State of Rhode Island

Asthma Control Plan

2002-2007

[Go to linked contents.]

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1 Introduction

Asthma is a chronic inflammatory disorder of the airways[1-4] characterized by airway constriction and chronic inflammation.[5] Clinical manifestations include recurrent episodes of wheezing, breathlessness, chest tightness, and coughing.[2]

At present, there is neither a cure for asthma nor a way to prevent its initial onset. However, with proper management of the condition, persons with asthma can lead healthy and productive lives.[7] Effective asthma management includes taking appropriate medication and avoiding exposure to asthma "triggers."[7] Triggers are irritants or allergens that cause asthma exacerbations in sensitized patients.[2] They include:

- allergens, such as cats, dogs, mites, cockroaches, grain, mold, and pollen
- cigarette smoke
- respiratory infections
- exercise
- fumes from cleaning solvents and other chemicals
- allergies to specific foods and medications (e.g., aspirin and Advil)[6]

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1. Rhode Island Department of Health. Asthma. http://www.healthri.org/topics/asthma.htm
2. National Heart Lung and Blood Institute. Guidelines for the Diagnosis and Management of Asthma. Expert Panel Report 2. NIH Publication No. 97-4051. July 1997.
3. BRFSS Coordinators. Self-reported asthma prevalence among adults – United States, 2000. MMWR Weekly. August 17, 2001/50(32);682-6.
4. Mannino DM, Homa DM, Pertowski CA, et al. Surveillance for asthma – United States, 1960-1995. MMWR. April 24, 1998/47(SS-1);1-28.
5. US Department of Health and Human Services. Healthy People 2010: Objectives for Improving Health. Volume 2. Washington, DC: US Government Printing Office, November 2000.
6. Sherman C. Asthma: Profile of an Epidemic. Medicine and Health/Rhode Island. Special CME Edition. 1999;82(7):233-234.
7. Children, Adolescents, and Asthma. Centers for Disease Control and Prevention. http://www.cdc.gov/nceh/airpollution/asthma/children.htm

The burden of asthma

Background: the burden of asthma in the United States

Asthma, one of the most common chronic diseases in the United States, is a growing public health problem.[1] The self-reported prevalence of asthma increased 75% from 1980 to 1994[2], and now affects an estimated 15 million people; about one third are younger than 18 years of age. [1,3]

Table 1. Incidence of asthma in the United States, 1980 and 1993-4, expressed as cases per 1000 at risk, by age group and race

Age Group / Race	1980	1993-4
0-4	42.8	74.4
5-14	30.7	53.8
All ages	22.2	57.8
Black	34.0	57.8
White	30.4	50.8
Other	22.5	48.6

Source: Sherman C. Asthma: Profile of an Epidemic. Medicine and Health/Rhode Island. Special CME Edition. 1999;82(7):233-234.

Table 2. Mortality from asthma in the United States, 1980 and 1993-4, expressed as cases per 1000 at risk, by race

Race	1980	1993-4
Black	4.20	3.85
White	2.66	1.51
Other	2.57	1.77

Source: Sherman C. Asthma: Profile of an Epidemic. Medicine and Health/Rhode Island. Special CME Edition. 1999;82(7):233-234.

Table 3. Number of people in the United States(in millions) who went to see a physician about asthma or who self-reported as having asthma, by year of report

Race	Year :	Number	Year :	Number
Went to physician	1975:	4.6	1993-5:	10.4
Self reported	1980:	6.8	1998:	17.3

Source: Sherman C. Asthma: Profile of an Epidemic. Medicine and Health/Rhode Island. Special CME Edition. 1999;82(7):233-234.

The steady rise in the prevalence of asthma over two decades constitutes an epidemic, which by all indications is continuing.[4] Even if rates were to stabilize, asthma would continue to be a profound public health problem, responsible for the following disease burden in the United States:

- Over 10 million missed school days each year. [1,3]
- Over 10 million visits to health care providers per year[2]
- Over 1.8 million emergency room visits per year[2]
- Over 460 thousand hospitalizations per year.[2,3,4]
- An estimated $12.7 billion (in 1998), among adults and children, in cost to the U.S. economy;[3] an estimated $3.2 billion per year in those under 18 years of age.[1]
- About 5000 deaths (NHLBI data fact sheet) per year[5];over 250 deaths among children in 1996.[3]

Although asthma rates for nonwhites are only slightly higher than those for whites, emergency department visit rates, hospitalization rates, and death rates for asthma are disproportionately higher among low-income populations, minorities, and inner-city populations.[1,5]

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1. Children, Adolescents, and Asthma. Centers for Disease Control and Prevention. http://www.cdc.gov/nceh/airpollution/asthma/children.htm
2. Mannino DM, Homa DM, Pertowski CA, et al. Surveillance for asthma – United States, 1960-1995. MMWR. April 24, 1998/47(SS-1);1-28.
3. National Asthma Control Program, Program in Brief. Centers for Disease Control and Prevention. http://www.cdc.gov/nceh/airpollution/asthma/program.htm
4. Rhode Island Department of Health. Asthma. http://www.healthri.org/topics/asthma.htm
5. US Department of Health and Human Services. Healthy People 2010: Objectives for Improving Health. Volume 2. Washington, DC: US Government Printing Office, November 2000.

Focus: the burden of asthma in RI

Rhode Island has one of the highest adult asthma prevalence rates in the United States, as estimated from BRFSS data collected in 2000.[1] According to this data, adult asthma prevalence in Rhode Island was 8.5%, while the nation as a whole had a rate of 7.2%.[1] Rhode Island tied three other jurisdictions for the fifth highest adult asthma prevalence among the 50 states, Puerto Rico, and the District of Columbia.[1] Asthma seems to afflict adult Rhode Islanders across the socio-demographic spectrum, with expected concentrations in women and in people of especially low income.[2]

Rhode Island age-adjusted rates of hospitalization with a principal diagnosis of asthma decreased between 1990 and 1999.[3] Hospital discharges where asthma was an additional diagnosis increased substantially during that time.[3] Discharge rates were consistently higher among minority populations[3] and suggest that asthma disproportionately affected young males (under 15 years of age) and older women (65 years and over).[4]

From 1989 through 1997, Rhode Island asthma mortality rates did not indicate an increase, but perhaps a decrease in asthma as an underlying cause of death.[5] The rate of death with any mention of asthma on the death certificate also showed no evidence of an increase in asthma mortality.[5]

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1. BRFSS Coordinators. Self-reported asthma prevalence among adults – United States, 2000. MMWR Weekly. August 17, 2001/50(32);682-6.
2. Fulton JP, Hesser J, Ryan C. Adult Asthma Prevalence in Rhode Island. Medicine and Health/Rhode Island. 2001;84(11):376-378. (Healthy People 2010)
3. Tinajero AM, Donnelly EF. Trends in Asthma Hospitalizations in Rhode Island. Medicine and Health/Rhode Island. 2001;84(6):212-214.
4. Buechner JS. Hospital Discharges with Asthma, 1991-1995. Medicine and Health/Rhode Island. 1997;80(8):264-265.
5. Buechner JS. Trends in Asthma Morbidity and Mortality in Rhode Island 1988-1997. Medicine and Health/Rhode Island. 1999;82(7):261-262.

Strategies for lessening the burden of asthma

Expand surveillance for asthma

"From a community based perspective, states need to track occupational and environmental factors that cause or trigger asthma episodes. Such surveillance efforts should include collecting State based data on the proportion of the population with asthma and monitoring occupational and environmental exposures and their impact on illness and disability related to asthma."[1]

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1. US Department of Health and Human Services. Healthy People 2010: Objectives for Improving Health. Volume 2. Washington, DC: US Government Printing Office, November 2000.

Reduce exposure to asthma triggers

… *Indoors (residences, schools, and workplaces)*

Reducing exposures to allergens and irritants is important in environments where patients spend long periods of time, such as homes, schools, and workplaces.[1] The National Heart, Lung, and Blood Institute (NHLBI) recommends that patients:

- "Remove animals from the house or, at a minimum, keep animals out of the patient's bedroom" to reduce exposure to animal dander[1]
- Encase mattress and pillow in an allergen-impermeable cover and wash sheets and blankets in hot water weekly to eliminate house-dust mites[1]
- "Use poison traps or baits to control cockroaches and do not leave food or garbage exposed"[1]
- "Fix all leaks, eliminate water sources associated with mold growth, and clean moldy surfaces"[1]
- Do not smoke and avoid exposure to environmental tobacco smoke[1]

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1. National Heart Lung and Blood Institute. Guidelines for the Diagnosis and Management of Asthma. Expert Panel Report 2. NIH Publication No. 97-4051. July 1997.

… *Outdoors*

Reducing the burden of asthma involves reducing exposure to outdoor allergens and irritants, such as pollens and molds, and air pollution,[1] which precipitate symptoms of asthma and increase emergency department visits and hospitalizations for asthma.[2] The NHLBI recommends that patients:

- "stay inside during midday and afternoon when pollen and some spore counts are highest"[2]
- "avoid exertion or exercise outside to the extent possible when levels of air pollution are high"[2]

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1. US Department of Health and Human Services. Healthy People 2010: Objectives for Improving Health. Volume 2. Washington, DC: US Government Printing Office, November 2000.
2. National Heart Lung and Blood Institute. Guidelines for the Diagnosis and Management of Asthma. Expert Panel Report 2. NIH Publication No. 97-4051. July 1997.

Improve asthma management

Components of successful asthma management include (1) identification and reduction of exposures to relevant allergens and irritants (2) use of appropriate medications (3) monitoring of the disease by both the patient and health care professional (4) patient involvement in the management of their disease.[1] When patients are able to effectively self-manage their asthma, the need for hospitalizations and urgent care visits is reduced and normal activities can be enjoyed.[1]

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1. US Department of Health and Human Services. Healthy People 2010: Objectives for Improving Health. Volume 2. Washington, DC: US Government Printing Office, November 2000.
2. National Heart Lung and Blood Institute. Guidelines for the Diagnosis and Management of Asthma. Expert Panel Report 2. NIH Publication No. 97-4051. July 1997.

Improve primary care for asthma

Health care professionals have a direct impact on health outcomes for asthma.[1] In order to improve primary care for asthma, health professional schools should use guidelines for the diagnosis and management of asthma, and integrate asthma training and education into their curriculum.[1]

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1. US Department of Health and Human Services. Healthy People 2010: Objectives for Improving Health. Volume 2. Washington, DC: US Government Printing Office, November 2000.

Improve support for asthma management by patients and families

Improving patient/family involvement and support of asthma encourages adherence to treatment regimens. As indicated in the NHLBI guidelines, patients should be encouraged to involve their families in the management of their asthma.[1]

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1. National Heart Lung and Blood Institute. Guidelines for the Diagnosis and Management of Asthma. Expert Panel Report 2. NIH Publication No. 97-4051. July 1997.

<u>Interventions for lessening the burden of asthma</u>

From strategy to intervention

The following interventions have been proposed to actualize each specific strategy.

STRATEGY	INTERVENTION
Expand surveillance for asthma	Policy development and advocacy to utilize existing data sets or modify/create new instruments/surveys
Reduce exposure to asthma triggers	Policy development and advocacy for: maintenance and construction of asthma-friendly schools, workplaces, and homes; cleaner outdoor air Patient and family education (interactive) to inform about environmental triggers in schools/workplaces/homes Public education (passive) to inform about asthma triggers

Improve asthma management	Patient and family education (interactive) to use Asthma Action Plan as a management tool Public education (passive) to educate about environmental asthma triggers Professional education of both primary care providers and school nurse teachers Policy development and advocacy to assure that third-party payers deliver patient and family education (interactive)
Improve primary care for asthma	Professional education
Improve support for asthma management by patients and families	Patient and family education (interactive) by primary providers and school nurse teachers Public education (passive) efforts Policy development and advocacy to assure that third-party payers deliver patient and family education (interactive)

Patient and family education (interactive)

Interactive patient education is an important ingredient in the successful self-management of asthma.[1] Teaching asthma self-management skills to patients helps them develop the motivation, skill, and confidence to control their asthma.[2] Research shows that patients who receive such education are better able to manage and control their disease than those who have not been taught asthma-management skills, and that asthma education can be cost-effective in reducing morbidity for both adults and children.[1] The NHLBI guidelines recommend that patient education begins at the time of diagnosis and is reinforced at every opportunity.[2] In addition, asthma action plans should be developed for asthma patients.[1]

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1. US Department of Health and Human Services. Healthy People 2010: Objectives for Improving Health. Volume 2. Washington, DC: US Government Printing Office, November 2000.
2. National Heart Lung and Blood Institute. Guidelines for the Diagnosis and Management of Asthma. Expert Panel Report 2. NIH Publication No. 97-4051. July 1997.

Public education (passive)

Public education has been demonstrated to be effective in addressing individual behavior change and public policy. Synergy is achieved when various strategies are employed rather than a single campaign or approach. Variety in messages and novelty in message presentation has been found to be significantly more effective than repetition of a delimited number. Level of exposure is an important variable in effectiveness.[1]

Media campaigns maximize the effects of other public education interventions. In a comparison study of two communities, one received a public education program intervention only, while the second received a combination of the same program plus a media campaign. In the second community the rate of smoking was almost 40% lower than the community that received only the education component.[2] The Task Force on Community Preventive Services strongly recommended mass media education to increase tobacco-use cessation when used as one component of a multi-focal program.[3]

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1. US Department of Health and Human Services. CDC. Office on Smoking and Health. Best Practices for Comprehensive Tobacco Control Programs August 1999.
2. Flynn, BS, Worden, JK, Secker-Walker, RH. Mass media and school interventions for cigarette smoking prevention: Effects two years after completion. AJPH. 1994;82:1148-50.
3. CDC. Strategies for reducing exposure to environmental tobacco smoke, increasing tobacco-use cessation, and reducing initiation in communities and health care systems. MMWR, Recommendations and Reports. 2000;49(RR-12).

Professional education

The need to improve professional education for physicians, both within the medical school and within continuing medical education contexts, has been the focus of several recent articles. The effective application of known best

practices in patient asthma education is posited upon the assurance that providers, themselves, have been adequately trained. One recommendation is be consistent with national asthma guidelines in patient messages and core skills.[1] The use of the asthma workshop as an effective educational format has been demonstrated for medical students but the gain in knowledge is short-term and requires reiteration.[2]

Professional education has been demonstrated to improve physician performance. Several forms of intervention, rather than a single dose, have been shown to be effective. In Rhode Island the Department of Health entered into contract with the Federal Drug Administration to improve the reporting of adverse drug reactions. The strategies employed included direct mailings, presentations to physician groups, and advertisements in the local medical periodicals and hospital staff newsletters. A 17-fold increase in reports occurred after 2 years when compared with the yearly average before the project began.[3]

The main channels to change physician behavior have been the passive delivery of information (lectures, conferences, mailing of printed materials). More interactive methods are increasingly utilized, among them academic detailing and the use of opinion leaders. The former promotes standards of care/practices through invested agents for change who interact with individual physicians. The latter involves the championing of best practices by respected local/regional physicians.[4]

In a study of 790 school nurses in Maryland and Washington, DC, almost one-quarter (25%) responded that they did not have or were unaware of a district or school policy for addressing asthma attacks; 21% responded that they lacked an emergency care plan for each child with moderate to severe asthma; more than a third did not use flow meters (paralleling findings in Delaware) that are recommended in the NHLBI guidelines. These deficits negatively effect optimal care. Concomitantly, 76% had had no asthma education within the past half year while 78% expressed a need for additional education.[5]

An American Lung Association nationwide survey of 1,525 school nurses identified lack of adequate medical treatment as a contributory factor to poor asthma control in schools. Students lacked knowledge of asthma self-management basics (use of preventive medications, proper inhaler usage, and use of peak flow meters). Nurses were unable to provide this education. In this sample, 47% work in more than one school (2.4 schools average) with an average of caseload of 53 asthmatic students to care for. Nurses find themselves responding to asthma crises with no time for student education.[6]

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1. Clark NM, Partridge MR. Strengthening asthma education to enhance disease control. Chest. 2002;121(5):1661-1669.
2. Yates DH, Shah S, Veitch E, et al. Teaching asthma management: an evidence-based educational approach. Aust NZ J Med. 2000;30(1):33-37.
3. Scott HD, Thacher-Renshaw A. Physician reporting of adverse drug reactions: results of the Rhode Island Adverse Drug Reaction Reporting Project. JAMA. 1990;263:1785-1788.
4. Making Health Care Safer: A Critical Analysis of Patient Safety Practices. Prepared for Agency for Healthcare Research and Quality by University of California at San Francisco (UCSF)-Stanford University Evidence-based Practice Center. Evidence Report/Technology Assessment, No. 43. 2001.
5. Calabrese BJ, Nanda JP. Asthma knowledge, roles, functions and educational needs of school nurses. J Sch Health. 1999;69(6):233-244.
6. American Lung Association. National Survey of School Nurses Reveals the Challenge of Managing Asthma at School. Asthma Magazine. 1999. http://www.calnurse.org/can/news/yah051899.html

Advocacy and policy development

"Over the past decade, there has been increasing interest in policy and environmental change interventions as effective tools for health promotion and disease prevention." [1] Interventions focused on individual behavior change or health care services have been effective in addressing chronic disease prevention and health promotion.[1] However, the use of policy (laws, regulations, and rules) and environmental interventions (changes to the economic, social, or physical environments) can impact large segments of the population, and holds promise as the next step in addressing public health problems.[1] Health departments are in a key position to affect advocacy and policy change.

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1. Association of State and Territorial Directors of Health Promotion and Public Health Education. U.S. Centers for Disease Control and Prevention. Policy and environmental change: New directions for public health. Executive Summary. Aug, 2001.

Intervention resources in RI - current availability and needs

Patient and family education - interactive

The three health care insurers in the state (Blue Chip/Blue Cross Blue Shield of Rhode Island, Neighborhood Health Plan of Rhode Island, and United Health Care of New England) utilize Disease State Management Coordinators to address patient and family education and treatment around asthma self-management. The primary pediatric care center in RI, Hasbro Children's Hospital, has a well-established program that delivers asthma education to students and their families in their neighborhood schools. Draw A Breath, funded by The Robert Wood Johnson Foundation, selectively targets asthmatic children and their families who are at high risk for re-hospitalization or emergency room visits. The program is presented in both English and Spanish.
There is a need to develop greater capacity to deliver education to high-risk, low-income groups in a setting and manner that is appropriate.

Patient and family education - passive

The Asthma Control Program has had experience in delivering public education messages that target all Rhode Islanders with asthma as well as developing messages that reach African American and Hispanic audiences. Multi-media were employed: external and internal bus panels; culturally diverse radio spots; bilingual (English and Spanish) posters distributed to all health care providers and school nurse teachers in the states, community and faith-based organizations, and local businesses. Two basic messages were delivered ("Got Asthma? Take your Meds" and "Got Asthma? Avoid smoke"). A second and parallel poster campaign, in partnership with the Ocean State Adult Immunization Coalition, focused on the message "Got Asthma? Get a Flu Shot". The Communications Unit within the Rhode Island Department of Health supports the Asthma Control Program in its media interventions.
There is a need to coordinate messages and their timing with those of the Tobacco Control Program, when appropriate.

Professional Education

Rhode Island has ample resources to bring to bear on professional education: Brown University Medical School; the University of Rhode Island College of Nursing and College of Pharmacy (graduate and undergraduate programs); and Rhode Island College Nursing program (baccalaureate degree). A pool of expertise is available - drawn to the state by the excellence of the university and associated hospitals. The state has an active School Nurse Teacher Association that has already demonstrated in investment in assuring optimal care for children with asthma in the state's schools. Association members continue to be valuable partners in the Asthma Control Program. There is a need for both primary care provider and school nurse teacher education around asthma treatment and management; the use of the Asthma Action Plan; and the use of the Quick Reference Guide for Diagnosis and Treatment (guidelines).

Advocacy and policy development

Advocacy and policy development partners include the following organizations with a well-established history of working collaboratively: American Lung Association of Rhode Island (ALARI); the American Cancer Society; the American Heart Association; the Rhode Island Department of Education through the Healthy Schools! Healthy Kids! partnership with HEALTH; the Rhode Island Cancer Control Coalition; the HELP Coalition; the Providence Pediatric Coalition (PPAC), the Department of Environmental Management; the Chemical Safe Schools Committee; and within the Rhode Island Department of Health the Tobacco Control Program and the Division of Environmental Health. There is a need to develop greater coordination of effort around specific issues (regulations/laws/policies) at multi-levels (state, system (school/health provider).

Logic model for lessening the burden of asthma in RI

The Master Logic Model for the Rhode Island Asthma Control Program includes resource and investment inputs such as surveillance systems, activities such as identifying data sources, and short term, medium term and long term outcomes. Please see Appendix 1.

The Asthma Control Coalition of Rhode Island

The Asthma Control Coalition of Rhode Island is a group of community partners including HEALTH, ALARI, community based organizations, other governmental agencies, and individuals concerned with the prevention and control of asthma in Rhode Island. All community based organizations, governmental agencies, and individuals are welcome to participate as Coalition members generally, or to achieve specific objectives for asthma control. There are no formal membership obligations for belonging to the Coalition. Thus far, members of the Coalition have included those individuals and organizations listed in Section 6, "State Planning Participants."

2 Goals and SMART objectives for asthma control in RI

After studying RI's asthma burden and available asthma control strategies, the ACC has adopted asthma-specific Healthy People 2010 objectives for respiratory health as its core objectives, developing complementary, high-priority objectives as necessary to meet the specific needs of the state.

The ACC uses SMART[1] criteria to develop its RI-specific objectives, testing each to see if it is:

Specific:	It identifies a specific event or action that will take place.
Measurable:	It quantifies the amount of change to be achieved.
Achievable and ambitious:	It is realistic given available resources and plans for implementation, yet challenging enough to accelerate program objectives.
Relevant:	It is logical and relates to the program's goals.
Time-bound:	It specifies a time by which the objective will be achieved.

1. Source: MacDonald G, Starr G, Schooley M, Yee SL, Klimowski K, Turner K. Intorduction to Program Evaluation for Comprehensive Tobacco Control Programs. Atlanta (GA): Centers for Disease Control and Prevention; 2001.

The overall goal of Healthy People 2010 for the control of respiratory diseases is:

> "Promote respiratory health through better prevention, detection, treatment, and education efforts."

The ACC has modified this goal for RI by recognizing its own focus on asthma:

> "Promote respiratory health through better prevention, detection, and treatment of asthma, and through better education of asthma patients, their families, and the health care providers who serve them."

Of the specific objectives that follow, those developed by the Healthy People 2010 program and adopted by the ACC are marked "HP," while those developed by the ACC as complements to the HP objectives are marked "RI."

Short term goals and objectives

Goal: Improve asthma surveillance in RI.

1.	By January, 2003, field a revised asthma module for the RI BRFSS which addresses all of the Plan's objectives that may be appropriately addressed with this surveillance medium. (RI)
2.	By January, 2004, develop a surveillance data set from hospital emergency department (ED) billing records to monitor ED visits for asthma. (RI)
3.	By January, 2004, develop a survey instrument to evaluate indoor air quality in every RI public school at least once every four years. (RI)
4.	By January, 2003, test the computerized health record data set developed by the Providence Public schools to see if it may be used to track asthma-related prevalence. (RI)

Goal: Build infrastructure for the assessment of the environmental triggers of asthma in schools and workplaces.

5.	By March, 2003, augment field staff at HEALTH and ALARI who are prepared to advise schools and workplaces on the control of environmental triggers for asthma. (RI)

Goal: Support patient and family education for asthma management through public education.

6.	Maintain a comprehensive public asthma education program to support patient and family education for asthma management, focusing on the avoidance of environmental tobacco smoke, having an asthma action plan, and getting a flu shot every fall. (RI)
6.a.	Annually, in coordination with the RI Tobacco Control Program, field a multi-channel public education campaign associating asthma with exposure to environmental tobacco smoke. (RI)
6.b.	Annually, in collaboration with the RI School Nurse Teacher Association, primary care physician organizations in the state, and asthma specialists' organizations, field a multi-channel public education campaign to promote the use of asthma action plans by asthma patients and their families. (RI)
6.c.	Annually, September-December, promote flu shots for all people with asthma, using multiple media channels. (RI)
6.d.	Field an ongoing, diverse public education program for asthma patients and their families from high-risk, underserved communities, focusing on inner city Providence, but reaching out to Pawtucket/Central Falls, Woonsocket, and Newport.

Goal: Improve professional education for the diagnosis and treatment of asthma in RI, and for the support of self-management of asthma by patients and their families.

7.	By January, 2003, field an ongoing, comprehensive Asthma Update program for primary health care providers in RI, stressing the use of approved guidelines for the diagnosis and treatment of asthma, the use of written asthma action plans for every asthma patient, and the need for comprehensive patient and family education to manage asthma. (RI)
7.a	Annually, in January of each year, mail an annual update of the ACP's Quick Reference Guide for Asthma Diagnosis and Treatment to primary health care providers. (RI)
7.b	Quarterly, in April, July, and October, fax a one-page Asthma Abstract to primary health care providers, containing a summary of the latest advances in asthma diagnosis, treatment and patient education from the medical literature. (RI)
7.c	Organize a series of informal Asthma Update luncheons to be held throughout the year at which asthma specialists from the ACC update primary health care providers on advances in asthma diagnosis, treatment, and patient education, and engage in questions and answers about hypothetical cases. (RI)
7.d	Sponsor talks on asthma at all major annual meetings of primary health care providers held in the state. (RI)

8.	By January, 2003, field an ongoing, comprehensive Asthma Update program for school nurse teachers and school nurses in RI. (RI)
8.a.	Annually, in January of each year, mail an annual update of the ACP's Quick Reference Guide for Asthma Diagnosis and Treatment to school nurse teachers and school nurses. (RI)
8.b.	By May, 2003, produce a chapter on Best Practices for the Support of Self-Management of Asthma by Students with Asthma to be included in a chronic disease manual for school nurse teachers and school nurses. (RI)
8.c.	Semi-annually, in September and February, mail a two-page Asthma Update to school nurse teachers and school nurses, containing advice on the support of self-management of asthma by students with asthma. (RI)
8.d.	Sponsor a talk on asthma at the annual meeting of school nurse teachers and school nurses organized by HEALTH. (RI)

Goal: Build advocacy for asthma-friendly policies to reduce asthma triggers and to improve health care for asthma.

9.	By January, 2003, field an ongoing, comprehensive asthma advocacy program to support the development of asthma-friendly policies in the construction and maintenance of homes, schools, and workplaces, and to support the development of asthma-friendly health care policies among third-party payers in the state. (RI)
	- Homes-
9.a.	By January, 2003, recruit 10 housing advocacy groups in RI to establish an Asthma-Friendly Housing Group. (RI)
	- Schools -
9.b.	By April, 2003, recruit 100-200 parents of RI schoolchildren to establish an Asthma-Friendly Schools Group. (RI)
	- Workplaces -

9.c. By July, 2004, field a tested, operational asthma control program as part of the RI Worksite Wellness Program. (RI)

- Health care -

9.d. By March, 2003, organize a group of physicians who specialize in the treatment of asthma who will serve as a core advocacy group for developing asthma-friendly third-party payer policies. (RI)

- All settings -

9e. Sponsor an annual Asthma Summit for the ACC in September. (RI)

9.f. Quarterly (March, June, and December), mail a two-page Asthma Advocate newsletter to all members of the ACC. (RI)

Medium term

Goal: Reduce exposure to asthma triggers indoors and outdoors in RI.

… *In homes*

10. By 2007, 90 percent of RI residences in which children live will be smoke free. (RI)

11. By 2007, 30 of 39 municipalities in RI will adopt model housing code standards addressing dampness and mold infestation in residences. (RI)

… *In schools*

12. By 2007, 20 of 35 RI school districts will use Tools for Schools in all public schools. (RI)

13. By 2007, 90 percent of RI middle schools, junior high schools, and high schools will be totally smoke free through effective enforcement of the state's Smoke Free Schools law. (RI)

… *In workplaces*

14. By 2007, 90 percent of all businesses that participate in the RI Worksite Wellness Program will adopt model asthma-friendly worksite policies. (RI)

… *Outdoors*

15. By 2003, enact legislation in RI to limit the idling of diesel engines. (RI)

16. By 2007, enact legislation in RI to limit the particulates emitted in the exhaust of diesel engines. (RI)

Goal: Improve Patient and family education for asthma management in RI.

17. By 2010, increase the proportion of persons with asthma who receive formal patient education, including information about community and self-help resources, as an essential part of the management of their condition. (HP)

	1998 U.S. Baseline Percent	2010 Target Percent
17.a.	8	30

Goal: Improve asthma management.

18. (Developmental) By 2010, increase the proportion of persons with asthma who receive appropriate asthma care according to the NAEPP Guidelines. (HP)

18.a. - Persons with asthma who receive written asthma management plans from their health care provider.
18.b. - Persons with asthma with prescribed inhalers who receive instruction on how to use them properly.

18.c.	- Persons with asthma who receive education about recognizing early signs and symptoms of asthma episodes and how to respond appropriately, including instruction on peak flow monitoring for those who use daily therapy.
18.d.	- Persons with asthma who receive medication regimens that prevent the need for more than one canister of short-acting inhaled beta agonists per month for relief of symptoms.
18.e.	- Persons with asthma who receive followup medical care for long-term management of asthma after any hospitalization due to asthma.
18.f.	- Persons with asthma who receive assistance with assessing and reducing exposure to environmental risk factors in their home, school, and work environments.
18.g.	- Persons with asthma who receive flu shots

19.	By 2007, 90 percent of all RI school children who carry short-acting beta agonists for asthma will have a current asthma action plan filed in their school health record. (RI)

Long term

Goal: Reduce asthma deaths.

20.	By 2010, reduce asthma deaths. (HP)

Objective	Age Group	1998 U.S. Baseline Rate per Million	2010 Target Rate per Million
20.a.	- Children under age 5 years	2.1	1
20.b.	- Children aged 5 to 14 years	3.3	1
20.c.	- Adolescents and adults aged 15 to 34 years	5	2
20.d.	- Adults aged 35 to 64 years	17.8	9
20.e.	- Adults aged 65 years and older	86.3	60

Goal: Reduce hospitalizations for asthma.

21.	By 2010, reduce hospitalizations for asthma. (HP)

Objective	Age Group	1998 U.S. Baseline Rate per 10,000	2010 Target Rate per 10,000
21.a.	- Children under age 5 years	45.6	25
21.b.	- Children and adults aged 5 to 64 years*	12.5	7.7
21.c.	- Adults aged 65 years and older*	17.7	11

Goal: Reduce hospital emergency department visits for asthma.

22.	By 2010, reduce hospital emergency department visits for asthma. (HP)

Objective	Age Group	1995-1997 U.S. Baseline Rate per 10,000	2010 Target Rate per 10,000
22.a.	- Children under age 5 years	150	80
22.b.	- Children and adults aged 5 to 64 years	71.1	50
22.c.	- Adults aged 65 years and older	29.5	15

Goal: Reduce activity limitations among persons with asthma.

23.	By 2010, reduce activity limitations among persons with asthma. (HP)

	1995-1997 U.S. Baseline Percent	2010 Target Percent
23.a.	20	10

Goal: Reduce absenteeism (school or work) due to asthma.

24.	(Developmental) By 2010, reduce the number of school or work days missed by persons with asthma due to asthma. (HP)

3 Asthma control interventions in RI

Intervention: Asthma surveillance

Goal: Goal: Improve asthma surveillance in RI.

Objective:

1. By January, 2003, field a revised asthma module for the RI BRFSS which addresses all of the Plan's objectives that may be appropriately addressed with this surveillance medium. (RI)

   Activities:

   - Meet with BRFSS staff to rough out size and content of asthma module.
   - Draft and pilot questions on HEALTH employees.
   - Submit module for testing to BRFSS staff.

2. By January, 2004, develop a surveillance data set from hospital emergency department (ED) billing records to monitor ED visits for asthma. (RI)

   Activities:

   - Meet with Chief of Health Statistics (HEALTH) to determine progress in the development of this data set.
   - Assist Health Statistics in the development of this data set, as necessary and possible.

3. By January, 2004, develop a survey instrument to evaluate indoor air quality in every RI public school at least once every four years. (RI)

   Activities:

   - Meet with staff of Healthy Kids! Healthy Schools! (HEALTH and the RI Department of Education) and the Office of Environmental Health (HEALTH) about developing a survey instrument for use by HEALTH staff to inspect elementary and secondary schools and to advise on the control of environmental triggers for asthma.
   - Draft survey instrument and procedures for its use.
   - Invite school administrators and school maintenance directors from 20 RI public schools to discuss the draft survey instrument and procedures for its use in schools.
   - Pilot use of the survey instrument in 10 of the 20 schools (above).
   - Debrief school administrators and maintenance directors about the pilot.
   - Develop a schedule to use the survey instruments in all RI elementary and secondary schools.

4. By January, 2003, test the computerized health record data set developed by the Providence Public schools to see if it may be used to track asthma-related prevalence. (RI)

   Activities:

   - Meet with information system staff of the Providence Public Schools and with members of the HELP Coalition (funders of the computerized health record project in Providence) to discuss the status of computerized health records in Providence, focusing on the completeness, timeliness, and quality of the data.
   - Obtain and analyze data.
   - Present results to information system staff of the Providence Public Schools and with members of the HELP Coalition to discuss appropriate interpretation, given earlier discussions of the completeness, timeliness, and quality of the data.
   - Write a report on the data for presentation to school nurse teachers and school administrators in Providence.

Target Group: Primary health care providers in RI (family medicine, internal medicine, emergency medicine, pediatrics)

Lead Agency: HEALTH

Lead Advisor: Dr. John Fulton (HEALTH)

Staffing: 1.0 FTE MPH-level epidemiologist
0.5 FTE research assistant

Resources:

- Budget to purchase survey time
- Printing
- Postage

Intervention: Infrastructure for the assessment of environmental triggers

Goal: Build infrastructure for the assessment of the environmental triggers of asthma in schools and workplaces.

Objective: 5. By March, 2003, augment field staff at HEALTH and ALARI who are prepared to advise schools and workplaces on the control of environmental triggers for asthma. (RI)

Activities:

- Convene HEALTH and ALARI staff to discuss staffing for indoor air quality concerns.
- Develop a consensus on the roles and responsibilities of new field staff.
- Develop a structure and processes for the coordination of field staff activities.
- Recruit and hire new field staff at HEALTH and ALARI.

Target Group: School and workplace management and maintenance staff

Lead Agency: ALARI

Lead Advisors: Dr. Robert Vanderslice (HEALTH), Marie Stoeckel (HEALTH), Molly Clark (ALARI)

Staffing: 2.0 FTE Environmental advisors

Resources:

- Computerized logs of visits, inspections, and advice given
- Printed materials for distribution on site
- Tools for Schools kits

Intervention: Public education

Goal: Support patient and family education for asthma management through public education.

Objective: 6. Maintain a comprehensive public asthma education program to support patient and family education for asthma management, focusing on the avoidance of environmental tobacco smoke, having an asthma action plan, and getting a flu shot every fall. (RI)

6.a. Annually, field a multi-channel public education campaign associating asthma with exposure to environmental tobacco smoke. (RI)

Activities:

- Develop a portfolio of messages and creatives on this subject from previous campaigns across the country.
- Develop messages and a media plan in collaboration with the RI Tobacco Control Program.
- Design scripts and creatives for asthma-related media messages.
- Test scripts and creatives on a diverse sample of people with asthma and their families.
- Purchase media time/space in collaboration with the RI Tobacco Control Coalition.

6.b. Annually, field a multi-channel public education campaign to promote the use of asthma action plans by asthma patients and their families. (RI)

Activities:

- Develop a portfolio of messages and creatives on this subject from previous campaigns across the country.
- Develop messages and a media plan in collaboration with the Asthma Regional Collaborative of New England, the RI School Nurse Teacher Association, primary healthcare provider organizations in the state, asthma specialists' organizations, and managed healthcare plans in RI.
- Design scripts and creatives for asthma-related media messages.
- Test scripts and creatives on a diverse sample of people with asthma and their families.
- Purchase media time/space in collaboration with the Asthma Regional Collaborative of New England, if appropriate, based on public education campaigns which may be fielded in the other New England states.

6.c. Annually, September-December, promote flu shots for all people with asthma, using multiple media channels. (RI)

Activities:

- Develop a portfolio of messages and creatives on this subject from previous campaigns across the country.
- Develop messages and media plan for RI in collaboration with the Ocean State Adult Immunization Coalition. Of RI
- Design scripts and creatives for asthma-related media messages.
- Test scripts and creatives on a diverse sample of people with asthma and their families.
- Purchase media time/space in collaboration with the Ocean State Adult Immunization Coalition of RI.

6.d. Field an ongoing, diverse public education program for asthma patients and their families from high-risk, underserved communities, focusing on inner city Providence, but building outwards to low income areas of Pawtucket/Central Falls, Woonsocket, and Newport.

Activities:

- Develop a portfolio of messages and creatives on this subject from previous campaigns across the country.
- Develop messages and media plan for RI in collaboration with the RI Minority Asthma Collaborative.
- Design scripts and creatives for asthma-related media messages.
- Test scripts and creatives on a diverse sample of people with asthma and their families.
- Purchase media time/space in collaboration with the RI Minority Asthma Collaborative.

Target Group: Patients with asthma and their families

Lead Agency:	6.1-6.3:	HEALTH
	6.4:	ALARI
Lead Advisors:	6.1-6.3:	Carol Hall-Walker (HEALTH)
	6.4:	Art Handy (ALARI)
Staffing:	6.1-6.3:	0.5 FTE Public Education Coordinator
	6.4:	1.0 FTE Public Education Coordinator

Resources:
- Media Budget

Intervention: Primary health care provider education

Goal: Improve professional education for the diagnosis, treatment, and management of asthma in RI.

Objective: 7. By January 1, 2003, field an ongoing, comprehensive Asthma Update program for primary health care providers in RI, stressing the use of approved guidelines for the diagnosis and treatment of asthma, the use of written asthma action plans for every asthma patient, and the need for comprehensive patient and family education to manage asthma. (RI)

7.a. Annually, in January of each year, mail an annual update of the ACP's Quick Reference Guide for Asthma Diagnosis and Treatment to primary health care providers. (RI)

Activities:

- Revise Quick Reference Guide.
- Critique revisions of Quick Reference Guide.
- Print and mail Quick Reference Guide to primary health care providers.

7.b. Quarterly, in April, July, and October, fax a one-page Asthma Abstract to primary health care providers, containing a summary of the latest advances in asthma diagnosis, treatment and patient education from the medical literature.

Activities:

- Select content and sources.
- Summarize information.
- Critique draft Asthma Abstract editions.
- Fax Asthma Abstract to primary health care providers.

7.c. Organize a series of informal Asthma Update luncheons to be held throughout the year at which asthma specialists from the ACC update primary health care providers on advances in asthma diagnosis, treatment, and patient education, and engage in questions and answers about hypothetical cases.

Activities:

- Select audience groups and sites.
- Organize luncheons.
- Hold luncheons.

7.d. Sponsor talks on asthma at all major annual meetings of primary health care providers held in the state.

Activities:

- Inventory meetings.
- Contact planning committees.
- Book speakers.
- Support speakers as necessary.

Target Groups: Primary health care providers in RI (MDs, Dos, NPs, and PAs in family medicine, internal medicine, emergency medicine, pediatrics)
Pharmacists

Lead Agency: HEALTH

Lead Advisor: Dr. Charles Sherman (Coastal Medical)

Staffing: 0.25 FTE Professional Education Coordinator

Resources:
- Printing
- Postage
- Honoraria
- Funding for luncheons

Intervention: School nurse teacher and school nurse education

Goal: Improve professional education for the management of asthma in RI schools.

Objective: 8 By January, 2003, field an ongoing, comprehensive Asthma Update program for school nurse teachers and school nurses in RI. (RI)

8.a. Annually, in January of each year, mail an annual update of the ACP's Quick Reference Guide for Asthma Diagnosis and Treatment to school nurse teachers and school nurses. (RI)

Activities:

- Revise Quick Reference Guide.
- Critique revisions of Quick Reference Guide.
- Print and mail Quick Reference Guide to school nurse teachers and school nurses.

8.b. By May, 2003, produce a chapter on Best Practices for the Support of Self-Management of Asthma by Students with Asthma to be included in a chronic disease manual for school nurse teachers and school nurses. (RI)

Activities:

- Develop a Nurse Education Advisory Sub-Committee to oversee the development of Best Practices and other educational activities.
- Research, locate, and modify an existing manual, or…
- Outline and draft a new Best Practices (10-20 pp maximum).
- Vet Best Practices in the field among volunteer school nurse teachers and school nurses.
- Revise, print and mail Best Practices to school nurse teachers and school nurses.

8.c. Semi-annually, in September and February, mail a two-page Asthma Update to school nurse teachers and school nurses, containing advice on the support of self-management of asthma by students with asthma. (RI)

Activities:

- Draft practical articles on the support of self-management of asthma by students with asthma, working from the Best Practices manual and coordinated with it. (Nurse Education Advisory Sub-Committee)
- Critique and edit the articles. (Nurse Education Advisory Sub-Committee)
- Print and mail Asthma Update to school nurse teachers and school nurses.
- Solicit new "best practices" for Asthma Update from school nurse teachers and school nurses in RI. (Nurse Education Advisory Sub-Committee)

8.d. Sponsor a talk on asthma at the annual meeting of school nurse teachers and school nurses organized by HEALTH. (RI)

Activities:

- Coordinate planning of the talk with planning for the meeting as a whole.
- Select a theme for the talk. (Nurse Education Advisory Sub-Committee)
- Select and schedule a speaker. (Nurse Education Advisory Sub-Committee)
- Support the speaker as necessary.

Target Group: School nurse teachers and school nurses

Lead Agency: HEALTH

Lead Advisors: Dr. Robert Klein (Hasbro Hospital) and a representative of the RI School Nurse Teacher Association

Staffing: 0.25 FTE Professional Education Coordinator

Resources:
- Printing
- Postage
- Honoraria

Intervention: Advocacy for asthma-friendly policies

Goal: Build advocacy for asthma-friendly policies to reduce asthma triggers and to improve health care for asthma.

Objective: 9. By January, 2003, field an ongoing, comprehensive asthma advocacy program to support the development of asthma-friendly policies in the construction and maintenance of homes, schools, and workplaces, and to support the development of asthma-friendly health care policies among third-party payers in the state. (RI)

- Homes-

9.a. By January, 2003, recruit 10 housing advocacy groups in RI to establish an Asthma-Friendly Housing Group. (RI)

Activities:

- Hold an organizational meeting for the group.
- Hold a mini-summit for the group. Present asthma-friendly housing principles. Establish an initial agenda for asthma-friendly housing in the state. Develop a list of additional potential members.
- Organize a call system to organize responses from the group.
- Plan a quarterly newsletter to keep the group informed.
- Solicit regular feedback from the group about housing issues and member satisfaction.

- Schools -

9.b. By April, 2003, recruit 100-200 parents of RI schoolchildren to establish an Asthma-Friendly Schools Group. (RI)

Activities:

- Develop a brochure for distribution through primary and secondary schools in RI and through pediatric health care providers for the parents of schoolchildren with asthma. The brochure will contain useful information about the management of asthma in the schools, emphasizing the importance of individual asthma action plans for schoolchildren with asthma and of sharing them with school nurse teachers and school nurses. The brochure will invite the parents of schoolchildren with asthma to call a 1-800 number for more information about the management of asthma in the schools.
- Establish a 1-800 number for receiving calls generated by the brochure for parents of schoolchildren.
- As calls are received, recruit parents of schoolchildren as members of an Asthma-Friendly Schools Group.
- Hold a mini-summit for the group. Present asthma-friendly schools principles. Establish an initial agenda for asthma-friendly schools in the state. Develop a list of additional potential members.
- Organize a call system to organize responses from the Group.
- Plan a quarterly newsletter to keep the Group informed.
- Solicit regular feedback from the group about school environment issues and member satisfaction.

- Workplaces -

9.c. By July, 2004, field a tested, operational asthma control program as part of the RI Worksite Wellness Program. (RI)

Activities:

- Plan an asthma control program for the RI Worksite Wellness Program.
- Assemble or develop initial promotional and educational materials for the asthma control program.
- Pilot the asthma control program in 10 RI businesses as an integral part of the RI Worksite Wellness Program; evaluate its design and materials.
- Revise the asthma control program on the basis of the pilot and evaluation.
- Assemble a group of businesses who have adopted asthma-friendly worksite policies to help promote the adoption of such policies by other businesses that participate in the RI Worksite Wellness Program.

- Health care -

9.d. By March, 2003, organize a group of physicians who specialize in the treatment of asthma who will serve as a core advocacy group for developing asthma-friendly third-party payer policies. (RI)

Activities:

- Develop a list of potential members.
- Mail an invitation to serve to potential members, signed by the Director of Health.
- Hold an organizational meeting for the group.
- Hold a mini-summit for the group. Present asthma-friendly third party payer principles. Establish an initial agenda for asthma-friendly third-party payer policies in the state. Develop a list of additional potential members.
- Develop a regular dialogue between the group and third-party payers in Rhode Island.
- Organize a call system to organize responses from the group.

- Plan a quarterly newsletter to keep the group informed.
- Solicit regular feedback from the group about third-party payer issues and member satisfaction.

- All settings -

9e. Sponsor an annual Asthma Summit for the ACC in September. (RI)

Activities:

- Convene the Asthma Summit Subcommittee of the ACC.
- Choose a location for the summit. Book the location.
- Develop a theme for the summit.
- Identify and book keynote speakers.
- Organize work sessions as part of the summit agenda. Invite ACP staff and ACC volunteers to facilitate work sessions at the summit.
- Develop, produce, and order materials for the summit.
- Finalize and print a program for the summit.
- Hold the summit.
- Evaluate the summit.

9.f. Quarterly (March, June, and December), mail a two-page Asthma Advocate newsletter to all members of the ACC. (RI)

Activities:

- Organize an editorial group to oversee the production of the newsletter.
- Develop a format for the newsletter.
- Develop topics and schedule articles for the newsletter.
- Recruit authors for specific articles.
- Edit draft articles as received.
- Set up editions from available articles, newsnotes, and other items.
- Print and mail the newsletter.

Target Group: Decision makers in each of the settings

Lead Agency: HEALTH

Lead Advisors:

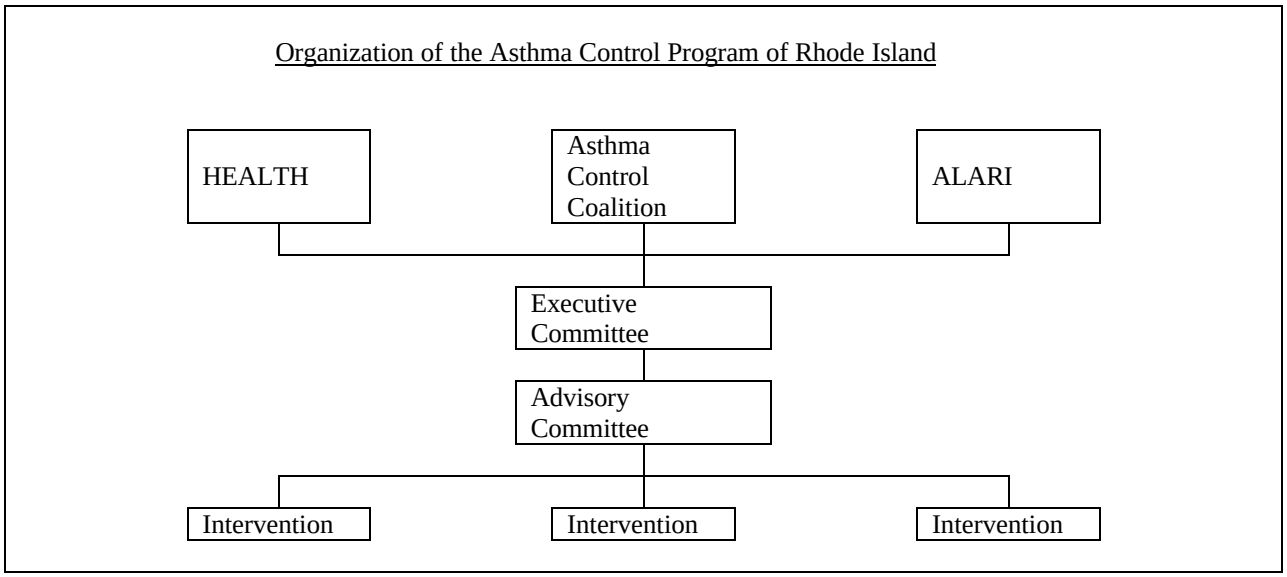
Homes:	Lodie Lambright
Schools:	Beatriz Perez
Workplaces:	Edna Poulin
Healthcare:	Mary Anne Miller
Summit:	Jayne Matoian
Newsletter:	Carol Hall-Walker

Staffing: 1.0 FTE Community Liaison Worker

Resources:
- Budgets for mini-summits and annual summit.
- Printing
- Postage
- Honoraria

Managing the interventions

Each intervention will be managed by one or more staff members of the ACP, guided by one or more lead advisors, as specified in the above interventions. Together, the staff and lead advisors associated with an intervention will be accountable for it to an Advisory Committee. The latter, composed of all ACP staff and lead advisors, will meet monthly to discuss current interventions, barriers encountered in the achievement of program objectives, and ways in which barriers may be overcome. The Advisory Committee will be chaired by a volunteer from the asthma control community in Rhode Island, invited jointly by HEALTH and ALARI to serve in this capacity. The Advisory Committee will be accountable to an Executive Committee, composed of the Chair of the Advisory Committee (who will also serve in this capacity on the Executive Committee), two senior staff members from HEALTH, and two senior staff members from ALARI. The Executive Committee will meet monthly to manage the ACP at large. The Executive Committee will be accountable to HEALTH, ALARI, and the ACC, to which it will make a report at an annual ACC Asthma Summit, to be held in the fall.



4 Evaluating asthma control interventions

Principles of evaluation

Evaluations of asthma control interventions in RI will be:

- Ongoing: Evaluation will guide interventions at all stages of development. Evaluations of process will assess adherence to detailed plans, barriers to progress, and success in overcoming them. Evaluations of intermediate outcomes will assess achievement of short-term objectives, such as attendance at meetings and recognition of public education messages. Evaluations of outcomes will be used to assess achievement of medium-term and long-term objectives, such as increased use of asthma action plans, increased compliance with prescribed medication regimens, decreased use of emergency care, and decreased asthma-related disability.

- Of practical value to program management and ongoing planning: Evaluation is a management tool, used to help managers make decisions. It must be easy to use, integral to the management process, ready with information at the right time, and detailed enough to guide decision making. Evaluation design should begin by asking the following questions: What do we need to know? (Test: Why do we need to know it? Will this help us make a decision?) When do we need to know it? In what detail?

- Carefully planned but flexible: Like any other aspect of a well-run program, evaluation must be carefully planned, or it will not deliver the right information at the right time to help managers make decisions. At the same time, it must be flexible enough to cope with changes in the program of which it is a part. Sometimes change occurs rapidly, and the management response to it (including evaluation) must be rapid as well. For this reason it is helpful to be ready with an array of evaluation tools and to have sufficient resources in reserve (personnel, expertise, budget) to field them rapidly.

- Stakeholder controlled: The most successful public health interventions are stakeholder controlled. Either the stakeholders themselves manage the interventions or managers create a process by which stakeholders have input into management decisions. Since evaluation is a management tool, used to help managers make decisions, it follows that stakeholders must have some control over evaluation, to assure its usefulness to them as decision makers.

- Protective of human subjects and sensitive to community values: “First, do no harm.” The ultimate purpose of the evaluation of a public health intervention is to serve the public, to improve the public’s health. Neglecting the protection of human subjects is contradictory to this goal, as is harming relations with the public through insensitive evaluation practices.

- Based on specific objectives and sound methodology: Evaluations are only as precise as the objectives they seek to evaluate, and only as valid as the methodology they incorporate. Imprecise objectives and unsound methodology may cause misleading evaluation results. Evaluation staff must help intervention managers specify objectives, understand principles of sound methodology, and choose evaluation designs that yield valid, reliable, and timely results.

- Integrative of information from varied sources: Every source of evaluation information is usually flawed in at least two ways: imprecision and bias. Sound methodology may be used to control these flaws, but they are rarely eliminated. Thus, it is always safer to rely on more than one source of information, and to compare results from multiple sources. This process of “triangulation,” as it is sometimes called, not only improves the overall quality of the information used to make management decisions, but also reveals insights into the biases of particular sources of information.

- Productive: Evaluations must lead to timely, articulate, and reliable results, properly documented, presented in the format(s) most useful for decision making, and sufficiently detailed to facilitate evaluation of the evaluations.

Evaluation management

Central evaluation team

Evaluation teams may be such an integral part of management that the lines between evaluation and management are blurred, or they may be so independent of management that they may serve as independent auditors of the management process, itself. Both approaches are useful, but in different ways. The first does much to assure that evaluation is a useful and productive management tool. The second provides fresh perspective on management issues, assures greater independence of judgement, and allows "triangulation" of information in the assessment of processes and outcomes.

The team created to evaluate asthma control interventions in RI will be positioned as an integral part of intervention management. Although the value of independent evaluations in the "audit" mode are recognized, the primary purpose of evaluation in a context of scarce resources must be sound management. To assure its usefulness to the management process, the Central Evaluation Team will serve as part of management.

At least one member of the Central Evaluation Team, preferably more, will be trained specifically in evaluation, epidemiology, or methods of sociological research, to assure the soundness of evaluation design and methodology, and based at HEALTH, which operates a comprehensive asthma surveillance program for the State, and houses many staff trained in surveillance and evaluation research.

The Central Evaluation Team will be supported by the Surveillance and Statistics Group of the Rhode Island Department of Health (HEALTH), and to facilitate this support, members of the Team will regularly attend the weekly meetings of the Group. The Group includes epidemiologists, evaluators, and data managers with a wide range of public health service who are positioned throughout the seven Divisions of HEALTH.

Intervention-specific evaluation teams

Each specific intervention will identify an Evaluation Team composed of a lead advisor, intervention staff, and at least one staff member assigned from the Central Evaluation Team. The management / evaluation team will meet monthly to discuss management issues, including the design, execution, and use of evaluations to guide the development and management of the intervention.

Evaluation oversight committee

The Asthma Control Program will invite members of the Asthma Control Coalition, some of whom will be selected for their expertise in surveillance, epidemiology, and management, to serve on an Evaluation Oversight Committee to guide the work of the Central Evaluation Team and intervention-specific Evaluation Teams for the Coalition. The Evaluation Committee will meet quarterly with the Central Evaluation Team and all intervention-specific Evaluation Teams in attendance to discuss approaches to evaluation, evaluation techniques, and specific evaluation products, emphasizing stakeholder needs at all levels of evaluation work. The Evaluation Oversight Committee will make an annual report to the Coalition at the Asthma Control Program's annual Asthma Control Summit.

Goals and SMART objectives

Use of objectives in evaluation planning

All evaluations of asthma control interventions and of the Asthma Control Program itself will be based on clearly defined goals and SMART objectives. All planning for evaluation by the Central Evaluation Team, intervention-specific Evaluation Teams, and their oversight group, the Evaluation Committee, will begin by carefully examining the goals and objectives for the intervention or program to be evaluated, by suggesting modifications to the goals and objectives, if necessary, and by discussing such modifications with intervention or program management.

Formulation of new objectives

Members of the Evaluation Team will be trained to facilitate the development of SMART objectives in planning and management groups for the Coalition and its Program, and serve as facilitators at appropriate junctures in the ongoing planning process.

Data collection methods

The Central Evaluation Team will be prepared to use a wide variety of data collection methods in the evaluation of the Asthma Control Program and of its specific interventions:

- Analysis of existing surveillance reports
- Death records
- Morbidity data (hospital discharge data, emergency department data)
- Survey data on risk factors for asthma from the RI Behavioral Risk Factor Surveillance System and the RI Health Interview Survey
- Intervention-specific survey instruments
- Key informant interviews
- Focus groups
- Stakeholder input at conferences and meetings

Evaluation designs

Evaluations of the Asthma Control Program will be designed by the Central Evaluation Team. Evaluations of specific interventions will be designed by intervention-specific Evaluation Teams. Sufficient time and staff resources will be committed to the design process to assure appropriate input from stakeholders and evaluation experts.

Input from stakeholders

All evaluation designs will begin with stakeholder input, to assure that evaluations meet stakeholder needs in a comprehensive, timely, and accurate way, "do no harm" in the community or communities in which the evaluations take place, and in fact serve as good public relations for the stakeholders. Stakeholder input on evaluation design will be sought at the beginning of the design process for all intervention-specific evaluations by calling a meeting of intervention stakeholders early in the process, and will be further assured by quarterly meetings of the Evaluation Oversight Committee and its annual report to the Asthma Control Coalition.

Input from evaluation experts

All evaluation designs will be vetted by presentation to HEALTH's Surveillance and Statistics Group for criticism and modification from the Group's broad expertise in evaluation design, methodology, and cost.

Data analysis

All complex data analysis will be performed by a member of the Central Evaluation Team trained specifically in evaluation, epidemiology, or methods of sociological research. Initially, evaluation results will be summarized and interpreted in technical reports to be vetted by presentation to HEALTH's Surveillance and Statistics Group for criticism and modification.

Evaluation reports

Evaluation results will be formatted for dissemination to specific audiences in the asthma control community in RI.

Audiences

The main audiences for presentation of evaluation results include:

- Program / intervention management
- Program / intervention stakeholders (including the Asthma Control Coalition at large)
- Asthma control professionals at large (in RI or elsewhere)
- Persons and families affected by asthma
- The General Public (and mass media channels to them)

Formats

Evaluation reports will be prepared in a variety of formats. The format of a particular evaluation report will be selected with stakeholder input, obtained in three ways: (1) during initial evaluation design; (2) in meetings of the Evaluation Oversight Committee; (3) by "piloting" draft evaluation reports with small groups of stakeholders before producing final reports. Evaluation staff will be prepared to write evaluation reports in the following formats:

- Slide presentations
- Web pages
- Press releases
- Briefs (1-2 page written evaluation summaries)
- Brief articles for publication in Medicine and Health / Rhode Island (a journal of medicine and public health)
- Full-length articles for publication in national public health journals
- Comprehensive collections of written evaluation reports

Dissemination

Evaluation reports will be disseminated in a variety of ways, depending on the format:

Slide presentations	Public talks (e.g., RI Asthma Control Summit)
Web pages	HEALTH's website; ALARI's website
Press releases	Faxes to media outlets
Briefs	Faxes (mainly to professionals), mailings, distribution at meetings
Brief articles	Medicine and Health / Rhode Island, mailings, distribution at meetings
Full-length articles	National public health journals, mailings, distribution at meetings
Comprehensive collections	Mailings, distribution at meetings

5 Planning

Revising the five-year strategic plan

This five-year strategic plan shall be considered an ongoing work in progress.

Schedule

Annually, at the Asthma Summit, organize planning workshops to review the Plan and suggest additions, deletions, and modifications to goals, objectives, the organization of interventions, intervention activities, and other aspects of the Plan, itself. On the basis of this input, schedule half-day mini-retreats for selected groups of stakeholders to work on those parts of the plan that seem to require more extensive reworking than could be accomplished at the Summit.

Participants

The statewide Asthma Control Coalition, all Asthma Control Program staff, and other experts and stakeholders invited to participate because of their interest and expertise (who are not already part of the Coalition).

Vetting revisions to the strategic plan

All revisions of this plan will be vetted with the statewide Asthma Control Coalition, all Asthma Control Program staff, and other experts and stakeholders invited to participate because of their interest and expertise (who are not already part of the Coalition) through mailings and meetings, using specially-designed forms for feedback.

Writing annual action plans

Purpose

Separate Annual Action Plans will be written for the Asthma Control Program at large and for each specific intervention, to guide one-year's activity in detail.

Format and outline

Annual Action Plans will use the format adopted in the present Plan, containing the following items:

- Name of intervention
- Annual goals
- Annual SMART objectives
- Annual activities
- Target groups
- Lead agency
- Lead advisors
- Assigned staff
- Evaluation Team members
- Estimated resource needs
- Schedule of meetings
- Schedule of management and evaluation reports
- Participants in the planning process

Schedule

Annual Action Plans should be ready before the start of the grant-funded year, which begins September 30, and cover the grant-funded year, 9/30-9/29.

Participants

Participants in the development of Annual Action Plans will include as many relevant stakeholders for each specific intervention as can practically attend planning sessions.

Vetting annual action plans

Annual Action Plans will be vetted with all relevant stakeholders for each specific intervention through mailings, using specially-designed forms for feedback.

6 State planning participants

[Updated April, 2002]

Primary Care Physician Advisory Committee

David Carter, MD, RI Medical Society	Vincent Hunt, MD, Hospital-Based
Anthony L. Cirillo, MD, RI ACEP	Martin Kerzer, DO, RISOPS
Colleen Cleary, MD, RI Medical Society	Victor Lerish, MD, AAP
Russell Corcoran, MD, RI ACP	James E. Monti, Jr., MD, Private Practice
Michael Fine, MD, Chair, Private Practice	Donya Powers, MD, AFPRI
Ellen Gurney, MD, Community Health Ctrs	Richard Smith, MD, Private Practice
Scott R. Hanson, MD, RI Medical Society	Patrick Sweeney, MD, ACOG
Jennifer Hosmer, MD, ACOG	Ivan Wolfson, MD, Travelers' Aid

Ad Hoc Specialty Care Group

Sidney Braman, MD, RI Hospital	Catherine Kernpe
Peter Karczmar, MD, Private Practice	Cheryl LaFreniere
Annie Parker, MD, Memorial Hospital of RI	Jayne Matoian, RRT
Charles Sherman, MD, Private Practice	Ellen Perz
Eliza Beringhause, RRT	Mark Scanlon
Karen Carlton	Laureen Sheehan
Lorri Charpentier	Kathy Short
Teri Cicero	James Smart, RRT
Mark Cooper, RRT	Susan Venezia, RRT
Jodys Ann Cowdin	Deborah Walsh, RRT
Linda Dangelo	Jeanne D'Agostino, CRT
Angela Gasparri	Crystal M, RRT

Ad Hoc Managed Care Group

Brenda Buden, Blue Chip / Blue Cr Blue Shld	Renee Rulin, MD, MPH, Neighborhood Health Plan of RI
Paul Davis, MPH, Blue Chip / Blue Cr Blue Shld	Sharon Marable, MD, MPH, RI Dept Health
Julie Johns, Blue Chip / Blue Cr Blue Shld	Barbara Casey, MPH, RI Quality Partners
Tony Shola, Blue Chip / Blue Cr Blue Shld	Ed Westrick, MD, RI Quality Partners
Yvette St. Jean, Blue Chip / Blue Cr Blue Shld	Jeanne Ehmann, RN, MS , United Health Care of NE
Susan Wien-Gebhardt, Blue Chip / Blue Cr Blue Shld	Melissa Nickel, United Health Care of NE
Dale Rogoff Greer, RN, MPH, Neighborhood Health Plan of RI	Deborah O'Connell , United Health Care of NE

Ad Hoc Healthy Schools! Healthy Kids! Planning Group

Peter Simon, MD, Pediatrician, RI Dept Health	Louise Kiessling, MD, Chief Pediatrician, Memorial Hospital
Elizabeth Shelov, Regulations Specialist, RI Dept Health	Cathy Mansell, Draw A Breath Program, Hasbro Children's Hospital
Jackie Ascrizzi, Health Services Specialist, RI Dept Education	Margaret Kane, Executive Director, American Lung Association of RI
Michele Dair, NP, School Health Center Provider, Central Falls Schools	Molly Clark, American Lung Association of RI
Celine Forte, RN, School Nurse Teacher, Smithfield Schools	Ann Marie Cardosi, Memorial Hospital
Joanne Johnson, NP, School Health Center Provider, Pawtucket Schools	Robert T. Burke, MD, Pediatrician, Memorial Hospital
Deborah Vannoy, RN, School Nurse Teacher, South Kingstown Schools	Lodie Lambright, Asthma Program Manager, RI Dept Health
Hillary Salmons, Executive Director, HELP Coalition	

The Rhode Island Tobacco Control Coalition

Laura Hilderly, RN, MS, (Chair)	Joseph Le, Socio-economic Develop. Ctr for S.E. Asians
Sandra DelSesto, Initiatives for Human Development	John Fulton, PhD, RI Dept Health
Jennifer Mansfield, American Heart Association	Allessandra Kazura, MD, American Acad of Pediatrics
George A. Zainyeh, American Cancer Society	Darrell Waldron, RI Indian Council
Margaret Kane, American Lung Association	Mary Anne Roll, RI Parent Teacher Association
Angelo Garcia, Channel One - Centrall Falls	Kathryn Meier, University of RI
Alicia Price, E Providence Substance Abuse Task Force	Ann Kelsey Thacher, Health Promotion, RI Dept Health
Judy DePue, Miriam Hospital	Loretta Becker, Urban League of RI
Clifford Monteiro, N.A.A.C..P.	Alan D. Sirota, PhD, Veteran's Medical Center
Patricia Martinez, Progresso Latino	Tyrone Akion, Youth Taking a Stand
Arvin Glicksman, MD, RI Cancer Council	Kevin Malave, Youth Taking a Stand
Marcia Campbell, RI Dept of Education	Hasan Abdullah, Youth Taking a Stand

Community based organizations formally represented in state planning

Organization	**Special Interest**
Blue Cross / Blue Shield of RI	Asthma Action Plan / data sharing
United Health Care of New England	Asthma Action Plan / data sharing
Neighborhood Health Plan of RI	Asthma Action Plan / data sharing
University of RI College of Pharmacy	Public education through pharmacies
University of RI Cooperative Extension	Public education – World Asthma Day
RI Housing	RI asthma friendly housing conference
New England Asthma Regional Collaborative	Asthma Action Plan / housing policies
Ocean State Adult Immunization Coalition	Flu shot campaign
RI Quality Partners	Flu shot campaign
Hasbro Hospital Draw a Breath Program	Data sharing
Providence Pediatric Asthma Coalition	Electronic school health record project
RI School Nurse Association	Asthma self-management in schools

State agencies formally represented in state planning

Agency	Special Interest
Department of Environmental Management	Outdoor air quality (particulates)
Department of Education	Asthma self-management in schools / Indoor air quality in schools
Rhode Island Housing	Indoor air quality in residences

Other HEALTH programs

Program	Special Interest
RI Tobacco Control Program	Reducing exposure to tobacco smoke
Division of Environmental Health	Indoor air policies for homes, schools
Division of Family Health	Asthma surveillance
Healthy Schools! Healthy Kids!	Asthma self-management in schools / Indoor air quality in schools
Office of Primary Care	Access to care / Asthma Action Plan

7 Appendix 1

Master Logic Model Framework for the Rhode Island Asthma Control Program

INPUTS	ACTIVITIES	OUTCOMES* SHORT TERM	MEDIUM TERM	LONG TERM
		* Measurement pending funding		
CDC funding Professional staff & infrastructure Time commitment Surveillance systems Internal/external partners & stakeholders State Asthma Control Plan Assets for patient & family education Assets for professional education Assets for Advocacy & policy development Program staff training in surveillance, logic model/evaluation plan development, social marketing, etc., by CDC CDC-state-local communication linkages (e.g., CDC Project Officer; conference calls & site visits; asthma listserv) Program logic model and evaluation plan	Assessment of environmental triggers: augment field staff at ALARI/HEALTH to advise schools/workplaces on control of asthma triggers Public education: maintain a comprehensive asthma education program to support patient and family asthma management focusing on avoidance ETS, using an action plan, getting a flu shot Primary health care provider education: Field an ongoing, comprehensive *Asthma Update* program stressing use of guidelines and written asthma action plan for every patient & need for patient and family education to manage asthma School nurse teacher & school nurse education: Field an ongoing, comprehensive *Asthma Update* program with annual update mailing of ACP's *Quick Reference Guide for Asthma Diagnosis and Treatment*; production of *Best Practices for the Support of Self-Management of Asthma by Students* chapter in a chronic disease manual; semi-annual mailing of 2-page *Asthma Update* with information on support of student asthma self-management; sponsor a speaker at annual school nurse teachers' meeting Advocacy for asthma-friendly policies: Field an ongoing, comprehensive asthma advocacy program to support the development of asthma-friendly policies in the construction and maintenance of homes, schools, and workplaces; support the development of asthma-friendly health care policies among third-party payers in RI	Improve asthma surveillance in RI Build infrastructure for the assessment of environmental triggers of asthma in schools and workplaces Support patient and family education for asthma management through public education Improve professional education for the diagnosis and treatment of asthma in RI, and for the support of self-management of asthma by patients and their families Build advocacy for asthma-friendly policies to reduce asthma triggers and to improve health care for asthma	Reduce exposure to asthma triggers indoors and outdoors in RI Improve patient and family education for asthma management in RI	Reduce asthma deaths Reduce hospitalizations for asthma Reduce hospital emergency department visits for asthma Reduce activity limitations among persons with asthma Reduce absenteeism (schools or work) due to asthma

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Contextual influences (e.g., culture; socio-demographics; other state, regional and national asthma-related programs and initiatives)