

FOCUS

Combating the Growing Problem of Asthma in the United States

Asthma, a chronic lung disease in which the airways become inflamed, is a growing health problem in the United States, especially among children and members of minority groups.

Over the past 20 years, the number of reported cases of asthma has nearly tripled. Today, almost 15 million Americans suffer from asthma—5 million are children and young adults under 18 years old.

The prevalence of asthma is 5.7 percent in the population as a whole but is 7.5 percent, or one-third higher, in the under-18 age group, and data indicate that the prevalence is increasing in all age groups.

Minority and low-income populations appear to be especially vulnerable. Although the prevalence of asthma is only slightly higher in nonwhites than in whites, African Americans and Hispanics are two to six times more likely than whites to die from asthma. The rate of asthma fatalities among African American children is four times higher than their white counterparts; the rate is six times higher among young adults.

Causes and Effects

Several factors may be responsible for the increase in the number of asthma cases and the differences in death rates, but the exact causes are not known.

Changing demographics, however, may account for at least some of the increase.

Today there are more children in the United States than there were during the peak year of the post-World War II baby boom, and the prevalence of asthma is higher in children and young adults than it is in the adult population.

Despite the increasing prevalence of asthma, effective methods are available now to manage this potentially life-threatening disease. Asthma, like diabetes and other chronic conditions, cannot be cured, but it can be controlled. Effective management can prevent asthma attacks and reduce the risk of serious or

fatal complications.

Managing asthma and preventing its complications depend on avoiding exposure to asthma triggers, taking proper medications to prevent or treat asthma attacks, and continuously monitoring the disease.

At the heart of asthma management and prevention are the patient and the health care provider. Health care providers in particular can teach asthma self-management to patients. They also can take an active role in disseminating information to schools, community centers, and similar organizations that

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SPOTLIGHT

Chicago Communities—Working to Breathe Easy

The Chicago Asthma Consortium (CAC), sponsored by the American Lung Association of Metropolitan Chicago and the American College of Chest Physicians, works to address the health problems associated with asthma and enhance the quality-of-life for people with asthma.

The CAC is currently engaged in:

- A collaborative learning program for improving hospital care that examines use of the emergency department by individuals with asthma
- The “Asthma Adventure,” an interactive health program at various sites throughout the city that includes age and culturally appropriate educational materials and activities
- An evaluation of patient education materials
- A speaker’s bureau to work with school nurses and other staff members on asthma management issues
- A slide kit, an asthma manual for schools, and a poster that shows what to do in an asthma emergency
- An analysis of the cockroach allergen findings
- Partnerships with Illinois Department of Public Aid and major pharmacy chains to capture their asthma data
- Annual asthma data-gathering workshops

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reach children, minorities, and other populations at increased risk of asthma.

Earlier this year, the Federal Task Force on Environmental Health Risks and Safety Risks to Children released its report *Asthma and the Environment*. The report contains recommendations for asthma research, surveillance, risk reduction, and management.

To learn more about asthma prevalence and risk, the National Institute of Environmental Health Sciences (NIEHS) and the Department of Housing and Urban Development are sponsoring the National Allergen Survey. Results will determine the extent of the general population's exposure to household allergens and differences in exposure based on factors such as region, ethnicity, socioeconomic status, and housing type.

NIEHS also is teaming with the National Institute of Allergy and Infectious Diseases (NIAID) on the second Inner-City Asthma Study. This study is testing the effectiveness of two educational interventions—one aimed at primary care physicians and the other at families—in reducing the severity of asthma in children.

In addition, NIEHS, NIAID, and the U.S. Environmental Protection Agency (EPA) are collaborating to determine the effect of exposure to indoor and outdoor particulates and pollutants on inner-city children.

ASTHMA FACTS

- Asthma is now the most common chronic childhood disease in the United States.
- In 15 years, the prevalence of asthma has increased by 58 percent overall and by 54 percent among those under 18.
- Asthma is the leading cause of school absenteeism.
- Asthma was responsible for 500,000 hospitalizations in 1995.
- Asthma-related hospitalizations have increased by 17 percent overall since 1979.
- Hospitalizations among children younger than 13 have increased by 74 percent since 1979.
- Approximately 25 percent of U.S. children live in areas that exceed the Federal standard for ozone in the atmosphere.
- An average of nearly 14 people suffer a fatal asthma attack every day.
- Since 1980, the age-adjusted death rate for asthma has increased by 52 percent.

To collect additional data about asthma, State-based asthma surveillance systems are currently being developed with support from the Centers for Disease Control and Prevention (CDC). A 1996 CDC/Council of State and Territorial Epidemiologists survey indicated that most States lack the funding and data necessary to develop such programs on their own.

EPA recently ordered 22 States to reduce their levels of ozone, which is among the environmental triggers for asthma. The new regulations are expected to reduce ozone levels by 28 percent in 4 years.

EPA also is working with the American Psychological Association and the National Center for Safety and Child Care to educate the public about environmental tobacco smoke, another asthma trigger.

Prevention and Education

The National Asthma Education and Prevention Program (NAEPP), operated by the National Heart, Lung, and Blood Institute (NHLBI), uses a variety of methods to encourage the recognition of asthma symptoms by patients, families, and the public and to ensure the appropriate diagnosis by health professionals. NAEPP also promotes effective partnerships among patients, physicians, and other health providers to develop effective asthma treatment programs.

Studies have shown that programs like NAEPP are most successful when they promote asthma-related behavior changes, increase patient understanding of the disease, and encourage patient-provider cooperation in the management of asthma. Such programs reduce asthma-related hospitalizations and emergency room visits and decrease the need for medications.

For example, in the original Inner-City Asthma Study (by NIAID and NIEHS), which ended in 1996, a trained social worker taught patients and family members how to identify asthma triggers, improve their access to health services, and manage environmental exposures.

These interventions resulted in significant reductions in symptoms and fewer visits to health care providers for treatment.

NAEPP's second Expert Panel Report, released in 1997, contains updated guidelines for health care providers to use in diagnosing and managing asthma. Included are ways to reduce exposure to environmental risk factors and proven methods for teaching asthma self-management and prevention to patients.

NHLBI also created the Asthma Management Model System—an electronic information tool designed to facilitate long-term asthma management. The Web address is <http://www.nhlbisupport.com/asthma/index.html>. The site contains links to searchable databases and other asthma resources.

That asthma is of rising public health import is reflected in Healthy People. Healthy People 2000 contained only three asthma objectives, scattered in different chapters. Healthy People 2010, currently in draft form, has an entire chapter on respiratory diseases, which contains more than 10 objectives on asthma alone.

Healthy People 2010 will be launched at the "Partnerships for Health in the New Millennium" conference on January 24-28, 2000, in Washington, D.C.

Select Asthma Resources

www.healthfinder.gov
The Department of Health and Human Services' gateway consumer health information Web site.

National Asthma Education and Prevention Program
(301) 251-1222
www.nhlbi.nih.gov/nhlbi/othcomp/opec/naepp/naep_pd.htm

National Institute of Allergy and Infectious Diseases
www.niaid.nih.gov

National Institute of Environmental Health Sciences
www.niehs.nih.gov

National Center for Environmental Health
(770) 488-7030
www.cdc.gov/nceh/ncehome.htm

U.S. Environmental Protection Agency
(202) 260-2090
www.epa.gov

Allergy and Asthma Network Mothers of Asthmatics Inc.
(703) 878-4403
www.aanma.org

American Academy of Allergy, Asthma, and Immunology
www.aaaai.org

American Association for Respiratory Care
(214) 243-2272
www.aarc.org

American Lung Association
(800) 586-4872
www.lungusa.org

Asthma and Allergy Foundation of America
(800) 7-ASTHMA or (202) 466-7643
www.aafa.org

Clinical Preventive Services

A Comparison of Multiple Doses of Fluticasone Propionate and Beclomethasone Dipropionate in Subjects with Persistent Asthma. G.D. Raphael, et al. *Journal of Allergy and Clinical Immunology* 103 (May 1999): 796-803.

Fluticasone propionate in low doses is superior to beclomethasone dipropionate in high doses to relieve the symptoms of asthma.

Nocturnal Asthma: Effect of Salmeterol on Quality of Life and Clinical Outcomes. R.F. Lockey, et al. *Chest* 115 (March 1999): 666-73.

Salmeterol improves the quality of life in patients who experience nocturnal asthma symptoms.

A Program to Increase the Number of Family Physicians in Rural and Underserved Areas. H.K. Rabinowitz, et al. *Journal of the American Medical Association* 281 (January 20, 1999): 255-60.

National and state policies, and medical schools, can have a considerable impact on increasing the supply of family physicians to rural and underserved areas.

Maternal and Infant Health

Breast-Feeding and Infant Illness: A Dose-Response Relationship? J. Raisler, et al. *American Journal of Public Health* 89 (January 1999): 25-30.

Full breast-feeding in the first 6 months of life, without any other types of feeding, protects against infant illness and provides the same health benefits to all, regardless of income.

HIV Infection

The Mode of Delivery and the Risk of Vertical Transmission of Human Immunodeficiency Virus Type 1—A Meta-Analysis of 15 Prospective Cohort Studies. The International Perinatal HIV Group *The New England Journal of Medicine* 340 (April 1, 1999): 977-87.

Elective cesarean section can lower the risk of mother to child transmission of human immunodeficiency virus type 1 (HIV-1).

Nutrition

Is Whole Grain Intake Associated With Reduced Total and Cause-Specific Death Rates in Older Women? The Iowa Women's Health Study. D.R. Jacobs, et al. *American Journal of Public Health* 89 (March 1999): 322-29.

Using whole grain in place of refined can reduce the risk of chronic disease in the United States.

Tobacco

Tobacco Use Among Middle and High School Students—Florida, 1998 and 1999. *Morbidity and Mortality Weekly Report* 48 (April 2, 1999): 248-53.

Effective state smoking programs can reduce chronic youth smoking.

Smokeless Tobacco Cessation Intervention for College Athletes: Results After 1 Year. M.M. Walsh, et al. *American Journal of Public Health* 89 (February 1999): 228-34.

An intervention program that focuses on quitting smokeless tobacco is effective among college athletes who are frequent users of smokeless tobacco products.

Educational and Community-Based Programs

A Comparison Study of an Elementary School-Based Health Center. D.W. Kaplan, et al. *Archives of Pediatrics and Adolescent Medicine* 153 (March 1999): 235-43.

School-based health centers (SBHC) provide underserved minority children, 4 to 13 years old, with better access to and use of physical and mental health services than children without SBHC access.

Heart Disease and Stroke

Use of Aspirin, Beta-Blockers, and Lipid-Lowering Medications Before Recurrent Acute Myocardial Infarction.

D. McCormick, et al. *Archives of Internal Medicine* 159 (March 22, 1999): 561-67.

Patients with previous myocardial infarction (MI) can prevent recurrent acute MI (AMI) by increasing their use of aspirin, beta-blockers, and lipid-lowering medications.

Sexually Transmitted Diseases

Is the Routine Pelvic Examination Needed with the Advent of Urine-Based Screening for Sexually Transmitted Diseases?

M.A. Shafer, et al. *Archives of Pediatrics and Adolescent Medicine* 153 (February 1999): 119-25.

Urine-based screening for sexually transmitted diseases can prevent many cases of pelvic inflammatory disease (PID) and be more cost-effective than routine pelvic examinations.

Exhibits

Respiratory Diseases

The National Library of Medicine's "**Breath of Life**" Exhibit is now open to the public, and will run through June 2000. It provides a unique, interactive look at asthma, highlights experiences of people with asthma, and examines efforts to control and understand the disease. For more information, call (301) 496-6308 or e-mail breathoflife@nlm.nih.gov.

In Funding

Educational and Community-Based Programs

The Department of Health and Human Services (HHS), the Department of Justice, and the Department of Education are seeking grantees for funds to **implement safe, drug-free schools and promote healthy childhood development**. Awards will be made to approximately 50 sites; successful applicants will receive support of up to 3 years ranging from \$1 million to \$3 million dollars per year. Detailed information is available at www.ed.gov/offices/OESE/SDFS, fax-on-demand (800) 638-8736, or e-mail ziegler@ojp.usdoj.gov.

Cancer

The Centers for Disease Control and Prevention (CDC) has announced the availability of fiscal year 1999 funds for a coopera-

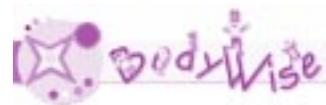
tive agreement **program for organizations serving racial and ethnic minority populations** at increased risk for infant mortality, diabetes, cardiovascular diseases, HIV, deficits in breast and cervical cancer screening and management, and deficits in child or adult immunization rates. Awards will begin in September 1999; CDC expects to provide up to \$9,400,000 for Phase I. For more information, call Letitia Presley-Cantrell at (770) 488-5426.

Online

Nutrition

The National Institutes of Health, Office of Dietary Supplements, recently launched the **International Bibliographic Information on Dietary Supplements (IBIDS)**—a database of published, international, scientific literature on dietary supplements, including vitamins, minerals, and botanicals. IBIDS is intended to assist the public and health care professionals in locating credible, scientific literature on dietary supplements. Visit odp.od.nih.gov/ods/databases/ibids.html.

Education and Community-Based Programs



Girl Power! has unveiled BodyWise, a new area on their Web site, designed to teach girls skills for healthy living. The interactive site gives tips, suggestions, and information on exercise,

healthy eating habits, self-esteem, and positive role models in a fun, user-friendly way. Visit www.health.org/gpower/bodywise.

Environmental Health



The Aerometric Information Retrieval System (AIRS), a **computer-based repository of information about airborne pollution**, is administered by EPA's Office of Air Quality Planning and Standards, Information Transfer and Program Integration Division. The AIRS database not only contains an extensive collection of air pollution source reports but also provides annual summaries of air pollution measurements obtained from individual monitoring stations. Visit www.epa.gov/airs and www.epa.gov/airsdata.

Cancer

CDC, the Health Care Financing Administration, and the National Cancer Institute have launched a **national colorectal cancer action campaign** to educate Americans age 50 years and older about the need for screening for colorectal cancer.

Colorectal cancer is the Nation's number two cancer killer. For more information call (770) 488-5131 or (404) 639-3286, or visit www.cdc.gov/cancer/screenforlife/index.htm.



Surveillance and Data Systems

The National Committee for Quality Assurance has released the latest updates to the **Health Plan Employer Data and Information Set (HEDIS) 2000** draft for review and comment. The HEDIS 2000 draft includes a new survey-based measure to evaluate health plans' efforts to counsel women on post-menopausal treatments, asthma, cardiac care, chlamydia, and diabetes. To download a copy of the draft, visit www.ncqa.org/pages/communications/news/a2krel.html.

In Print

Cross-cutting

The final report of the *Science Panel on Interactive Communication and Health* entitled **Wired for Health and Well Being: The Emergence of Interactive Health Communication** was released on April 28. This report is sponsored by the U.S. Department of Health and Human Services and provides guidance to consumers, health professionals, developers and users of applications, and policymakers about the use, purchase, design, and implementation of emerging communication technologies. The cost of this report is \$10, which includes \$2 shipping and handling. To order a copy, call (800) 336-4797.

Tobacco

Two new tobacco cessation pamphlets that provide both motivation and cessation tools are now available from Journeyworks Publishing. The pamphlet entitled **Beyond Willpower: Five Tools to Help You Quit Smoking** is especially useful to smokers who have previously tried to quit. For non-motivated smokers, the highly motivational pamphlet entitled **7 Great Reasons to Quit Right Now** helps a smoker understand that quitting now will bring huge rewards. This pamphlet is perfect for younger smokers. The pamphlets are free to health professionals and educators. Bulk prices start at 50 pamphlets for \$15. For ordering information, call (800) 775-1998 or send a fax to (800) 775-5853.

Substance Abuse

A new Federal guide assists health professionals with diagnosing and treating drug abusers who also have disabilities. Persons with disabilities face a much higher risk for substance abuse than the general population, according to the Substance Abuse and Mental Health Services Administration (SAMHSA). For more information, or for a copy of the guide, **Substance Use Disorder for People with Physical and Cognitive Disabilities, No. 98-3249**, call SAMHSA at (301) 443-5052 or call the National Clearinghouse for Alcohol and Drug Abuse Information at (800) 729-6686.

On Audio/Video

Maternal and Infant Health

An updated, **Best Start Training Program**, which includes transparencies and a video, a training manual, an instructor's guide, and other valuable information, to aid in counseling WIC participants and promoting breastfeeding, is now available. For more information, call (800) 277-4975, fax (813) 971-2280, or e-mail beststart@mindspring.com.

Clinical Preventive Services

Medicare now has a toll-free information line, established by the Health Care Financing Administration. Callers can talk to a customer service representative in English or Spanish between 8 a.m. and 4:30 p.m. EST, Monday through Friday, to get information about Medicare health plan options in their communities, including original fee-for-service Medicare and, where available, managed care; and the Medicare supplemental insurance (Medigap). The toll-free telephone line is open 24 hours a day, 7 days a week. During nonbusiness hours, callers can access an automated line to request Medicare handbooks or audio tapes in English or Spanish, request updated information about health plans available in their area, or listen to pre-recorded answers to frequently asked questions. Call (800) 633-4227 (1-800-MEDICARE) or TTY at (877) 486-2048.

National Federation of the Blind National Convention. Atlanta, GA. For information, call (410) 659-9314, fax (410) 685-5653, or visit www.nfb.org. **June 30–July 6, 1999.**

Decreasing the Gap: Developing a Research Agenda on Socioeconomic Status, Environmental Exposures and Health Disparities. Chicago, IL. For information, call (703) 902-1269, fax (703) 821-2098, or e-mail mbeckner@circsol.com. **July 7–9, 1999.**

The National Marfan Foundation Annual Conference. Pittsburgh, PA. NMF is a partner in the Coalition of Heritable Diseases. For information, call (516) 883-8712. **July 7–10, 1999.**

National Wellness Coalition Annual Meeting. Stevens Point, WI. For information, call (715) 342-2969. **July 10–16, 1999.**

4th Annual National Prevention Institute Conference of the Comprehensive Health Education Foundation. Seattle, WA. For information, call (800) 323-2433. **July 21–23, 1999.**

National Conference on Health Statistics: Health in the New Millennium, Making Choices, Measuring Impact. Washington, DC. Sponsored by the National Center for Health Statistics. For information, call (301) 436-7122 or visit www.cdc.gov/nchswww/events/events.htm. **August 2–4, 1999.**

1999 Cancer Conference: Meeting the Challenge of Comprehensive Cancer Control. Atlanta, GA. Sponsored by the Centers for Disease Control and Prevention National Cancer Institute. For information, call (770) 488-4226 or visit www.cdc.gov/cancer. **September 8–10, 1999.**

HHS Secretary Donna E. Shalala, announced a final **U.S. Food and Drug Administration regulation to provide new, easy-to-understand labeling on nonprescription, over-the-counter (OTC) drugs.** The new labeling (see sample at right) will be in a “standardized” outline format with distinct sections clearly showing the drugs’ ingredients, dose, and warnings; the new labeling will also make it easier for consumers to understand benefits, risks, and proper use of the drugs.

The labels will be easier to read—uncluttered format, simpler wording, and larger

type with adequate spacing between letters, words, and lines of text. Use of uppercase and lowercase letters, and dark type on a light background, will also improve readability. Active ingredients will be listed alphabetically with their quantity per dosage unit, thus enabling consumers to clearly determine the purpose of each ingredient. The new labeling will begin appearing on the shelves within the next 2 years; all OTC drugs will be required to have the new labeling within the next 6 years. For more information call (888) 463-6332 or visit www.hhs.gov/news/press/1999pres/990311a.html.

| Active Ingredient (In Each Tablet) | Purpose |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Chlorpheniramine Maleate 4 mg..... | Antihistamine |
| Uses: for the temporary relief of these symptoms of hay fever | |
| <ul style="list-style-type: none"> • sneezing • runny nose • itchy, watery eyes | |
| Warnings | |
| Ask a Doctor Before Use | |
| If You Have: | |
| <ul style="list-style-type: none"> • glaucoma • a breathing problem such as emphysema or chronic bronchitis • difficulty in urination due to enlargement of the prostate gland | |
| If You Are: | |
| <ul style="list-style-type: none"> • taking sedatives or tranquilizers | |
| When Using This Product: | |
| <ul style="list-style-type: none"> • marked drowsiness may occur • alcohol, sedatives, and tranquilizers may increase the drowsiness effect • avoid alcoholic beverages • use caution when driving a motor vehicle or operating machinery • excitability may occur, especially in children | |
| If pregnant or breast-feeding, ask a health professional before use. | |
| Keep out of reach of children. In case of overdose, get medical help right away. | |
| Directions: | |
| Adults and children over 12 years: | Take 1 tablet every 4 to 6 hours as needed Do not take more than 6 tablets in 24 hours. |
| Children 6 to under 12 years: | Take 1/2 tablet every 4 to 6 hours as needed. Do not take more than 3 tablets in 24 hours. |
| Children under 6 years: | Ask a doctor. |



The mission of the Office of Disease Prevention and Health Promotion (ODPHP) is to provide leadership for disease prevention and health promotion among Americans by stimulating and coordinating Federal activities. *Prevention Report* is a service of ODPHP.

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