INTERDEPARTMENTAL REPORTAND STRATEGIC PLAN FOR ASTHMA

New Jersey Department of Health and Senior Services; New Jersey Department of Human Services; New Jersey Department of Education; New Jersey Department of Environmental Protection; United States Department of Health and Human Services

I. INTRODUCTION

"When I'm running, I get hints of an asthma attack when the rhythm of my breathing starts to change. After that, the real struggle to breathe starts. I feel like I'm fighting with some unknown force for each breath. Sometimes, I feel like the air comes into my mouth but will not go down into my lungs, and all the breathing is in vain. Other times, it feels like all the air is coming into my lungs, but nothing is coming out. My lungs feel as if they're going to explode. I'm lightheaded and weak. My whole upper body gets tense and I feel frightened and panicked which makes things worse."

Asthma is a profound national public health epidemic, responsible for nine million visits to health care providers, over 1.8 million emergency room visits and 460 thousand hospitalizations, and more than 5,000 deaths per year. Asthma is a chronic obstructive disease of the airways, characterized by inflammation and increased responsiveness of the airways. Symptoms of asthma may include wheezing, chest tightness, coughing and/or mucous build-up. Even symptoms not severe enough to require a visit to the emergency room or to a physician can still substantially impair quality of life. The burden of this chronic disease is felt everyday at the individual level, whether it's a frightening asthma attack or the constant vigilance and adherence to treatment plans required to keep it under control. The costs to society in lost productivity, health care related expenditures and educational interruption is significant.

From 1980 to 1996, the number of Americans afflicted with asthma more than doubled to almost 15 million, with children under five years old experiencing the highest rate of increase (160 percent increase among preschoolers and 75 percent increase in school age). The number of deaths related to asthma in children has nearly tripled over the last 15 years. Asthma is a common chronic disease of childhood, affecting an estimated 4.4 million children and is one of the leading causes of school absenteeism, accounting for over 10 million missed school days annually.

In addition, there are significant disparities in the burden of asthma among specific populations in the United States. Although asthma affects Americans of all ages, races, and ethnic groups, low-income and minority populations experience substantially higher rates of fatalities, hospital admissions and emergency room

visits due to asthma. Individuals living in urban areas are more likely to get asthma or display asthma-like symptoms.

Recent evidence suggests that, in some regions, as much as 20 percent of adult onset asthma may be work-related. Asthma management is expensive and imposes financial burdens on patients, their families and society, including lost workdays and income, as well as lost job opportunities. In 1990, the annual cost of asthma to the U.S. economy was estimated to be $6.2 billion, with the majority of the expense attributed to medical care. New Jersey's costs exceeded $325 million in this same analysis. A 1998 analysis using different methods estimated the cost of asthma in 1996 to be over $11 billion per year nationally.

Research has not yet identified or demonstrated how to prevent asthma from occurring. The genetic basis of susceptibility to asthma, genetic differences, and the biologic mechanisms that explain the interaction of susceptibility and environmental exposures are not well understood. However, there is a strong suspicion of an environmental linkage to asthma incidence. For example, nearly 25 percent of children living with asthma reside in areas with levels of ozone that exceed national air quality standards. Studies have also found a relationship between asthma incidence and exposure to rat and mouse urine, cockroach feces, dust mites, mold and many specific occupational exposures.

Critical breakthroughs in science in the last decade have generated a body of information that, when effectively used to guide care of patients, enables most people with asthma to live fully active lives. The National Heart, Lung and Blood Institute (NHLBI), developed *Guidelines for the Diagnosis and Management of Asthma* ("*Guidelines*"), which translate the scientific findings into recommendations for patient care. Health care providers, caregivers, and patients with asthma must work together to control the disease. Appropriate medical care, monitoring of symptoms and objective measures of lung function, along with environmental control measures to reduce exposures to allergens and other asthma triggers can substantially reduce the frequency and severity of asthma attacks.

Yet, many patients remain ill because of a complex interplay of factors. One impediment is that many patients are still not being treated or educated according to the *Guidelines*; another is patients' lack of access to quality medical care or resources to obtain sufficient medications or equipment. Even with high quality care, some cases of asthma are particularly difficult to control and medications cause adverse side effects in some people. Moreover, lack of timely surveillance data at the State and local levels often impedes planning of intervention efforts.

II. NEW JERSEY EXPERIENCE

"One of the hardest things about being a parent of a child with chronic asthma has been to acknowledge to myself that asthma, for my son, is chronic. It is not a

temporary thing. Another difficult thing has been to deal with the symptoms and treatment of his asthma without making him feel different. And finally, the emotions are hard too. Not just the niggling fears but also, the surprising anger -- Why do some doctors seem to know so little about prevention and asthma management?"

While it may take a village to raise a single child, it takes a concerted and coordinated attack by the infrastructure of the State to make inroads in asthma control. *Asthma represents a serious and compelling public health problem in New Jersey; it is a complex disease which requires a comprehensive and coordinated response including efforts directed at health care delivery systems, environmental assessment and intervention, education and health policy review. It is estimated that more than 400,000 adults and 140,000 children in New Jersey suffer from asthma; many more individuals experience some degree of distress from related respiratory difficulties. Based on the results of the 2001 New Jersey Behavioral Risk Factor Survey, an estimated nine percent of New Jersey adults indicate they have been diagnosed with asthma at some time in their lives, and approximately six percent indicate that they continue to experience the effects of the disease.*

Although hospitalizations and mortality appear to have stabilized or even declined in the last few years, more than 14,000 hospital admissions in 1999 were attributed to asthma as the primary diagnosis. This represents considerable personal and financial cost to individuals as well as the State. Children under five are especially vulnerable to the need for emergency department or hospital intervention. Death from asthma is uncommon, however; 80 residents died of the disease in 1999, and the extent to which asthma played a role in other instances of mortality is unknown.

An urgent concern is the significant disparity in the experience of members of minorities in the State. A black resident of New Jersey is at greater risk of hospitalization and death from asthma than is a white resident. While these disparities exist in the country as a whole, the apparent need for research, education, and environmental responses is a critical concern.

Long before September 11 and the workplace exposure to air pollutants at "Ground Zero," New Jersey's health experts recognized the need to address occupational asthma, which results from an exposure to a chemical or biological agent in the workplace. Occupational exposures appear to account for between five and 20 percent of adult asthma. A coordinated approach in the NJDHSS has been designed to address these health risks and develop interventions to prevent additional cases of occupational asthma and provide research data.

Responding to the Challenge

New Jersey has recognized the significant challenge of addressing asthma in the State and has adopted a broad, multi-departmental approach, highlighted by a partnership with federal as well as non-governmental organizations. Within the New Jersey Department of Health and Senior Services (DHSS),the effort

encompasses several units, including the Division of Family Health Services, the Division of Epidemiology, Environmental and Occupational Health, the Office of Minority and Multicultural Health and the Center for Health Statistics. Because of the complex nature of the disease, the Departments of Environmental Protection, Education, and Human Services all play a major role.

The critical nature of asthma is recognized by its inclusion as a separate chapter in "Healthy New Jersey 2010," published by DHSS. The objectives reflect the need to reduce the death rate, hospital and emergency department admissions and symptoms of children under five, and ethnic minority populations, who suffer disproportionately from the disease (See Appendix I – "Healthy New Jersey 2010" Chapter 4G).

Some of the key activities in New Jersey include:

- Development of new sources of accurate and timely information to document the incidence, prevalence, morbidity and health consequences of asthma, funded by the Centers for Disease Control and Prevention (CDC);

- Inclusion of asthma in the annual Behavioral Risk Factor Survey in New Jersey, to provide more intensive information about the experience of the disease in the State;

- Establishment of a Special Child Health Services Registry in which children with asthma can be registered and provided special services such as case management, pharmaceutical assistance and referral to low-cost State insurance;

- Workplace surveillance and intervention through a National Institute for Occupational Safety and Health (NIOSH) grant;

- Technical support and research to assist in protecting the public by reducing exposures to indoor environmental pollutants and contaminants;

- Promotion of effective health care in inner cities in which asthma is epidemic, training of community educators and referral, through a grant from the federal Office of Minority Health;

- Support for participation in NJ Family Care, health insurance for uninsured children, of those with asthma, providing the full range of health care services, and promotion of asthma care in related HMO programs;

- Partnership with community organizations and coalitions, including the Pediatric Asthma Coalition, the American Lung Association, the Central New Jersey Maternal and Child Health Consortium, the Pediatric Asthma

Reduction Initiative of the Robert Wood Johnson Foundation, and New Jersey's Federally Qualified Health Centers; and

- Partnership with federal maternal and child health agencies.

III. NEW JERSEY INTERDEPARTMENTAL ASTHMA RETREAT

Mobilizing the resources of the State to attack the asthma epidemic has been an ongoing and successful effort. However, coordinating, communicating and ensuring comprehensiveness of such a multi-faceted and complex effort can be an overwhelming challenge. In reviewing the extensive list of activities, DHSS identified the need to establish a clear view of current efforts and a means of communication to ensure coordination and reduce fragmentation. Consequently, an *Interdepartmental Asthma Retreat* was planned and conducted on January 15, 2002. Participants included individuals from departments and agencies in the State with active asthma programs, as well as federal partners (See Appendix II – List of Participants). The goal of the initial meeting was to review current activities, gain consensus on a mission statement and establish a first draft list of goals and objectives.

The participants, to be known as the *New Jersey Interdepartmental Asthma Committee* chose an eight-year planning horizon, to be consistent with the already articulated Healthy New Jersey 2010 goals(Appendix I). A preliminary mission statement and eight goals were identified with related objectives and strategies.

MISSION STATEMENT:

"To improve the health of people living and/or working in New Jersey by effective prevention, identification and management of asthma, through a coordinated partnership among public and private organizations"

GOAL I. PROMOTE AND SUPPORT STATEWIDE COLLABORATION AMONG PUBLIC AND PRIVATE ORGANIZATIONS TO ADDRESS ALL ASPECTS OF ASTHMA IN NEW JERSEY

Objective 1. By September 2002, identify all essential elements and build a responsive and comprehensive infrastructure sufficient to promote the mission and goals.

STRATEGIES:

A. *The Division of Family Health Services (DFHS) will update annually a survey and inventory worksheet identifying current elements of the State infrastructure related to asthma.*

B. *Members of the NJ Interdepartmental Asthma Committee will continue to provide staff and full support to the Pediatric Asthma Coalition (PACNJ) in their planning to expand to a comprehensive life-span approach to asthma prevention and management, scheduled for completion by June 2003.*

C. *By July 2003, the DHHS will apply to the Centers for Disease Control and Prevention (CDC)for continuation of support for asthma and surveillance, implementation activities, and the statewide coalition, through an Addressing Asthma from a Public Health Perspective implementation grant.*

D. *State agencies, as appropriate, will continue to support, facilitate and assist in the development of new regional or local coalitions as necessary to fill perceived gaps.*

E. *Additional stakeholders at the State and local level will be identified for participation in implementing the Asthma Strategic Plan.*

F. *Quarterly meetings of the New Jersey Interdepartmental Asthma Committee will be coordinated by DFHS.*

GOAL II. PROMOTE THE TIMELY IDENTIFICATION OF SYMPTOMS, DIAGNOSIS, AND EFFECTIVE SCIENCE-BASED MANAGEMENT OF ASTHMA THROUGH COLLABORATIVE PROFESSIONAL AND PUBLIC EDUCATION

Objective 1. Beginning December 2002, educate health care professionals about the comprehensive National Heart, Lung, Blood Institute (NHLBI) Guidelines for the diagnosis of asthma. Include HMOs and their networks, as well as others responsible for the delivery of health services.

STRATEGIES:

A. The NJ Interdepartmental Asthma Committee will provide support to the American Lung Association of New Jersey (ALANJ) for the distribution of the "Stepwise Approach to

Asthma and Diagnostic Guidelines" developed by the PACNJ to pharmacists, case managers, birthing centers, pediatric and adult health care disciplines, Federally Qualified Health Centers, conferences and other appropriate venues.

B. The guidelines will be distributed to: members of the NJ Interdepartmental Asthma Committee, Medical Directors, and other appropriate individuals. The distribution will be documented.

C. The Department of Health and Senior Services (DHSS) Asthma web site will provide a link to the PACNJ web site, the National Heart, Lung and Blood Institute (NHLBI) web site, the Department of Environmental Protection (DEP) Air Monitoring web site, the DEP Air Toxics web site, and others as appropriate, to facilitate access to information.

Objective 2. School nurses, teachers, and childcare providers, both direct caregivers and management will become more aware of symptoms that may be suggestive of asthma.

STRATEGIES:

A. DHSS and the Department of Education (DOE) will continue to collaborate with the PACNJ in providing training on asthma management in the school setting to school nurses and other school staff through the County School Nurses associations.

B. Collaboration by DHSS and the Department of Human Services (DHS) will continue with the New Jersey chapter of the American Academy of Pediatrics in providing training on management of children with asthma to child care providers through the Healthy Child Care New Jersey project and the annual Health in Child Care Conference.

C. The training of all Child Health Consultant Coordinators employed by the Unified Child Care Agencies will be reviewed by DHSS and DHS and enhanced to ensure a team capable of providing consultation on asthma management to child care providers.

a. The NJ Interdepartmental Asthma Committee will provide ongoing support for the Childcare Task Force of the PACNJ

b. Licensing Standards and regulations relative to permissible activities by childcare providers will be reviewed by DHSS and DHS to identify any obstacles to implementing effective training for such individuals.

c. As part of the EPA Tools for Schools Grant, the DHSS Public Employees Occupational Safety Health (PEOSH) Program will continue to provide educational opportunities to principals, schools nurses, facilities managers, school administrators, school board members and employee representatives. Educational opportunities include written materials, speaking engagements, and attendance at association meetings and conventions.

d. The DHS Division of Family Development will participate in the outreach to childcare staff members.

Objective 3. By December 2002, facilitate broad access to information about effective asthma care for professionals, parents and the public by providing education about symptoms, appropriate resources for the diagnosis of asthma and available referral systemsthrough multi-media efforts.

STRATEGIES:

A. DHSS, and other State agencies, as appropriate, will provide basic information on asthma on its web site, with links to other sources of comprehensive asthma information, including the PACNJ website.

B. DFHS will provide additional training to Case Managers and highlight their role in asthma management.

C. The Interdepartmental Asthma Committee will oversee the assembling of a library of existing educational literature, Internet web sites and other materials, in conjunction with the PACNJ, to be made available to individuals and organizations.

Objective 4. Develop and implement a plan to educate physicians, health care providers, employers, and HMO plans about reporting regulations (occupational exposures) and the guidelines for prevention, diagnosis, and management of occupational asthma.

STRATEGIES:

A. By September 2003, appropriate agencies will expand the current Occupational Health Services (OHS) mailing list of NJ physicians, health care providers, stakeholders and other interested parties to receive relevant information.

B. By April 2003, OHS will disseminate information about NJ reporting regulations for occupational diseases including work related asthma.

C. DEP will continue to publish ongoing research on asthma and environmental triggers.

D. Collaborate with the Environmental and Occupational Health Services Institute of UMDNJ to develop outreach effort to improve the recognition, diagnosis, medical surveillance, and reporting of occupational asthma among NJ physicians and health care providers.

Objective 5. DHSS and DHS will support the PACNJ in encouraging all public and private health care plans, including managed care, to provide a comprehensive disease management program for enrollees with asthma including but not limited to an asthma action plan.

STRATEGIES:

A. Through participation in the Insurance Task Force of the PACNJ, develop recommendations for insurance coverage for asthma, and promote the agreement by health care plans to adopt these recommendations.

B. The DHS will adopt contract language requiring HMOs that cover persons enrolled in Medicaid to provide asthma services that conform to the recommendations for insurance coverage.

C. The DHSS will use HEDIS standards to evaluation the quality of asthma care provided by licensed HMOs and distribute this information to the public through its annual HMO report card.

Objective 6. Over the long term, ensure access to comprehensive quality care, within the context of a "medical home model," including the active participation of a primary physician or health professional who ensures appropriate referrals and monitors outcomes.

STRATEGIES:

A. Encourage the "medical home" model to ensure that appropriate and consistent orders are provided to all who participate in the care of students with asthma (See American Academy of Pediatrics, Policy Statement, Volume 90, No. 5, November 1992, p. 774, Medical Home, RE9262).

GOAL III. DEVELOP AND MAINTAIN A SYSTEM FOR MEASURING ALL ELEMENTS OF ASTHMA IN THE STATE

Objective 1. By July 2003, gain consensus on the basis for relevant parameters for measurement, which might include, but not be limited to: air quality, school attendance, diagnosis, emergency department and hospital admissions, workplace and environmental exposures and others.

STRATEGIES:

A. *Identify parameters feasible for short term surveillance and those requiring a long term plan.*

B. Participate in on-going peer review process to list agents known to cause asthma in the workplace.

C. Participate in the development of a mechanism for adding newly identified asthma-causing agents to the list.

D. Review the current list of all available sources of data and the extent to which they are accessible.

Objective 2. By December 2004, develop new sources of information to fill identified gaps, including emergency department admissions and outpatient care.

STRATEGIES:

A. Add questions relative to asthma to the New Jersey Behavioral Risk Factor Survey (BRFS) questionnaire.

B. Coordinate actions with Health Care Systems Analysis to obtain, analyze and report on New Jersey emergency department admissions.

C. The Consumer and Environmental Health Services (CEHS) will evaluate the impact of exposure and examine the relationship to hazardous air pollutants on asthma hospitalization rates in four New Jersey locations.

D. DHSS and DOE will develop a method to collect and analyze school absenteeism data related to asthma.

Objective 3. Provide ongoing review and analysis of the relevant data and promote public awareness of relevant information.

STRATEGIES:

A. Provide links from the NJDHSS Asthma web site to the DEP web site and promote use of the air quality index on a daily basis.

B. FHS will disseminate an annual report concerning asthma surveillance.

C. Participate in annual meetings of asthma surveillance experts.

Objective 4. Promote the development and distribution of regular reports to the citizens of the State which outline the status of the State-wide efforts to reduce and control asthma.

STRATEGIES:

A. The Center for Health Statistics will provide timely provision of vital statistics data for asthma surveillance.

B. Asthma related questions will be added to the New Jersey BRFS of adults regarding health status and use of health services.

C. The Center for Health Statistics will provide as needed annual statistics on the demographic and health-related characteristics of persons with asthma, as derived from the New Jersey BRFS.

D. DHSS will issue an annual Report on Asthma in New Jersey.

E. Develop an ad-hoc web site committee to create an asthma web site.

GOAL IV. PREVENT THE ONSET OF ASTHMA, TO THE EXTENT POSSIBLE, THROUGH THE IDENTIFICATION AND REDUCTION OF CONTAMINANTS WHICH MAY CAUSE THE DISEASE

Objective 1. On an on-going basis, identify long term goals for the reduction of levels of outdoor, indoor, workplace and school ambient air pollutants and environmental triggers that will impact on both the incidence of asthma and factors that may aggravate existing asthma conditions.

OUTDOOR

STRATEGIES:

A. DEP will develop implementation plans for reduction of Outdoor triggers.

B. Strategies already in place by the DEP to reduce outdoor triggers include but are not limited to:

a. Ongoing monitoring of air pollution;

b. Reduction of emissions from mobile sources: low emission vehicles; Stage II vapor recovery; reformulated gasoline; low sulfur gasoline; inspection and maintenance programs; standards for diesel, small gasoline, marine, and locomotive engines; anti-idling regulations.

c. Reduction of emissions from stationary sources: Reasonably Available Control Techniques (RACT) for marine vessel ballasting and loading of gasoline, architectural surface coating, solvents, landfills and auto refinishing; facility-wide risk assessment.

d. Camden Waterfront South Air Toxics Project: this EPA funded project is being implemented by the Bureau of Air Quality and Evaluation to assess the risk from air toxics in the Camden Waterfront South area of Camden County. The final phase of the project will be to recommend reduction strategies. This project will serve as a model to implement community wide risk assessments in other parts of the state.

e. Use of National Air Toxics Assessment (NATA) study to target facilities in the state.

f. Out of state sources: NJ was working with other northeastern states as part of a law suit against out of state utility companies to get them to reduce their emissions. Presently the suit is not active, pending EPA decision on New Source Review.

C. Strategies proposed to reduce outdoor triggers include but are not limited to:

a. Increased ambient air monitoring;

b. Reduction of emissions from mobile sources: cleaner running vehicles; reduced vehicle miles traveled; reduced emission from refueling; diesel retrofit programs; increased restrictions on idling and queuing; mobile fleet fuel changes.

c. Reduction of emissions from stationary sources: increased compliance and enforcement, boiler tune-ups, addition of hazardous air pollutants to emission statements, pesticide non-active ingredients reporting, energy conservation programs, increased facility-wide risk assessments (with risk reduction follow-up), particulate limits for utility/industrial/commercial boilers, increase general permits.

*C. The NJDEP maintains a web site (*http://www.state.nj.us.dep/airmon*), which provides daily and anticipated air quality information. This information is useful for those at risk for respiratory distress.*

WORKPLACE

STRATEGIES:

A. By June 2002, apply for available federal funds to conduct surveillance and intervention activities for work related asthma. Funding received for three years through September 2005.

B. Conduct onsite industrial hygiene evaluations at workplaces identified through surveillance activities.

C. By September 2003, develop hazard surveillance projects aimed at evaluating occupational exposures to selected asthma

causing agents and assessing control measure to reduce exposures.

D. *Educate workplace management on asthma triggers and control mechanisms, as well as identification of symptoms that require referral for diagnosis.*

E. *By September 2003, develop an educational bulletin with actual work- related asthma case histories to educate and encourage physicians to take work histories and report suspected cases of work- related asthma.*

F. *By September 2003, develop and implement a plan to educate physicians, health care providers, and HMO plans about taking work histories.*

G. *Distribute reports of work site industrial hygiene evaluations to respective reporting physicians and health care providers.*

H. *Disseminate literature on asthma causing agents to individuals reported to the Occupational Asthma Registry, identified industries and other users of asthma causing agents.*

INDOOR

STRATEGIES:

A. *By June 2003, DFHS and Consumer and Environmental Health Services (CEHS) will inventory the current strategies available for control of indoor asthma triggers and consider alternatives which include all settings: home, non-residential, recreational and consumer sites.*

B. *By June of 2003, coordinate with the CHES asthma-related activities, to distribute educational, outreach materials, and provide consultation and technical assistance. Inadequately served and populations at risk will be identified with a focus on providing necessary outreach services.*

C. *Support the CEHS efforts in securing federal funding to provide for local health department and/or community-based organizations to address indoor environmental contaminants through the promotion of the federal Healthy Home Model. Support pilot workshops coordinated by the CEHS in cooperation with Rutgers University Cooperative Extension*

and provided to local health departments on indoor environmental health issues.

SCHOOLS

STRATEGIES:

A. The DHSS Occupational Health Services (OHS), consistent with the EPA Tools for Schools Grant, will continue to review literature, attend conferences and maintain contact with professionals in the indoor air quality field. Any new information will be shared with the Task Force.

B. The Department of Education will continue to provide resource information to school nurses and professional staff regarding asthma and its triggers that may be present in the school setting.

C. Promote the use of the video produced and disseminated for satellite presentation to county school nurse associations who will provide ongoing education for school nurses. An update will be made available by February 2003.

D. Promote the use of a video that will be produced and disseminated to all schools for the education of the professional staff by January2003.

Objective 2. By December 2003, identify the most effective prevention strategies currently known and which can be adopted in the state.

STRATEGIES:

A. Review results of research regarding model intervention programs.

B. Send representatives to appropriate state and national conferences and professional training programs; establish mechanism for sharing information.

Objective 3. Develop and/or disseminate appropriate educational materials, training guides and other tools to ensure the adherence to known guidelines of pollution reduction.

STRATEGIES:

A. Support the CHES application for federal funds to provide training for local health department and or/community-based organizations to address indoor environmental contaminants.

B. Promote the distribution of "Top Ten Actions to Control Asthma Triggers in your Home," developed by the PACNJ.

C. DOE will continue to provide videos and updates produced for the education of school nurses and professional staff.

GOAL V. REDUCE THE DISPARITY OF ASTHMA INCIDENCE AND MORBIDITY/MORTALITY AMONG SPECIFIC SOCIOECONOMIC, RACIAL AND ETHNIC POPULATIONS

Objective 1. Starting with an annual Asthma Surveillance Report in 2003, highlight specific populations at increased risk for the high incidence of asthma.

STRATEGIES:

A. Appropriate agencies, including OHS, will analyze SENSOR Asthma registry data quarterly to determine specific populations at risk of developing work related asthma.

B. DHSS asthma surveillance activities will analyze mortality and hospitalization data, and other data as it becomes available, to identify and document disproportionate rates of asthma in racial and ethnic populations and geographic areas.

C. Promote the DEP development of a Geographic Information System to identify communities at risk.

Objective 2. With the active participation of relevant stakeholders, including the PACNJ, develop and disseminate culturally and linguistically appropriate educational materials.

STRATEGIES:

A. Develop Asthma Action Plans in Spanish and other languages as need is identified.

B. Support the dissemination of a video on asthma produced by the American Lung Association for the primarily Hispanic community.

Objective 3. Increase or initiate professional and public awareness of the degree to which particular populations are disproportionately affected by asthma.

STRATEGIES:

A. The Interdepartmental Asthma Committee will increase or initiate awareness of asthma disparities through on-going Office of Minority and Multicultural Health (OMMH) networks by disseminating health disparity information, including electronic and print media, to the OMMH Advisory Commission, community partners, and other interested stakeholders.

Objective 4. Promote, facilitate, and encourage existing, or newly established, coalitions to include representatives from populations disproportionately affected by asthma.

STRATEGIES:

A. The Interdepartmental Asthma Committee will promote asthma in on-going OMMH efforts to strengthen links with target communities at risk, through its work with the OMMH Advisory Commission.

B. OMMH will continue to provide technical assistance that may include identifying models of intervention and effective tools for outreach for disparate cultural and ethnic populations, in an effort to link with minority community based organizations in regards to asthma. Existing OMMH community mobilization grantees could be a future resource in asthma outreach efforts.

Objective 5. Identify and implement opportunities to promote research specifically in ameliorating the disparate asthma experience among special populations.

STRATEGIES:

A. Identify federal research funding grants.

B. OMMH will facilitate collaborations to obtain research grants addressing asthma disparities.

GOAL VI. ENCOURAGE AND SUPPORT RELEVANT AND TIMELY ASTHMA RESEARCH

Objective 1. Promote and support collaboration between State agencies and universities in the State to promote asthma research through data sharing and technical assistance as appropriate.

STRATEGIES:

A. Identify relevant asthma research being conducted in New Jersey

i. The NJDEP is pursuing research on levels of criteria pollutants and their interactions and effects on asthma incidence;

ii. The NJDEP supports the NJDHSS by providing data and expertise.

B. The NJDEP maintains a web site at (http://www.state.nj.us/dep/airmon/airttoxics/)which provides information on air toxics and links to other web sites or pages, such as information on asthma.

C. The Interdepartmental Asthma Planning Committee will facilitate collaboration among State agencies in obtaining research grants and conducting research related to asthma.

APPENDICES

APPENDIX I

2010 Objectives

1. Objective: Reduce the age-adjusted death rate from asthma per 1,000,000 standard population to:

9.0 for the total population
5.0 for whites
18.0 for blacks

Populations	1996-1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total age-adjusted	11.7	9.0	-23.1	5.0	-57.3
White age-adjusted	7.7	5.0	-35.1	5.0	-35.1
Black age-adjusted	37.2	18.0	-51.6	5.0	-86.6
Asian/Pacific Islander age-adjusted	DSU				
Hispanic age-adjusted	DSU				

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Center for Health Statistics

Due to the small numbers of asthma deaths per year (fewer than 400 during 1996 through 1998), a three-year average was used to compute the age-adjusted death rates. For 1996 through 1998, the black rate was nearly five times the white rate. With proper care, most asthma deaths are preventable.

2. Objective: Reduce the annual asthma hospital admission rate per 100,000 population to:

150.0 for the total population
100.0 for non-Hispanic whites
250.0 for non-Hispanic blacks
150.0 for Hispanics

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total	166.6	150.0	-10.0	100.0	-40.0
White non-Hispanic	101.3	100.0	-1.3	100.0	-1.3
Black non-Hispanic	428.0	250.0	-41.6	100.0	-76.6
Asian/Pacific Islander	DSU				
Hispanic	241.6	150.0	-37.9	100.0	-58.6

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Division of Health Care Systems Analysis

In 1998, asthma was responsible for 13,521 hospitalizations in New Jersey. Blacks and Hispanics accounted for nearly half (52.0%) of this number. Admission rates for black non-Hispanics and Hispanics are substantially higher than for white non-Hispanics. Since asthma can be effectively managed by patients and their primary care doctors on an outpatient basis, many asthma hospitalizations are preventable. Disparities may reflect lack of access to adequate asthma management, poor medication adherence, and inadequate environmental controls. Targets have been set to reduce disparities.

3. Objective: Reduce the annual asthma hospital admission rate per 100,000 children under age five to:

340.0 for all children under age five
250.0 for non-Hispanic white children
800.0 for non-Hispanic black children
340.0 for Hispanic children

Populations	1998 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
All children < 5	509.1	340.0	-33.2	200.0	-60.72
White non-Hispanic	278.6	250.0	-10.7	200.0	-28.2
Black non-Hispanic	1,306.2	800.0	-38.8	200.0	-84.7
Asian/Pacific Islander	DSU				
Hispanic	550.5	340.0	-38.2	200.0	-63.7

DSU = Data are statistically unreliable.
Source: New Jersey Department of Health and Senior Services, Division of Health Care Systems Analysis

Hospitalization of children under age five is targeted because the asthma hospitalization rate for children less than five years of age is substantially higher than the hospitalization rate for children 15-19 years of age. Over one-fifth (20.6%) of asthma hospitalizations in 1998 were of children under age five. Minority children are hospitalized disproportionately. More than half of hospitalized children (58.0%) were black or Hispanic. With improved asthma management, overall hospitalizations of young children, as well as disparities should be reduced.

4. Objective (Developmental): Reduce the rate of emergency department visits per 100,000 population due to asthma to:

Populations	2002 Baseline Data	Target	Percent Change	Preferred 2010 Endpoint	Percent Change
Total					
White non-Hispanic					
Black non-Hispanic					
Asian/Pacific Islander					
Hispanic					

Source: New Jersey Department of Health and Senior Services, Division of Health Care Systems Analysis

Anecdotal evidence suggests that minority populations rely disproportionately on emergency department visits to treat asthma. NJDHSS plans to develop an emergency department electronic data reporting system which will provide information on visits by diagnoses. The database will contain, among other variables, information on patient demographics. It is anticipated that data on emergency department visits will be captured starting in 2002 and that the data will be available for analysis starting in 2003.

Discussion

The increase in the incidence, morbidity, and mortality of asthma has made it a disease that is receiving growing attention both nationally and in New Jersey. The Centers for Disease Control and Prevention (CDC) is currently developing a national strategy for asthma prevention programs and is proposing substantial increases in federal spending to address asthma. NJDHSS is exploring ways to reduce the morbidity and mortality of asthma in New Jersey.

The environment is believed to play a major role in the incidence and prevalence of asthma. In particular, air pollutants, including allergens, ozone, particulate matter, sulfur dioxide, nitrogen dioxide, indoor air contaminants, and some occupational exposures may trigger or exacerbate asthma episodes. While more research is needed on the relationship between the incidence of asthma and the environment, it is anticipated that the efforts by NJDEP to improve air quality in New Jersey (see section 3A, Environmental Health for related objectives), will help reduce asthma incidence, morbidity and mortality.

In New Jersey, asthma disproportionately results in hospitalization and death for minorities. From 1996 to 1998, the death rate due to asthma was almost five times higher for blacks than whites. Although the overall number of deaths attributed to asthma is low, the disparity among racial and ethnic groups in these largely preventable deaths is unacceptable. Disparities may reflect both greater exposure to possible environmental triggers, as well as other factors including a lack of access to asthma management in primary care settings. Significant progress has been made in the treatment of asthma during the past ten years and access to health insurance, primary care and to appropriate medical therapies should reduce hospitalization rates. However, environmental exposures to asthma triggers may also significantly impact asthma severity, and research shows that ethnic minority populations in urban areas tend to have greater exposure to these environmental factors. Therefore, reduction in disparities related to access to primary care and appropriate medical therapies should reduce the disparities in death rates from asthma, but may not be sufficient to eliminate them entirely by the year 2010.

In 1999, recognizing the burden of asthma on minority communities, NJDHSS, in conjunction with the New Jersey Minority Health Network on Asthma, a community-based organization, developed a pilot *Asthma Resource Guide*. The guide is designed to educate the public and create asthma awareness in three communities, Newark, New Brunswick, and Trenton, as well as highlight asthma-related resources available within these communities. Services available include medical care to manage, monitor and control asthmatic conditions, counseling, and support. The guide is also available on the NJDHSS web site.

A Pediatric Asthma Coalition, consisting of over 40 organizations, began meeting in January 2000. The primary goal of the Coalition, chaired by the American Lung Association of New Jersey (ALA), in collaboration with its medical section, the New Jersey Thoracic Society, is to promote the use of the National Heart, Lung and Blood Institute's Asthma Management

Guidelines by schools, primary care providers; payers, parents and children. If new federal funds for asthma initiatives are made available to New Jersey, NJDHSS plans partnerships with community-based organizations and health care providers in high-risk communities to reduce the burden of asthma. Particular emphasis will be placed on identifying, diagnosing, and treating persons with asthma in urban settings as early as possible, to prevent or limit lung damage. Asthma is a chronic disease and generally requires preventive medication. NJDHSS will educate health care providers, patients, and parents that asthma, in many cases, can be self-managed by the patient, with proper supports and use of treatment guidelines. When a physician who is familiar with the treatment and individual circumstances of a patient with asthma is managing the condition on a routine basis, the probability of acute attacks, and the resulting need for emergency room treatment and/or hospitalization is reduced. At this time, NJDHSS can only track hospitalizations. A modernization of the hospital reporting system will allow monitoring of emergency room usage and diagnoses within several years. This will greatly enhance NJDHSS's ability to assess the effectiveness of asthma management in primary care settings.

Asthma is a major factor in school absenteeism. Currently there are no baseline data or a reliable data source for tracking the number of days of school lost due to asthma. Therefore, this issue is not included in this edition but represents an opportunity for development.

Year 2010 objectives should reflect the effectiveness of efforts by NJDHSS and others to prevent asthma, as well as better manage it.

APPENDIX II

INTERDEPARTMENTAL ASTHMA RETREAT

JANUARY 15, 2002

Participant List

Name	Title	Unit
Celeste Andriot Wood Services	Assistant Commissioner	DHSS - Family Health (DFHS)
Lakota Kruse MD	Medical Director	DHSS/DFHS
Barbara Andrews	Executive Assistant	DHSS/DFHS
Kevin McNally Adol	Program Manager	DHSS/DFHS – Child & Health
Crystal Motlasz Adol Health	Health Educator	DHSS/DFHS – Child &
Jonathan Wallace Epidemiology	Research Scientist 2	DHSS/DFHS - MCH
Gloria Jones-Grant Child and Intervention	Director	DHSS/DFHS - Special Adult Health and Early (SCA/EIS)
Diane DiDonato	Program Manager	DHSS/DFHS - SCA/EIS
Elizabeth Collins	Nursing Consultant	DHSS/DFHS - SCA/EIS
Linda Anderson	Coordinator, Primary Care	DHSS/DFHS
Eddy Bresnitz, M.D. Occupational	Assistant Commissioner	DHSS - Epidemiology, Environmental and Health (EEOH)
Jim Brownlee	Director, Consumer and Environmental Health (CEHS)	DHSS/EEOH

Joseph Eldridge	Assistant Director, CEHS	DHSS/EEOH
Rukmani Ramaprasad	Analyst 1	DHSS/EEOH - Occupational Health (OHS)
Don Schill	Research Scientist 1	DHSS/EEOH - OHS
Eric Beckhusen	Research Scientist 1	DHSS/EEOH - OHS
Georgette Boeselager	Health Data Specialist	DHSS - Center for Health Statistics
Anne Corwell	Acting Director Office of Educational Support	Dept of Education
Donna Mieszkowski	Manager	DHS - Office of Quality Assurance
Marti Gonzalez-Turner	Quality Management Coord.	DHS - Office of Quality Assurance
Linda Bonanno	Research Scientist	DEP - Div. of Science, Research & Tech.
Dr. Margaret Lee	Division Director	USDHHS - New York Regional Field Office
Shirley Smith	Regional MCH Consultant	USDHHS - New York Regional Field Office
Alice Christiansen	Human Resources Consult.	Dept. of Personnel
Denyse Adler	President	The Adler Group

DHSS - New Jersey Department of Health and Senior Services
DHS - New Jersey Department of Human Services
DEP - New Jersey Department of Environmental Protection
USDHHS - United States Department of Health and Human Services