

POLICY REPORT



Health Resources in Action

Advancing Public Health and Medical Research

Insurance Coverage for Asthma: A New England Gap Analysis



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INSURANCE COVERAGE FOR ASTHMA: A NEW ENGLAND GAP ANALYSIS

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Insurance Coverage for Asthma: A New England Gap Analysis

EXECUTIVE SUMMARY

I. Background

The Asthma Regional Council of New England (ARC) was founded in 2000 at a summit sponsored by the Region I (New England) Administrators of the United States Department of Health and Human Services, Environmental Protection Agency, and Housing and Urban Development. The Regional Administrators of these federal agencies felt it was important to work in a multi-sector, coordinated manner to address the growing asthma epidemic in the region. ARC successfully brings together nearly 75 public agencies, private organizations and researchers across the New England states to cooperatively address asthma in the health care setting, in the community and in the home, targeting efforts to populations with the greatest burden. Leaders with knowledge, resources and determination have joined forces to identify and implement cross-sector solutions to a chronic disease that remains poorly controlled.¹ Its members bring the diverse perspectives and resources of health, housing, education, environment, managed care, healthcare finance and research together to focus on asthma in a multi-disciplinary approach. ARC is a program of Health Resources in Action, a national non-profit organization located in Boston, MA, dedicated to medical research and public health. (www.hria.org)

One of ARC's focus areas is to encourage health care payers to better align their reimbursement policies and asthma management programs with evidence-based best practices. In partnership with the University of Massachusetts-Lowell and others across the region, ARC has developed numerous policy reports and tools to help pave the way toward a better understanding of how to cost-effectively improve asthma outcomes in the region.

In order to better understand the extent to which insurance policies in New England reflect and support national guidelines and published research, ARC, in partnership with the CDC-funded asthma programs in the region's health departments, designed and conducted an insurance coverage survey in the summer of 2010. The survey responses were collected from 25 public (Medicaid) and private (commercial) payers across the six New England states. This report provides a general analysis of the responses and identifies where there are gaps in coverage. With this understanding, ARC and its partners can knowledgeably collaborate with public and private health payers to work towards reimbursement policies that will serve to improve health outcomes and simultaneously reduce expensive, preventable, urgent care visits. Key findings and policy implications are found below.

¹ Stillman, L. Living with Asthma in New England: Results from the 2006 BRFSS and Call-back Survey. Asthma Regional Council (2010). www.asthmaregionalcouncil.org

II. Key Findings and Recommendations

Below are a number of findings from the survey analysis that have important implications for health care payers and purchasers, as well as policy makers shaping payment reform and quality of care initiatives. References to best practices are derived from guidelines issued by the National Heart Lung and Blood Institute's National Asthma Education and Prevention Program (NAEPP) Asthma Expert Panel (2007), as well as the Center for Disease Control and Prevention's (CDC) Task Force on Community Preventive Services (2009) and other published research.

OVERARCHING FINDINGS:

- **Coverage of evidence-based interventions:** There are widespread variations in asthma reimbursement policies, amongst and between all payer types. This inconsistency is symptomatic of the lack of alignment of reimbursement policies with recommended evidence-based best practices, especially regarding the provision of asthma education, environmental assessments of the home, or allowing for a range of trained/certified practitioners to provide these services.
Recommendation: Health payers and plans should review their coverage policies and program offerings to ensure they are consistent with recommended evidence-based practices for high-quality asthma management. Areas for priority attention include (1) reimbursement for and/or programs which provide patient self-management education in the clinic, community and home venues; (2) home assessments and remediation for environmental asthma triggers, perhaps in partnership with community-based organizations, local health departments, home visiting agencies or hospitals; (3) utilization of a broader team of well-trained providers of care, such as nurses, certified asthma educators, respiratory therapists, environmental counselors and community health workers; and (4) reclassifying medication tiers to make out-of-pockets costs for effective pharmacotherapy more affordable.
- **Collection of basic disease management data:** The NAEPP emphasizes the need to classify asthma patients' disease by both severity and control, for assessing proper patient therapy and management. In addition, they encourage heightened awareness about racial disparities in order to address cultural and language barriers and equitable access to quality care. Yet payers inconsistently collect, monitor, and analyze asthma data. Some do not even have knowledge of disease prevalence in their membership populations. Where prevalence rates are known, asthma appears to be under-reported or under-diagnosed. Further, despite well-documented racial and ethnic disparities in asthma burden and care, especially amongst Black and Latino populations, very few plans—beyond the Medicaid Managed Care Organizations (MMCOs)--- maintain racial/ethnic background statistics for monitoring and addressing disparate outcomes and treatment. Analyzing disease and demographic data will help with quality improvement efforts by identifying and improving treatment for poorly managed patients, while simultaneously identifying and addressing ethnic/racial disparities in diagnosis, treatment and long-term management.
Recommendation: All insurers should develop mechanisms to better monitor asthma prevalence in their patient populations, disease measures such as severity and control, quality of care, and disparities in their patient populations. Tracking who has asthma, collecting racial/ethnic data to monitor disparities in care and outcomes, and documenting disease

severity and control are important ways to monitor the provision of quality of care and provide feedback to providers, as well as to control costs by selectively targeting proactive services to expensive utilizers of urgent care.

ASTHMA-SPECIFIC INSURANCE COVERAGE FINDINGS:

- **Reimbursements for Asthma Education sessions:** Despite the fact that education to foster effective asthma self-management in partnership with the patient's provider is a centerpiece of the NAEPP best practice guidelines, few fee-for-service (FFS) Medicaid or commercial plans pay for separate or extended individual educational sessions, and even fewer reimburse for group education visits. While a number of commercial plans do reimburse for such sessions, it is often restricted to the traditional (and more expensive) physician or behavioral health office visit, rather than using effective, lower-cost, trained ancillary providers.

Recommendation: Individual and group asthma education sessions should be reimbursed in the clinic, community and home settings, wherever services are most appropriate and available. A range of trained providers should be eligible for the provision of such services, including certified asthma educators, nurses, respiratory therapists, and certified disease management counselors. Services should be reimbursable even if provided on the same day as other clinical services.

- **Medications:** According to NAEPP guidelines, asthma may require treatment with multiple medications to achieve optimal control. This can become very expensive for many families, who often have more than one person living with asthma. Research demonstrates that high cost-sharing levels affect patient use of asthma medication², and 14% of people with asthma in New England report not filling their prescriptions because of cost³. Only fifteen of the twenty-five plans surveyed place bronchodilators in their pharmacy benefit's Tier 1 (with lowest co-payments), while even fewer place the preventive inhaled corticosteroids in this category. Some of these medications also fall into Tier 3, which can cost patients up to \$74 out of pocket for each medication filled.

Recommendation: Providers want to encourage the consistent use of prescribed medications to prevent expensive urgent care visits and improve quality of life and productivity. To that end, it is critical that payers examine their current medication payment tier structure and encourage patient compliance by removing financial barriers. To encourage good asthma control and to discourage the need for urgent care, cost-sharing for asthma medications should be eliminated or minimal. Both controller and rescue medications should be classified as Tier 1.

- **Spirometry:** The NAEPP underscores the importance of spirometry (lung function testing) in the initial diagnosis of asthma and at least once per year thereafter for ongoing assessment and management. Although almost all payers will reimburse for spirometry in a primary care physician's office, it is not universally reimbursed if referred outside of the office visit.

² Ungar WJ, Kozyrskyj A, Paterson M, Ahmad F. "Effect of cost-sharing on use of asthma medication in children," Arch Pediatr Adolesc Med. 2008 Feb;162(2):104-10.

³ Stillman. *Living with Asthma in New England: Results from the 2006 BRFSS and Call-Back Surveys* (2010) www.asthmaregionalcouncil.org

Thus, if a provider does not have in-office equipment, the patient would most likely have to pay for this basic asthma service out of pocket.

Recommendation: Lung function testing should be utilized on a regular basis, and covered by insurance whether offered in a primary care office or as a referral to a specialist.

- **Reimbursement for Home Visiting Services:** Home-based clinical education and environmental assessment services are offered by fewer than half of the insurers surveyed, despite the impressive research and practice-based evidence documenting their cost effectiveness, especially for low-income populations and those with persistent asthma symptoms or poor control. FFS Medicaid plans were least likely to reimburse for such services. The lack of reimbursements for asthma home visiting programs, carried out by a range of trained non-physician providers, has resulted in a shortage of capacity to deliver these culturally competent, cost effective services.

Recommendation: A cadre of providers, agencies, and programs that are qualified to provide targeted home visiting services specializing in asthma care and environmental services should be reimbursed, expanded and evaluated as a follow-on to the evidence base which already exists about these interventions for patients whose asthma control remains sub-optimal.

- **Reimbursements for Environmental Trigger Mitigation Supplies and Services:** Abundant evidence suggests that offering environmental interventions, on a tailored basis, are justified for patients with chronic poorly controlled asthma and allergic sensitivities. Indeed, in a 2009 comprehensive literature review the Centers for Disease Control and Prevention (CDC) notes that the combination of environmental remediation in the home with an educational component provides good value for the money invested, based on improvements in symptom-free days and savings from averted urgent care costs⁴. However, few insurers will pay for home trigger remediation supplies and professional services, although Medicaid payers were more likely than commercial insurers to do so. Of the few commercial insurers that reported paying for environmental services and supplies, all of them indicated that they would be considered on a case-by-case basis. Among those which reimburse for such supplies, mattress and pillow covers, as well as air purifiers, were the most likely to be covered, but vacuum cleaners and air conditioners would also be considered in specific cases.

Recommendation: Where an allergic sensitivity is identified in an asthma patient, environmental supplies should be reimbursed to mitigate home-based triggers, particularly where patients cannot afford or access them. They might be considered for inclusion as a durable medical supply or equipment, and may include allergy-resistant bedding, HEPA vacuum cleaners, air purifiers or conditioners, and/or integrated pest management for control of cockroaches and mice. Payers should explore the possibility of partnering with community-based agencies which might support provision of some of this equipment where necessary.

- **Reimbursements for Non-Physician Providers:** The NAEPP suggests that a variety of members of a health care team can appropriately deliver asthma education services, including nurses, certified asthma educators, respiratory therapists and pharmacists. The survey

⁴ Hoppin, Stillman, Jacobs. *Investing in Best Practices for Asthma: A Business Case*. (2010). www.asthmaregionalcouncil.org

indicated that, where insurers do reimburse for in-office or home-based educational and environmental assessments, there is significant variation and limitation concerning which types of non-physician providers can be reimbursed for these services. For clinical education sessions, mid-level practitioners and nurses were most likely to be reimbursed; for home visits, home visiting agencies are the most frequently approved. Nurses, certified asthma educators, and respiratory therapists are also used, but not as widely. A few Medicaid programs also reimburse for public health nurses and/or school nurses, who are essential resources for monitoring patients in the community. A finding of note is that some insurers will not reimburse certified asthma educators for conducting home visits, even though these professionals undergo rigorous educational and testing requirements, and are employed in-house as asthma educators by many plans. Services provided by Community Health Workers (CHWs) are almost never reimbursed, despite growing evidence of their effectiveness in delivering asthma education and support services, and environmental interventions--especially for low income, culturally diverse asthma patients.^{5,6} (One insurer does reimburse a community-based agency that offers the services of CHWs, and more payers across the country are considering future reimbursements for programs that employ CHWs.) National and state organizations are investigating various mechanisms for assuring quality, including organizational and professional certifications. However there is sufficient research to demonstrate that properly trained and supervised non-physician and lay providers can demonstrably improve asthma outcomes cost-effectively.

Recommendation: A range of providers, beyond physicians, can and should cost-effectively provide educational and environmental services, including certified asthma educators, respiratory therapists, nurses, community health workers and environmental counselors. These providers should be specifically trained in the field of asthma, as generalists may not be the best-suited for providing the specialized or culturally appropriate care that is often required.

- **Counseling and Treatment for Co-Morbid Conditions:** Despite the fact that both obesity and smoking are highly correlated with asthma and the NAEPP recommends addressing these co-morbid conditions for optimal outcomes, pharmacological and counseling services are not uniformly reimbursed for addressing these factors. Smoking cessation pharmacotherapy and counseling services, in particular, have proven utility in reducing smoking, improving asthma control, and reducing expensive hospitalization costs for a variety of health conditions, including asthma.

Recommendation: Pharmacotherapy and counseling services, that are proven effective in treating co-morbid conditions, should be offered and reimbursed.

⁵ Krieger J, et al. *A Randomized Controlled Trial of Asthma Self-Management Support Comparing Clinic-Based Nurses and In-Home Community Health Workers*, Archives of Pediatric and Adolescent Medicine. 2009;163(2):141-149

⁶ Postma J, et al. *Community Health Workers and Environmental Interventions for Children with Asthma: A Systemic Review*, Journal of Asthma. 2009; 46:564-576.

DETAILED REPORT

I. Rationale

In 2010, The Asthma Regional Council (www.asthmaregionalcouncil.org) released its third regional asthma surveillance report, documenting asthma trends in the New England region. This latest report, *Living with Asthma in New England: Results from the 2006 BRFSS and Call-Back Surveys*, analyzed 2006 data collected from the Behavioral Risk Factor Surveillance System (BRFSS) from the six New England (NE) states. One of the most striking findings in the report was that *almost two-thirds of adults and children who had asthma were considered to have “not well controlled” or “very poorly controlled” disease*, based on the National Asthma Education and Prevention Program (NAEPP) definitions for asthma control. Families with lower socioeconomic status were most severely affected.

These disturbing findings prompted ARC, and its NE state asthma program partners, to develop a series of recommendations for achieving better health outcomes. One of the key strategies is to promote the alignment of insurance coverage policies with research and practice-based evidence for effective asthma management. They identified the following steps for fostering cost-effective insurance coverage in the region:

a) Provide the tools and the business case for reforming reimbursement practices.

To this end, the University of Massachusetts Lowell and ARC developed two reports in 2010 entitled, *“Investing in Best Practices for Asthma: A Business Case”* and *“Asthma: A Business Case for Employer and Health Care Purchasers”*. In addition, a *“Value and Quality Insurance Checklist for Asthma”* was developed to accompany these reports. These tools, grounded in research, provide valuable and easily accessible information for payers and purchasers alike to facilitate the adoption of cost-effective policies. The tools can be downloaded from ARC’s website at www.asthmaregionalcouncil.org or at <http://www.sustainableproduction.org>.

b) Conduct a survey of asthma-specific insurance coverage to share with public and private insurance plans, with the expectation that payers will welcome knowing how their coverage practices align with scientific recommendations that have the greatest promise for improving asthma outcomes and reducing unnecessary costs. The survey was conducted in the summer of 2010, and the results of 25 participating public and private payers throughout the six NE states can be found below, along with explanations of best practices.

II. Methodology

The survey was sent to approximately 45 public (Medicaid fee for service/Primary Care Clinician and Medicaid Managed care organizations) and private (commercial for profit and not-for-profit companies) payers in New England. Employer self-insurance plans were not surveyed. ARC received a total of 26 responses, but it was necessary to disqualify one survey because it was substantially incomplete. The 25 final responses used in the analysis represented at least one public and private payer from each of the six New England states (CT, ME, MA, NH, RI, VT). The states of Connecticut and Massachusetts have the largest number of payers in their respective states, and thus had higher response rates.

Of the 25 completed surveys, 6 were considered to be Medicaid Managed Care Organizations (MMCOs). These managed care plans were classified as such if more than 50%

of their population was enrolled in Medicaid. Five of the six MMCOs had a small percentage of their population in the commercial market. Conversely, four private commercial insurers indicated that they served a small percentage of Medicaid clients as well. There were also 5 fee-for-service (FFS) state Medicaid office responses. Every state had a Medicaid plan represented, either FFS or managed care, or both.

Altogether there were 14 commercial insurance respondents, including a Blue Cross Blue Shield or Anthem plan representing every New England state. Seven of the companies serviced more than one state in New England. Of these seven, five offered the same coverage in all of the NE states. Where companies represented more than one state and offered different coverage in them, they were asked to respond to the survey questions based on the New England state with their largest membership. One company completed two surveys: one for their commercial population and the other for their Medicaid population. In this case, each survey was analyzed separately. Moreover, some commercial companies offer different plans for the larger employers with whom they have contracts, even within the same state. Thus, it is recognized that commercial company responses do not reflect the different product offerings provided to their various health care purchasers. One such commercial entity answered questions based on their bottom line coverage for all employers. Others may have answered based on their most popular coverage. Thus, there was some variation with regard to how commercial plans chose to answer the survey.

The survey consisted of 48 questions designed to primarily assess the health care payers' asthma programs and coverage. Survey questions captured overall company information, including: the populations they serve; their provider payment mechanisms; their in-office and home-based reimbursement practices for patient asthma services; their payment policies for asthma medications and referrals to specialists; as well as information concerning their in-house staffing and other program offerings. (See Appendix A for full survey instrument.)

The questions selected for ARC's survey were initially based on an asthma insurance gap analysis conducted by the state of New York's Department of Health in 2006-2007. Their analysis design was based on the four key evidence-based components of asthma care developed by the federal National Heart, Lung and Blood Institute's (NHLBI) *Asthma Guidelines for the Diagnosis, Evaluation and Management of Adults and Children with Asthma*, produced by NHLBI's expert panel at the National Asthma Education Prevention Program (NAEPP). NAEPP's four essential components for effective asthma care include:

- Assessing and Monitoring Asthma Severity and Control
- Education for a Partnership in Care
- Control of Environmental Factors and Co-Morbid Conditions that affect Asthma
- Pharmacotherapy

ARC's final survey was adapted to examine other reimbursement issues identified in a provider consensus document for quality asthma care developed by medical leaders in Massachusetts and New Hampshire, as well as additional information that the New England state asthma managers felt was important to collect for assessing the provision of appropriate care.

The survey instrument itself could be answered either on-line or mailed in as a hard copy. Sometimes more than one company representative answered the survey on behalf of the company. Where there was a lack of clarity in answers provided, every attempt was made to obtain clarification through follow-up communications with the respondents.

Report Organization

The analysis is based on responses from:

Total of 25 New England Payers:

- * 6 Medicaid Managed Care Organizations (MMCO)
- * 5 Fee-for-Service (FFS)/Primary Care Clinician (PCC) State Medicaid Plans
- * 14 Commercial Plans (Commercial)

The detailed findings are organized into nine major categories:

- a) Data Collection for Patient Management
- b) Payment Mechanisms
- c) Reimbursements for Clinical Services
- d) Reimbursements for Education and Environmental Interventions in the Home
- e) Referrals for Specialty Care
- f) In-house Professional Staff
- g) Coverage of Medication and Medical Equipment
- h) Specialized Testing and Therapy

Wherever possible, the report first describes the survey question, the overall findings related to the question, and/or the more specific findings by payer type if they are notable. In addition, where there is evidence-based practice research related to the survey question, the research is presented in a shaded box so that gaps in policies can be readily identified. The Conclusions section recommends next steps for insurers as they seek to align their policies with cost-effective best practices shared in this report.

III. Detailed Findings

A. Data Collection for Patient Management

The survey attempted to collect selected information about each payer's asthma population.

Q: Approximately what percentage of your membership has been diagnosed with asthma?

FINDINGS:

A majority of payers maintain asthma prevalence records of their insured populations. Asthma prevalence rates were generally higher in the Medicaid plans than in the commercial plans. However, a number of the FFS Medicaid and commercial insurers do not maintain any records on the prevalence of asthma in their membership populations.

- All six of the MMCOs maintained statistics on asthma prevalence. Prevalence ranged from 4%-10%, averaging about 7.5%.

- Only one of the five state FFS Medicaid plans maintained asthma statistics. (That state reported an 8% prevalence rate.)
- Eleven of the fourteen commercial insurers kept these records. (Asthma prevalence ranged from 3%-10% in these plans, but was more typically 4%-5%.)

Q: Does the Company Have an Asthma Registry?

What is an Asthma Registry

- * A List of Patients with Asthma
- * A Source of Data for Monitoring Asthma Management at the Patient, Provider & Clinic Level
- * A Tool to Incorporate Guidelines into Practice

FINDING:

- Half of the MMCOs maintain an asthma registry, while only 1 state Medicaid FFS plan maintains one. More than half (64%) of the commercial plans maintain an asthma registry.

Q: Does the Company Stratify its Members with Asthma by Risk, Severity or Control?

FINDINGS:

Most MMCOs and Commercial plans stratify their asthma patients in some way, but were least likely to classify them by symptom *control*.

- Five MMCOs (83%) stratified their asthma patients by risk and three also stratified by severity (50%), but only 1 stratified by symptom control (17%).
- Ten Commercial plans (71%) stratified by risk, nine (64%) stratified by severity, and seven (50%) stratified by control. One commercial plan did not stratify asthma patients at all, while another only evaluated patients to determine eligibility for referral to their disease management program.
- None of the Medicaid FFS offices kept asthma stratification records.

Best Practice

The NAEPP guidelines recommend monitoring asthma patients for risk of lung deterioration and for asthma exacerbations, as well as classifying their disease based on severity and control measures, as these factors are deemed important for assessing proper patient therapy and ongoing management by assessing symptom control measures.

Q: Provide an approximate percentage of your membership in the following racial/ethnic categories: White, Black (non-Hispanic), Hispanic/Latino, Asian/Pacific Islander, Other

FINDINGS:

The Medicaid insurers were better at collecting racial/ethnic data than commercial plans. Of those plans that maintained statistics, the MMCOs had the largest populations of color:

- Five MMCOs (83%) maintained racial/ethnic background data on their patient populations, and three FFS Medicaid plans (60%) reported collecting these demographic statistics.
- One Commercial plan (7%) collected racial/ethnic data (that plan reported 21% of their membership as either Black or Hispanic).

Best Practice

The NAEPP recognizes that there are racial disparities in asthma, and published research demonstrates that Blacks and Latinos have worse outcomes, health expectations, and fewer prescriptions for controller medications than White populations. The NAEPP states that *“heightened awareness of disparities and cultural barriers, improving access to quality care, and improving communication strategies between clinicians and ethnic or racial minority patients regarding use of asthma medications may improve asthma outcomes.”*

B. Payment Mechanisms

The survey requested information about the various provider reimbursement mechanisms utilized.

Q: Does the company reimburse health providers based on: Fee-for-Service, Capitation, Pay-for-Performance (PfP), or Other

FINDINGS:

Eight of the fourteen commercial companies (57%) employ all three major reimbursement types, but none of the Medicaid programs use all three. Fee for Service was the payment mechanism most widely used by all payers. Only one payer did not reimburse providers on a FFS basis.

- Nearly half of all Medicaid respondents (both managed care and FFS plans), and slightly more than half of the commercial companies, use capitation arrangements.
- One state Medicaid FFS agency uses PfP, but none of the MMCOs do. As many as twelve of the fourteen commercial companies (86%) use PfP. Some commercial plans explained that they occasionally use additional mechanisms,

such as Diagnosis Related Groups (DRG), Outpatient Prospective Payment System (OPPS), or contracted rates.

C. Reimbursements for Clinical Services

This section focuses primarily on asthma care provided in the medical setting.

Q: Do you pay for a separate or extended patient asthma education visit that is provided directly or prescribed/referred by a primary care provider?

FINDINGS:

Eight of the twenty-five payers (32%) will reimburse for discrete asthma education sessions in the clinic. These reimbursements are primarily for individual sessions; group asthma education sessions are less frequently approved.

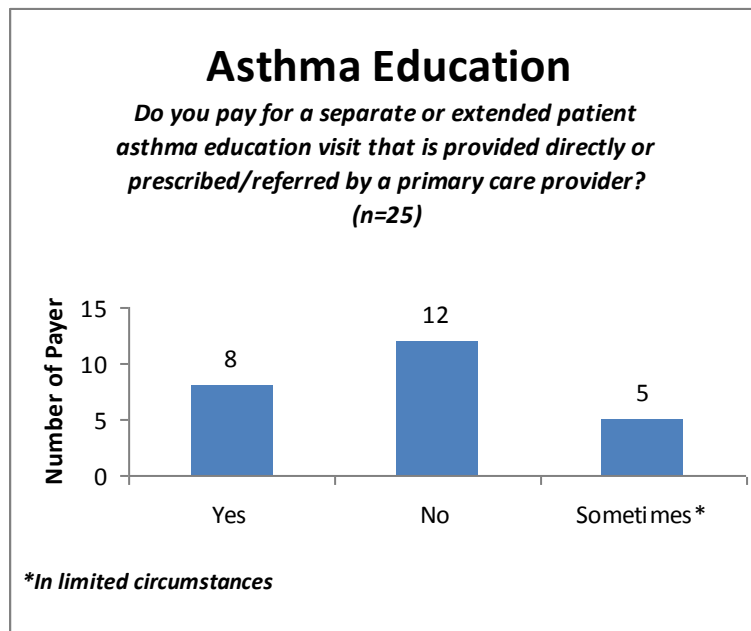
Seven of these eight payers, both Medicaid and Commercial plans, recognize CPT billing code 98960 (education and training for patient self-management by a qualified, non-physician health care professional using a standardized curriculum, face-to-face with the patient).

Payer Breakdown:

- Four MMCOs (67%) reimburse providers for offering discrete asthma education sessions, and two do not reimburse for them at all.
 - Of these four, all of them offer unlimited individual sessions, and three of them indicated that they reimburse for unlimited group sessions. (One did not reply.) Three of the four plans will reimburse for a variety of non-physician medical providers, but one appears only to reimburse physician providers.
- One state Medicaid agency (20%) reimburses for asthma education services on a FFS basis and two (40%) added that they will allow the service if offered only under their capitated or bundled payment arrangements.
 - The one FFS state Medicaid plan that does reimburse for asthma education indicated that they reimburse for at least six individual sessions per year, but they do not reimburse for group sessions.
- Three Commercial plans (21%) allow these reimbursements, and another three allow them under limited circumstances. Eight plans will not reimburse providers for discrete asthma education sessions in any case.

- Of the three plans that reimburse broadly for education sessions, one of them had a limit of “1-3 individual visits/year,” one allowed “more than six visits” per year, and a third had “no limit” at all on yearly individual educational visits. Two of these three also reimbursed for group visits.
- An additional three commercial plans indicated they would reimburse “sometimes,” which meant that the allowable billing codes were restricted mostly to physicians or psychologists under specified “E and M” or “behavioral” CPT codes.

Graph 1



Best Practice

The NAEPP recommends that patient education for a partnership in care is a necessary component of an effective asthma management program. Their 2007 report states, “*Self-management education improves patient outcomes (e.g., reduced urgent care visits, hospitalizations, and limitations on activities as well as improved health status, quality of life, and perceived control of asthma) and can be cost-effective. **Self-management education is an integral component of effective asthma care and should be treated as such by health care providers as well as by health care policies and reimbursements.***”

A systematic review of education provided for asthmatic children demonstrated improved lung function, decreased visits to the emergency department, increased self-efficacy, and reduced school absenteeism⁷. Asthma education delivered to the highest utilizers of urgent health care services can result in a return on investment for payers who invest in providing these services,

⁷ Wolf et al. .Educational Interventions for Asthma in Children. Cochrane Database Syst. Rev. 2003.

while education services delivered to people whose asthma is under better control, are still considered to be cost-effective.⁸

Q: Which types of non-physician providers are eligible for reimbursement for individual or group asthma education sessions in the clinic?

FINDING:

Of the thirteen payers that allow for the reimbursable provision of patient asthma education sessions, by physician providers and others, responses clearly indicated that there is a lack of uniformity regarding the types of licensed or certified non-physician practitioners that they will reimburse for the delivery of these services (See Table 1). Visiting Nurses, mid-level practitioners, and respiratory therapists are the most frequently reimbursed non-physician providers.

Table 1

Non-physician providers reimbursed for clinical asthma education services by payer type (n=13 payers that will reimburse for asthma education sessions)							
Payers that reimburse for education sessions*	Mid-level Practitioners (PAs and NPs)	Registered Nurses	Certified Asthma Educators	Visiting Nurses	Respiratory Therapist	Licensed Social Worker	Chronic Disease Educator
MMCOs (4)	3	1	2	3	2	1	1
FFS Medicaid (3)	1	1	1	1	1	0	1
Commercial (6)	4	4	3	5	4	2	2
TOTAL (13)	8	6	6	9	7	3	4
* includes MD sessions							

Best Practice

The NAEPP suggests that a number of members of a health care team can appropriately deliver asthma education services, including nurses, respiratory therapists, pharmacists and health educators.

Additionally, two recently published studies have demonstrated the cost effectiveness of properly trained and supervised Community Health Workers, both in providing asthma self-management support as well as environmental interventions in the homes of children with asthma.^{9,10}

⁸ Hoppin, Stillman, Jacobs. Investing in Best Practices for Asthma: A Business Case. University of Massachusetts Lowell and ARC (2010). www.asthmaaregionalcouncil.org

⁹ Krieger J, et al. "A Randomized Controlled Trial of Asthma Self-Management Support Comparing Clinic-based Nurses and In-home Community Health Workers," Archives of Pediatric and Adolescent Medicine. 2009;163(2):141-149

¹⁰ Postma J, et al. "Community Health Workers and Environmental Interventions for Children with Asthma: A Systematic Review," Journal of Asthma. 2009; 46:564-576.

D. Education and Environmental Interventions in the Home

Q: What types of asthma education services in the home are reimbursed? (Choices: Clinical Asthma Self-Management, Environmental Assessments, Neither)

FINDINGS:

A majority of MMCOs and nearly half of commercial plans report they will reimburse for some type of a specified asthma home visit--for either clinical education, environmental interventions, or both. Medicaid FFS plans generally will not pay for either, unless the asthma is addressed as part of another home visiting program. (See Table 2 below.)

- Ten of the 25 payers (40%) reimbursed for both clinical education and environmental assessments of the home, while eleven payers (44%) paid for neither.
- Some payers will only pay for clinical education, while others will only pay for environmental assessments in the home

Table 2: Asthma Home Care Reimbursements by Payer Type

Reimbursement for Asthma Home Care	Number of Companies, (n=25)
Clinical Asthma Self-Management	10
MMCO's (n=6)	4
Medicaid FFS* (n=5)	0
Commercial (n=14)	6
Environmental/Trigger Assessment in the Home	11
MMCO's (n=6)	4
Medicaid FFS* (n=5)	0
Commercial (n=14)	7
Both	10
Neither	11
*Three of Medicaid FFS agencies said that sometimes a home visitor might address asthma as part of a home visit that is not specifically scheduled for such purposes.	

Best Practice

NAEPP states, "If patients who have asthma are exposed to irritants or inhalant allergens to which they are sensitive, their asthma symptoms may increase and precipitate an asthma exacerbation. Substantially reducing exposure to these factors may reduce inflammation, symptoms, and need for medication...Multifaceted allergen-control education programs provided in the home setting can help patients reduce exposures to cockroach, dust-mite, and rodent allergens and, consequently, improve asthma control." The NAEPP recommends clinical education services in the home, if needed, as an adjunct to clinic-based education.

Q: If you do reimburse for asthma services provided in the home, which non-physician providers are eligible for reimbursement for those services?

FINDINGS:

Eleven MMCO and Commercial plans reimburse for non-physician providers making home visits for asthma. Medicaid FFS plans do not reimburse for these services. As with asthma education sessions in the clinic, there are wide variations in the types of providers that are eligible to receive reimbursements for clinical and environmental services in the home for asthma. Home visiting agencies were often the preferred venue for delivering these home services for asthma patients.

- Community Health Workers are reimbursable with an MMCO through a non-profit organization whose staff is trained to provide these services.

Table 3

Reimbursable non-MD providers for home based clinical education and environmental assessments							
Type and number of payers that reimburse for home visits	Mid-level Practitioner	Registered Nurse	Certified Asthma Educator	Respiratory Therapist	Sanitarian (to inspect home/work environments)	Licensed Social Worker	Community-based Organization (including Community Health Worker)
MMCOs, (n=4)	3	2	3	1	0	0	1
Commercial, (n=7)	3	4	2	2	0	1	0

Q: If deemed medically necessary by a provider, and a patient is in need of financial assistance, would you provide, reimburse or pay directly for environmental supplies or professional services in the home to mitigate a patient's known or suspected asthma triggers?

FINDINGS:

- Three MMCOs (50%) said they would pay for some environmental trigger remediation supplies, and 2 others (33%) said it would be determined on a case by case basis or if the patients were enrolled in a sponsored community program. One MMCO indicated they would not reimburse, under any circumstances, for environmental interventions.

- Two Medicaid FFS agencies (40%) indicated they would underwrite the cost of certain supplies, two (40%) said they would not, and one (20%) said they would do so only if it were approved on their Durable Medical Equipment (DME) list. (Researchers could not find such supplies as mattress and pillow covers, HEPA vacuums, or air purifiers on their DME list.)
- 3 Commercial insurers (21%) said they would sometimes consider reimbursement—on a case-by-case basis or if they appear on their DME approved list.

Best Practice

In 2009, the federal Centers for Disease Control and Prevention (CDC), through its task force on Community Preventive Services, conducted a literature review on the cost effectiveness of providing an array of environmental remediation services and supplies. Most of the studies were conducted with low-income populations. They found that “the combination of minor to moderate environmental remediation with an educational component provides good value for the money invested, based on improvements in symptom-free days, savings from averted costs of asthma care, and improvement in productivity.”

Published research suggests the various levels of cost effective environmental interventions that payers can decide to offer patients, based on disease intensity.¹¹ (A summary can be found in Figure 2, at the end of the conclusion section.)

Q: Please indicate which specific, medically-necessary, environmental supplies/services will you reimburse for?

FINDINGS:

Table 4

Environmental Supplies and Professional Services								
All Payers	No	Yes (incl. case by case)	Mattress covers and pillow cases	Air conditioners	Vacuum cleaners	Air purifier	Mold remediation or professional cleaning	Pest control services or supplies
Medicaid MCOs and FFS combined (n=11)	4	7	6	0	1	2	0	0
Commercial (n=14)	11	3	1	1	0	1	0	0

¹¹ Hoppin, Stillman, Jacobs. Investing in Best Practices for Asthma: A Business Case. (2010) www.asthmaregionalcouncil.org.

E. Referrals

This section of the survey inquired about coverage for referrals to specialty care, often required for people with uncontrolled asthma. It also inquired as to whether there are reimbursement restrictions for providing two or more services in one day, such as having a medical visit followed by an education session.

Q: Which specialist referrals from primary care providers would be reimbursed by insurers?

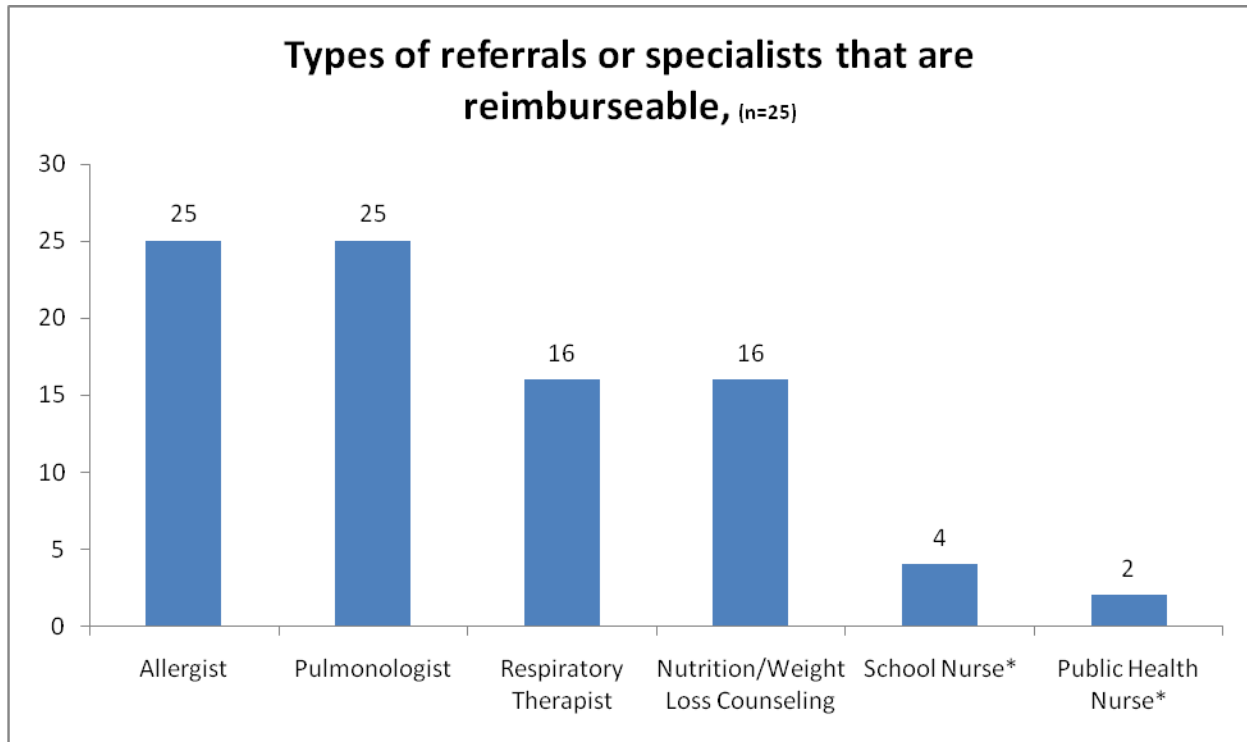
FINDINGS:

The survey indicated that the following specialist referrals from primary care providers (PCPs) would be reimbursed by insurers in the following manner:

- Allergists and Pulmonologists: All payers reimburse for these two types of specialists.
- Respiratory Therapists (RT): The majority of payers reimburse for referrals to RTs: MMCOs (67%); FFS Medicaid agencies (80%); Commercial plans (57%) - although some stipulate RTs must be under the supervision of a physician.
- Nursing Services in the Community: 1 MMCO (17%) reimburses a school nurse (SN) and 1 reimburses a public health nurse (PHN) for asthma services provided to their patients; 3 FFS Medicaid agencies (60%) reimburse SNs and 2 (40%) reimburse PHNs; no commercial payers reimburse for either a SN or PHN.
- Nutrition/Weight Loss Counseling: 3 MCOs (50%), 2 FFS Medicaid (40%); and 11 Commercial plans (79%) reimburse for nutritionist or weight loss services.

Only one payer had restrictions on paying for a referral to another provider on the same day as an asthma visit to the PCP. All payers that reimburse for separate asthma education sessions indicated they would allow the sessions to occur on the same day as the medical visit.

Graph 2



**No commercial payers reimburse*

F. In-house professional staff supporting clinical care

Some insurers employ in-house staff to provide specialty or supportive care to their clients with asthma. Others refer their clients to disease management programs. The survey inquired as to the type of services and personnel that are provided.

Q: Does your company employ a certified asthma manager, case manager or another professional that works with your asthma patients?

FINDINGS:

A number of public and private payers directly employ staff to improve asthma care for their client populations. The following professional employees are typically utilized:

- Certified Asthma Educators: 3 MMCOs (50%); 1 Medicaid FFS agency (20%); 7 Commercial insurers (50%)
- Case Managers: 5 MMCOs (83%); 1 Medicaid FFS agency (20%); 12 Commercial insurers (86%)

- Another Professional: Of all payers, ten (40%) utilize other in-house professional staff, such as MDs, nurses, pharmacists, RTs, disease managers and social workers that can be assigned to asthma patients—in addition to Certified Asthma Educators or Case Managers. One MMCO employs a health coach, and another employs a combined certified tobacco specialist and social case manager position. One Medicaid FFS agency employs staff to make follow up calls to their asthma patients.

Best Practices

In addition to recommending that various members of a health care team can appropriately work with physicians to help manage patient asthma, the NAEPP suggests the incorporation of individualized case/care management by trained health care professionals for patients who have poorly controlled disease. For such high risk patients, studies show that one-on-one tailored programs with case management are likely to generate a positive return on investment.¹²

Q: Does the company offer or reimburse for a disease management program that addresses asthma?

FINDINGS:

All of the MMCOs and Commercial insurers offer a “Disease Management Program” (DMP), either in-house or contracted, but they differ in the comprehensiveness of their offerings. Only two Medicaid FFS/PCC agencies (40%) offer a DMP.

Details:

- MMCOs - All six of their DMPs offer follow up phone calls or mailed educational materials. Four programs also offer individual counseling, but none include group counseling. Only one MMCO DMP also offers home visiting as an option.
- Medicaid FFS Agencies - The two agencies that have a DMP offer follow up phone calls, mailed educational materials and individual counseling. One also offers group counseling or home visits as part of the DMP.
- Commercials - All of their DMPs provide phone calls and individual counseling, and all but one also mails educational materials. In addition, two offer group counseling and five offer home visits as part of their DMP.

¹² Hoppin, Stillman, Jacobs. Investing in Best Practices for Asthma: A Business Case. (2010) www.asthmaregionalcouncil.org

G. Coverage of Medications and Medical Equipment

Researchers were interested in knowing the extent to which the most commonly inhaled “controller” and “rescue” medications, and accompanying equipment, entail high out-of-pocket costs to patients. The assessment inquired as to what co-payment ranges are charged to their patients in their medication tier categories. (Survey Categories: \$0-24; \$25-49; \$50-74; or \$75+). The survey also inquired whether multiple dispensings of medication and equipment would be reimbursed to patients. Some patients—especially children-- may need multiple prescriptions and equipment for their medications, because they live in two homes, or travel daily between home and school or work.

Q: Which tiers do fast-acting bronchodilator inhalers and inhaled corticosteroids for asthma fall under?

FINDINGS: Insurers inconsistently tier their “controller” and “rescue” medications, although Medicaid plans tend to have the least expensive out of pocket requirements. Both types of medications can be found in all three tiers, but most commonly in tiers one and two. (More detailed information can be found in Appendix B.)

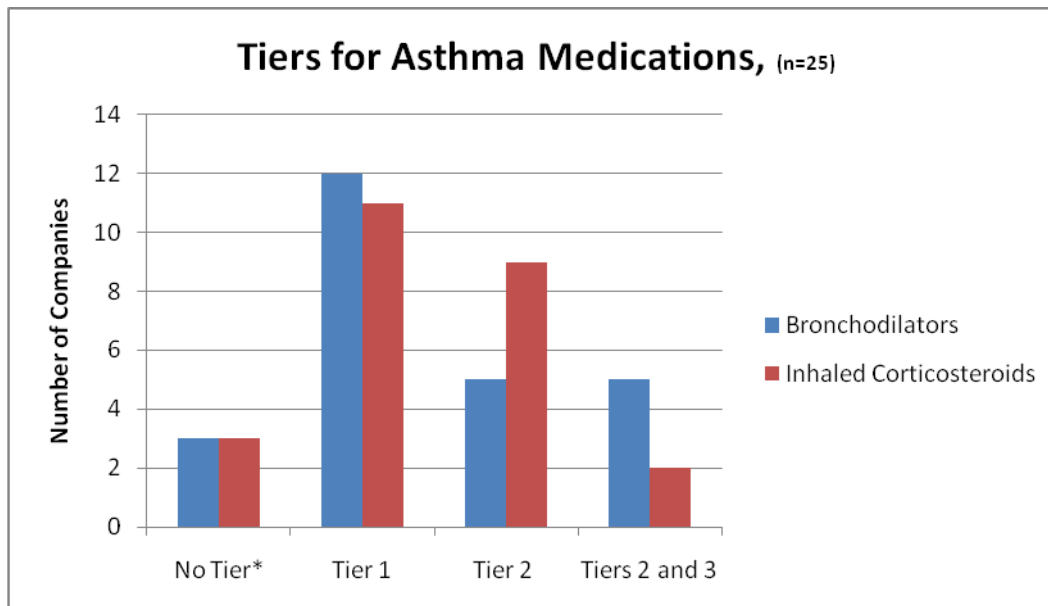
Medication Tier Classifications:

- Two MMCOs and one Medicaid FFS/PCC plan effectively had no tiering of their asthma medications, offering them to patients at a cost of zero or one dollar.
- The remaining twenty two payers fairly evenly classified both their bronchodilators and inhaled corticosteroids as either Tier 1 or a combination of Tier 2 and 3--though slightly more payers placed the preventive corticosteroids in the higher tiers. More specifically:
 - Twelve payers classified their bronchodilators (“rescue medications”) as Tier 1, and ten payers classified them as either Tier 2 or 3.
 - Eleven payers classified their inhaled corticosteroids (“controller” medications) as Tier 1, and the remaining eleven payers classified them as either Tier 2 or 3.

Out of Pocket Costs for Tiers:

- Medicaid Tiers- Tiers 1 and 2 copayments, for both FFS and MMCO plans that use a tiering system, fall into the lowest co-payment range of \$0-25.
- Commercial Tiers- All commercial payer Tier 1 formularies are in the \$0-\$24 co-payment range, and most of their Tier 2 formularies fall into the \$25-\$49 range. Most Tier 3 co-payments are in the \$25-\$74 range.

Graph 3



Best Practice

High out-of pocket costs are significant barriers for some patients in consistently obtaining the medications and services they need. For example, in 2006, 14% of adults with asthma in New England reported not filling their asthma medications because of financial considerations.¹³ A recent study demonstrated that higher prescription cost sharing was a deterrent for asthma patients to purchase their medications.¹⁴ Although there is not an extensive literature on the cost-benefit of lowering or waiving co-payments, a number of employers and health plans are successfully experimenting with this *Value-Based Insurance Design*, meant to offset out-of-pocket medication costs to facilitate treatment compliance, and are finding it financially attractive.

Q: Does the company reimburse for two or more dispensings of the same medication (for home PLUS work, school or second home)?

FINDINGS:

The majority of public and private payers will reimburse for more than one medication dispensing, but many will not do so, or only in special cases.

- 3 MMCOs (50%) indicated that they pay for more than one medication dispensing, two (33%) do not, and 1 (20%) said “it depends”

¹³ Asthma Regional Council. Living with Asthma in New England: Results from the 2006 BRFSS and Call-back Survey. 2010.

¹⁴ Laura P. Shone; Peter G. Szilagyi Prescription Cost-Sharing and Child Asthma Arch Pediatr Adolesc Med. 2008;162(2):184-186.

- 4 state Medicaid FFS (80%) do reimburse for multiple dispensings, and 1 (20%) does not.
- 8 commercial insurers (57%) do pay for more than one medication dispensing; 3 do not (21%), and 3 (21%) indicated that their certificates of coverage do not specify this matter clearly.

Q: Which medical equipment is covered by the company's asthma benefit package?

FINDINGS:

The majority of payers will reimburse for asthma-related medical equipment and supplies commonly prescribed for patients with asthma, yet many do not do so for such necessary medication delivery products as aerochambers and microspacers. Peak flow meters, air measurement devices used for patient self-monitoring, are also not covered by all payers:

- Aerochambers: 5 MMCOs (83%); 3 Medicaid FFS (60%); 8 commercials (57%)
- Micro spacers: 5 MMCOs (83%); 2 Medicaid FFS (40%); 9 commercials (64%)
- Peak Flow Meters: 5 MMCOs (83%); 5 Medicaid FFS (100%); 11 commercials (79%)
- Nebulizer Compressors: 6 MMCOs (100%); 5 Medicaid FFS (100%); 11 commercials (79%)
- Nebulizer disposable kits: 6 MMCOs (100%); 5 ME FFS (100%); 10 commercials (40%)

Note: Some of those commercial payers that indicated that they do *not* pay for the above equipment qualified their answers by indicating that some of their employer contracts may reimburse for these items, and/or they may be covered by the employer's approved DME.

Q: If prescribed, does the company's asthma benefit package pay for more than one piece of medical equipment needed for more than one location such as home and work or school?

FINDING:

Fewer than half of payers will reimburse for duplicate medical equipment. Five MMCOs (83%), one Medicaid FFS agency (20%), and five commercial insurers (36%) indicated they would pay for duplicate medical equipment needed by a patient at more than one location. (One additional commercial insurer said that certain employers allow this in their contracts, but this is generally not the case.)

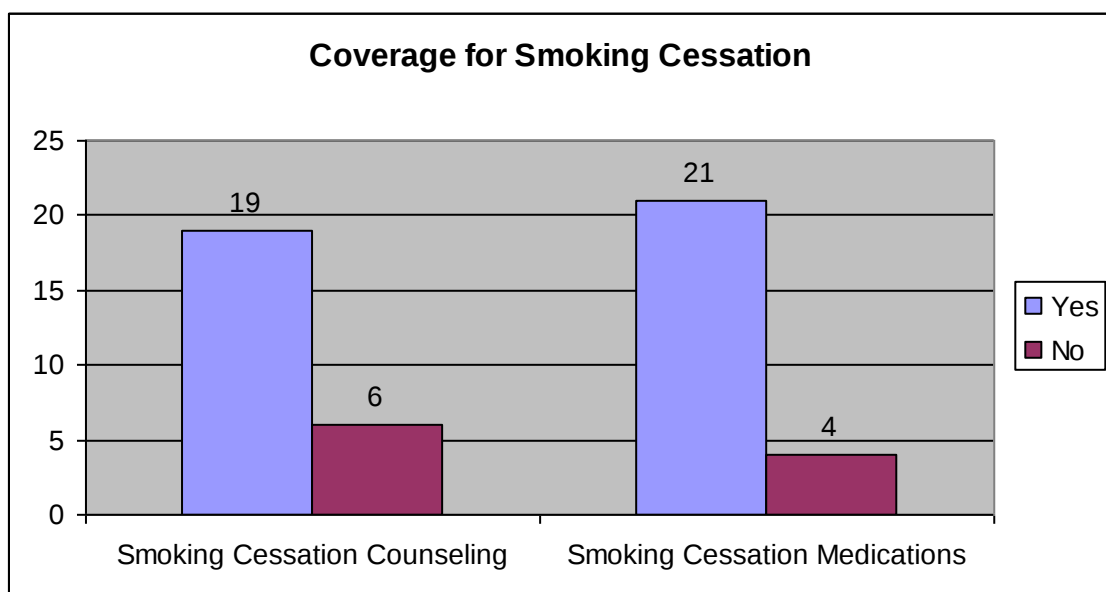
H. Specialized Testing and Therapy

Q: Does the company reimburse for smoking cessation counseling or medications?

FINDINGS:

- **Smoking Cessation Counseling:** The majority of both public and private payers reimburse for smoking cessation counseling: 4 MMCOs (67%); 4 Medicaid FFS agencies (80%); and 11 commercial insurance companies (79%). (Some commercial companies, which indicated they do not generally reimburse, said some of their large employers do include counseling as a benefit.) Six payers (24%) did not reimburse for this type of counseling.
- **FDA approved smoking cessation medications:** Four payers (16%) would not pay for any FDA approved smoking cessation medications: 2 were MMCOs and 2 were commercial plans (unless some of their large employers or pharmacy benefits specify it). Most payers preferred reimbursing for *prescribed* smoking cessation medications, although nearly half reimbursed for over the counter products as well. The most commonly reimbursed smoking cessation therapies were: Zybran or Wellbutrin, Chantix, nicotine replacement therapy, and the nicotine patch.

Graph 4: Coverage for Smoking Cessation Counseling and Medications



Best Practice

Smoking is a powerful asthma trigger. Cigarette smoking and asthma are associated with poor symptom control and impaired therapeutic responses to corticosteroids.¹⁵ Further, secondhand smoke can initiate or exacerbate asthma in children.

Smoking cessation improves asthma control,¹⁶ and when offered as a covered insurance benefit, can improve health outcomes and save on health care costs. One year after

¹⁵ Thompson NC, Spears M. *The influence of smoking on the treatment response in patients with asthma.* Curr Opin Allergy Clin Immunol 2005; 5(1):57-63.

MassHealth (MA Medicaid) offered barrier free access to FDA-approved smoking cessation medications and behavioral counseling, users of the smoking cessation benefit had dramatic health improvements. Researchers from the Massachusetts Tobacco Cessation and Prevention Program (MTCP) found that up to 38% fewer MassHealth cessation benefit users were hospitalized for heart attacks in the first year after using the benefit, and 17% fewer benefit users visited the emergency room for asthma symptoms in the first year after using the benefit. Researchers also found that there were 17% fewer claims for adverse maternal birth complications since the benefit was implemented.¹⁷ The U.S. Preventive Services Task Force recommends combined counseling and medications for successful smoking cessation in adults.

Spirometry:

Q: Is spirometry reimbursed both in the office and/or as a referral out of the office? Are there limits on this service?

FINDINGS:

While almost all payers reimburse for spirometry in the office, many fewer will pay for the service as a referral. This may lead to a high out-of-pocket cost to patients whose providers do not offer the service, or who believe that the test should be conducted by a specialist.

- **In office:** All payers, except for one MMCO, reimburse for spirometry in the office. (However some payers subsume the reimbursement within the office visit- so, in fact, do not reimburse separately for the service.)
- **Referrals:** Four MMCOs (67%), one of the five Medicaid FFS agencies (20%), and 11 of the 14 commercial plans (79%) reimburse for spirometry that is referred to another specialist out of the office.
- **Limits:** Only 1 company (an MMCO) places a limit on the number of reimbursable spirometry visits per year, where covered. All payers that reimburse for spirometry allow for the service to be conducted on the same day as the asthma office visit.

Best Practice

The NAEPP recommends using spirometry on a regular basis for an initial assessment of lung function, as an essential objective measure to establish the diagnosis of asthma, and for ongoing assessments of asthma control, or lack of it.

¹⁶ Thomson NC, Chaudhuri R.. *Asthma in Smokers: Challenges and Opportunities*. Curr Opin Pulm Med. 2009 Jan;15(1):39-45.

¹⁷http://www.mass.gov/?pageID=eohhs2pressrelease&L=1&L0=Home&sid=Eohhs2&b=pressrelease&f=091118_smoking_cession&csid=Eohhs2 accessed 10-14-2010.

Q: Which types of allergy testing are eligible for reimbursement?

FINDINGS:

All insurance companies will pay for at least 1 type of allergy test:

- RAST allergy test: 96%
- Other Blood Test: 92%

Note: Two commercial plans volunteered that they also reimburse for “skin pricks” but since this was not a check-off option on the survey, it is not possible to draw conclusions as to how widely this procedure is reimbursed.

Best Practice

The NAEPP recommends, for patients who have persistent asthma, the use of skin testing or in vitro testing to assess sensitivity to perennial indoor allergens. In addition, they suggest considering subcutaneous allergen immunotherapy for patients who have persistent asthma when there is clear evidence of a relationship between symptoms and exposure to an allergen to which the patient is sensitive.

Q: Does your company reimburse for immunotherapy for allergies?

FINDING:

- All payers reimburse for allergy immunotherapy.

VI. Conclusions

Nearly 1.3 million adults and children in New England have an asthma diagnosis, and the epidemic in our region does not appear to be slowing down, especially for women. Asthma imposes high costs on insurers, employers, patients and their families, and society at large. In 2007, the US spent an estimated \$19.7 billion on asthma in both direct and indirect costs. Yet with proper management, people with asthma can live healthy active lives, unimpeded by persistent breathing difficulties, trips to the emergency department or hospital, and missed school and work days. In addition to improving the vitality and productivity of individuals and communities, proper asthma management by monitoring and controlling symptoms also has the potential to save at least 25% of total asthma costs—or close to \$5 billion nation-wide— by reducing usage of preventable urgent care services. Indeed, among pediatric hospitalizations that could be prevented, asthma is responsible for the highest costs.

The research evidence on successful comprehensive asthma management strategies is very clear. Guidelines put forward by the NAEPP, and national recommendations for their implementation, emphasize the need for implementing financing support structures to ensure that best practices are adopted.

Based on this New England asthma insurance assessment, it is clear that there are many aspects of evidence-based best practices in asthma management that are not currently being widely supported by public and private health payers alike. While some insurers may see fit to reimburse some aspects of best practices, other insurers' policies are not in agreement—even though they serve similar populations. As a result of inadequate and non-uniform payment structures to support appropriate service delivery in the clinic and in the community, there is an uneven capacity for the direct provision of, or referral to, high quality service delivery. These inadequate provider reimbursements appear to be especially true for asthma education sessions and environmental trigger assessments in the home.

The research by NAEPP and CDC suggests a framework that can help payers and others make decisions about which services and interventions have been shown to be cost effective, based on disease severity and control (See Figure 1 below). For more information, please consult, *Investing in Best Practices for Asthma: A Business Case* (Hoppin, Stillman, Jacobs, 2010) available at: www.asthmaregionalcouncil.org.

Also available from ARC and the University of Massachusetts Lowell is an important resource for health care payers and purchasers alike entitled, *Insurance Coverage for Asthma: A Value and Quality Checklist* (See Appendix D). Developed in 2010, this resource provides a clear and concise list of evidence based, proactive asthma care services and supplies that prevent disease exacerbations and unnecessary utilization of urgent care services. It is an excellent guide for determining which asthma services ought to be covered by health insurance plans and can be downloaded via the following link:

http://asthmaregionalcouncil.org/uploads/Asthma%20Management/Insurance_Check_Sheet_Employers_2010.pdf

The evidence-based national asthma guidelines, as well as ARC's and UMass Lowell's business cases and tools for promoting cost-effective care, point the way to providing more effective asthma management. Together, we can improve the burden of this epidemic—while at the same time saving costs and reducing racial/ethnic disparities by ensuring that insurance reimbursements and programs foster best practices in the clinic, in the community and in the home.

This insurance gap analysis should prompt payers to review their payment policies, align them with best practices, improve their data collection to manage and promote care, and support new forms of health care delivery with a range of trained providers. Since 2005, the Asthma Regional Council and its partners have been working with individual payers around the region who have already chosen to expand their reimbursement practices to better align with current research on improved asthma management. With the advent of national and state-based health care and payment reform efforts which are encouraging prevention-oriented care to improve health outcomes and costs, this is an especially appropriate moment for additional and renewed innovation in addressing a chronic disease such as asthma, as part of the an overall shift in how we deliver health care. Implementation of the Affordable Care Act will offer opportunities to improve the delivery of care for chronic illness, and experimentation with new approaches to health care will be encouraged by the new Innovation Center at the Centers for Medicaid and Medicare Services (CMS), established in November 2010.

ARC and its partners are committed to supporting our health care colleagues as we all seek to improve the quality of care and the quality of life for patients with asthma, while reducing preventable costs.

Figure 1

Cost-Effective Interventions					
Asthma Education and Environmental Interventions					
LOW INTENSITY FOR LOWER RISK PATIENTS			MODERATE INTENSITY FOR HIGHER RISK PATIENTS*		
SETTING Group or Individual; Clinic or Phone-based (1+ visits)			SETTING Individual; Home-based (1-5 visits)		
STAFFING Examples include: Certified Asthma Educator, Registered Nurse, Mid-level Practitioner, or Respiratory Therapist. All should be well-trained in asthma care and education.			STAFFING Examples include: Certified Asthma Educator; Mid-level Practitioner, Nurse, Respiratory Therapist, Licensed Clinical Social Worker or Health Educator (Medical Education); Community Health Worker or Environmental Counselor (Environmental intervention)		
EDUCATION Address asthma physiology; medical, self-management (use of Asthma Action Plan), & control of environmental triggers	SERVICES Smoking cessation and referrals to other specialists, programs & resources	SUPPLIES Peak flow meters; spacers; mattress/pillow covers	EDUCATION Same as low intensity	SERVICES Same as low intensity as well as case management; in-home environmental assessment; professional IPM or cleaning services if indicated	SUPPLIES Same as low intensity and other environmental trigger reduction supplies as needed (e.g. basic IPM supplies, HEPA vacuums air filtration)
*Some patients may benefit from highest intensity interventions not listed here. These include significant structural remediation (e.g. waterproofing to repair significant leaks, carpet removal, new ventilation systems, removal of water damaged material). While these interventions effectively reduce exposure to environmental triggers associated with asthma, there is no evidence of cost-effectiveness when these interventions are compared to standard asthma interventions/treatments. However, these services should be considered in exceptional circumstances where asthma remains out of control despite adherence to medication and provision of environmental trigger supplies and services. <i>From "Investing in Best Practices for Asthma: A Business Case, 2010 Update"</i>					

APPENDIX A

Survey Instrument

New England Health Insurers Asthma Coverage Survey Asthma Regional Council of New England June 2010

Section 1: COMPANY INFORMATION

1. What is the name of your company?

2. What is your name?

3. What is your title?

4. Please provide your contact information

Address

Email address

Phone number

5. Does your company have a presence in more than one New England state?

If 'no', proceed to question 9

Yes

No

6. If your company has a presence in more than one New England state, please identify the states in your New England service area

Connecticut

Massachusetts

Maine

New Hampshire

Rhode Island

Vermont

7. Are the coverage benefits different in each state? If you answer 'no', please proceed to question 9.

Yes

No

8. If your company has a presence in more than one New England state and the coverage benefits are different in each state, please complete this survey based on information for the state with the greatest number of members. Please indicate that state below.

Connecticut

Massachusetts

Maine

New Hampshire

Rhode Island

Vermont

9. Approximately what percentage of your membership is on Medicaid?

- None
- Under 10%
- 10%-24%
- 25%-49%
- Over 50%

10. Approximately what percentage of your membership is in the commercial market?

- None
- Under 10%
- 10%-24%
- 25%-49%
- Over 50%

11. Provide an approximate percentage of your membership in the following racial/ethnic categories. If you're unsure or cannot answer, please skip to the next question.

- White (non-Hispanic)
- Black (non-Hispanic)
- Hispanic/Latino
- Asian/Pacific Islander
- Other

12. The company reimburses health providers based on:

- Fee-for-Service
- Capitation
- Pay-for-Performance
- Other

13. In the box below, indicate the approximate percentage of your membership which has been diagnosed with asthma. If you do not know or cannot answer, please write 'no answer' in the box below.

14. Does the company have an asthma registry?

- Yes
- No

15. Does the company stratify members with asthma by:

- Risk
- Severity
- Control
- Do not stratify
- Other

Section 2: IN-OFFICE VISITS

16. Do you pay for a separate or extended patient asthma education visit that is provided directly or prescribed/referred by a primary care provider?

Yes

No

Sometimes (please explain)

17. Do you reimburse for CPT Code 98960 (Education and training for patient self-management by a qualified, non-physician health care professional using a standardized curriculum, face-to-face with the patient (could include caregiver/family) each 30 minutes)?

Yes

No

Sometimes (please explain)

18. Which CPT code(s) do you recognize?

19. What is the maximum number of individual asthma education visits eligible for reimbursement per year?

Zero

1-3

4-6

More than 6

Unlimited

20. What is the maximum number of group asthma education sessions covered per year?

Zero

1-3

4-6

More than 6

Unlimited

21. Which types of non-physician providers are eligible for reimbursement for individual or group asthma education sessions?

Mid-level practitioner

Registered nurse

Certified Asthma Educator (AE-C)

Visiting Nurse

Respiratory Therapist

Licensed Social Worker

Chronic Disease Educator

All

None

Other

22. Which types of referrals or services for asthma are reimbursable?

Allergist

Pulmonologist

Respiratory Therapist

School Nurse

Public Health Nurse

Nutrition/Weight Loss Counseling

None

23. How many specialty referrals can be reimbursed on the same day as an asthma office visit (e.g. the company will reimburse for a visit with a certified asthma educator or allergist immediately following a visit with a primary care physician)?

- None
- One+
- Other

Section 3: HOME ASSESSMENT

24. What types of asthma education services in the home are reimbursed?

- Clinical asthma self-management
- Environmental/trigger assessment of the home
- None
- Other

25. If you do reimburse for asthma services provided in the home, which providers are eligible for reimbursement for those services?

- Mid-level practitioner
- Registered Nurse
- Certified Asthma Educator (AE-C)
- Respiratory Therapist
- Licensed Social Worker
- Community Health Worker
- Sanitarian
- Other

26. If deemed medically necessary by a provider, and a patient is in need of financial assistance, would you provide, reimburse or pay directly for environmental supplies/services in the home to mitigate a patient's known or suspected asthma triggers?

- Yes
- No
- Other

27. For which specific, medically-necessary, environmental supplies/services will you reimburse?

- Mattress and pillow covers
- Pest control supplies
- Air conditioner
- Vacuum cleaner
- Air purifier
- Professional pest control services
- Professional mold remediation
- Professional cleaning services
- All
- None
- Other

Section 4: PHARMACOLOGICAL THERAPY (Equipment and Supplies)

28. Which medical equipment is covered by the company's asthma benefit package?

- Aerochamber spacer
- Micro-spacer
- Peak flow meter
- Nebulizer compressor
- Nebulizer disposable kit
- Other

29. If prescribed, does the company's asthma benefit package pay for more than one piece of medical equipment needed for more than one location such as home and work or school?

- Yes
- No

Section 5: PHARMACOLOGICAL THERAPY (Medications)

30. Which drug tier do fast-acting bronchodilator inhalers (e.g. rescue medications) fall under?

- Tier 1
- Tier 2
- Tier 3

31. Which drug tier do inhaled corticosteroids (i.e. controller medications) for asthma fall under?

- Tier 1
- Tier 2
- Tier 3

32. Indicate what range the copays generally fall under for Tier 1 drugs.

- \$0-\$24
- \$25-\$49
- \$50-\$74
- \$75+

33. Indicate what range the copays generally fall under for Tier 2 drugs.

- \$0-\$24
- \$25-\$49
- \$50-\$74
- \$75+

34. Indicate what range the copays generally fall under for Tier 3 drugs.

- \$0-\$24
- \$25-\$49
- \$50-\$74
- \$75+

35. Does the company reimburse for two or more dispensings of the same medication (for home PLUS work, school or second home)?

- Yes
- No

36. Does the company reimburse for smoking cessation counseling?

Yes, individual counseling

Yes, group counseling

Yes, individual and group counseling

No

37. Does the company reimburse for smoking cessation medications?

Bupropion (Zybran or Wellbutrin)

Varenicline (Chantix)

Inhaler

Nicotine Replacement Therapy (NRT)

Nasal spray

Nicotine patch (over-the-counter)

Lozenge (over-the-counter)

Gum (over-the-counter)

None

Other

Section 6: STAFFING

38. Does your company employ a certified asthma educator?

Yes

No

39. Does your company employ a case manager for asthma patients?

Yes

No

40. Does your company employ another professional that works with patients with asthma? If yes, please explain

Yes, please explain

No

Section 7: REFERRALS

41. Is spirometry reimbursed?

In office

Referred out of office

Neither

42. Is there a limit on the number of spirometry services allowed per year? If yes, please explain.

Yes

No

43. Is spirometry covered on the same day as an office visit?

Yes

No

44. Which types of allergy testing are eligible for reimbursement?

- RAST
- Blood
- None
- Other

45. Does your company reimburse for immunotherapy for allergies?

- Yes
- No

Section 8: SPECIAL REIMBURSEMENTS

46. Does the company offer or reimburse for a disease management program that addresses asthma?

- Yes
- No

47. If yes, which of the following components does the program include?

- Follow-up phone calls/referrals
- Materials sent by mail
- Individual counseling
- Group counseling
- Home visits
- Not applicable
- Other

48. Please provide any additional comments below:

The electronic version of this survey can be found at
<http://media.hria.org/survey/index.php?sid=42369&lang=en>

We kindly ask that you complete the survey online after reviewing the hard copy above.
Thank you!

APPENDIX B

Detailed Findings on Medication Tiering

- Two of the MMCOs and one of the Medicaid FFS/PCC plans effectively had no tiering of their asthma medications, and offered them to patients at a cost of zero or one dollar
- The remaining payers classified both their bronchodilators and inhaled corticosteroids as either Tier 1 or a combination of Tier 2 and 3--though slightly more payers placed the preventive corticosteroids in the higher tiers. More specifically:
 - *Twelve payers classified their bronchodilators (“rescue medications”) as Tier 1, and ten payers classified them as either Tier 2 or 3.
 - *Eleven payers classified their inhaled corticosteroids (“controller” medications) as Tier 1, and the remaining eleven payers classified them as either Tier 2 or 3.
- Three of the six MMCOs classified bronchodilators as Tier 1, and one classified them as Tier 2
- Two of the six MMCOs classified inhaled corticosteroids as Tier 1, two classified them as Tier 2
- The four MMCOs with tiered medications indicated that both Tier 1 and Tier 2 co-payments are in the lower cost range of \$0-25.
- One of the five Medicaid FFS does not use a tier system. In this case, recipients have a \$1 co-payment for approved prescribed drugs. All of the remaining four state Medicaid FFS plans place bronchodilators and inhaled corticosteroid medications in Tier 1, which for all of them requires a co-pay of less than \$25.
- Five commercials classify fast-acting bronchodilators in Tier 1, four in Tier 2, and five put them in a mixture of Tiers 2 and 3.
- Five commercials classify inhaled “controller” corticosteroids in Tier 1; seven classify them primarily in Tier 2, and two companies said these “controller” medications fall into both Tiers 2 and 3.
- All commercial plan Tier 1 formularies are in the \$0-\$24 co-payment range, and most of their Tier 2 formularies fall into the \$25-\$49 range. Most Tier 3 co-payments are in the \$25-\$74 range.

APPENDIX C

Home-based Environmental Interventions: Spectrum of Intensity

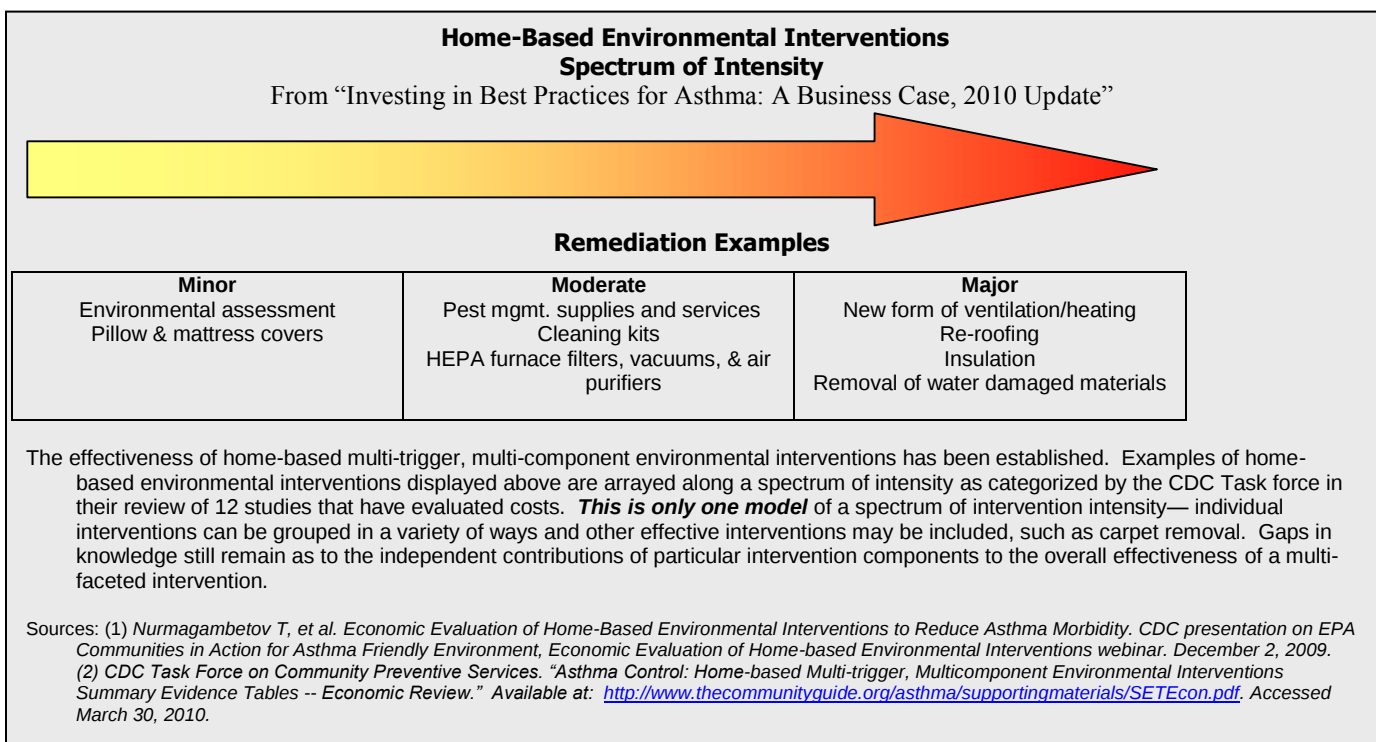
Reference: *Investing in Best Practices for Asthma: A Business Case*

August 2010 Update

Hoppin, Stillman and Jacobs

www.asthmaregionalcouncil.org

Figure 2



APPENDIX D

INSURANCE COVERAGE FOR ASTHMA

A Value and Quality Checklist for Purchasers of Health Care

APRIL 2010

This Checklist is a companion to "Asthma: A Business Case for Employers and Health Care Purchasers," which reviews cost-effective strategies for reducing the burden of asthma in employees. The 2010 report is available at www.asthmaregionalcouncil.org and www.sustainableproduction.org.

Health Insurance Coverage Can Reduce the Burden of Asthma

Asthma burdens employers and employees alike. Symptoms unnecessarily interrupt daily routines, causing millions of adults and children to miss work and school, have lowered productivity, and use costly urgent medical services. Yet there is good news about asthma: multiple research studies and real-world programs show that high quality prevention-oriented services are cost-effective, improve health, and often reduce overall costs associated with the disease.

Insufficient or unaffordable health coverage prevents many people with asthma from accessing services and supplies that would keep their symptoms under control. Purchasers of health care can help overcome this barrier. By designing benefits appropriately, employers, brokers or other large health care purchasers can give people with asthma access to evidence-based best practices. When people with asthma access the elements of best practices appropriate for their disease status, their asthma can be brought under control, and so can the costs of their care.

Insurance Coverage Checklist for Quality Asthma Care

This Checklist is intended to support employers and other purchasers of health care as they design health benefits on behalf of employees. *It focuses on evidence-based proactive asthma care services and supplies that prevent disease exacerbations and use of urgent care services.* The Checklist, including the details in *italics*, reflects current science on cost-effective care, as reviewed by the National Asthma Education Prevention Program (NAEPP) Expert Panel¹ and supplemented by reviews conducted by the Centers for Disease Control and Prevention (CDC).² The Checklist also draws on the experience of programs around the U.S. that have translated research into practice.

The Checklist is organized in four sections, consistent with the four best practice elements that comprise the widely-respected asthma management guidelines issued by the NAEPP (the NAEPP Guidelines): (1) assessment and monitoring; (2) comprehensive pharmacologic therapy; (3) education for a partnership in asthma care; (4) control of environmental factors and co-morbid conditions that affect asthma. Successfully controlling asthma requires multi-faceted interventions tailored to the individual. Thus, while not all people with asthma will need all the services and supplies listed below, benefits packages must be structured to facilitate access to all four best practice elements.

Coverage policies for medications and equipment should be consistent with updates to the NAEPP Guidelines and can be found on the National Heart, Lung and Blood Institute's website: <http://www.nhlbi.nih.gov/guidelines/index.htm>.

¹ U.S. Department of Health and Human Services, National Heart, Lung and Blood Institute, National Asthma Education and Prevention Program. *Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma*. 2007.

² Centers for Disease Control and Prevention's Task Force on Community Preventive Services. *Asthma Control: Home-based Multi-trigger, Multi-component Environmental Interventions*. Available at: <http://www.thecommunityguide.org/asthma/multicomponent.html>.

1. Measures of Asthma Assessment and Monitoring

Diagnosing a patient's asthma is only the first step in reducing symptoms, quality of life impairment, and potentially life-threatening asthma attacks. Because disease severity and a patient's responsiveness to treatments are highly variable and may change over time, successful asthma management requires continuous monitoring and assessment. Thus, the following provider and diagnostic services as well as medical supplies should be covered benefits and sufficiently reimbursed:

- ☒ Clinician Office Visits for Proactive Monitoring: at least once every six months, more as needed based on severity
- ☒ Spirometry for Objective Lung Function Assessment
 - o *Testing, as frequently as needed, in laboratories or in a clinical setting*
 - o *Evidence is growing regarding the utility of exhaled nitrogen oxide for diagnosing and monitoring asthma symptoms*
- ☒ Chest X Rays to exclude other diagnoses
- ☒ Equipment/Supplies: spacers, peak flow meters, nebulizer compressor/disposable kits as needed by patients
 - o *Duplicate equipment as necessary for home, work and school*
- ☒ Expedited Referrals to Allergist and Pulmonologist
 - o *Same day services should be covered*
 - o *Allergy skin tests, RAST or other in vitro allergy tests*
 - o *Allergen immunotherapy*
- ☒ Influenza and Pneumococcal Immunizations

2. Comprehensive Pharmacologic Therapy

The two general classes of asthma medications are: (1) long-term control medications used to achieve and maintain control of persistent asthma and (2) quick-relief rescue medications used to treat acute symptoms. Asthma medications are generally available only as brand name drugs, so they are expensive and do not tend to fall into the Tier 1 (lowest copay) category. These high out-of-pocket costs are a significant barrier for some patients to accessing the medications they need to control their symptoms. To enable people with asthma to obtain appropriate and affordable medications, covered benefits should include:

- ☒ Asthma Medications per NAEPP Guidelines
 - o *Formularies should be designed so as to reduce or eliminate out-of-pocket costs for essential drugs*
- ☒ Multiple Prescriptions
 - o *Multiple inhalers or other medications so patients can readily access them when needed at school, at work, and/or at more than one home*



3. Education for a Partnership in Asthma Care

Asthma education conveys culturally appropriate information about: (a) basic facts about asthma, (b) self-management techniques/self-monitoring skills (peak flow and symptom-based monitoring using an Asthma Action Plan), (c) proper use of medications, and (d) actions to mitigate or control environmental exposures that exacerbate symptoms. Asthma self-management education should be integrated into all aspects of asthma care, and requires repetition as well as reinforcement. The following educational services and supplies should be covered benefits, and associated provider services should be sufficiently reimbursed:

- ☒ Extended Office Visits or in-Clinic Asthma Education Sessions
 - o *Reimbursement for longer primary care office visits to allow sufficient time for patient education and medication instruction*
 - o *Reimbursement for discrete individual or group self-management education or support sessions conducted by a broad range of qualified providers including those who deliver primary care (physicians, mid-level practitioners, registered nurses, respiratory therapists), as well as certified asthma educators or chronic disease self-management leaders*
- ☒ Education Sessions in Settings Outside the Clinic (Home, School, Work, or Community Center)
 - o *Reimbursement for services of qualified providers to reinforce basic asthma education, if recommended and approved by the primary care provider. These include the range of providers listed above as well as others with appropriate training for delivering education in community or home settings, e.g., licensed clinical social workers and community health workers.*
- ☒ Case Management for High Risk Patients
 - o *Services of case managers to help patients with asthma address other medical and social issues that complicate their disease, and to help coordinate their care. These services could be provided directly by the health payer or within the primary care practice/medical home, or contracted out to a consultant and reimbursed.*



A Note on Qualifications of Providers Delivering Asthma Education and Home Visits

Insurance should reimburse for appropriately trained providers. As this Checklist suggests, primary care providers and certified asthma educators are qualified to teach people with asthma about medications and their use. For reinforcement of this education, and for teaching about environmental triggers and steps to reduce them, people with basic health education and social services responsibilities, such as community health workers, can also be effective and less costly. These latter providers should have robust asthma-specific training and have regular opportunity to consult with clinical experts. For independent community organizations, the American Association of Respiratory Therapists has begun to certify entire programs that include the range of personnel to ensure quality control.

4. Control of Environmental Factors and Co-Morbid Conditions that Affect Asthma

Control of Environmental Factors. Reducing exposure to environmental triggers can often make the difference between a person living productively with asthma versus being severely impeded by symptoms. Environmental factors in the home that exacerbate asthma can be mitigated with guidance from a trained clinician or environmental counselor. The following home-based environmental services and supplies³ should be part of the patient's asthma management plan and reimbursed as appropriate given a patient's disease status, allergen sensitivities and the condition of the home:

- ☒ Home Environmental Trigger Assessments and Education
 - o *Services delivered by a range of providers (see providers listed under Education for a Partnership in Asthma Care) trained to identify opportunities to reduce and mitigate asthma triggers⁴*
- ☒ Environmental Trigger Supplies and Remediation Services
 - o *Supplies to minimize exposures to triggers, including mattress/pillow encasements, HEPA air and vacuum cleaners, and non-toxic pest control supplies*
 - o *Professional services (e.g., specialized cleaning and Integrated Pest Management services) if needed*
- ☒ Smoking Cessation Counseling (group or individual) for people with asthma and their family members, as environmental tobacco smoke has been shown to initiate or exacerbate others' asthma
 - o *Necessary pharmacology (e.g. nicotine patches)*

Control of Co-Morbid Conditions. Many people with asthma have other health conditions that can impact asthma severity and control. Covered benefits should include the following services to address a range of co-morbid health conditions:

- ☒ Treatment of Co-Morbid Conditions As Needed
 - o *Reimbursement for the range of providers with expertise in health conditions that affect asthma, in particular: rhinitis, sinusitis, obesity, gastro-esophageal reflux disease, chronic stress and depression as well as chronic obstructive pulmonary disease. Specify that same day visits are reimbursable.*
- ☒ Counseling Referrals for Control of Co-Morbid Conditions
 1. Weight management/nutrition counseling (group or individual)
 2. Mental health counseling for patients with significant psychiatric, psychosocial, or family problems that interfere with proper asthma management

³ The evidence of effectiveness and cost-effectiveness of environmental interventions for children and adolescents with asthma is strong. While the vast majority of rigorous research studies on environmental interventions have focused on children, results of on-the-ground programs suggest that these home visits can be effective for adults as well.

⁴ In some cases of uncontrolled asthma, home conditions may require environmental assessment professionals with capacity to test for levels of agents that can exacerbate the disease. These services may be available through public health departments. Such services and the interventions required for remediation are considered "high intensity" and are not among those shown in the literature to be cost-effective. However, in some individual circumstances, cost-savings from improved asthma control may exceed the costs of assessment and remediation. Direct reimbursement for these services could be considered in exceptional circumstances where asthma remains out of control despite adherence to medication and provision of environmental trigger supplies and services.



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This checklist was produced for the Asthma Regional Council of New England (ARC) by Polly Hoppin and Molly Jacobs at the Lowell Center for Sustainable Production, U. Mass. Lowell and Laurie Stillman at Health Resources in Action. It was funded by the Kresge Foundation.

www.asthmaregionalcouncil.org www.sustainableproduction.org