

Optima Health

2005 Winner of EPA's National Environmental Leadership Award in Asthma Management

What's Inside

- ▶ Optima Health's Asthma Management Program
- ▶ The Life Coach Program for Severe Asthmatics
- ▶ Results Achieved by the Life Coach Program
- ▶ Lessons Learned

Janis Sabol and George Heuser, M.D., accept the 2005 National Environmental Leadership Award from Jeff Holmstead, EPA Assistant Administrator for the Office of Air and Radiation.



Optima Health Virginia Beach, Virginia

Snapshot

- ▶ Non-profit managed care system (division of Sentara Health)
- ▶ Medicaid HMO, as well as commercial HMO, PPO, and POS plans
- ▶ Asthma management program, including home visits, in place since 1997
- ▶ Of 300,000 members, 8,000 to 9,000 have asthma
- ▶ 35 percent of members with asthma are in a commercial plan; 65 percent are in the Medicaid HMO
- ▶ 70 percent of those with asthma are children

In the mid 1990s, Optima Health staff noticed that despite pharmacological advances in asthma therapy, hospital admissions for asthma were increasing. Optima Health conducted a year-long pilot study with 50 high-risk children, during which clinicians made home visits to enrollees to develop asthma self-management practices. Optima then compared post-study utilization of health services to pre-study utilization and noted a dramatic improvement; based on these results, Optima Health expanded the program to all its members with asthma.

Optima Health's comprehensive asthma management program includes full recognition of the importance of managing environmental triggers in addition to taking appropriate medications. The program educates all of its members with asthma about environmental trigger management, and provides more intense counseling for members with more severe asthma.

As part of its comprehensive asthma management program, Optima Health provides unlimited home visits by "asthma life coaches," nurses or respiratory therapists from contracted home health agencies, to enrollees with severe persistent asthma. The goal of the program is to "provide education and support to promote optimal independent functioning, thus reducing the need for more intensive, higher cost services," according to Janis Sabol, program coordinator for asthma disease management at Optima. Home visits enable life coaches to identify possible environmental asthma triggers during walkthroughs. Multiple visits help patients and their families develop trust in their coaches and enable gradual implementation of trigger avoidance measures and home modifications, increasing the likelihood of long-term compliance with trigger management. Life coaches also teach enrollees to manage their asthma through consistent use of medication and implementation of an asthma action plan. The life coach program is offered only to higher risk members because, as the member's severity

Optima's Community Activities

- ▶ Outreach to major employers
- ▶ Health fairs and classes on asthma management

level decreases, so does their utilization of health services, thus decreasing the return on investment for this higher level intervention.

The life coach program has achieved significant reductions in hospitalizations and emergency department visits among participants.

Overall health care costs decreased by 35 percent for participants in the life coach program. Optima has also realized cost savings as a result of these reductions. "Community relationships, visibility, cost containment—they're all important factors," said Janis Sabol. "Certainly, creating good will in the community is a key motivation."

The Asthma Management Program

Optima's asthma management program provides interventions based on their enrollees' asthma severity. Members with asthma are placed into one of three categories based on medical and pharmacy claims information. These categories are similar to guidelines issued by the National Institutes of Health but are modified slightly, since Optima has access only to medical and pharmacy claims information and not to results of medical tests. New health plan members are assigned to a category based on responses to a questionnaire on asthma. Optima uses these categories to determine the types of asthma services members should receive, as shown in Figure 1 below. Because members of the mild and moderate persistent categories often have a sufficient understanding of their disease and how to manage it, interventions offered to these members reinforce positive behavior primarily through mailings and case manager phone calls. Members in the severe persistent category, however, often require more intensive interventions provided through

Figure 1: The Asthma Management Program

	Mild Persistent	Moderate Persistent	Severe Persistent
Characteristics	<ul style="list-style-type: none"> ▶ Physician office visit with primary diagnosis of asthma ▶ With or without minimum use of asthma-related medications ▶ No emergency department visits or hospitalizations ▶ Also includes mild intermittent patients 	<ul style="list-style-type: none"> ▶ 1 or 2 emergency department visits in 6 months with primary diagnosis of asthma, and ▶ Use of 4 or more canisters of inhaled asthma rescue medications in 6 months 	<ul style="list-style-type: none"> ▶ Hospitalization for primary diagnosis of asthma, and/or ▶ Use of 6 or more canisters of inhaled asthma rescue medication with little or no inhaled steroid use
% of Asthma Members	80 percent	12 percent	8 percent
Education	<ul style="list-style-type: none"> ▶ Education materials mailed ▶ Invitation to free group classes offered twice a month 	▶ Same	▶ Same
Case Management	▶ Phone number of asthma case manager	<ul style="list-style-type: none"> ▶ Screening phone call from asthma case manager about symptoms, medication use, triggers, and doctor visits ▶ The case manager conducts the same screening for environmental triggers as the life coach does for severe asthma cases, except no walkthrough is conducted. ▶ Additional follow-up by telephone to achieve patient self-management ▶ Referral to life coach if not successful 	▶ Life coach program, including visits from a trained health professional (the "life coach"), home walkthrough, and 1 year of follow-up calls and visits.

the life coach program to help develop self-management skills necessary to manage asthma.

The Life Coach Program for Severe Asthmatics

Members in the severe persistent category receive free visits from a life coach, who is a trained nurse or respiratory therapist from a home health agency. When the member enrolls in the life coach program, Optima notifies the enrollee's physician by phone or letter and provides a profile of the enrollee's asthma history and services provided. During the initial visit, the coach reviews the member's medical history, performs a physical and psychosocial assessment, and assesses asthma severity and triggers. The coach also discusses medication use patterns, peak flow meter use, and when to visit a physician as opposed to the emergency department. The coach then determines issues to be addressed in future visits and works with the member's physician to develop a treatment plan. Life coaches spend at least one full visit on environmental triggers. The visit includes:

- ▶ A review of known triggers.
- ▶ Identification of additional possible triggers through discussion of symptoms and results of allergy testing, if available.

- ▶ Home walkthrough to identify possible triggers.
- ▶ Suggestions for modifications in the home to reduce exposure to triggers; referrals to resources for obtaining allergen-proof bedding or smoking cessation materials.
- ▶ Discussion of other places where triggers may be present and how to avoid them.
- ▶ Discussion with other care providers to encourage trigger avoidance outside the home.

Coaches may visit as many times as they believe necessary; the average is four visits. Visit frequency may range from once every 2–3 months to 2–3 times a week. Once the enrollee is effectively self-managing his or her triggers, coaches stop making home visits but continue to follow up by phone, more frequently at first, to ensure continued compliance with the treatment plan and with trigger avoidance. Life coaches define self-management as successful use of the treatment plan, successful behavior or lifestyle changes, and decreased use of high-cost services. Phone calls continue for at least one year after the completion of home visits; if asthma severity changes for the worse, coaches may reinstitute home visitation.

Figure 2: Total Pre- and Post- Enrollment Health Care Costs for Patients Participating in the Life Coach Program

Product	Claim Type	Cost Pre-Enrollment	Cost Post-Enrollment
Commercial (136 members)	Primary care provider visits	\$26,378.34	\$19,885.56
	Emergency room visits	\$27,379.30	\$17,795.33
	Home health	\$3,696.43	\$6,458.66
	Inpatient admission	\$224,122.64	\$101,846.04
	Specialist referrals	\$29,758.62	\$46,441.87
Medicaid HMO (354 members)	Primary care provider visits	\$33,835.29	\$29,160.42
	Emergency room visits	\$53,667.02	\$51,673.65
	Home health	\$3,587.55	\$17,066.60
	Inpatient admission	\$294,685.64	\$139,627.30
	Specialist referrals	\$44,799.30	\$50,569.85
Total (490 members)	Primary care provider visits	\$60,213.63	\$49,045.98
	Emergency room visits	\$81,046.32	\$69,468.98
	Home health	\$7,283.98	\$23,526.46
	Inpatient admission	\$518,808.28	\$241,473.34
	Specialist referrals	\$74,557.92	\$97,011.72
	Total	\$741,910.13	\$480,526.48

In addition to home visits and phone calls to members, life coaches may contact their schools and employers to encourage them to take steps to reduce levels of environmental triggers in their buildings. Coaches also communicate with enrollees' physicians regarding possible triggers and the need for changes to prescriptions and treatment plans.

Optima Health has contracts with several home health agencies to provide life coaches for its members. The program expectations are included in the contracts. The home health agencies are paid the same amount (\$425 per member per year) for each member enrolled in the life coach program, regardless of the number of home visits a member requires.

Results Achieved by the Life Coach Program

Optima Health has noted significant improvements in asthma management over the last few years, based on the following indicators to measure improved health performance:

- ▶ Hospitalizations per 1,000 members with asthma
- ▶ Emergency department visits per 1,000 members with asthma
- ▶ Ratio of inhaled rescue medication use to inhaled steroid use
- ▶ HEDIS (Health Plan Employer Data and Information Set) measures for use of appropriate medications for people with asthma

How to Get Started

- ▶ Consider a pilot home visit program. A pilot can help you determine the most effective approach while minimizing the initial investment required. A successful pilot will help persuade plan managers and the board of directors of the cost-effectiveness of a home visit program.
- ▶ Determine an approach based on logistics, budgetary restraints, and the needs of your members. For example, contracting with home health agencies may provide your plan the flexibility to reach members throughout the state and to reach more members as your program expands. In Optima Health's case, it was convenient to work with an agency that it was already affiliated with.
- ▶ Calculate baseline utilization rates and costs so you will be able to track the effectiveness of your home visit program.

Between 1999 and 2004, hospitalizations for asthma decreased by 54 percent in the commercial health plans and 32 percent in the Medicaid HMO plan. Emergency department visits decreased 18 percent in commercial plans and 33 percent for Medicaid patients during the same time period. There was some fluctuation in rates during the time period, probably due to variations in climate. (Extreme heat or cold can trigger asthma attacks, and weather can also affect levels of triggers such as smog, pollen, and mold.) However, the overall result was a decrease in use of high-cost services.

The ideal ratio of rescue medication to inhaled steroid use is 1:1, with the assumption that regular use of steroids decreases the chance of an asthma episode, thus decreasing the need for rescue medication. Based on pharmacy records for both commercial and Medicaid plans, between 2000 and 2004, the ratio had decreased from 2.63:1 to 1.58:1.

HEDIS measures for appropriate use of asthma medication increased 1.5 percent from 2002 to 2004 to 70 percent.

As a result of the decrease in hospitalizations and emergency department visits, overall costs decreased by 35 percent in enrollees participating in the life coach program, as shown in Figure 2 on the previous page. This decrease occurred in spite of increases in home health costs associated with life coaches and increases in visits to specialists. This number is based on a comparison of pre-enrollment costs to post-enrollment costs for 490 participants in the life coach program, where the pre-enrollment period and post-enrollment period are the same amount of time (although the length of these periods varies for each patient). "Post-enrollment" costs are measured beginning 6 months after an enrollee begins the life coach program; in some cases enrollees may still be participating in the program. Approximately 500 additional enrollees in the life coach program were not included in this analysis because their pre-enrollment or post-enrollment data were insufficient.

Prescription costs were not included in the costs shown on the previous page, but did increase 53 percent overall with improved adherence to inhaled steroid medication, from \$132,292 to \$202,625. However, this increase was more than offset by the decrease in utilization costs. The savings help to pay the administrative costs of the program.

Optima Health has calculated a return on investment of 4.4:1, where return on investment is defined as total health plan cost savings divided by total program costs, and program costs include materials, mailing costs, and asthma management staff. In addition to achieving a financial return on investment, part of Optima Health's mission is to be proactive and quality-oriented. Optima's quality initiative is to "provide disease management programs that help to manage health issues before they become major problems,"

said Janis Sabol. Improving health is as important as being cost-effective.

Lessons Learned

Optima Health has learned several lessons over time. Since the inception of the asthma management program, the focus on management of environmental triggers has increased. Initially, asthma case managers and life coaches emphasized the importance of taking asthma medication as prescribed. However, they noticed that adherence to a treatment plan alone often did not result in decreased asthma severity. Two years into the program, they determined that trigger avoidance was necessary and that modifications had to be made gradually to avoid overwhelming members. The coaches suggest “small changes that the patients feel they can make quickly and without too much cost or effort,” said Sabol. “Most patients cite cost and inconvenience as the main reasons they do not make requested changes to their homes.” For example, instead of recommending that families give away pets, coaches might first recommend that the dog sleep on the floor instead of on the child’s bed, and at the next visit recommend having the dog sleep outside the child’s room. Similarly, coaches might initially recommend vacuuming and dusting once a month. At the next visit, they might suggest vacuuming and dusting every two weeks, and so on.

In addition, Optima streamlined the home visit curriculum. The coaches noticed that only some of what they taught was being retained, so they and Optima worked together to determine what information absolutely had to be transmitted to members. The amount of time spent with members remained the same, but the lessons were simpler and more focused.

Optima Health also learned that persistence is necessary to achieve good results. Members in the Medicaid HMO are particularly difficult to track because they move frequently. Case managers and life coaches must work hard to contact members initially and to follow up with them. In addition, some members become complacent about their asthma and are less willing to participate in the life coach program. Members whose hospitalization or emergency department visits begin to increase are re-enrolled and start to receive visits again from a life coach. Optima Health’s continuous attention to its members with asthma supports their goals of having all asthma patients maximize their treatment options, reduce acute episodes, and improve their overall quality of life.

For more information on Optima Health’s asthma management program, contact Janis Sabol, program coordinator for asthma disease management, at jsabol@sentara.com or (757) 552-8934.

This document provides information on an organization’s comprehensive asthma management program. The content of the document does not represent official EPA policy or guidance.