



# Why the Rise in Asthma? New Insight, Few Answers

Mike Mitka

SAN DIEGO—As the prevalence of asthma increases, the medical community continues to seek causes and treatment and prevention strategies.

Asthma was a key topic at the 1999 International Conference of the American Lung Association and American Thoracic Society, held here in April, which had more than 16 000 attendees, including more than 6400 from outside the United States.

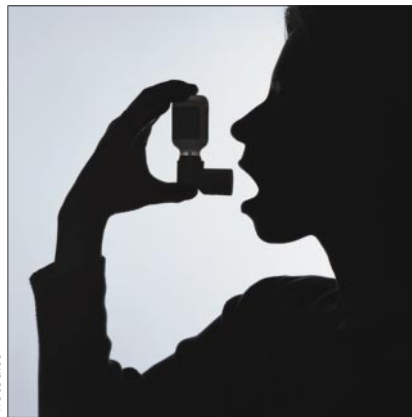
The Centers for Disease Control and Prevention (CDC) estimated that in 1998, approximately 17 299 000 people in the United States, or 6.4% of the population, self-reported having asthma. The CDC also noted that between 1980 and 1994, the number of people self-reporting asthma grew 75%. And it's not just a US problem—speakers said that asthma prevalence is increasing in many of the richer industrialized countries, although it disproportionately affects more in the poor communities of these nations.

## PUBLIC HEALTH STYMIED

Speaking at the San Diego meeting, Surgeon General David Satcher, MD, PhD, praised the nation's efforts to improve public health in many arenas, such as increasing childhood immunization rates, decreasing teenage pregnancy rates, and attacking tobacco use. But he singled out asthma as one condition in which public health efforts are not working.

"We're moving in the wrong direction, especially among minority children in the urban communities," Satcher said at a press conference. Among the reasons asthma preva-

lence continues to rise, Satcher noted an increase in a sedentary lifestyle that helps to increase obesity, and he added that in many urban areas, children spend more time indoors, where they're exposed to poor ventilation and indoor allergens. He said the federal government is making a major commitment to asthma three ways: increasing overall research funding, working to



improve intervention and prevention techniques, and focusing on the disproportionate impact asthma has on minorities and the poor.

New insights into childhood asthma were a welcome feature of the meeting. Wendy H. Oddy and colleagues at the TVW Telethon Institute for Child Health Research in Perth, Western Australia, found a "substantial reduction in risk" of childhood asthma at age 6 years in children who had been exclusively breast-fed for at least the first 4 months of life. This cohort study involved 2834 Australian children enrolled prior to birth and followed prospectively to age 6. The researchers found that children who received milk other than breast

milk in the first 4 months of life were more likely to develop physician-diagnosed asthma and atopic disease and have more frequent and severe symptoms than children who were fed breast milk exclusively.

Oddy's study didn't look for an explanation for the advantages of breast milk, but she speculated that with researchers just beginning to understand the importance of bioactive factors in that substance, feeding it to children is important. "Human infants are quite immature, and they really need as much help as they can get in the first few months of life to develop fully their immune systems," she said. "And that's why it's so important that infants are given that opportunity by receiving their mothers' milk to get the very best protective and immunological factors."

## ANOTHER CONSIDERATION

Tempering the claims by the Australian researchers was work presented by Anne Wright, PhD, and colleagues in the departments of pediatrics and pharmacology at the University of Arizona College of Medicine.

Wright presented data showing that the odds of developing asthma were 4.8 times higher for breast-fed children whose mothers had asthma compared with mothers without asthma whether they were breast-fed or not. The study looked at 1069 children assessed in the prospective Tucson Children's Respiratory Study. Feeding data were obtained through well-child visits and by questionnaire, and respiratory symptoms questionnaires were completed for the children at ages 2, 3, 6, 8, and 11 years. The investigators found no simple



relationship with asthma at age 11 for the group as a whole, but did find the percentage of children developing asthma increased with an increased duration of breast-feeding by mothers with asthma. Breast-feeding by allergic mothers is associated with higher IgE and sensitization to *Alternaria*, the main allergen associated with asthma in children, Wright's paper stated.

The Arizona team concluded that there's little consensus regarding the relationship of infant feeding and the development of asthma because of a variety of factors, including differing definitions of asthma, "mixed" feeders classified as breast feeders, lack of objective markers of asthma, differing definitions of family history, and lack of adjustment for confounders.

In another study involving older children, researchers at Brigham and Women's Hospital in Boston found that obesity may increase the risk of developing asthma.

Carlos Camargo, MD, said that body mass index (BMI) has a positive association with the risk of developing asthma, and that children in the highest group of BMI were roughly twice as likely to develop the disease as those in the lower group of BMI during 1 year of follow-up. The researchers examined data from 16 862 US boys and girls between the ages of 9 and 14 in the 1996 Growing Up Today Study and speculated that the increasing prevalence of obesity in developed nations may help explain concomitant increases in asthma. □

In a comparison with subjects who did not fill a  $\beta$ -agonist prescription, those who did had an increased risk of heart attack. This elevated risk was limited to those who had a history of cardiovascular disease and, among those with cardiovascular disease, to new users of  $\beta$ -agonists. The investigators also believe that new users of  $\beta$ -agonist inhalers are at highest risk because they have not yet down-regulated  $\beta$ -receptors.

- **Some elite athletes have a higher prevalence of airway hyperresponsiveness.**

Swimmers and cold-weather athletes have a higher prevalence of airway hyperresponsiveness compared with other athletes and the general population, according to researchers at the Université Laval in Canada. The investigators looked at 100 elite athletes and a control group of 50 sedentary adults. The athletes were divided into groups of 25 each, based on the type of ambient air inhaled during training. The air categories included dry air (long-distance running and mountain biking), cold air (speed skating and cross-country skiing), humid air (swimming), and a mixture of dry and humid air (triathlon).

The results showed that athletes had a 49% prevalence of airway hyperresponsiveness compared with 28% of the control group. Among the athletes, those inhaling cold and humid air had the highest prevalence of airway hyperresponsiveness. The researchers speculated that hyperventilation of cold air or repeated inhalation of chlorine products may cause the airway hyperresponsiveness.

- **More women than men get lung cancer under age 45.**

A study of 48 New Zealand patients under age 45 found twice as many women as men were diagnosed as having primary lung cancer.

Researchers studied patients seen at a hospital in Auckland between 1993 and 1998. They suggest that the data show there is a strong predominance of women and adenocarcinoma histology in this population of young patients with lung cancer. □

## Respiratory Research's Reach

Mike Mitka

SAN DIEGO—With more than 5000 papers presented, asthma wasn't the only topic discussed at the 1999 International Conference of the American Lung Association and American Thoracic Society.

Among the many presentations of interest were the following:

- **Snoring is associated with increased blood pressure in pregnant women who suffer preeclampsia.**

Researchers from the University of Sydney in Australia, having studied about 30 women, concluded that partial upper-airway obstruction may be causing a large portion of the nocturnal increase in blood pressure in preeclampsia and that using a nasal mask to deliver continuous positive airway pressure may reduce obstruction and improve nocturnal blood pressure control.

The researchers said controlling snoring will not reverse preeclampsia but would aid in controlling blood pressure.

- **Lung transplantation outcome is significantly affected by sex of donor and recipient.**

University of Wisconsin researchers, analyzing 121 cases, found that fe-

male patients who received lungs from male donors fared significantly worse than those who received lungs from women. Of the 121 cases, 19 were male lungs transplanted into female recipients. In this group, graft survival with good function was 65% at 6 months following transplantation, 51% at 12 months, and 29% at 24 months. All other recipients (men receiving female and male lungs and women receiving female lungs) had 94% graft survival and good function at 6 months, 82% at 12 months, and 69% at 24 months.

The researchers suggest that if these preliminary numbers hold, the transplant community may have to reassess organ matching beyond blood type and chest size.

- **Use of  $\beta$ -agonist metered dose inhalers increases risk of myocardial infarction in some people.**

Researchers at the University of Washington conducted a population-based study of 1444 person who sustained their first myocardial infarction between 1989 and 1994 to determine the relationship between the use of  $\beta$ -agonist inhalers for asthma treatment and heart attacks.



# Survey Says Patients Expect Little Physician Help on Sex

Charles Marwick

WASHINGTON—Just in time for this month of weddings and honeymoons come the results of a survey saying that people who face problems with their sex life don't expect much help from physicians.

In a recent US poll of 500 adults 25 years of age or older, 71% said they thought their doctor would dismiss any concerns about sexual problems they might bring up. But that doesn't deter them from trying; 85% of those surveyed said they would talk to their physician if they had a sexual problem even though they might not get treatment for it.

The poll, a random-digit-dialed telephone survey prepared by the public opinion research firm Bennett, Petts, & Blumenthal of Washington, DC, was held to be representative of the general population. The firm states that "in 95 cases out of 100, the responses to this survey should fall within  $\pm 4.4\%$  of those that would have been obtained

from interviewing the entire population of adults aged 25 or older in the nation. The final results of the survey are weighted by age to reflect the actual adult population in the United States, based on 1998 estimates by the US Department of the Census."

## RELUCTANCE "SOBERING"

The survey found that a substantial number of people who had problems with sexuality were reluctant to mention them to their health care provider. Many said they would choose their spouse or significant other to talk to, but when it came time to seek help with sexual dysfunction of any sort, 68% said they were afraid that discussing it would embarrass their physicians.

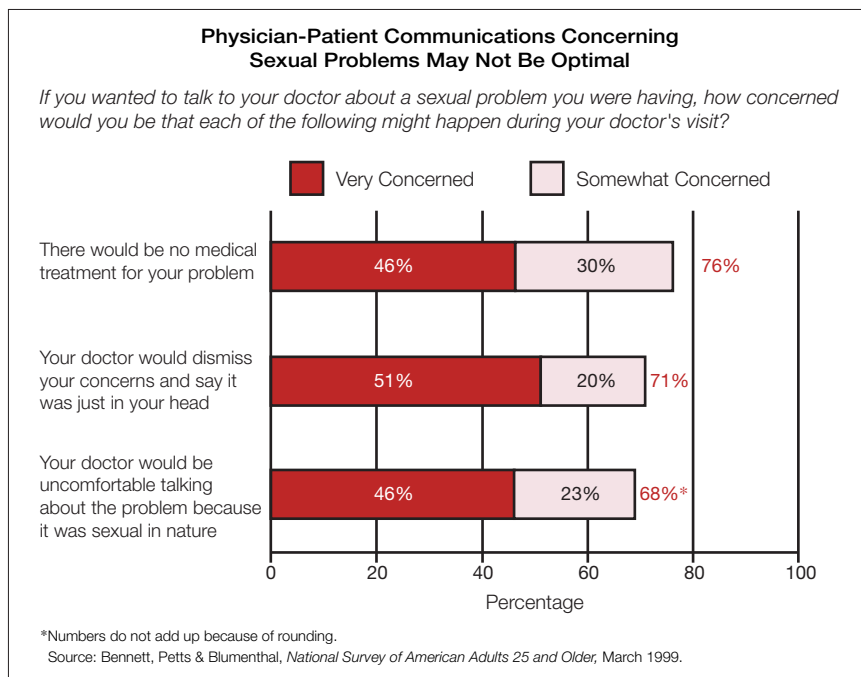
"This is a sobering thought," said Marianne J. Legato, MD, commenting on the report at a conference on Gender and Human Sexuality here on April 30. "However," she added, "this is an opinion poll. It reflects people's views about sex. It's not a piece of profound science."

"We need to establish an openness and level of comfort for Americans in speaking with their physicians and partners about sexual problems and health," she said. "Clearly, sexual relations are of tremendous importance to the vast majority of the population, yet there remain inherent fears, misperceptions, and stigmas about such issues," said Legato, who is director of Partnership for Women's Health at Columbia University College of Physicians and Surgeons in New York City. She co-chaired the conference with Vivian W. Pinn, MD, director of the Office of Research on Women's Health at the National Institutes of Health.

## NEW APPROACHES

At the conference, speakers outlined various approaches—psychiatric, pharmacological, and hormonal—that physicians can take to help patients who complain of sexual dysfunction. Among the drugs there is the much-publicized sildenafil (Viagra) for treating erectile dysfunction. Waiting in the wings are other agents, such as neurotransmitters like dopamine and neuropeptides like oxytocin that, in early clinical studies, show evidence of effectiveness in treating disorders of arousal and orgasm in both men and women; and, from a study reported at the meeting by Raymond C. Rosen, PhD, professor of psychiatry and medicine at UMDNJ-Robert Wood Johnson Medical School in Piscataway, NJ, there is some evidence that oral phentolamine can be used successfully to treat sexual arousal disorders in women. "This work must be repeated in a large study before any conclusions can be drawn about clinical usefulness," Rosen cautioned.

Julia R. Heiman, PhD, professor of psychiatric and behavioral sciences at University of Washington School of Medicine in Seattle, discussed the effectiveness of psychiatric approaches to various sexual disorders, including premature ejaculation and female dyspareunia. And Susan Davis, PhD, a gynecological endocrinologist who is director of research at the Jean Hailes Foundation in Victoria, Australia, cited increasing evi-





dence that androgen deficiency may cause a variety of postmenopausal conditions affecting sexual behavior, including excessive fatigue, diminished sense of well-being, and low libido.

#### QUALITY OF LIFE ISSUE

The survey indicates the importance of sexual health. Among married men, 91% ranked a satisfying sex life as important, as did 84% of married women. Overall, 94% of those polled said that sexual enjoyment added to the quality of life at any age, while half said that sexual problems should not be accepted as a consequence of aging. Legato said, "As human beings our sexuality is inextricably linked to our overall health, happiness, and sense of well-being. These results show the importance the vast majority of Americans place on sexual relationships."

An unsatisfactory sex life can cause other problems, the poll showed. More than 90% of the survey responders believed that sexual difficulties caused problems such as depression and emotional distress and were responsible for extramarital affairs and the breakup of marriages—a "most important" finding.

Financial security also plays a role. "If you are worried about how to pay your rent or have enough food for your family, then you are really not interested in what are almost elective activities," said Legato. "One can live without sex. It's not surprising that among those [who are concerned with providing for basic needs], sexual priorities will fall below the line. Nevertheless, sex is still important and ranks above job satisfaction," she noted.

Despite the plethora of nonscientific discussions of sex in the media, Legato said, "It is reassuring to find that the public concentrates on the safety and quality of family relationships, and clearly sexual health is an integral part. We conclude from this survey that people think sex is important, that it contributes to health and well-being. We also conclude that sexual dysfunction contributes to poor self-esteem and marital problems, and deserves having some attention paid to it." □

## Treat Arthritis Earlier, Better

Charles Marwick

WASHINGTON—Aggressive treatment of arthritis pays off, but to be successful, early diagnosis is the key. "This means it's important that the diagnosis be made promptly and therapy instituted early, before cartilage destruction occurs," said James S. Marks, MD, at a briefing session on the public health impact of arthritis for congressional policymakers and their staffs on Capitol Hill.

Marks, who is director of the National Center for Chronic Disease Prevention and Health Promotion at the Centers for Disease Control and Prevention (CDC), discussed a new CDC grant program for arthritis education. Next year's budget includes \$10 million to implement a National Arthritis Action Plan, under which public health agencies will be encouraged and helped to increase knowledge about arthritis among health care professionals and the public. Experience with other chronic disorders, such as diabetes, has shown that these education programs are important, he said.

#### SELF-HELP COURSE OFFERED

In addition to disease-modifying agents like methotrexate and anti-inflammatory agents like the two approved COX-2 inhibitors, celecoxib and rofecoxib, which are most useful in preventing or delaying joint destruction, assistance for patients is also available in the form of an arthritis self-help course developed at Stanford University School of Medicine to help people manage the disease. A recent study showed the course could reduce physician visits by 40% and pain perception by about 20% (*Arch Intern Med.* 1998;158:1245-1249).

The Arthritis Foundation, which is based in Atlanta, provides the 6-week course—a series of classes that provide basic disease information, relaxation techniques for pain and stress management, an overview of available medications, an exercise program, and problem-solving strategies.

"The patients are more in charge of their disease, they manage it better, so they actually have less pain," Marks said, citing a CDC report that estimates that the use of the self-help course would save \$260 in health care costs per patient over 4 years.

Unfortunately, the course is underutilized, said Marks, citing the Arthritis Foundation's estimate that fewer than 1% of those with arthritis have taken it. "Even if there are some patients who don't need it, there is still a substantial number of those that do, and they're not getting it," said Marks. Further information about the course is available by telephone at 1-800-283-7800 or on the foundation's Web site at <http://www.arthritis.org>.

"We tend to think about the management of chronic diseases as principally the concern of the physician and the medical care system. But the real manager of a chronic disease such as arthritis is the person who has it, even when he or she goes regularly to see the physician. Despite the importance of the physician's role, it is even more important that the patient and the family become knowledgeable about managing their disease," he said.

He explained that patients have to make decisions every day: taking their medications; changing their behavior to accommodate difficulty with physical activity or to become more active; keeping their weight down to reduce stress on weight-bearing joints; and learning to interpret their symptoms accurately and recognize changes in the disease so that they can report these to their physician.

The issue continues to be better treatment of chronic disease, said Marks. "This is a major challenge for medicine and the health care system for the next era, and it's something that I don't think we do well, and need to do better," he concluded. □

See also p 2177.