 1,600 uninsured and underinsured residents of Broward County with one or more of the three target diseases were enrolled in the disease management programs of the two hospital districts. Clinical tests indicate that many of these patients were able to bring their diseases into control, resulting in improved quality of life, reduced hospital usage and cost savings.

Recruitment and Enrollment

At the end of February 2003, 759 patients were enrolled in the CAP disease management programs at the two hospital districts. Most of these patients were receiving treatment for diabetes (540, 71%), while another 137 had asthma and the remainder (82) had HIV/AIDS.

**Table 1. Summary of Patients Enrolled and Disenrolled, by Disease
March 2001 to February 2003**

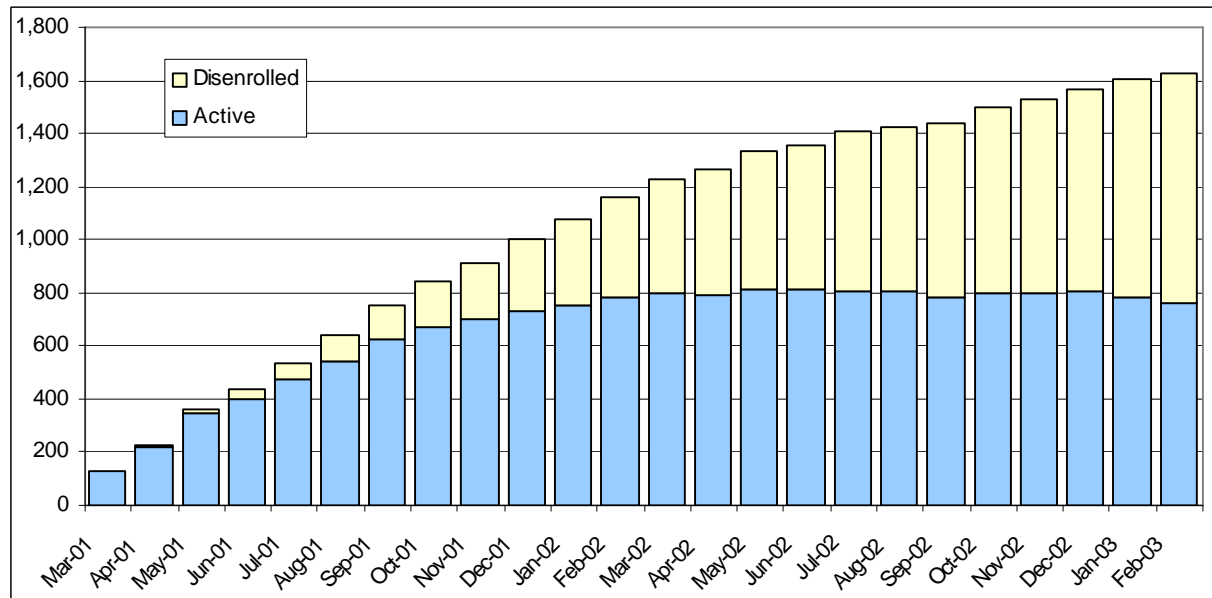
Disease	Asthma	Diabetes	HIV/AIDS	Total
Enrollment	359	1,153	116	1,628
MHS	178	656	17	851
NBHD	181	497	99	777
Disenrollment - All Reasons	222	613	34	869
MHS	147	463	12	622
NBHD	75	150	22	247
Enrolled (Active), as of August 31, 2002	137	540	82	759
MHS	31	193	5	229
NBHD	106	347	77	530
Average Length of Enrollment (days)	166	206	209	196
MHS	176	201	286	197
NBHD	147	223	167	195

Sources: North Broward Hospital District and Memorial Healthcare System.

This success at enrollment of uninsured and underinsured patients is made more meaningful by the fact that there was substantial turnover of clients during the program period. Total enrollment during the two years was 1,628, of which 869 had been disenrolled by the end of February 2003. In a significant number of cases, the turnover occurred because clients were able to obtain alternative insurance, while continuing under care management. **A total of 215 who were disenrolled from the CAP during this period were then enrolled in an insurance program, representing 25% of those who left the program.** As a result, the actual number of clients who benefited from the program was higher than the number of patients still actively enrolled as of the completion of the 2-year evaluation period. In addition, the 869 who had left

by the end of February 2003 remained enrolled in the program an average of 6.5 months (196 days) under CAP care management. Still, the majority of the 654 other clients disenrolled during this period left the program because hospital staff was unable to maintain contact them or they simply “dropped out,” highlighting the difficulty of engaging these chronically ill, uninsured clients. Some of these patients were enrolled in the program in the initial round of recruitment, and remained enrolled for at least 6 months, but were never actively managed - these patients were included in the tables and the analysis that follow as “disenrolled”.

**Figure 1. Cumulative Enrollment and Disenrollment
March 2001 to February 2003**



Sources: North Broward Hospital District and Memorial Healthcare System.

CAP patients enrolled in disease management programs at the two hospital districts during the last two years have been predominantly female, of working age, and from minority communities. The proportion of females among CAP patients with asthma (65%) and diabetes (59%) was higher than average, although males predominated (63%) among the HIV/AIDS patients (see Table 2). Overall, six out of every ten CAP patients were female. The largest contingent (74%) of CAP patients falls into the prime working age of 35 to 64, with another 10% in the young adult (18-34) range. In addition, there were 146 seniors (65+) enrolled in the program, most of whom (133) had diabetes, and 116 children under the age of 18, most of whom (109) had asthma.

As for the race/ethnicity of CAP patients, half of those enrolled in the CAP disease management program were from the non-Hispanic Black or African American community, although that group represented only 20% of the total population of Broward County in 2000. It is worth mentioning that Haitians, Jamaicans, and other people from the Caribbean represent a significant component within the Black or African American population. Another 18% of CAP patients indicated Hispanic or Latino origin, which corresponds to approximately the same proportion of the Hispanic population in Broward County. Finally, 6% classified themselves as other non-Hispanic races (Asian, Pacific Islander, American Indian, etc.).

**Table 2. Gender, Age and Race/Ethnicity of CAP Patients
March 2001 to February 2003**

Description	Asthma	Diabetes	HIV/AIDS	Total	%
Gender					
Active	137	540	82	759	100.0%
Male	47	198	58	303	39.9%
Female	90	342	24	456	60.1%
Disenrolled	222	613	34	869	100.0%
Male	77	275	15	367	42.2%
Female	145	338	19	502	57.8%
Total	359	1,153	116	1,628	100.0%
Male	124	473	73	670	41.2%
Female	235	680	43	958	58.8%
Age at Enrollment					
Active	137	540	82	759	100.0%
Under 18 years	45	5	0	50	6.6%
18 to 34 years	14	38	13	65	8.6%
35 to 64 years	75	435	68	578	76.2%
65 years or older	3	62	1	66	8.7%
Disenrolled	222	613	34	869	100.0%
Under 18 years	64	2	0	66	7.6%
18 to 34 years	28	50	11	89	10.2%
35 to 64 years	122	490	22	634	73.0%
65 years or older	8	71	1	80	9.2%
Total	359	1,153	116	1,628	100.0%
Under 18 years	109	7	0	116	7.1%
18 to 34 years	42	88	24	154	9.5%
35 to 64 years	197	925	90	1,212	74.4%
65 years or older	11	133	2	146	9.0%
Race / Ethnicity					
Active	137	540	82	759	100.0%
White Non-Hispanic	31	115	16	162	21.3%
Black or African American	60	313	53	426	56.1%
Hispanic or Latino (may be of any race)	35	70	8	113	14.9%
Other Non-Hispanic	11	42	5	58	7.6%
Disenrolled	222	613	34	869	100.0%
White Non-Hispanic	73	188	8	269	31.0%
Black or African American	90	274	22	386	44.4%
Hispanic or Latino (may be of any race)	52	119	3	174	20.0%
Other Non-Hispanic	7	32	1	40	4.6%
Total	359	1,153	116	1,628	100.0%
White Non-Hispanic	104	303	24	431	26.5%
Black or African American	150	587	75	812	49.9%
Hispanic or Latino (may be of any race)	87	189	11	287	17.6%
Other Non-Hispanic	18	74	6	98	6.0%

Sources: North Broward Hospital District and Memorial Healthcare System.

A critical role in ensuring enrollment was played by First Call For Help, which

- implemented a 24-Hour Health Hotline, whose counselors handled over 12,000 calls during the 2-year period, and provided 21,417 referrals on health-related needs (see Table 3);
- developed and implemented a marketing plan; and
- distributed 192,908 pieces of promotional material (including bi-lingual English-Spanish business-card sized Health Hotline wallet cards; bi-lingual 8 1/2" x 11" double-sided flyers; 17" x 24" tri-lingual wall posters and quad-lingual (English, Spanish, Creole and Portuguese) mail inserts and 2-1-1 brochures) to make its availability known.

Table 3. Quarterly Health-Related Client Calls to First Call For Help's 24-Hour Helpline March 2001 to February 2003

Health-Related Needs	Year 1			Year 2			2-Year Total
	Mar-01 Aug-01	Sep-01 Feb-02	Total	Mar-02 Aug-02	Sep-02 Feb-03	Total	
Asthma	14	9	23	9	7	16	39
Chronic Medical Condition	273	233	506	256	220	476	982
Dental Care	162	180	342	197	193	390	732
Diabetes	52	57	109	44	43	87	196
Eating Disorders	26	39	65	31	30	61	126
Eye Care	57	63	120	63	61	124	244
Financial Assistance	222	166	388	218	159	377	765
HIV/AIDS	149	158	307	138	163	301	608
Health Clinics	712	790	1,502	751	724	1,475	2,977
Heart Failure (Chronic)	0	2	2	1	6	7	9
Hemophilia	0	0	0	0	0	0	0
Home Health Care	378	303	681	314	273	587	1,268
Hospital / Physician Referral	191	147	338	151	169	320	658
Medical Equipment	141	109	250	116	122	238	488
Medicare / Medicaid	402	378	780	411	371	782	1,562
Medications	0	52	52	88	109	197	249
Nursing Home	25	16	41	26	23	49	90
Pregnancy / Birth Control	235	211	446	230	238	468	914
STD (Sexually Transmitted Disease)	68	67	135	73	75	148	283
Support Group-Health	95	82	177	84	70	154	331
Transportation-Meds	84	54	138	63	81	144	282
Uninsured	633	544	1,177	435	387	822	1,999
Other	25	17	42	10	2	12	54
Totals	3,944	3,677	7,621	3,709	3,526	7,235	14,856
Target Needs	848	822	1,670	715	715	1,430	3,100
Total Calls (unduplicated)	3,091	2,962	6,053	3,110	3,004	6,114	12,167
Total Referrals Provided	5,804	4,757	10,561	5,401	5,455	10,856	21,417

Source: First Call For Help of Broward, Inc.

The Broward Regional Health Planning Council also worked with the Broward County Human Services Department, First Call For Help and ADS Responsecorp to develop and implement the Targeted Referral System (TRS) for the Broward Information Network (BIN). This software enables users to screen clients for eligibility for programs offered by human service providers. During the initial phase of the CAP grant, the software was developed and programs of the

Florida Department of Children and Families (DCF) and the Broward County Health Department (BCHD) were included in the TRS. Currently, programs for additional human service providers, including the Broward County Department of Human Services and WorkForce One, have been incorporated in the TRS inventory, and programs for both the BCHD and DCF have been updated. The system is available today both on the virtual private network of the BIN and on the publicly accessible Internet at www.brhpc.org (follow the link in the lower left corner).

Although not implemented yet, planned connectivity with the BIN, and the connection of other BIN partner agencies, are expected to make it possible for willing clients to avoid paperwork duplication by authorizing the sharing of that information over the network, including the forwarding of referrals.

Improved Clinical Indicators

Regular clinical laboratory tests are a fundamental component of the strategy for disease management. They permit both healthcare providers and the patients to monitor the status of their disease. The scores from these lab tests can also be used to measure improvements in the chronic disease state of enrollees as a result of participation in the disease management program. Tests have been identified for clients with diabetes (Hemoglobin A1c) and HIV/AIDS (CD4 Count and Viral Load). Healthcare providers were asked to conduct baseline lab tests within 90 days of enrollment (or identify a baseline lab test conducted within the 90 days prior to enrollment), and then to repeat lab tests at regular 90 to 180 day intervals, depending on the health status of the patient. The scores from these lab tests were collected and “sequenced” (assigned an order, leaving out tests conducted at intervals shorter than those recommended).

Table 4 displays the lab test results for 1,153 diabetes patients, 722 of whom had been enrolled in the program for at least 180 days by the end of the evaluation period. Of these, 591 (82%) had at least a baseline Hemoglobin A1c test, and 444 (62%) had at least a baseline and one follow-up test. Of those with a baseline and one follow-up, 267 had a baseline and two follow-ups, and 150 of these had a baseline and 3 follow-ups. Comparisons in the tables are made between the scores at the baseline and at the first follow-up test for all those who had at least one follow-up (including those with more than one), between the baseline and the second follow-up test for all those who had at least two follow-ups (including those with more than two), and between the baseline and the third follow-up test for those who had at least three follow-up tests (including those that had more than three).

Test scores are stratified into four classes representing clinical status: in control, borderline, moderate and severe. In each case, mean scores improved, falling from an average of 8.7 to an average of 8.1, or about 7%, between the baseline and the corresponding follow-up. In addition, there was consistent reduction in the number of patients with A1c tests in the severe range (above 10). Among those with a baseline and one follow-up, the number fell from 117 (26%) to 65 (15%) between the baseline and first follow-up, a decrease of 44%. Conversely, those in control, with A1c tests below 7, rose from 124 (28%) at baseline to 158 (36%) at the first follow-up, an increase of 27%. Similar results were found for those with two and three follow-up tests.

**Table 4. Diabetes Patients Completing Hemoglobin A1c Lab Tests
March 2001 to February 2003**

Patients by Lab Test Status	Active		Disenrolled		Total	
	Number	%	Number	%	Number	%
All Enrolled Patients	540	100.0%	613	100.0%	1,153	100.0%
Enrolled <180 Days (excluded)	110	20.4%	321	52.4%	431	37.4%
Enrolled 180+ Days (included)	430	79.6%	292	47.6%	722	62.6%
Patients Evaluated	430	100.0%	292	100.0%	722	100.0%
No A1c Tests	68	15.8%	63	21.6%	131	18.1%
Only a Baseline	76	17.7%	71	24.3%	147	20.4%
Baseline & One Follow-Up	286	66.5%	158	54.1%	444	61.5%
Baseline & Two Follow-Ups	186	43.3%	81	27.7%	267	37.0%
Baseline & Three Follow-Ups	118	27.4%	32	11.0%	150	20.8%
Patients by Lab Test Results	Patients with a Baseline and					
	1 Follow-up		2 Follow-ups		3 Follow-ups	
	Number	%	Number	%	Number	%
Total	444	100.0%	267	100.0%	150	100.0%
Mean Baseline A1c Score	8.6		8.7		8.7	
In Control (< 7.0)	124	27.9%	73	27.3%	37	24.7%
Borderline (7.0 to 8.0)	79	17.8%	48	18.0%	25	16.7%
Moderate (8.1 to 10.0)	124	27.9%	75	28.1%	48	32.0%
Severe (> 10.0)	117	26.4%	71	26.6%	40	26.7%
Mean Follow-up A1c Score	8.0		8.1		8.1	
In Control (< 7.0)	158	35.6%	91	34.1%	43	28.7%
Borderline (7.0 to 8.0)	101	22.7%	68	25.5%	49	32.7%
Moderate (8.1 to 10.0)	120	27.0%	65	24.3%	37	24.7%
Severe (> 10.0)	65	14.6%	43	16.1%	21	14.0%
Change in Mean A1c Score	-0.6	-6.6%	-0.6	-6.8%	-0.6	-6.6%
In Control (< 7.0)	34	27.4%	18	24.7%	6	16.2%
Borderline (7.0 to 8.0)	22	27.8%	20	41.7%	24	96.0%
Moderate (8.1 to 10.0)	-4	-3.2%	-10	-13.3%	-11	-22.9%
Severe (> 10.0)	-52	-44.4%	-28	-39.4%	-19	-47.5%

Sources: North Broward Hospital District and Memorial Healthcare System.

Table 5 displays the results of CD4 Counts for 116 HIV/AIDS patients, 79 of whom had been enrolled in the program for at least 180 days at the end of February 2003. Of these, 69 (87%) had at least a baseline CD4 Count, and 55 (70%) had at least a baseline and one follow-up CD4 Count. Of those with a baseline and one follow-up, 42 had a baseline and two follow-up tests and 27 of these had a baseline and three follow-up tests. Scores here are also stratified into four classes, ranging from under 100 to over 500, where the higher the score the better. Mean scores for the 55 patients with a baseline and at least one follow-up showed a small increase of 14.5 points (3%) in the average score. However, two of the patients that scored in the range above 500 had fallen to a lower category at the time of the first follow-up CD4 Count. For the 42 patients that had a baseline and two follow-ups, the mean score on the second follow-up CD4 Count showed an improvement of 28 points (6%), and half of the patients (5 out of 10) moved out of the lowest range (<100) into the next category. For the 27 patients with a baseline and 3 follow-ups, the mean scores improved by 66 points (13%), and 16 (59%) had scores above 500.

**Table 5. HIV/AIDS Patients Completing CD4 Counts
March 2001 to February 2003**

Patients by Lab Test Status	Active		Disenrolled		Total	
	Number	%	Number	%	Number	%
All Enrolled Patients	82	100.0%	34	100.0%	116	100.0%
Enrolled <180 Days (excluded)	18	22.0%	19	55.9%	37	31.9%
Enrolled 180+ Days (included)	64	78.0%	15	44.1%	79	68.1%
Patients Evaluated	64	100.0%	15	100.0%	79	100.0%
No CD4 Counts	6	9.4%	4	26.7%	10	12.7%
Only a Baseline	12	18.8%	2	13.3%	14	17.7%
Baseline & One Follow-Up	46	71.9%	9	60.0%	55	69.6%
Baseline & Two Follow-Ups	37	57.8%	5	33.3%	42	53.2%
Baseline & Three Follow-Ups	25	39.1%	2	13.3%	27	34.2%
Patients by Lab Test Results	Patients with a Baseline and					
	1 Follow-up		2 Follow-ups		3 Follow-ups	
	Number	%	Number	%	Number	%
Total	55	100.0%	42	100.0%	27	100.0%
Mean Baseline CD4 Count	489.3		492.5		517.2	
> 500	26	47.3%	21	50.0%	14	51.9%
200 to 500	13	23.6%	9	21.4%	6	22.2%
100 to 199	5	9.1%	2	4.8%	1	3.7%
< 100	11	20.0%	10	23.8%	6	22.2%
Mean Follow-up CD4 Count	503.9		520.7		583.1	
> 500	24	43.6%	22	52.4%	16	59.3%
200 to 500	16	29.1%	8	19.0%	5	18.5%
100 to 199	6	10.9%	7	16.7%	3	11.1%
< 100	9	16.4%	5	11.9%	3	11.1%
Change in Mean CD4 Count	14.5	3.0%	28.2	5.7%	66.0	12.8%
> 500	-2	-7.7%	1	4.8%	2	14.3%
200 to 500	3	23.1%	-1	-11.1%	-1	-16.7%
100 to 199	1	20.0%	5	250.0%	2	200.0%
< 100	-2	-18.2%	-5	-50.0%	-3	-50.0%

Sources: North Broward Hospital District and Memorial Healthcare System.

Table 6 displays the results of Viral Load lab tests for 116 HIV/AIDS patients, 79 (68%) of whom had been enrolled in the program for at least 180 days at the end of February 2003. Of these, 61 (77%) had at least a baseline test, 41 (52%) had at least a baseline and one follow-up test, 25 of these had a baseline and two follow-up tests, and 14 of these had a baseline and three follow-up tests. Scores for Viral Loads are also stratified into four classes, ranging from under 500 (in control) to over 50,000 (severe). Mean scores for the 41 patients with a baseline and at least one follow-up showed a significant improvement in their health status, with a fall of 32,580 points (52%) in the average score. In addition, four of the 11 patients in the severe range at baseline achieved lower scores at the first follow-up, and two reached the range below 500, indicating that they were "in control." Improvements for the 25 patients that had a baseline and two follow-ups were also significant, with a mean score on the second follow-up that improved by 26,735 points (42%). For the 14 patients with a baseline and 3 follow-ups, the mean scores

improved by 21,071 points (86%), and as of the third follow-up, 11 of the 14 patients (79%) were “in control,” compared to only 6 at the time of the baseline; none were in the severe range.

**Table 6. HIV/AIDS Patients Completing Viral Load Lab Tests
March 2001 to February 2003**

Patients by Lab Test Status	Active		Disenrolled		Total	
	Number	%	Number	%	Number	%
All Enrolled Patients	82	100.0%	34	100.0%	116	100.0%
Enrolled <180 Days (excluded)	18	22.0%	19	55.9%	37	31.9%
Enrolled 180+ Days (included)	64	78.0%	15	44.1%	79	68.1%
Patients Evaluated	64	100.0%	15	100.0%	79	100.0%
No Viral Load Tests	14	21.9%	4	26.7%	18	22.8%
Only a Baseline	16	25.0%	4	26.7%	20	25.3%
Baseline & One Follow-Up	34	53.1%	7	46.7%	41	51.9%
Baseline & Two Follow-Ups	22	34.4%	3	20.0%	25	31.6%
Baseline & Three Follow-Ups	12	18.8%	2	13.3%	14	17.7%
Patients by Lab Test Results	Patients with a Baseline and					
	1 Follow-up		2 Follow-ups		3 Follow-ups	
	Number	%	Number	%	Number	%
Total	41	100.0%	25	100.0%	14	100.0%
Mean Baseline Viral Load	63,001		63,479		24,433	
In Control (< 500)	14	34.1%	7	28.0%	6	42.9%
Borderline (500 to 5,000)	6	14.6%	5	20.0%	1	7.1%
Moderate (5,001 to 50,000)	10	24.4%	6	24.0%	4	28.6%
Severe (> 50,000)	11	26.8%	7	28.0%	3	21.4%
Mean Follow-up Viral Load	30,422		36,745		3,362	
In Control (< 500)	16	39.0%	13	52.0%	11	78.6%
Borderline (500 to 5,000)	7	17.1%	3	12.0%	1	7.1%
Moderate (5,001 to 50,000)	11	26.8%	6	24.0%	2	14.3%
Severe (> 50,000)	7	17.1%	3	12.0%	0	0.0%
Change in Mean Viral Load	-32,580	-51.7%	-26,735	-42.1%	-21,071	-86.2%
In Control (< 500)	2	14.3%	6	85.7%	5	83.3%
Borderline (500 to 5,000)	1	16.7%	-2	-40.0%	0	0.0%
Moderate (5,001 to 50,000)	1	10.0%	0	0.0%	-2	-50.0%
Severe (> 50,000)	-4	-36.4%	-4	-57.1%	-3	-100.0%

Sources: North Broward Hospital District and Memorial Healthcare System.

In summary, analysis of the clinical lab test results suggests that patients who remained in the program a minimum of 6 months were likely to obtain significant improvement in their health status, as measured by these tests. **Results for diabetes patients, based on the largest pool of clients under CAP, showed substantial improvement early in their participation, but with little additional change over time, as measured by available test results. On the other hand, results for HIV/AIDS patients, who represent a much smaller sample of all CAP patients, seem to support the benefit of continued participation in the program.**

It is important to observe that 40% of the diabetes patients evaluated and 19% of the HIV/AIDS patients evaluated were no longer enrolled in the program at the end of the evaluation period.

Many of these patients were enrolled in the initial phase of the program, but ended up not being available for active disease management, and eventually were disenrolled. The test scores for many of these patients may be below the levels expected for those who are under more active disease management. This also is reflected in the significant number of patients enrolled at least 6 months in the disease management program for whom no appropriately sequenced lab tests were available: 131 diabetes patients (18%) with no Hemoglobin A1c tests, 10 HIV/AIDS patients (13%) with no CD4 Counts, and 18 HIV/AIDS patients (23%) with no Viral Load tests.

Finally, although clinical practice under CAP guidelines calls for regular use of spirometry for asthma patients, the inability to use the pass-fail “scores” from this test to measure clinical outcomes makes it inappropriate to include them in this evaluation.

Improvement in the Patient Quality of Life

Improvement in the quality of life for patients enrolled in the program is measured by comparing responses to survey questionnaires administered upon enrollment and at approximately six-month intervals thereafter. As with clinical lab tests, it was necessary to collect survey scores and review them for proper “sequencing” within the parameters established above. Baseline surveys were identified for each patient, and appropriately spaced follow-up surveys were numbered accordingly.

Asthma patients were given one of two disease-specific surveys developed by Elizabeth F. Juniper to measure their quality of life. The Adult Asthma Quality of Life Questionnaire (AQLQ) is designed to evaluate change in patients’ quality of life over some period of time. The MiniAQLQ contains 15 questions that measure four dimensions of health: symptoms, emotional function, exposure to environmental stimuli, and activity limitations. The questionnaire is analyzed directly from the scores recorded for each question (ranging from one to seven) and the results are expressed as the mean score for each of the domains as well as for overall quality of life (the mean score of all items).

Of 250 adult CAP asthma patients enrolled in the disease management programs at the two hospital districts, 141 (56%) remained in the program for at least 180 days. Of these, 40 (28%) had no qualified Juniper surveys and 48 (34%) had only a baseline survey as of February 28, 2003. For the 53 that had a baseline and at least one follow-up survey, **mean scores rose significantly for each of the four domains and for the overall score between the baseline survey and the first follow-up** (see Table 7). The mean overall score rose 0.9 points, from 3.6 to 4.5 (25%). According to the survey author, an increase of more than 0.5 points can be considered important. The greatest improvements were in the Symptoms domain (1.15 points, 33%) and Emotional Function domain (1.1 points, 33%). The highest mean score was achieved in the Activity Limitation domain (4.4 points, with an increase of 0.6 points). Although based on a smaller number of patients, the overall quality of life at the time of the second (13 patients) and third (4 patients) follow-up surveys appears to have improved even more when compared to their baseline scores, rising respectively by 1.07 points (36%) and 1.43 points (51%).

**Table 7. Patients Completing the Adult Asthma Quality of Life Questionnaire
March 2001 to February 2003**

Patients by Survey Status	Active		Disenrolled		Total	
	Number	%	Number	%	Number	%
Total	92	100.0%	158	100.0%	250	100.0%
Enrolled <180 Days (excluded)	15	16.3%	94	59.5%	109	43.6%
Enrolled 180+ Days (included)	77	83.7%	64	40.5%	141	56.4%
Patients Evaluated	77	100.0%	64	100.0%	141	100.0%
No Surveys	13	16.9%	27	42.2%	40	28.4%
Only a Baseline	24	31.2%	24	37.5%	48	34.0%
Baseline & One Follow-Up	40	51.9%	13	20.3%	53	37.6%
Baseline & Two Follow-Ups	12	15.6%	1	1.6%	13	9.2%
Baseline & Three Follow-Ups	4	5.2%	0	0.0%	4	2.8%

Patients by Survey Results	Patients with a Baseline and					
	1 Follow-up		2 Follow-ups		3 Follow-ups	
	Number	%	Number	%	Number	%
Total	53		13		4	
Symptoms						
Mean Baseline	3.52		2.89		2.60	
Mean Follow-up	4.67		4.41		4.00	
Mean Change	1.15	32.7%	1.52	52.6%	1.40	53.8%
Activity Limitation						
Mean Baseline	4.09		3.71		3.63	
Mean Follow-up	4.71		4.37		4.81	
Mean Change	0.62	15.2%	0.65	17.6%	1.19	32.8%
Emotional Function						
Mean Baseline	3.34		2.48		2.33	
Mean Follow-up	4.44		3.87		4.58	
Mean Change	1.10	32.7%	1.39	55.8%	2.25	96.4%
Environmental						
Mean Baseline	3.36		2.69		2.50	
Mean Follow-up	4.03		3.23		3.50	
Mean Change	0.67	19.9%	0.54	20.0%	1.00	40.0%
Total						
Mean Baseline	3.60		2.99		2.80	
Mean Follow-up	4.50		4.06		4.23	
Mean Change	0.90	24.9%	1.07	35.8%	1.43	51.2%

Sources: North Broward Hospital District and Memorial Healthcare System.

The parents or primary caregivers of pediatric asthma patients were given the Pediatric Caregiver's Asthma Quality of Life Questionnaire (PCAQLQ). This 13-item questionnaire contains nine items regarding emotional function and four items concerning activity limitations. The PCAQLQ was designed to measure the effect on parents whose lives typically are considerably changed on account of their child's illness. As with the adult survey, scores range from one to seven on each question and an overall quality of life score is estimated from the mean score of all items.

Of the 52 pediatric CAP patients that were enrolled for at least 180 days, the caregivers of 19 (36%) had no qualified surveys, and the caregivers of 18 (35%) had only a baseline survey (Table

8). For the 15 patients whose caregivers responded to a baseline and at least one follow-up survey, mean overall scores increased by 1.15 points (33%). Gains were especially significant for the Activity Limitation domain (up by 1.48 points, 57%), which started from a low of 2.58 (on a scale of 1 to 7).

Table 8. Caregivers for Pediatric Patients Completing the Juniper Quality of Life Survey March 2001 to February 2003

Patients by Survey Status	Active		Disenrolled		Total	
	Number	%	Number	%	Number	%
Total	45	100.0%	64	100.0%	109	100.0%
Enrolled <180 Days (excluded)	11	24.4%	46	71.9%	57	52.3%
Enrolled 180+ Days (included)	34	75.6%	18	28.1%	52	47.7%
Patients Evaluated	34	100.0%	18	100.0%	52	100.0%
No Surveys	11	32.4%	8	44.4%	19	36.5%
Only a Baseline	11	32.4%	7	38.9%	18	34.6%
Baseline & One Follow-Up	12	35.3%	3	16.7%	15	28.8%
Baseline & Two Follow-Ups	2	5.9%	0	0.0%	2	3.8%
Baseline & Three Follow-Ups	0	0.0%	0	0.0%	0	0.0%

Patients by Survey Results	Patients with a Baseline and					
	1 Follow-up		2 Follow-ups		3 Follow-ups	
	Number	%	Number	%	Number	%
Total	15		2		0	
Activity Limitation						
Mean Baseline	2.58		2.38		0.00	
Mean Follow-up	4.07		3.50		0.00	
Mean Change	1.48	57.4%	1.12	47.1%	0.00	0.0%
Emotional Function						
Mean Baseline	3.87		2.94		0.00	
Mean Follow-up	4.86		4.11		0.00	
Mean Change	0.99	25.5%	1.17	39.8%	0.00	0.0%
Total						
Mean Baseline	3.47		2.77		0.00	
Mean Follow-up	4.62		3.92		0.00	
Mean Change	1.15	33.0%	1.15	41.5%	0.00	0.0%

Sources: North Broward Hospital District and Memorial Healthcare System.

For patients enrolled in a diabetes or HIV/AIDS program, the quality of life survey used is the Short-Form-12 (SF-12) Health Status Survey, which was developed by Dr. John Ware, and was derived from the Rand Corporation's Medical Outcomes Study. It is used as a general survey of health status and an outcome measure in clinical practice. It is used throughout the world to measure general health-related quality of life when brevity is a significant consideration. This one-page, 12-question survey is scored for both physical (PCS-12) and mental (MCS-12) components, using regression weights and constants taken from the general US population. The advantages of the standardization and norm-based scoring of these two components is that results for one can be meaningfully compared with the other, and their scores have a direct interpretation in relation to the distribution of scores in the general US population. Specifically, all scores above and below 50 are above and below the US average, respectively. The standard deviation is ten points for both scales.

Of the 722 diabetes patients with a minimum of 180 days in the program, 223 (31%) had no qualified SF-12 Health Status Survey on record, and another 255 (35%) had only a baseline survey. Results comparing a baseline and a first follow-up test are available for 244 diabetes patients (see Table 9). **The mean baseline scores of these patients for both the physical and mental components, as expected for the chronically ill, are below the corresponding national averages for the general population, with the physical score more than one standard deviation below. The mean follow-up scores show a small improvement (1.5 points, 3%) in the mental score, and a small decline (-1.1 points, 3%) in the physical score.** The follow-up mental component score (49.6) is only slightly below the national mean for all those who responded to the survey. The 101 patients with a baseline and two follow-ups started from a higher baseline in the physical score and showed a small improvement (up 0.5 points, 1%), and a slightly larger increase in the mental score (2.1 points, starting from a lower baseline). The highest mean follow-up scores on the physical component were achieved by the 38 diabetes patients with at least three follow-up surveys. Case managers indicate that diabetes patients enrolled in the disease management program may improve their mental status more quickly than their physical status because, once enrolled and under care management, other disease states are identified (hypertension, high cholesterol), making them more aware of the physical consequences of the disease, but the additional care received also improves their mental state.

**Table 9. Diabetes Patients Completing the SF-12 Health Status Survey
March 2001 to February 2003**

Patients by Survey Status	Active		Disenrolled		Total	
	Number	%	Number	%	Number	%
Total	540	100.0%	613	100.0%	1,153	100.0%
Enrolled <180 Days (excluded)	110	20.4%	321	52.4%	431	37.4%
Enrolled 180+ Days (included)	430	79.6%	292	47.6%	722	62.6%
Patients Evaluated	430	100.0%	292	100.0%	722	100.0%
No Surveys	58	13.5%	165	56.5%	223	30.9%
Only a Baseline	173	40.2%	82	28.1%	255	35.4%
Baseline & One Follow-Up	199	46.3%	45	15.4%	244	33.9%
Baseline & Two Follow-Ups	95	22.1%	6	2.1%	101	14.0%
Baseline & Three Follow-Ups	37	8.6%	1	0.3%	38	5.3%
Patients by Survey Results	Patients with a Baseline and					
	1 Follow-up		2 Follow-ups		3 Follow-ups	
	Number	%	Number	%	Number	%
Total	244		101		38	
Mean Baseline PCS	38.93		40.21		41.93	
Mean Follow-up PCS	37.88		40.71		42.91	
Mean PCS Change	-1.05	-2.7%	0.49	1.2%	0.97	2.3%
Mean Baseline MCS	48.13		46.98		44.00	
Mean Follow-Up MCS	49.63		49.07		45.64	
Mean MCS Change	1.50	3.1%	2.08	4.4%	1.64	3.7%

Sources: North Broward Hospital District and Memorial Healthcare System.

Of the 79 CAP HIV/AIDS patients enrolled in the disease management program for at least 180 days, 18 (23%) had no qualified SF-12 health status surveys, and another 26 (33%) had only a

baseline. The 36 patients with a baseline and at least one follow-up survey had a low 37.8 mean score on the baseline physical component. At the first follow-up survey, these scores had risen by 17%, to 44.1 (Table 10). Mental component scores began at a relatively high 46.4, and rose by 10% to 51.2, above the national average for the population as a whole.

**Table 10. HIV/AIDS Patients Completing the SF-12 Health Status Survey
March 2001 to February 2003**

Patients by Survey Status	Active		Disenrolled		Total	
	Number	%	Number	%	Number	%
Total	82	100.0%	34	100.0%	116	100.0%
Enrolled <180 Days (excluded)	18	22.0%	19	55.9%	37	31.9%
Enrolled 180+ Days (included)	64	78.0%	15	44.1%	79	68.1%
Patients Evaluated	64	100.0%	15	100.0%	79	100.0%
No Surveys	5	7.8%	13	86.7%	18	22.9%
Only a Baseline	24	37.5%	2	13.3%	26	33.4%
Baseline & One Follow-Up	35	54.7%	0	0.0%	36	45.0%
Baseline & Two Follow-Ups	3	4.7%	0	0.0%	3	3.9%
Baseline & Three Follow-Ups	0	0.0%	0	0.0%	0	0.0%
Patients by Survey Results	Patients with a Baseline and					
	1 Follow-up		2 Follow-ups		3 Follow-ups	
	Number	%	Number	%	Number	%
Total	36		3		0	
Mean Baseline PCS	37.75		37.20		0.00	
Mean Follow-up PCS	44.09		45.47		0.00	
Mean PCS Change	6.34	16.8%	8.27	22.2%	0.00	0.0%
Mean Baseline MCS	46.41		49.20		0.00	
Mean Follow-Up MCS	51.18		45.80		0.00	
Mean MCS Change	4.77	10.3%	-3.40	-6.9%	0.00	0.0%

Sources: North Broward Hospital District and Memorial Healthcare System.

Overall, the patient quality of life surveys demonstrate a significant improvement for those enrolled in the disease management program at the two hospital districts. Gains are most significant for asthma and HIV/AIDS patients. The proportion of patients enrolled in the program for whom there were no quality of life surveys is relatively high, but this is partially explained by the large number of enrollees who ended up not actively participating in the program during the initial start-up period.

Patient Satisfaction with Healthcare Services

Three different client satisfaction surveys were used to assess the level of quality of care received by the client. Each asks the client to “strongly agree,” “agree,” “somewhat agree,” “somewhat disagree,” or “strongly disagree” with positive statements about the way that care was provided by both the disease manager and the physician.

Results for Memorial Healthcare System available at this time are taken from an 11-question survey mailed to 311 clients in December 2001. Only 28 surveys (9%) were returned. More than 80% of the respondents (no fewer than 23 of the 28) either strongly agreed or agreed with each

of the positive statements, and the mean score was 4.6 (out of a maximum of 5). The low return rate achieved, and the possibility that the responses could be influenced by external factors related to the time and place where the survey form is filled out, make it attractive to consider an alternative to the use of a mail-out survey during the next phase of this program.

North Broward Hospital District started off using a 13-question survey, but in response to a low rate of return eliminated three questions and used the abbreviated survey form thereafter. Some surveys were given to clients during one of their visits, and some were mailed out quarterly to clients at home. Overall there were 87 responses to the 13-question survey (mean score = 4.4) and 50 responses to the 10-question survey (mean score = 4.1). The process of giving surveys to clients during their visits appears to work better than the mail-out survey.

Despite the conclusion reached in Phase 1 that the approach to patient satisfaction surveys needs to be revised, there has not yet been an update. Client satisfaction is an important component of the overall evaluation, and requires some attention during the next phase.

Reduction in Inappropriate Care and Lowered Cost of Care

In order to evaluate the impact of the disease management program on hospital usage and cost, patients that were or have been enrolled in the program a minimum of one year were identified. For each of the patients that qualified, data was collected from the two hospital districts for the 12-month periods immediately prior to and immediately after enrollment. Since patients were enrolled and disenrolled throughout the 2-year evaluation period, the data used for this comparison refers to a 24-month period for each of the selected patients sometime between March 2000 and February 2003. The number of “events” (in-patient admissions or emergency room visits) and the fixed and variable costs were tabulated.

Of the 592 patients enrolled in the disease programs for the requisite minimum of 12 months, 348 (59%) had been to the emergency room or had an in-patient admission at least once during the evaluation period. Asthma patients accounted for 101 (17%) of the patients evaluated, diabetes patients for 450 (76%) and HIV/AIDS for the remaining 41 (7%). It is noteworthy that there were no occurrences of emergency room usage or in-patient admissions for 244 (41%) of the CAP patients who remained in the program for a minimum of 12 months, even during the year prior to enrollment in the program. This finding suggests that it may be important to look beyond the emergency room and in-patient admissions to consider outpatient services and visits to the primary care clinics.

For the 101 asthma patients evaluated, 50 (50%) had a hospital “event” during the 24-month period. The number of in-patient admissions rose from 21 to 24, while the number of emergency room visits fell from 64 to 46 (see Table 11). On average, hospital costs for asthma patients during the first year after enrollment in one of the CAP disease management programs were \$159 lower than they were during the 12 months prior to enrollment. If this average were applied to all 137 active asthma patients in the program, the total impact would be a decrease of \$21,817 in the overall cost of serving those patients.

**Table 11. Hospital Visits and Costs for Patients with at Least 12 Months in the Program
Asthma, Diabetes and HIV/AIDS, March 2001 to February 2003**

Description	Asthma	Diabetes	HIV/AIDS	Total
Number of Patients Enrolled 12 Months	101	450	41	592
Number of Patients with Hospital Events	50	276	22	348
In-Patient Admissions				
During 12 Months Prior to Enrollment	21	182	19	222
Average Length of Stay (days)	4.4	6.0	7.2	5.9
Fixed Costs (\$)	46,728	543,257	48,642	638,627
Variable Costs (\$)	59,531	709,144	58,371	827,046
Total Costs (\$)	106,259	1,252,401	107,013	1,465,673
During 12 Months After Enrollment	24	108	1	133
Average Length of Stay (days)	4.1	5.3	2.0	5.1
Fixed Costs (\$)	45,735	307,126	1,074	353,935
Variable Costs (\$)	50,120	374,621	1,051	425,792
Total Costs (\$)	95,855	681,747	2,125	779,727
Emergency Room Visits				
During 12 Months Prior to Enrollment	64	204	25	293
Fixed Costs (\$)	8,771	31,639	3,748	44,158
Variable Costs (\$)	9,124	29,862	3,646	42,632
Total Costs (\$)	17,895	61,501	7,394	86,790
During 12 Months After Enrollment	46	228	10	284
Fixed Costs (\$)	6,268	36,738	1,882	44,888
Variable Costs (\$)	5,947	32,507	1,588	40,042
Total Costs (\$)	12,215	69,245	3,470	84,930
Aggregate Costs				
During 12 Months Prior to Enrollment	124,154	1,313,902	114,407	1,552,463
Fixed Costs (\$)	55,499	574,896	52,390	682,785
Variable Costs (\$)	68,655	739,006	62,017	869,678
During 12 Months After Enrollment	108,070	750,992	5,595	864,657
Fixed Costs (\$)	52,003	343,864	2,956	398,823
Variable Costs (\$)	56,067	407,128	2,639	465,834
Total Cost Savings (Prior minus After)				
Fixed Costs (\$)	3,496	231,032	49,434	283,962
Variable Costs (\$)	12,588	331,878	59,378	403,844
12-Month Cost Savings per Patient Evaluated				
Fixed Costs (\$)	35	513	1,206	480
Variable Costs (\$)	125	738	1,448	682
12-Month Cost Savings for Active Patients				
Fixed Costs (\$)	4,742	277,238	98,868	380,848
Variable Costs (\$)	17,075	398,254	118,756	534,084

Sources: North Broward Hospital District and Memorial Healthcare System.

Usage and cost results for diabetes patients were more significant. Of the 450 diabetes patients enrolled in the program for a minimum of 12 months, 276 (61%) had at least one hospital event during the evaluation period. In-patient admissions fell from 182 during the year prior to enrollment to 108 during the year after enrollment. Emergency room visits rose from 204 to 228.

Even so, total 12-month cost savings for these 450 patients reached \$562,910, or \$1,251 per patient. If all 540 active diabetes patients realized these average annual savings, total costs for the two districts would fall by \$675,492 per year.

HIV/AIDS patients also had significant usage and cost benefits. Of the 41 patients enrolled in the program for a minimum of 12 months, 22 (54%) had at least one hospital event during the evaluation period. In-patient admissions fell from 19 during the 12 months prior to admission in the disease management program to one in the 12 months after enrollment. Emergency room visits fell from 25 to 10. Overall costs for the 22 patients fell by \$108,812, or \$2,654 per patient. If applied to all 82 active CAP HIV/AIDS patients, annual savings would reach \$217,624.

In the aggregate, the measured benefits of the CAP disease management program reached \$687,806, or an average of \$1,162 per patient. If applied to all 759 active patients, the program would generate \$914,933 in annual savings. To this total should be added another benefit that results from the enrollment of 215 CAP patients in other insurance programs. Estimated at a value of approximately \$4,000 per person per year, these patients represent system savings of \$860,000. Considered together, these savings add up to approximately \$1.8 million annually. Finally, indirect benefits such as a reduction in the number of days of work lost due to their diseases, and the improved quality of life once the disease is under control, represent a significant unmeasured positive result of the program.

On the other hand, these results somewhat overstate the savings, because they do not reflect the full cost of care management, including the care managers paid by the program, medical staff, laboratory tests and pharmaceuticals. Program staff at the two hospital districts have agreed to help develop ways to account for these costs as part of the on-going program. However, these still are very significant savings. **And the estimated savings are independent of the better quality of life for clients who are under care management, for whom the reduced number of critical episodes requiring emergency room care or in-patient services is a strong supporting indicator of program success.**

Recommended Enhancements for Phase Four

Outcomes of the Broward County Community Access Program (CAP) for Phase Three (March 2001 to February 2003) are very encouraging. During this phase, additional data has been made available using the comprehensive system for the collection and management of patient data that enables the controlled analysis of individual patient information on length of time in the program, clinical status, quality of life surveys and hospital usage and corresponding costs. This system is being used in each of the hospital districts to monitor implementation of the disease management program and to ensure that program guidelines are being met for each enrolled patient. Care management for enrolled patients has resulted in improved clinical status and reduced hospitalizations and emergency room usage, which have produced measurable savings. This suggests the ultimate sustainability of managed care for the chronically ill in Broward County who are uninsured or underinsured, although a more complete analysis of overall costs and fuller documentation of patient benefits will help to document these very important outcomes.

The health hotline at First Call For Help handles an average of 500 callers a month, with approximately 20% of those resulting in referrals for the targeted chronic illnesses among the uninsured and underinsured. Full implementation of the eligibility pre-screening program on the Broward Information Network and over the Internet has made it possible for agency case workers and residents of Broward County to identify programs for which they may be eligible. Inclusion of additional agency programs in the software will further increase its usefulness.

For the next phase, the evaluation should focus its efforts on

- improvements in and possible agreement on a common approach to the collection procedures for client satisfaction surveys;
- implementation of a provider satisfaction survey;
- development of more complete estimates for the cost of care for care managed patients, with possible collection of hospital district data on outpatient and primary care clinic visits and the use of pharmaceuticals by enrolled patients, to be combined with in-patient and emergency room admission costs, to arrive at a closer approximation to net cost savings due to the program; and
- development of more targeted analyses building upon such characteristics as the length of time the clients have been under care management, their health status at the time of enrollment, and demographic characteristics, to better understand the effects on clinical status over time, care history (system usage and costs), quality of life survey responses and client satisfaction.

Attachment A

Success Stories

Memorial Healthcare System - CAP Disease Management Success Stories

Asthma

This is a 54-year-old Hispanic male who was enrolled in the CAP asthma disease management program in December 2001. He has been diagnosed with asthma since childhood.

When the client was first enrolled in the program, his CAP disease manager met him face-to-face. The client was very knowledgeable about his disease; however, he was not using a peak flow meter to monitor his breathing everyday. The next day, a peak flow meter was sent via mail for daily monitoring. Additionally, educational materials were also sent on asthma triggers and inhaler use. During that face-to-face visit, he also voiced concerns regarding obtaining a job. His care manager provided the client with a referral to the Broward County Family Success Center for assistance with job placement.

The client was then followed closely by his care manager and had been doing well. The client had also been successful in finding a job. In October 2002, during a routine record review, his care manager discovered that he had lost his clinic eligibility and was due for a visit with his primary care provider. With persistence and several phone attempts, the care manager was able to eventually reach the client. During that conversation, client was instructed to obtain a new PCP appointment as well as renew his eligibility for the Memorial primary care clinic. However, he did not do so, and again became unable to be reached by phone and mail. Finally, in March of this year, his care manager was able to speak with him and she assisted him in making a new appointment with his primary care provider, which he kept, as well as renewing his clinic eligibility, as his job does not provide health insurance. Since that time, he continues to do very well with his asthma. He has since been compliant with keeping all subsequent appointments, is working with no missed days due to his asthma and reports using his peak flow meter. Further, since his enrollment in the CAP disease management program, he has also had no visits to the emergency room or in-patient hospital stays related to this disease.

Diabetes

This is a 56-year-old Black female with a history of Type II diabetes (non-insulin dependent), diagnosed in July 2001. She also has a history of hypertension and arthritis. The patient was identified for the disease management program in February 2002, by claims. At the time of initial contact the client weighed approximately 302 lbs., which corresponded to a body mass index (BMI) of 45.9. She was taking insulin daily. However, she was checking her blood sugars only once a week and was not exercising. The disease care manager instructed the client on basic diabetes self-management skills such as consistent glucose monitoring, portion control and exercise.

The CAP disease manager continued periodic follow-up with the client via telephone calls and face-to-face visits to see how she was progressing. In September 2002, the client was admitted into the hospital with uncontrolled sugars, her hemoglobin A1c was very high at 12.6. Upon her release from the hospital, she was referred to the diabetes treatment center and was started on a 1,800 calorie American Diabetes Association diet. With the support of the Diabetes Center,

her primary care provider, her endocrinologist and her CAP disease manager, the client has been doing extremely well. She now is checking her blood sugars twice a day. In January 2003, she had a recorded weight loss of 20lbs, and was taken off her insulin.

Today, the client has lost a total of 50lbs and remains off of insulin, now taking only one diabetic medication - Glucophage. The client remains very compliant with keeping all PCP and specialist appointments and following her plan of care for managing her diabetes. On April 18, 2003, her hemoglobin A1c was down to 5.9. Her lab results are not the only indication of her improved health status. An SF-12 Quality of Life survey conducted in October 2002 revealed physical health (PCS) and mental health (MCS) scores of 29.72 and 62.83, respectively. On May 21, 2003, her SF-12 scores demonstrated an increase, particularly in the PCS (48.64), and an MCS of 63.08. Further, her improved health has enabled her to participate in the many activities she enjoys such as singing in her church choir. She is now, as she says, "always on the go."

HIV/AIDS

This is a 47-year-old male that was working up until March 2002 when he started to have numbness in his right hand and a headache. Three days later he had weakness briefly in his right arm and leg that went away after a few minutes. The next afternoon he had total paralysis of his right arm and leg and a severe headache and called 911. He was told he had a stroke. During his hospitalization he had an MRI, which showed a lesion that was diagnosed as a toxoplasmosis brain abscess. A Western blot revealed the client was positive for HIV. In addition to the newly diagnosed HIV, he also had a history of diabetes for the past six years and was on oral medications for his diabetes. He was eventually discharged to home with home health, referred to the Primary Care Center for a physician to follow up with him. He was ambulating with a walker and with time after treatment began using a cane. He had no health insurance.

His diabetes was poorly controlled. He was not checking his blood sugars adequately. He was not eating appropriately. He had noticed that he was losing weight. He had a decrease in appetite since September and lost 28 pounds in six months. His hemoglobin A1c was 13.4 (average blood sugar of 342). His doctors then referred him to the CAP disease management program for his diabetes.

He was introduced to the Disease Management Health & Wellness Program. During the initial telephone contact with the diabetes care manager he discussed his HIV status. At that point his care manager offered him to transfer to the CAP disease manager for HIV, who could help him to manage both his HIV and diabetes and he agreed. Information was provided to him both telephonically and in person. He was invited to attend the diabetes workshop that is provided free of charge in the community. The primary care provider wrote for the client to receive diabetes education. He met with the Certified Diabetes Educator and received nutritional counseling. Self-management skills were re-enforced by the care manager. He was seen by an endocrinologist and placed on insulin.

For his AIDS, he is being followed by an infectious disease specialist and on medications. With the close supervision and support of his disease care manager, his case manager and his PCP, he is compliant with his medical care, and is having his lab work done as ordered. Initially, his

viral load was 27,000 and CD4 was <20. Eventually he was able to achieve a non-detectable viral load. Throughout his treatment he is being monitored closely, and recently when his viral load rose, a genotype and phenotype was performed. It was noted that he had become resistant to his medications and they needed to be changed. His new medications are Videx, Viread and Kaletra. These new medications were reviewed and discussed with the client on how he will self administer them. A schedule was written and given to him along with a pillbox for him to place the medications in. This has enabled him to remain compliant with taking his medications, which are on a difficult schedule to follow.

Throughout the time he has been followed in the Health & Wellness Program he has had different payor sources. Initially he did not have insurance coverage. When he qualified for Medicaid, we transferred him over to our Provider Service Network Medicaid disease management program and continued to follow him. It was a seamless transition; he didn't have any changes in care or case managers. Once the eligibility for Medicaid expired he was transitioned back to the CAP disease management program.

The disease management team has coordinated not only healthcare with physician appointments, specialists and medications, but also assisted with community resources, housing and a food bank. We were able to get him into a one-bedroom apartment where his son comes and stays with him on weekends, when he is home from college. We look at the entire person and his life. We work together to make a difference, to make each day count. Our goal is for him to experience life in a positive manner, to have something to look forward to each and every day. It would have been easy for this gentleman to just give up, but he continues to work to battle his diseases. His success is evident in that his blood sugars are now in control, running between 115 and 120 fasting. His last hemoglobin A1c was 7.2 (average blood sugar of 152). He looks forward to getting up in the morning and exercising. He cherishes his weekend visits with his son from college. He feels happy to be alive!

North Broward Hospital District - CAP Disease Management Success Stories

Asthma

This patient is a 31-year-old Hispanic female with a 20-year history of asthma, who recently moved to the area from New York City. The hospital case manager referred patient to disease state management in January 2003, after suffering an asthma episode and exacerbation that required a three-day hospital admission. The case manager made several contacts with the patient and subsequently met with the patient during a scheduled visit at an ambulatory center. The patient was receptive to the disease management program and was educated extensively on asthma, asthma medication and medical management. The patient is a non-smoker with severe environmental asthma triggers. The primary care provider the case manager developed an asthma action plan for the patient (in Spanish). The patient was given a peak-flow meter and an metered dose inhaler spacer and their respective use was demonstrated. A month later the case manager contacted the patient via telephone, and the patient stated that the asthma symptoms were under control and she had been using the asthma action plan and the spacer. The case manager met again with the patient during a visit to her primary care provider. During the visit the PCP asked the case manager to perform a spirometry test. After having

spirometry interpreted by a pulmonologist, the spirometry was found to be within normal limits. The case manager met with the patient in June 2003 and the patient stated that her asthma symptoms were under control, peak-flow meter measurements remained mainly in the green zone, and she was using quick acting medication less than twice per week. After six months, the patient has not had any hospital admissions or emergency room visits due to asthma.

Diabetes

The patient is a 58-year old male diagnosed approximately 8 years ago with Type 2 Diabetes. His diabetes-related past medical history includes hypertension, dyslipidemia and obesity (BMI=30). The patient is treated with oral diabetes agents – Glucophage 1000mg twice a day, Glucotrol 10mg twice a day, and Avandia 8mg every day. Baseline labs were hemoglobin A1c = 7.4 and fasting blood sugar = 152. The patient is new to the clinic and to the Primary Care Provider. The patient is currently on maximum doses of oral agents and was referred to disease state management for blood glucose monitoring and intensive education.

Initially, the patient was issued a Blood Glucose Meter and was instructed in its use. The patient was encouraged to test before and after breakfast, at alternate times of the day, and when symptoms of hyper/hypoglycemia are present. The patient was enrolled in the disease management program and scheduled an appointment in approximately 3 weeks to initiate diabetes education. At the follow-up visit, the patient's spouse came for education and the enrollee did not attend. At that time, nutrition guidelines for choosing and cooking low fat foods and reading food labels were discussed with the spouse. Literature was provided and the patient was rescheduled.

Two weeks later the enrollee met with the case manager and Diabetes Self-Management Education (DSME) was initiated. The patient reported being inconsistent with his medication, sometimes skipping his evening dose because of low blood sugar symptoms he felt at 3 AM. His work is strenuous, as he cleans schools after hours. He reports "gaining weight" which may have been secondary to frequently treating low blood sugar. The patient does not follow any special diet or engage in a regular walking or exercise program. The enrollee is now testing blood sugar up to 2 times per day, mostly before and sometimes after breakfast.

Education at this session emphasized instruction on the timing (as directed) and action of the medication, consistent treatment and prevention of low blood sugar, continued blood sugar monitoring, testing at different times of the day, and documentation. Carbohydrate counting was briefly discussed to encourage carbohydrate consistency for improved pattern management. The patient was encouraged to contact his Primary Care Provider and discuss the possibility of lowering his evening Glucotrol medication if the low blood sugar continued. A note to that effect was written and placed in the medical record and findings were briefly discussed with the provider. The patient was encouraged to return for a disease management follow-up at his clinic visits to continue with education.

A week later the patient met with his PCP and the medication was decreased. Labs at 3 months are now hemoglobin A1c = 6.5% and fasting blood sugar = 113, with a weight loss of 2 pounds.

The enrollee has not met with his case manager and is due for follow-up. Educational priorities include low-fat and sodium food choices for lipid and hypertension management. Initial behavioral objectives will be evaluated and new patient goals developed.

Discussion: Frequently, patients are able to spend more time with their case managers/educators than with their providers and are often willing to share information (medication regimen, alcohol consumption) they may not tell Primary Care Providers, which impacts the direction of their care. Additionally, the care manager was able to empower the patient to discuss a more appropriate medication regimen with his provider.

HIV/AIDS

The enrollee is a 39-year-old male who was diagnosed HIV positive while he was at Imperial Point Medical Center in October 2002; he was there for pneumonia. While being treated, a CD4 lab test was done, with a score of 16. An early viral load lab test was unavailable. Previously, the enrollee suffered a detached retina in the left eye, which was surgically reattached. At this time also it was discovered that the enrollee had a retinal tear in the right eye and that too was repaired.

The enrollee was discharged from the hospital to one of our centers, and an initial viral load was found to be 21,936. With poor vision, it was a challenge for the enrollee to organize and take medications. The enrollee initially was uneducated regarding HIV and AIDS. The disease manager quickly started HIV education, including the importance of medications, keeping appointments, safe sex, and self-management skills.

He was eager to learn, and his mother became motivated in the process. Both came to see the case manager and the pharmacist. A medication box was set up so it would be easier for the mother and son to manage medications. Within a month the CD4 rose to 133, and the viral load was 21,936 at the end of December 2002.

The patient became weak and exhibited symptoms of pneumonia. The PCP admitted the patient to the hospital again with pneumonia. He had lost about 25 pounds. He was referred again to the clinic at discharge, where his education continued and compliance was stressed, and the he was referred to a nutritionist.

Since the beginning of the year the patient has progressed remarkably. He has gained back the 25 pounds and he looks and feels healthy and strong. He sees his doctor at the earliest sign of a problem instead of waiting and going to the emergency room.

With improved vision he is now taking care of his own medications, and is eager to help others with compliance problems. His most recent CD4 is 172 and the viral load is 538. He has been complication-free since January 2003, and has needed only routine follow-up visits and no hospitalizations.

Attachment B

Detailed Tables

Table B-1
Broward County - Community Access Program (CAP)
Monthly Number of Patients Enrolled and Disenrolled
March 2001 to February 2003

Month Year	Asthma								
	Enrollment During the Month			Disenrollment During the Month			Enrollment (Cumulative)		
	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total
Mar-01	9	7	16	0	1	1	9	6	15
Apr-01	17	18	35	0	0	0	26	24	50
May-01	32	16	48	0	6	6	58	34	92
Jun-01	4	17	21	6	0	6	56	51	107
Jul-01	9	8	17	8	4	12	57	55	112
Aug-01	8	9	17	7	4	11	58	60	118
Sep-01	11	6	17	3	2	5	66	64	130
Oct-01	1	15	16	6	3	9	61	76	137
Nov-01	0	9	9	8	5	13	53	80	133
Dec-01	18	12	30	7	10	17	64	82	146
Jan-02	4	15	19	6	6	12	62	91	153
Feb-02	7	11	18	12	6	18	57	96	153
Mar-02	16	6	22	8	2	10	65	100	165
Apr-02	1	3	4	9	4	13	57	99	156
May-02	8	5	13	17	4	21	48	100	148
Jun-02	1	3	4	3	5	8	46	98	144
Jul-02	9	4	13	6	4	10	49	98	147
Aug-02	0	1	1	0	1	1	49	98	147
Sep-02	1	0	1	11	0	11	39	98	137
Oct-02	0	0	0	4	1	5	35	97	132
Nov-02	0	3	3	8	0	8	27	100	127
Dec-02	13	5	18	7	3	10	33	102	135
Jan-03	7	6	13	4	1	5	36	107	143
Feb-03	2	2	4	7	3	10	31	106	137
Total	178	181	359	147	75	222			

Table B-1
Broward County - Community Access Program (CAP)
Monthly Number of Patients Enrolled and Disenrolled
March 2001 to February 2003

Month Year	Diabetes								
	Enrollment During the Month			Disenrollment During the Month			Enrollment (Cumulative)		
	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total
Mar-01	89	21	110	0	0	0	89	21	110
Apr-01	38	23	61	1	2	3	126	42	168
May-01	42	44	86	0	3	3	168	83	251
Jun-01	10	40	50	10	4	14	168	119	287
Jul-01	52	25	77	16	2	18	204	142	346
Aug-01	26	54	80	23	1	24	207	195	402
Sep-01	62	33	95	24	3	27	245	225	470
Oct-01	8	52	60	24	6	30	229	271	500
Nov-01	9	38	47	13	9	22	225	300	525
Dec-01	21	34	55	16	20	36	230	314	544
Jan-02	21	33	54	21	23	44	230	324	554
Feb-02	34	27	61	22	10	32	242	341	583
Mar-02	31	8	39	25	12	37	248	337	585
Apr-02	16	4	20	20	6	26	244	335	579
May-02	36	9	45	20	6	26	260	338	598
Jun-02	10	9	19	16	4	20	254	343	597
Jul-02	35	1	36	38	7	45	251	337	588
Aug-02	7	4	11	10	3	13	248	338	586
Sep-02	7	3	10	25	0	25	230	341	571
Oct-02	47	4	51	35	6	41	242	339	581
Nov-02	25	2	27	18	1	19	249	340	589
Dec-02	15	3	18	18	3	21	246	340	586
Jan-03	11	9	20	47	7	54	210	342	552
Feb-03	4	17	21	21	12	33	193	347	540
Total	656	497	1,153	463	150	613			

Table B-1
Broward County - Community Access Program (CAP)
Monthly Number of Patients Enrolled and Disenrolled
March 2001 to February 2003

Month Year	HIV / AIDS								
	Enrollment During the Month			Disenrollment During the Month			Enrollment (Cumulative)		
	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total
Mar-01	3	0	3	0	0	0	3	0	3
Apr-01	0	0	0	0	0	0	3	0	3
May-01	0	0	0	0	0	0	3	0	3
Jun-01	5	0	5	0	0	0	8	0	8
Jul-01	5	0	5	0	0	0	13	0	13
Aug-01	0	10	10	0	4	4	13	6	19
Sep-01	2	1	3	0	0	0	15	7	22
Oct-01	0	14	14	0	1	1	15	20	35
Nov-01	0	7	7	1	1	2	14	26	40
Dec-01	0	4	4	0	2	2	14	28	42
Jan-02	0	3	3	1	1	2	13	30	43
Feb-02	1	7	8	1	1	2	13	36	49
Mar-02	0	8	8	5	2	7	8	42	50
Apr-02	0	8	8	0	1	1	8	49	57
May-02	1	10	11	0	1	1	9	58	67
Jun-02	0	5	5	0	0	0	9	63	72
Jul-02	0	0	0	0	0	0	9	63	72
Aug-02	0	3	3	2	0	2	7	66	73
Sep-02	0	3	3	0	1	1	7	68	75
Oct-02	0	10	10	0	0	0	7	78	85
Nov-02	0	0	0	0	0	0	7	78	85
Dec-02	0	4	4	1	1	2	6	81	87
Jan-03	0	0	0	0	0	0	6	81	87
Feb-03	0	2	2	1	6	7	5	77	82
Total	17	99	116	12	22	34			

Table B-1
Broward County - Community Access Program (CAP)
Monthly Number of Patients Enrolled and Disenrolled
March 2001 to February 2003

Month Year	Total - All Diseases								
	Enrollment During the Month			Disenrollment During the Month			Enrollment (Cumulative)		
	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total
Mar-01	101	28	129	0	1	1	101	27	128
Apr-01	55	41	96	1	2	3	155	66	221
May-01	74	60	134	0	9	9	229	117	346
Jun-01	19	57	76	16	4	20	232	170	402
Jul-01	66	33	99	24	6	30	274	197	471
Aug-01	34	73	107	30	9	39	278	261	539
Sep-01	75	40	115	27	5	32	326	296	622
Oct-01	9	81	90	30	10	40	305	367	672
Nov-01	9	54	63	22	15	37	292	406	698
Dec-01	39	50	89	23	32	55	308	424	732
Jan-02	25	51	76	28	30	58	305	445	750
Feb-02	42	45	87	35	17	52	312	473	785
Mar-02	47	22	69	38	16	54	321	479	800
Apr-02	17	15	32	29	11	40	309	483	792
May-02	45	24	69	37	11	48	317	496	813
Jun-02	11	17	28	19	9	28	309	504	813
Jul-02	44	5	49	44	11	55	309	498	807
Aug-02	7	8	15	12	4	16	304	502	806
Sep-02	8	6	14	36	1	37	276	507	783
Oct-02	47	14	61	39	7	46	284	514	798
Nov-02	25	5	30	26	1	27	283	518	801
Dec-02	28	12	40	26	7	33	285	523	808
Jan-03	18	15	33	51	8	59	252	530	782
Feb-03	6	21	27	29	21	50	229	530	759
Total	851	777	1,628	622	247	869			

Table B-2
Broward County - Community Access Program (CAP)
Monthly Number of Clients Disenrolled, by Reason
March 2001 to February 2003

Month Year	Asthma								
	Eligible for Other Insurance			Reached Self Management			Other		
	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total
Mar-01	0	1	1	0	0	0	0	0	0
Apr-01	0	0	0	0	0	0	0	0	0
May-01	0	2	2	0	0	0	0	4	4
Jun-01	5	0	5	0	0	0	1	0	1
Jul-01	2	1	3	0	0	0	6	3	9
Aug-01	3	2	5	0	0	0	4	2	6
Sep-01	1	0	1	0	0	0	2	2	4
Oct-01	2	1	3	0	0	0	4	2	6
Nov-01	2	1	3	0	0	0	6	4	10
Dec-01	3	3	6	0	0	0	4	7	11
Jan-02	2	2	4	0	0	0	4	4	8
Feb-02	4	3	7	0	0	0	8	3	11
Mar-02	2	0	2	0	0	0	6	2	8
Apr-02	2	1	3	0	0	0	7	3	10
May-02	2	0	2	0	0	0	15	4	19
Jun-02	0	1	1	0	0	0	3	4	7
Jul-02	1	3	4	0	0	0	5	1	6
Aug-02	0	0	0	0	0	0	0	1	1
Sep-02	1	0	1	0	0	0	10	0	10
Oct-02	1	0	1	0	0	0	3	1	4
Nov-02	0	0	0	0	0	0	8	0	8
Dec-02	0	1	1	0	0	0	7	2	9
Jan-03	0	1	1	0	0	0	4	0	4
Feb-03	2	0	2	0	0	0	5	3	8
Total	35	23	58	0	0	0	112	52	164

Table B-2
Broward County - Community Access Program (CAP)
Monthly Number of Clients Disenrolled, by Reason
March 2001 to February 2003

Month Year	Diabetes								
	Eligible for Other Insurance			Reached Self Management			Other		
	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total
Mar-01	0	0	0	0	0	0	0	0	0
Apr-01	0	2	2	0	0	0	1	0	1
May-01	0	0	0	0	0	0	0	3	3
Jun-01	7	4	11	0	0	0	3	0	3
Jul-01	3	1	4	0	0	0	13	1	14
Aug-01	12	1	13	0	0	0	11	0	11
Sep-01	10	0	10	0	0	0	14	3	17
Oct-01	9	1	10	0	0	0	15	5	20
Nov-01	3	0	3	0	0	0	10	9	19
Dec-01	4	1	5	0	0	0	12	19	31
Jan-02	7	1	8	0	0	0	14	22	36
Feb-02	5	1	6	0	0	0	17	9	26
Mar-02	4	2	6	0	0	0	21	10	31
Apr-02	6	1	7	0	0	0	14	5	19
May-02	7	1	8	0	0	0	13	5	18
Jun-02	1	1	2	0	0	0	15	3	18
Jul-02	7	3	10	0	0	0	31	4	35
Aug-02	1	0	1	0	0	0	9	3	12
Sep-02	8	0	8	0	0	0	17	0	17
Oct-02	6	0	6	1	0	1	28	6	34
Nov-02	3	0	3	0	0	0	15	1	16
Dec-02	6	0	6	0	0	0	12	3	15
Jan-03	4	3	7	0	0	0	43	4	47
Feb-03	1	3	4	0	0	0	20	9	29
Total	114	26	140	1	0	1	348	124	472

Table B-2
Broward County - Community Access Program (CAP)
Monthly Number of Clients Disenrolled, by Reason
March 2001 to February 2003

Month Year	HIV / AIDS								
	Eligible for Other Insurance			Reached Self Management			Other		
	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total
Mar-01	0	0	0	0	0	0	0	0	0
Apr-01	0	0	0	0	0	0	0	0	0
May-01	0	0	0	0	0	0	0	0	0
Jun-01	0	0	0	0	0	0	0	0	0
Jul-01	0	0	0	0	0	0	0	0	0
Aug-01	0	3	3	0	0	0	0	1	1
Sep-01	0	0	0	0	0	0	0	0	0
Oct-01	0	1	1	0	0	0	0	0	0
Nov-01	1	0	1	0	0	0	0	1	1
Dec-01	0	2	2	0	0	0	0	0	0
Jan-02	1	0	1	0	0	0	0	1	1
Feb-02	1	0	1	0	0	0	0	1	1
Mar-02	5	0	5	0	0	0	0	2	2
Apr-02	0	0	0	0	0	0	0	1	1
May-02	0	0	0	0	0	0	0	1	1
Jun-02	0	0	0	0	0	0	0	0	0
Jul-02	0	0	0	0	0	0	0	0	0
Aug-02	2	0	2	0	0	0	0	0	0
Sep-02	0	0	0	0	0	0	0	1	1
Oct-02	0	0	0	0	0	0	0	0	0
Nov-02	0	0	0	0	0	0	0	0	0
Dec-02	0	0	0	0	0	0	1	1	2
Jan-03	0	0	0	0	0	0	0	0	0
Feb-03	1	0	1	0	0	0	0	6	6
Total	11	6	17	0	0	0	1	16	17

Table B-2
Broward County - Community Access Program (CAP)
Monthly Number of Clients Disenrolled, by Reason
March 2001 to February 2003

Month Year	Total - All Diseases								
	Eligible for Other Insurance			Reached Self Management			Other		
	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total
Mar-01	0	1	1	0	0	0	0	0	0
Apr-01	0	2	2	0	0	0	1	0	1
May-01	0	2	2	0	0	0	0	7	7
Jun-01	12	4	16	0	0	0	4	0	4
Jul-01	5	2	7	0	0	0	19	4	23
Aug-01	15	6	21	0	0	0	15	3	18
Sep-01	11	0	11	0	0	0	16	5	21
Oct-01	11	3	14	0	0	0	19	7	26
Nov-01	6	1	7	0	0	0	16	14	30
Dec-01	7	6	13	0	0	0	16	26	42
Jan-02	10	3	13	0	0	0	18	27	45
Feb-02	10	4	14	0	0	0	25	13	38
Mar-02	11	2	13	0	0	0	27	14	41
Apr-02	8	2	10	0	0	0	21	9	30
May-02	9	1	10	0	0	0	28	10	38
Jun-02	1	2	3	0	0	0	18	7	25
Jul-02	8	6	14	0	0	0	36	5	41
Aug-02	3	0	3	0	0	0	9	4	13
Sep-02	9	0	9	0	0	0	27	1	28
Oct-02	7	0	7	1	0	1	31	7	38
Nov-02	3	0	3	0	0	0	23	1	24
Dec-02	6	1	7	0	0	0	20	6	26
Jan-03	4	4	8	0	0	0	47	4	51
Feb-03	4	3	7	0	0	0	25	18	43
Total	160	55	215	1	0	1	461	192	653

Table B-3
Broward County - Community Access Program (CAP)
Demographic Characteristics of CAP Patients
March 2001 to February 2003

Description	Asthma			Diabetes			HIV/AIDS			Total		
	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total
Gender												
Active	31	106	137	193	347	540	5	77	82	229	530	759
Male	10	37	47	44	154	198	1	57	58	55	248	303
Female	21	69	90	149	193	342	4	20	24	174	282	456
Disenrolled	147	75	222	463	150	613	12	22	34	622	247	869
Male	48	29	77	193	82	275	6	9	15	247	120	367
Female	99	46	145	270	68	338	6	13	19	375	127	502
Total	178	181	359	656	497	1,153	17	99	116	851	777	1,628
Male	58	66	124	237	236	473	7	66	73	302	368	670
Female	120	115	235	419	261	680	10	33	43	549	409	958
Age at Enrollment												
Active	31	106	137	193	347	540	5	77	82	229	530	759
Under 18 years	7	38	45	0	5	5	0	0	0	7	43	50
18 to 34 years	3	11	14	7	31	38	2	11	13	12	53	65
35 to 64 years	20	55	75	165	270	435	3	65	68	188	390	578
65 years or older	1	2	3	21	41	62	0	1	1	22	44	66
Disenrolled	147	75	222	463	150	613	12	22	34	622	247	869
Under 18 years	30	34	64	0	2	2	0	0	0	30	36	66
18 to 34 years	21	7	28	30	20	50	3	8	11	54	35	89
35 to 64 years	90	32	122	371	119	490	9	13	22	470	164	634
65 years or older	6	2	8	62	9	71	0	1	1	68	12	80
Total	178	181	359	656	497	1,153	17	99	116	851	777	1,628
Under 18 years	37	72	109	0	7	7	0	0	0	37	79	116
18 to 34 years	24	18	42	37	51	88	5	19	24	66	88	154
35 to 64 years	110	87	197	536	389	925	12	78	90	658	554	1,212
65 years or older	7	4	11	83	50	133	0	2	2	90	56	146
Race / Ethnicity												
Active	31	106	137	193	347	540	5	77	82	229	530	759
White Non-Hispanic	4	27	31	35	80	115	0	16	16	39	123	162
Black or African American	12	48	60	104	209	313	4	49	53	120	306	426
Hispanic or Latino (any race)	12	23	35	50	20	70	1	7	8	63	50	113
Other Non-Hispanic	3	8	11	4	38	42	0	5	5	7	51	58
Disenrolled	147	75	222	463	150	613	12	22	34	622	247	869
White Non-Hispanic	50	23	73	137	51	188	4	4	8	191	78	269
Black or African American	55	35	90	201	73	274	6	16	22	262	124	386
Hispanic or Latino (any race)	40	12	52	111	8	119	2	1	3	153	21	174
Other Non-Hispanic	2	5	7	14	18	32	0	1	1	16	24	40
Total	178	181	359	656	497	1,153	17	99	116	851	777	1,628
White Non-Hispanic	54	50	104	172	131	303	4	20	24	230	201	431
Black or African American	67	83	150	305	282	587	10	65	75	382	430	812
Hispanic or Latino (any race)	52	35	87	161	28	189	3	8	11	216	71	287
Other Non-Hispanic	5	13	18	18	56	74	0	6	6	23	75	98

Table B-4
Broward County - Community Access Program (CAP)
Diabetes Patients Completing Hemoglobin A1c Lab Tests
March 2001 to February 2003

Status and Test Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Total Active Patients	193	100.0%	347	100.0%	540	100.0%
Enrolled Fewer than 180 Days (excluded)	72	37.3%	38	11.0%	110	20.4%
Enrolled at Least 180 Days (included)	121	62.7%	309	89.0%	430	79.6%
Active Patients Evaluated	121	100.0%	309	100.0%	430	100.0%
Active w/ No Qualifying A1c Tests	1	0.8%	67	21.7%	68	15.8%
Active w/ only a Baseline	11	9.1%	65	21.0%	76	17.7%
Active w/ Baseline & One Follow-Up	109	90.1%	177	57.3%	286	66.5%
Active w/ Baseline & Two Follow-Ups	70	57.9%	116	37.5%	186	43.3%
Active w/ Baseline & Three Follow-Ups	47	38.8%	71	23.0%	118	27.4%
Total Disenrolled Patients	463	100.0%	150	100.0%	613	100.0%
Enrolled Fewer than 180 Days (excluded)	244	52.7%	77	51.3%	321	52.4%
Enrolled at Least 180 Days (included)	219	47.3%	73	48.7%	292	47.6%
Disenrolled Patients Evaluated	219	100.0%	73	100.0%	292	100.0%
Disenrolled w/ No Qualifying A1c Tests	30	13.7%	33	45.2%	63	21.6%
Disenrolled w/ only a Baseline	46	21.0%	25	34.2%	71	24.3%
Disenrolled w/ Baseline & One Follow-Up	143	65.3%	15	20.5%	158	54.1%
Disenrolled w/ Baseline & Two Follow-Ups	74	33.8%	7	9.6%	81	27.7%
Disenrolled w/ Baseline & Three Follow-Ups	29	13.2%	3	4.1%	32	11.0%
Lab Test Results						
Patients w/ Baseline & One Follow Up	252	100.0%	192	100.0%	444	100.0%
Mean Baseline A1c	8.1		9.3		8.6	
In Control (< 7.0)	95	37.7%	29	15.1%	124	27.9%
Borderline (7.0 to 8.0)	47	18.7%	32	16.7%	79	17.8%
Moderate (8.1 to 10.0)	62	24.6%	62	32.3%	124	27.9%
Severe (> 10.0)	48	19.0%	69	35.9%	117	26.4%
Mean First Follow-up A1c	7.7		8.5		8.0	
In Control (< 7.0)	106	42.1%	52	27.1%	158	35.6%
Borderline (7.0 to 8.0)	58	23.0%	43	22.4%	101	22.7%
Moderate (8.1 to 10.0)	62	24.6%	58	30.2%	120	27.0%
Severe (> 10.0)	26	10.3%	39	20.3%	65	14.6%
Change in Mean A1c	-0.4	-4.9%	-0.8	-8.6%	-0.6	-6.6%
In Control (< 7.0)	11	11.6%	23	79.3%	34	27.4%
Borderline (7.0 to 8.0)	11	23.4%	11	34.4%	22	27.8%
Moderate (8.1 to 10.0)	0	0.0%	-4	-6.5%	-4	-3.2%
Severe (> 10.0)	-22	-45.8%	-30	-43.5%	-52	-44.4%

Table B-4
Broward County - Community Access Program (CAP)
Diabetes Patients Completing Hemoglobin A1c Lab Tests
March 2001 to February 2003

Status and Test Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Patients w/ Baseline & Two Follow Ups	144	100.0%	123	100.0%	267	100.0%
Mean Baseline A1c	8.1		9.3		8.7	
In Control (< 7.0)	58	40.3%	15	12.2%	73	27.3%
Borderline (7.0 to 8.0)	26	18.1%	22	17.9%	48	18.0%
Moderate (8.1 to 10.0)	34	23.6%	41	33.3%	75	28.1%
Severe (> 10.0)	26	18.1%	45	36.6%	71	26.6%
Mean Second Follow-up A1c	7.7		8.5		8.1	
In Control (< 7.0)	57	39.6%	34	27.6%	91	34.1%
Borderline (7.0 to 8.0)	40	27.8%	28	22.8%	68	25.5%
Moderate (8.1 to 10.0)	31	21.5%	34	27.6%	65	24.3%
Severe (> 10.0)	16	11.1%	27	22.0%	43	16.1%
Change in Mean A1c	-0.4	-4.9%	-0.8	-8.6%	-0.6	-6.8%
In Control (< 7.0)	-1	-1.7%	19	126.7%	18	24.7%
Borderline (7.0 to 8.0)	14	53.8%	6	27.3%	20	41.7%
Moderate (8.1 to 10.0)	-3	-8.8%	-7	-17.1%	-10	-13.3%
Severe (> 10.0)	-10	-38.5%	-18	-40.0%	-28	-39.4%
Patients w/ Baseline & Three Follow Ups	76	100.0%	74	100.0%	150	100.0%
Mean Baseline A1c	8.1		9.3		8.7	
In Control (< 7.0)	27	35.5%	10	13.5%	37	24.7%
Borderline (7.0 to 8.0)	14	18.4%	11	14.9%	25	16.7%
Moderate (8.1 to 10.0)	22	28.9%	26	35.1%	48	32.0%
Severe (> 10.0)	13	17.1%	27	36.5%	40	26.7%
Mean Third Follow-up A1c	8.0		8.2		8.1	
In Control (< 7.0)	25	32.9%	18	24.3%	43	28.7%
Borderline (7.0 to 8.0)	27	35.5%	22	29.7%	49	32.7%
Moderate (8.1 to 10.0)	11	14.5%	26	35.1%	37	24.7%
Severe (> 10.0)	13	17.1%	8	10.8%	21	14.0%
Change in Mean A1c	-0.1	-0.6%	-1.1	-11.8%	-0.6	-6.6%
In Control (< 7.0)	-2	-7.4%	8	80.0%	6	16.2%
Borderline (7.0 to 8.0)	13	92.9%	11	100.0%	24	96.0%
Moderate (8.1 to 10.0)	-11	-50.0%	0	0.0%	-11	-22.9%
Severe (> 10.0)	0	0.0%	-19	-70.4%	-19	-47.5%

Table B-5
Broward County - Community Access Program (CAP)
HIV/AIDS Patients Completing CD4 Counts
March 2001 to February 2003

Status and Test Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Total Active Patients	5	100.0%	77	100.0%	82	100.0%
Enrolled Fewer than 180 Days (excluded)	0	0.0%	18	23.4%	18	22.0%
Enrolled at Least 180 Days (included)	5	100.0%	59	76.6%	64	78.0%
Active Patients Evaluated	5	100.0%	59	100.0%	64	100.0%
Active w/ No CD4 Counts	0	0.0%	6	10.2%	6	9.4%
Active w/ only a Baseline	0	0.0%	12	20.3%	12	18.8%
Active w/ Baseline & One Follow-Up	5	100.0%	41	69.5%	46	71.9%
Active w/ Baseline & Two Follow-Ups	5	100.0%	32	54.2%	37	57.8%
Active w/ Baseline & Three Follow-Ups	5	100.0%	20	33.9%	25	39.1%
Total Disenrolled Patients	12	100.0%	22	100.0%	34	100.0%
Enrolled Fewer than 180 Days (excluded)	4	33.3%	15	68.2%	19	55.9%
Enrolled at Least 180 Days (included)	8	66.7%	7	31.8%	15	44.1%
Disenrolled Patients Evaluated	8	100.0%	7	100.0%	15	100.0%
Disenrolled w/ No CD4 Counts	2	25.0%	2	28.6%	4	26.7%
Disenrolled w/ only a Baseline	1	12.5%	1	14.3%	2	13.3%
Disenrolled w/ Baseline & One Follow-Up	5	62.5%	4	57.1%	9	60.0%
Disenrolled w/ Baseline & Two Follow-Ups	3	37.5%	2	28.6%	5	33.3%
Disenrolled w/ Baseline & Three Follow-Ups	1	12.5%	1	14.3%	2	13.3%
Lab Test Results						
Patients w/ Baseline & One Follow Up	10	100.0%	45	100.0%	55	100.0%
Mean Baseline CD4 Count (cells/mm³)	249.5		542.6		489.3	
> 500	3	30.0%	23	51.1%	26	47.3%
200 to 500	1	10.0%	12	26.7%	13	23.6%
100 to 199	0	0.0%	5	11.1%	5	9.1%
< 100	6	60.0%	5	11.1%	11	20.0%
Mean First Follow-up CD4 Count (cells/mm³)	253.0		559.6		503.9	
> 500	2	20.0%	22	48.9%	24	43.6%
200 to 500	1	10.0%	15	33.3%	16	29.1%
100 to 199	1	10.0%	5	11.1%	6	10.9%
< 100	6	60.0%	3	6.7%	9	16.4%
Change in Mean CD4 Count (cells/mm³)	3.5	1.4%	17.0	3.1%	14.5	3.0%
> 500	-1	-33.3%	-1	-4.3%	-2	-7.7%
200 to 500	0	0.0%	3	25.0%	3	23.1%
100 to 199	1	0.0%	0	0.0%	1	20.0%
< 100	0	0.0%	-2	-40.0%	-2	-18.2%

Table B-5
Broward County - Community Access Program (CAP)
HIV/AIDS Patients Completing CD4 Counts
March 2001 to February 2003

Status and Test Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Patients w/ Baseline & Two Follow Ups	8	100.0%	34	100.0%	42	100.0%
Mean Baseline CD4 Count (cells/mm³)	193.4		562.9		492.5	
> 500	2	25.0%	19	55.9%	21	50.0%
200 to 500	1	12.5%	8	23.5%	9	21.4%
100 to 199	0	0.0%	2	5.9%	2	4.8%
< 100	5	62.5%	5	14.7%	10	23.8%
Mean Second Follow-up CD4 Count (cells/mm³)	268.6		580.0		520.7	
> 500	2	25.0%	20	58.8%	22	52.4%
200 to 500	1	12.5%	7	20.6%	8	19.0%
100 to 199	3	37.5%	4	11.8%	7	16.7%
< 100	2	25.0%	3	8.8%	5	11.9%
Change in Mean CD4 Count (cells/mm³)	75.2	38.9%	17.1	3.0%	28.2	5.7%
> 500	0	0.0%	1	5.3%	1	4.8%
200 to 500	0	0.0%	-1	-12.5%	-1	-11.1%
100 to 199	3	0.0%	2	100.0%	5	250.0%
< 100	-3	-60.0%	-2	-40.0%	-5	-50.0%
Patients w/ Baseline & Three Follow Ups	6	100.0%	21	100.0%	27	100.0%
Mean Baseline CD4 Count (cells/mm³)	255.3		592.0		517.2	
> 500	2	33.3%	12	57.1%	14	51.9%
200 to 500	1	16.7%	5	23.8%	6	22.2%
100 to 199	0	0.0%	1	4.8%	1	3.7%
< 100	3	50.0%	3	14.3%	6	22.2%
Mean Third Follow-up CD4 Count (cells/mm³)	398.8		635.8		583.1	
> 500	2	33.3%	14	66.7%	16	59.3%
200 to 500	2	33.3%	3	14.3%	5	18.5%
100 to 199	0	0.0%	3	14.3%	3	11.1%
< 100	2	33.3%	1	4.8%	3	11.1%
Change in Mean CD4 Count (cells/mm³)	143.5	56.2%	43.8	7.4%	66.0	12.8%
> 500	0	0.0%	2	16.7%	2	14.3%
200 to 500	1	100.0%	-2	-40.0%	-1	-16.7%
100 to 199	0	0.0%	2	200.0%	2	200.0%
< 100	-1	-33.3%	-2	-66.7%	-3	-50.0%

Table B-6
Broward County - Community Access Program (CAP)
HIV/AIDS Patients Completing Viral Load Tests
March 2001 to February 2003

Status and Test Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Total Active Patients	5	100.0%	77	100.0%	82	100.0%
Enrolled Fewer than 180 Days (excluded)	0	0.0%	18	23.4%	18	22.0%
Enrolled at Least 180 Days (included)	5	100.0%	59	76.6%	64	78.0%
Active Patients Evaluated	5	100.0%	59	100.0%	64	100.0%
Active w/ No Viral Load Tests	0	0.0%	14	23.7%	14	21.9%
Active w/ only a Baseline	0	0.0%	16	27.1%	16	25.0%
Active w/ Baseline & One Follow-Up	5	100.0%	29	49.2%	34	53.1%
Active w/ Baseline & Two Follow-Ups	5	100.0%	17	28.8%	22	34.4%
Active w/ Baseline & Three Follow-Ups	5	100.0%	7	11.9%	12	18.8%
Total Disenrolled Patients	12	100.0%	22	100.0%	34	100.0%
Enrolled Fewer than 180 Days (excluded)	4	33.3%	15	68.2%	19	55.9%
Enrolled at Least 180 Days (included)	8	66.7%	7	31.8%	15	44.1%
Disenrolled Patients Evaluated	8	100.0%	7	100.0%	15	100.0%
Disenrolled w/ No Viral Load Tests	2	25.0%	2	28.6%	4	26.7%
Disenrolled w/ only a Baseline	1	12.5%	3	42.9%	4	26.7%
Disenrolled w/ Baseline & One Follow-Up	5	62.5%	2	28.6%	7	46.7%
Disenrolled w/ Baseline & Two Follow-Ups	1	12.5%	2	28.6%	3	20.0%
Disenrolled w/ Baseline & Three Follow-Ups	1	12.5%	1	14.3%	2	13.3%
Lab Test Results						
Patients w/ Baseline & One Follow Up	10	100.0%	31	100.0%	41	100.0%
Mean Baseline Viral Load	4,890		81,747		63,001	
In Control (< 500)	6	60.0%	8	25.8%	14	34.1%
Borderline (500 to 5,000)	0	0.0%	6	19.4%	6	14.6%
Moderate (5,001 to 50,000)	2	20.0%	8	25.8%	10	24.4%
Severe (> 50,000)	2	20.0%	9	29.0%	11	26.8%
Mean First Follow-up Viral Load	4,992		38,625		30,422	
In Control (< 500)	6	60.0%	10	32.3%	16	39.0%
Borderline (500 to 5,000)	0	0.0%	7	22.6%	7	17.1%
Moderate (5,001 to 50,000)	3	30.0%	8	25.8%	11	26.8%
Severe (> 50,000)	1	10.0%	6	19.4%	7	17.1%
Change in Mean Viral Load	102	2.1%	-43,122	-52.8%	-32,580	-51.7%
In Control (< 500)	0	0.0%	2	25.0%	2	14.3%
Borderline (500 to 5,000)	0	0.0%	1	16.7%	1	16.7%
Moderate (5,001 to 50,000)	1	50.0%	0	0.0%	1	10.0%
Severe (> 50,000)	-1	-50.0%	-3	-33.3%	-4	-36.4%

Table B-6
Broward County - Community Access Program (CAP)
HIV/AIDS Patients Completing Viral Load Tests
March 2001 to February 2003

Status and Test Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Patients w/ Baseline & Two Follow Ups	6	100.0%	19	100.0%	25	100.0%
Mean Baseline Viral Load	3,057		82,560		63,479	
In Control (< 500)	3	50.0%	4	21.1%	7	28.0%
Borderline (500 to 5,000)	0	0.0%	5	26.3%	5	20.0%
Moderate (5,001 to 50,000)	1	16.7%	5	26.3%	6	24.0%
Severe (> 50,000)	2	33.3%	5	26.3%	7	28.0%
Mean Second Follow-up Viral Load	4,221		47,015		36,745	
In Control (< 500)	4	66.7%	9	47.4%	13	52.0%
Borderline (500 to 5,000)	1	16.7%	2	10.5%	3	12.0%
Moderate (5,001 to 50,000)	1	16.7%	5	26.3%	6	24.0%
Severe (> 50,000)	0	0.0%	3	15.8%	3	12.0%
Change in Mean Viral Load	1,164	38.1%	-35,545	-43.1%	-26,735	-42.1%
In Control (< 500)	1	33.3%	5	125.0%	6	85.7%
Borderline (500 to 5,000)	1	0.0%	-3	-60.0%	-2	-40.0%
Moderate (5,001 to 50,000)	0	0.0%	0	0.0%	0	0.0%
Severe (> 50,000)	-2	-100.0%	-2	-40.0%	-4	-57.1%
Patients w/ Baseline & Three Follow Ups	6	100.0%	8	100.0%	14	100.0%
Mean Baseline Viral Load	3,057		40,465		24,433	
In Control (< 500)	3	50.0%	3	37.5%	6	42.9%
Borderline (500 to 5,000)	0	0.0%	1	12.5%	1	7.1%
Moderate (5,001 to 50,000)	1	16.7%	3	37.5%	4	28.6%
Severe (> 50,000)	2	33.3%	1	12.5%	3	21.4%
Mean Third Follow-up Viral Load	4,961		2,162		3,362	
In Control (< 500)	5	83.3%	6	75.0%	11	78.6%
Borderline (500 to 5,000)	0	0.0%	1	12.5%	1	7.1%
Moderate (5,001 to 50,000)	1	16.7%	1	12.5%	2	14.3%
Severe (> 50,000)	0	0.0%	0	0.0%	0	0.0%
Change in Mean Viral Load	1,904	62.3%	-38,303	-94.7%	-21,071	-86.2%
In Control (< 500)	2	66.7%	3	100.0%	5	83.3%
Borderline (500 to 5,000)	0	0.0%	0	0.0%	0	0.0%
Moderate (5,001 to 50,000)	0	0.0%	-2	-66.7%	-2	-50.0%
Severe (> 50,000)	-2	-100.0%	-1	-100.0%	-3	-100.0%

Table B-7
Broward County - Community Access Program (CAP)
Asthma Patients Completing the Juniper Quality of Life Survey (Mini AQLQ)
March 2001 to February 2003

Status and Survey Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Total Active Patients	24	100.0%	68	100.0%	92	100.0%
Enrolled Fewer than 180 Days (excluded)	6	25.0%	9	13.2%	15	16.3%
Enrolled at Least 180 Days (included)	18	75.0%	59	86.8%	77	83.7%
Active Patients Evaluated	18	100.0%	59	100.0%	77	100.0%
Active w/ No Surveys	0	0.0%	13	22.0%	13	16.9%
Active w/ only a Baseline	7	38.9%	17	28.8%	24	31.2%
Active w/ Baseline & One Follow-Up	11	61.1%	29	49.2%	40	51.9%
Active w/ Baseline & Two Follow-Ups	5	27.8%	7	11.9%	12	15.6%
Active w/ Baseline & Three Follow-Ups	3	16.7%	1	1.7%	4	5.2%
Total Disenrolled Patients	117	100.0%	41	100.0%	158	100.0%
Enrolled Fewer than 180 Days (excluded)	65	55.6%	29	70.7%	94	59.5%
Enrolled at Least 180 Days (included)	52	44.4%	12	29.3%	64	40.5%
Disenrolled Patients Evaluated	52	100.0%	12	100.0%	64	100.0%
Disenrolled w/ No Surveys	26	50.0%	1	8.3%	27	42.2%
Disenrolled w/ only a Baseline	16	30.8%	8	66.7%	24	37.5%
Disenrolled w/ Baseline & One Follow-Up	10	19.2%	3	25.0%	13	20.3%
Disenrolled w/ Baseline & Two Follow-Ups	1	1.9%	0	0.0%	1	1.6%
Disenrolled w/ Baseline & Three Follow-Ups	0	0.0%	0	0.0%	0	0.0%
Survey Results						
Patients w/ Baseline & One Follow Up	21	30.0%	32	45.1%	53	37.6%
Symptoms						
Mean Baseline	3.66		3.43		3.52	
Mean First Follow-up	4.81		4.58		4.67	
Mean Change	1.15	31.5%	1.15	33.5%	1.15	32.7%
Activity Limitation						
Mean Baseline	4.63		3.74		4.09	
Mean First Follow-up	5.35		4.30		4.71	
Mean Change	0.71	15.4%	0.56	15.0%	0.62	15.2%
Emotional Function						
Mean Baseline	3.38		3.32		3.34	
Mean First Follow-up	5.05		4.04		4.44	
Mean Change	1.67	49.3%	0.72	21.7%	1.10	32.7%
Environmental						
Mean Baseline	3.32		3.39		3.36	
Mean First Follow-up	4.33		3.83		4.03	
Mean Change	1.02	30.6%	0.44	13.0%	0.67	19.9%
Total						
Mean Baseline	3.79		3.48		3.60	
Mean First Follow-up	4.90		4.24		4.50	
Mean Change	1.11	29.3%	0.76	21.8%	0.90	24.9%

Table B-7
Broward County - Community Access Program (CAP)
Asthma Patients Completing the Juniper Quality of Life Survey (Mini AQLQ)
March 2001 to February 2003

Status and Survey Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Patients w/ Baseline & Two Follow Ups	6	8.6%	7	9.9%	13	9.2%
Symptoms						
Mean Baseline	2.53		3.20		2.89	
Mean Second Follow-up	4.23		4.57		4.41	
Mean Change	1.70	67.1%	1.37	42.8%	1.52	52.6%
Activity Limitation						
Mean Baseline	3.75		3.68		3.71	
Mean Second Follow-up	4.58		4.18		4.37	
Mean Change	0.83	22.2%	0.50	13.6%	0.65	17.6%
Emotional Function						
Mean Baseline	2.22		2.71		2.48	
Mean Second Follow-up	4.00		3.76		3.87	
Mean Change	1.78	80.0%	1.05	38.7%	1.39	55.8%
Environmental						
Mean Baseline	2.39		2.95		2.69	
Mean Second Follow-up	3.06		3.38		3.23	
Mean Change	0.67	27.9%	0.43	14.6%	0.54	20.0%
Total						
Mean Baseline	2.77		3.18		2.99	
Mean Second Follow-up	4.05		4.07		4.06	
Mean Change	1.28	46.2%	0.89	28.0%	1.07	35.8%
Patients w/ Baseline & Three Follow Ups	3	4.3%	1	1.4%	4	2.8%
Symptoms						
Mean Baseline	2.53		2.80		2.60	
Mean Second Follow-up	3.87		4.40		4.00	
Mean Change	1.33	52.6%	1.60	57.1%	1.40	53.8%
Activity Limitation						
Mean Baseline	3.75		3.25		3.63	
Mean Second Follow-up	5.17		3.75		4.81	
Mean Change	1.42	37.8%	0.50	15.4%	1.19	32.8%
Emotional Function						
Mean Baseline	1.67		4.33		2.33	
Mean Second Follow-up	4.44		5.00		4.58	
Mean Change	2.78	166.6%	0.67	15.4%	2.25	96.4%
Environmental						
Mean Baseline	2.00		4.00		2.50	
Mean Second Follow-up	3.11		4.67		3.50	
Mean Change	1.11	55.5%	0.67	16.7%	1.00	40.0%
Total						
Mean Baseline	2.58		3.47		2.80	
Mean Second Follow-up	4.18		4.40		4.23	
Mean Change	1.60	62.1%	0.93	26.9%	1.43	51.2%

Table B-8
Broward County - Community Access Program (CAP)
Caregivers for Pediatric Asthma Patients Completing the Juniper Quality of Life Survey
March 2001 to February 2003

Status and Survey Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Total Active Patients	7	100.0%	38	100.0%	45	100.0%
Enrolled Fewer than 180 Days (excluded)	7	100.0%	4	10.5%	11	24.4%
Enrolled at Least 180 Days (included)	0	0.0%	34	89.5%	34	75.6%
Active Patients Evaluated	0	0.0%	34	100.0%	34	100.0%
Active w/ No Surveys	0	0.0%	11	32.4%	11	32.4%
Active w/ only a Baseline	0	0.0%	11	32.4%	11	32.4%
Active w/ Baseline & One Follow-Up	0	0.0%	12	35.3%	12	35.3%
Active w/ Baseline & Two Follow-Ups	0	0.0%	2	5.9%	2	5.9%
Active w/ Baseline & Three Follow-Ups	0	0.0%	0	0.0%	0	0.0%
Total Disenrolled Patients	30	100.0%	34	100.0%	64	100.0%
Enrolled Fewer than 180 Days (excluded)	22	73.3%	24	70.6%	46	71.9%
Enrolled at Least 180 Days (included)	8	26.7%	10	29.4%	18	28.1%
Disenrolled Patients Evaluated	8	100.0%	10	100.0%	18	100.0%
Disenrolled w/ No Surveys	4	50.0%	4	40.0%	8	44.4%
Disenrolled w/ only a Baseline	3	37.5%	4	40.0%	7	38.9%
Disenrolled w/ Baseline & One Follow-Up	1	12.5%	2	20.0%	3	16.7%
Disenrolled w/ Baseline & Two Follow-Ups	0	0.0%	0	0.0%	0	0.0%
Disenrolled w/ Baseline & Three Follow-Ups	0	0.0%	0	0.0%	0	0.0%
Survey Results						
Patients w/ Baseline & One Follow Up	1	12.5%	14	31.8%	15	28.8%
Activity Limitation						
Mean Baseline	2.50		2.59		2.58	
Mean First Follow-up	6.25		3.91		4.07	
Mean Change	3.75	150.0%	1.32	51.0%	1.48	57.4%
Emotional Function						
Mean Baseline	5.11		3.78		3.87	
Mean First Follow-up	5.22		4.83		4.86	
Mean Change	0.11	2.2%	1.05	27.8%	0.99	25.5%
Total						
Mean Baseline	4.31		3.41		3.47	
Mean First Follow-up	5.54		4.55		4.62	
Mean Change	1.23	28.5%	1.14	33.4%	1.15	33.0%
Patients w/ Baseline & Two Follow Ups	0	0.0%	2	4.5%	2	3.8%
Activity Limitation						
Mean Baseline			2.38		2.38	
Mean Second Follow-up			3.50		3.50	
Mean Change	0.00	0.0%	1.12	47.1%	1.12	47.1%
Emotional Function						
Mean Baseline			2.94		2.94	
Mean Second Follow-up			4.11		4.11	
Mean Change	0.00	0.0%	1.17	39.8%	1.17	39.8%
Total						
Mean Baseline			2.77		2.77	
Mean Second Follow-up			3.92		3.92	
Mean Change	0.00	0.0%	1.15	41.5%	1.15	41.5%

Table B-8
Broward County - Community Access Program (CAP)
Caregivers for Pediatric Asthma Patients Completing the Juniper Quality of Life Survey
March 2001 to February 2003

Status and Survey Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Patients w/ Baseline & Three Follow Ups	0	0.0%	0	0.0%	0	0.0%
Activity Limitation						
Mean Baseline					0.00	
Mean Second Follow-up					0.00	
Mean Change	0.00	0.0%	0.00	0.0%	0.00	0.0%
Emotional Function						
Mean Baseline					0.00	
Mean Second Follow-up					0.00	
Mean Change	0.00	0.0%	0.00	0.0%	0.00	0.0%
Total						
Mean Baseline					0.00	
Mean Second Follow-up					0.00	
Mean Change	0.00	0.0%	0.00	0.0%	0.00	0.0%

Table B-9
Broward County - Community Access Program (CAP)
Diabetes Patients Completing the SF-12 Health Status Survey
March 2001 to February 2003

Status and Survey Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Total Active Patients	193	100.0%	347	100.0%	540	100.0%
Enrolled Fewer than 180 Days (excluded)	72	37.3%	38	11.0%	110	20.4%
Enrolled at Least 180 Days (included)	121	62.7%	309	89.0%	430	79.6%
Active Patients Evaluated	121	100.0%	309	100.0%	430	100.0%
Active w/ No Surveys	5	4.1%	53	17.2%	58	13.5%
Active w/ only a Baseline	10	8.3%	163	52.8%	173	40.2%
Active w/ Baseline & One Follow-Up	106	87.6%	93	30.1%	199	46.3%
Active w/ Baseline & Two Follow-Ups	77	63.6%	18	5.8%	95	22.1%
Active w/ Baseline & Three Follow-Ups	37	30.6%	0	0.0%	37	8.6%
Total Disenrolled Patients	463	100.0%	150	100.0%	613	100.0%
Enrolled Fewer than 180 Days (excluded)	244	52.7%	77	51.3%	321	52.4%
Enrolled at Least 180 Days (included)	219	47.3%	73	48.7%	292	47.6%
Disenrolled Patients Evaluated	219	100.0%	73	100.0%	292	100.0%
Disenrolled w/ No Surveys	116	53.0%	49	67.1%	165	56.5%
Disenrolled w/ only a Baseline	62	28.3%	20	27.4%	82	28.1%
Disenrolled w/ Baseline & One Follow-Up	41	18.7%	4	5.5%	45	15.4%
Disenrolled w/ Baseline & Two Follow-Ups	6	2.7%	0	0.0%	6	2.1%
Disenrolled w/ Baseline & Three Follow-Ups	1	0.5%	0	0.0%	1	0.3%
Survey Results						
Patients w/ Baseline & One Follow Up	147	43.2%	97	25.4%	244	33.8%
Physical Component (PCS)						
Mean Baseline	40.06		37.22		38.93	
Mean First Follow-up	39.41		35.55		37.88	
Mean Change	-0.64	-1.6%	-1.67	-4.5%	-1.05	-2.7%
Mental Component (MCS)						
Mean Baseline	46.18		51.08		48.13	
Mean First Follow-up	49.30		50.13		49.63	
Mean Change	3.11	6.7%	-0.95	-1.9%	1.50	3.1%
Patients w/ Baseline & Two Follow Ups	83	24.4%	18	4.7%	101	14.0%
Physical Component (PCS)						
Mean Baseline	40.99		36.65		40.21	
Mean Second Follow-up	40.92		39.72		40.71	
Mean Change	-0.07	-0.2%	3.07	8.4%	0.49	1.2%
Mental Component (MCS)						
Mean Baseline	46.65		48.51		46.98	
Mean Second Follow-up	48.76		50.48		49.07	
Mean Change	2.11	4.5%	1.97	4.1%	2.08	4.4%
Patients w/ Baseline & Three Follow Ups	38	11.2%	0	0.0%	38	5.3%
Physical Component (PCS)						
Mean Baseline	41.93				41.93	
Mean Third Follow-up	42.91				42.91	
Mean Change	0.97	2.3%	0.00	0.0%	0.97	2.3%
Mental Component (MCS)						
Mean Baseline	44.00				44.00	
Mean Third Follow-up	45.64				45.64	
Mean Change	1.64	3.7%	0.00	0.0%	1.64	3.7%

Table B-10
Broward County - Community Access Program (CAP)
HIV/AIDS Patients Completing the SF-12 Health Status Survey
March 2001 to February 2003

Status and Survey Results	MHS		NBHD		Total	
	Number	%	Number	%	Number	%
Total Active Patients	5	100.0%	77	100.0%	82	100.0%
Enrolled Fewer than 180 Days (excluded)	0	0.0%	18	23.4%	18	22.0%
Enrolled at Least 180 Days (included)	5	100.0%	59	76.6%	64	78.0%
Active Patients Evaluated	5	100.0%	59	100.0%	64	100.0%
Active w/ No Surveys	0	0.0%	5	8.5%	5	7.8%
Active w/ only a Baseline	2	40.0%	22	37.3%	24	37.5%
Active w/ Baseline & One Follow-Up	3	60.0%	32	54.2%	35	54.7%
Active w/ Baseline & Two Follow-Ups	0	0.0%	3	5.1%	3	4.7%
Active w/ Baseline & Three Follow-Ups	0	0.0%	0	0.0%	0	0.0%
Total Disenrolled Patients	12	100.0%	22	100.0%	34	100.0%
Enrolled Fewer than 180 Days (excluded)	4	33.3%	15	68.2%	19	55.9%
Enrolled at Least 180 Days (included)	8	66.7%	7	31.8%	15	44.1%
Disenrolled Patients Evaluated	8	100.0%	7	100.0%	15	100.0%
Disenrolled w/ No Surveys	7	87.5%	6	85.7%	13	86.7%
Disenrolled w/ only a Baseline	1	12.5%	1	14.3%	2	13.3%
Disenrolled w/ Baseline & One Follow-Up	0	0.0%	0	0.0%	0	0.0%
Disenrolled w/ Baseline & Two Follow-Ups	0	0.0%	0	0.0%	0	0.0%
Disenrolled w/ Baseline & Three Follow-Ups	0	0.0%	0	0.0%	0	0.0%
Survey Results						
Patients w/ Baseline & One Follow Up	3	23.1%	32	48.5%	35	44.3%
Physical Component (PCS)						
Mean Baseline	48.84		36.71		37.75	
Mean First Follow-up	51.56		43.38		44.09	
Mean Change	2.73	5.6%	6.68	18.2%	6.34	16.8%
Mental Component (MCS)						
Mean Baseline	56.86		45.43		46.41	
Mean First Follow-up	54.82		50.83		51.18	
Mean Change	-2.04	-3.6%	5.40	11.9%	4.77	10.3%
Patients w/ Baseline & Two Follow Ups	0	0.0%	3	4.5%	3	3.8%
Physical Component (PCS)						
Mean Baseline			37.20		37.20	
Mean Second Follow-up			45.47		45.47	
Mean Change	0.00	0.0%	8.27	22.2%	8.27	22.2%
Mental Component (MCS)						
Mean Baseline			49.20		49.20	
Mean Second Follow-up			45.80		45.80	
Mean Change	0.00	0.0%	-3.40	-6.9%	-3.40	-6.9%
Patients w/ Baseline & Three Follow Ups	0	0.0%	0	0.0%	0	0.0%
Physical Component (PCS)						
Mean Baseline					0.00	
Mean Third Follow-up					0.00	
Mean Change	0.00	0.0%	0.00	0.0%	0.00	0.0%
Mental Component (MCS)						
Mean Baseline					0.00	
Mean Third Follow-up					0.00	
Mean Change	0.00	0.0%	0.00	0.0%	0.00	0.0%

Table B-11
Broward County - Community Access Program (CAP)
Hospital Visits and Costs for Clients with at Least 12 Months in the Program
March 2001 to February 2003

Description	Asthma			Diabetes			HIV / AIDS			All Diseases		
	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total	MHS	NBHD	Total
Number Enrolled 12 Months	22	79	101	145	305	450	8	33	41	175	417	592
Number with Hospital Events	19	31	50	97	179	276	4	18	22	120	228	348
In-Patient Admissions												
During 12 Months Prior to Enrollment	10	11	21	53	129	182	4	15	19	67	155	222
Average Length of Stay (days)	5.5	3.5	4.4	6.7	5.7	6.0	8.5	6.8	7.2	6.6	5.6	5.9
Total Fixed Costs (\$)	26,040	20,688	46,728	180,186	363,071	543,257	9,978	38,664	48,642	216,204	422,423	638,627
Total Variable Costs (\$)	30,531	29,000	59,531	249,932	459,212	709,144	14,799	43,572	58,371	295,262	531,784	827,046
During 12 Months After Enrollment	13	11	24	35	73	108	0	1	1	48	85	133
Average Length of Stay (days)	5.0	3.0	4.1	4.7	5.7	5.3	0.0	2.0	2.0	4.8	5.3	5.1
Total Fixed Costs (\$)	26,757	18,978	45,735	95,936	211,190	307,126	0	1,074	1,074	122,693	231,242	353,935
Total Variable Costs (\$)	26,842	23,278	50,120	110,869	263,752	374,621	0	1,051	1,051	137,711	288,081	425,792
Emergency Room Visits												
During 12 Months Prior to Enrollment	51	13	64	81	123	204	7	18	25	139	154	293
Total Fixed Costs (\$)	6,777	1,994	8,771	8,836	22,803	31,639	679	3,069	3,748	16,292	27,866	44,158
Total Variable Costs (\$)	7,133	1,991	9,124	9,478	20,384	29,862	797	2,849	3,646	17,408	25,224	42,632
During 12 Months After Enrollment	31	15	46	82	146	228	3	7	10	116	168	284
Total Fixed Costs (\$)	3,880	2,388	6,268	12,902	23,836	36,738	377	1,505	1,882	17,159	27,729	44,888
Total Variable Costs (\$)	3,718	2,229	5,947	10,692	21,815	32,507	136	1,452	1,588	14,546	25,496	40,042
Aggregate Costs												
During 12 Months Prior to Enrollment	70,481	53,673	124,154	448,432	865,470	1,313,902	26,253	88,154	114,407	545,166	1,007,297	1,552,463
Total Fixed Costs (\$)	32,817	22,682	55,499	189,022	385,874	574,896	10,657	41,733	52,390	232,496	450,289	682,785
Total Variable Costs (\$)	37,664	30,991	68,655	259,410	479,596	739,006	15,596	46,421	62,017	312,670	557,008	869,678
During 12 Months After Enrollment	61,197	46,873	108,070	230,399	520,593	750,992	513	5,082	5,595	292,109	572,548	864,657
Total Fixed Costs (\$)	30,637	21,366	52,003	108,838	235,026	343,864	377	2,579	2,956	139,852	258,971	398,823
Total Variable Costs (\$)	30,560	25,507	56,067	121,561	285,567	407,128	136	2,503	2,639	152,257	313,577	465,834
Cost Savings (Prior minus After)												
	9,284	6,800	16,084	218,033	344,877	562,910	25,740	83,072	108,812	253,057	434,749	687,806
Total Fixed Costs (\$)	2,180	1,316	3,496	80,184	150,848	231,032	10,280	39,154	49,434	92,644	191,318	283,962
Total Variable Costs (\$)	7,104	5,484	12,588	137,849	194,029	331,878	15,460	43,918	59,378	160,413	243,431	403,844
Cost Savings per Patient												
	422	86	159	1,504	1,131	1,251	3,218	2,517	2,654	1,446	1,043	1,162
Total Fixed Costs (\$)	99	17	35	553	495	513	1,285	1,186	1,206	529	459	480
Total Variable Costs (\$)	323	69	125	951	636	738	1,933	1,331	1,448	917	584	682