

## Asthma Prevalence Among Adults in New Mexico, 2002 - 2003

Glenda K. Hubbard, MPH  
*Epidemiology and Response Division  
New Mexico Department of Health*

### Introduction

Asthma is a chronic inflammatory disease of the airways characterized by intermittent episodes of wheezing, coughing, breathlessness and chest tightness. Many factors can trigger an asthma attack, including allergens, infections, exercise, or exposure to airway irritants, such as environmental tobacco smoke and other environmental pollutants. Uncontrolled asthma can affect quality of life. Asthma is a leading cause of missed days from school and can lead to missed days of work, visits to the hospital and emergency room, interrupted sleep, limited physical activity and the disruption of family routines.

According to the National Health Interview Survey, United States asthma prevalence increased 74% between 1980 and 1996.<sup>1</sup> The reason for this increase is not understood. This report presents the trend in asthma prevalence among adults based on the 2000-2003 Behavioral Risk Factor Surveillance System (BRFSS) surveys and current asthma prevalence among adults by demographic factors and asthma history using combined data from the 2002 and 2003 surveys.

### Methods

Asthma prevalence in NM was measured using the BRFSS survey. The BRFSS is a telephone survey administered by the New Mexico Department of Health and supported in part by the Centers for Disease Control and Prevention. The system is designed to provide information on behaviors and risk factors for chronic and infectious diseases and other health conditions among non-institutionalized adults 18 years of age and older. The data for this report have been weighted to correct for demographic and sampling-related differences between interviewed adults and the general population. Two adult asthma prevalence

questions have been included in the BRFSS survey starting in 2000. Lifetime asthma was defined as answering "yes" to the question, "Have you ever been told by a doctor, nurse or other health professional that you had asthma?" Current asthma prevalence was defined as answering "Yes" to both the lifetime asthma question and the question "Do you still have asthma?"

In 2002 and 2003, nine adult asthma history questions were asked of adults with current asthma. Respondents with current asthma were asked about 1) presence of an asthma episode or asthma attack during the past 12 months, 2) the number of emergency room visits during the past 12 months, 3) the number of doctors' office visits for urgent care during the past 12 months, 4) the number of routine check-ups for asthma during the past 12 months, 5) the number of days with activity limitation during the past 12 months, 6) presence of asthma symptoms during the past 30 days, 7) the number of days with sleep disturbances during the past 30 days, 8) the use of medication in the past 30 days, and 9) age when first told by health care provider that they had asthma.

### Results

According to the combined data from the 2002 and 2003 BRFSS surveys, 11.1% of the adult population in NM or about 152,700 adults, had been diagnosed with asthma at some point during their lifetime, and 7.3% of the adult population in NM or about 100,400 adults had current asthma. The figure on the back cover illustrates the trend in current asthma prevalence among NM and U.S. adults from 2000 through 2003. A decrease in current asthma prevalence occurred in 2003, however the decrease was not statistically significant.

Current adult asthma prevalence in NM by sex, age,

race/ethnicity, educational attainment, geographic area, and obesity status (body mass index) for 2002-2003 are as follows:

- Asthma prevalence among women (9.2% [95% CI, 8.3-10.2]) was significantly higher than among men (5.2% [95% CI, 4.5-6.0]).
- Asthma prevalence was similar (no statistically significant difference) among the different age groups (18-24, 25-34, 35-44, 45-54, 55-64 and 65+).
- Asthma prevalence among White, non-Hispanics (8.3% [95% CI, 7.4-9.2]) was significantly higher than among Hispanics (5.9% [95% CI, 5.0-6.9]).
- Adult asthma prevalence was similar across educational attainment levels.
- Adult asthma prevalence was similar across household income levels.
- Asthma prevalence in the urban counties (Bernalillo, Dona Ana, Los Alamos and Santa Fe) was similar to that in rural and frontier counties.
- Asthma prevalence among obese adults was similar to the prevalence among non-obese adults.

Many of the adult asthma history questions asked of respondents with current asthma were used to measure the level of asthma control in NM adults with current asthma. High values for the following asthma control characteristics would indicate positive indicators of asthma management: no emergency room or urgent care visits, no unscheduled visits to health care professionals, no activity limitation, no asthma symptoms, and no disturbed sleep.

#### **No emergency room (ER) or urgent care visits during the past 12 months**

- 84.5% of adults with current asthma had no visits to the ER or urgent care center because of their asthma.
- The percentage of females who had no visit to the ER or urgent care center because of their asthma (83.1%) was similar to that of males (87.1%).
- A higher percentage of White, non-Hispanics had no visits to the ER or urgent care center because of their asthma (88.1% [95% CI, 83.1-91.8]) than that of Hispanics (79.0% [95% CI, 71.9-84.7]) though the difference was not significant.

#### **No unscheduled visits to health care professional during the past 12 months**

- 74.3% of adults with current asthma had no urgent visits to a doctor because of their asthma.
- The percentage of females who had no urgent visits to a doctor because of their asthma (72.8%) was similar to that of males (76.9%).
- The percentage of White, non-Hispanics who had no urgent visits to a doctor because of their asthma (76.4%) was similar to that of Hispanics (73.0%)

#### **No days of activity limitation during the past 12 months**

- 66.9% of adults with current asthma had no days of activity limitation because of their asthma.
- The percentage of females with who had no days of limited activity because of their asthma (63.4% [CI, 57.7-68.7]) was lower than that of males (73.5% [CI, 66.4-79.6]), though the difference was not statistically significant.
- The percentage of White, non-Hispanics (66.2% [CI, 60.3-71.6]) who had no days of limited activity because of their asthma was lower than that of Hispanics (72.2% [CI, 64.5-78.8]), though the difference was not statistically significant.

#### **No asthma symptoms during the past 30 days**

- 31.5% of adults with current asthma had no asthma symptoms.
- The percentage of females who had no asthma symptoms (31.0%) was similar to that of males (32.6%).
- The percentage of White, non-Hispanics who had no asthma symptoms (30.2%) was similar to that of Hispanics (32.7%).

#### **No disturbed sleep during the past 30 days**

- 58.2% of adults with current asthma had no days of disturbed sleep.
- The percentage of females who had no days of disturbed sleep (57.8%) was similar to that of males (59.0%).
- The percentage of White, non-Hispanics who had no days of disturbed sleep (61.7%) was similar to that of Hispanics (56.6%).

The following control characteristics are presented as negative indicators of asthma control: asthma attack and no routine doctor checkup. High values for these control characteristics would indicate poor asthma management.

### **Asthma attacks during the past 12 months**

- 54.6% of adults with current asthma had an asthma attack.
- Females had a higher percentage of asthma attacks (59.0% [CI, 53.4-64.4]) than males (46.4% [CI, 39.0-53.9]) though the difference was not significant.
- The percentage of White, non-Hispanics who had an asthma attack (54.7%) was similar to that of Hispanics (50.9%).

### **Routine doctor checkups during the past 12 months**

- 48.8% of adults with current asthma had no routine checkups with their doctor for their asthma.
- The percentage of females who had no routine checkups with their doctor for their asthma (46.9%) was similar to that for males (52.2%).
- A higher percentage of White, non-Hispanics had no routine checkups with their doctor for their asthma (53.9% [CI, 48.3-59.5]) than that of Hispanics (42.8% [CI, 34.9-51.1]), though the difference was not significant.

Respondents with current asthma were also asked about use of asthma medication during the past 30 days.

- 31.5% of adults with current asthma did not take any asthma medications.
- The percentage of females who did not take any asthma medications (31.0%) was similar to that for males (32.6%).
- The percentage of White, non-Hispanics who did not take any asthma medications (30.2%) was similar to that of Hispanics (32.7%).

Respondents with lifetime asthma were asked about how old they were when first told by a doctor, nurse, or other health provider that they had asthma.

- 32.0% of adults with lifetime asthma were diagnosed with asthma at age 10 years or younger.

- 20.2% of adults with lifetime asthma were diagnosed with asthma at age 11 to 17 years.
- 47.9% of adults with lifetime asthma were diagnosed with asthma at age 18 years or older.
- Significantly more males were diagnosed with asthma at age 10 years or younger (47.3% [CI, 41.4-53.4]) than females (21.7% [CI, 17.9-26.1]).

### **Discussion**

Asthma prevalence differed significantly by gender (higher for females) and ethnicity (higher for White, non-Hispanics) but not by other demographic variables. Similar asthma control profiles occurred for males and females and for White, non-Hispanics and Hispanics. Asthma affects the quality of life of NM adults with asthma based on the following indicators: activity limitations, sleep disturbance and frequency of asthma symptoms. In future years, it is expected that the positive indicators of asthma control will increase and negative indicators of asthma control will decrease as more asthma intervention programs are implemented.

The Environmental Health Epidemiology Bureau of the New Mexico Department of Health is addressing the burden of asthma in NM through funding for implementation of a NM asthma plan from the Centers for Disease Control and Prevention (CDC). The goals of the implementation phase of the cooperative agreement with the CDC are to 1) assess the burden of asthma in New Mexico through surveillance activities, 2) develop, promote and deliver statewide asthma education/training to all levels of asthma health care professionals, 3) educate patients, families, schools and communities about asthma, 4) reduce the barriers to asthma care throughout the state, and 5) reduce environmental causes and triggers of asthma in New Mexico.

### **Reference**

1. Centers for Disease Control and Prevention (2002). Surveillance for asthma – United States, 1980-1999. *MMWR*, 51, 1-13.

**The New Mexico Epidemiology Report**

C. Mack Sewell, Dr.P.H., M.S.  
State Epidemiologist

Maggi Gallaher, M.D., M.P.H.  
Assistant State Epidemiologist

Michael G. Landen, M.D., M.P.H.  
Assistant State Epidemiologist and  
Editor

The New Mexico Epidemiology Report  
(ISSN No. 87504642) is published  
monthly by the Epidemiology and

Response Division, New Mexico Department of Health, 1190 St. Francis Dr.

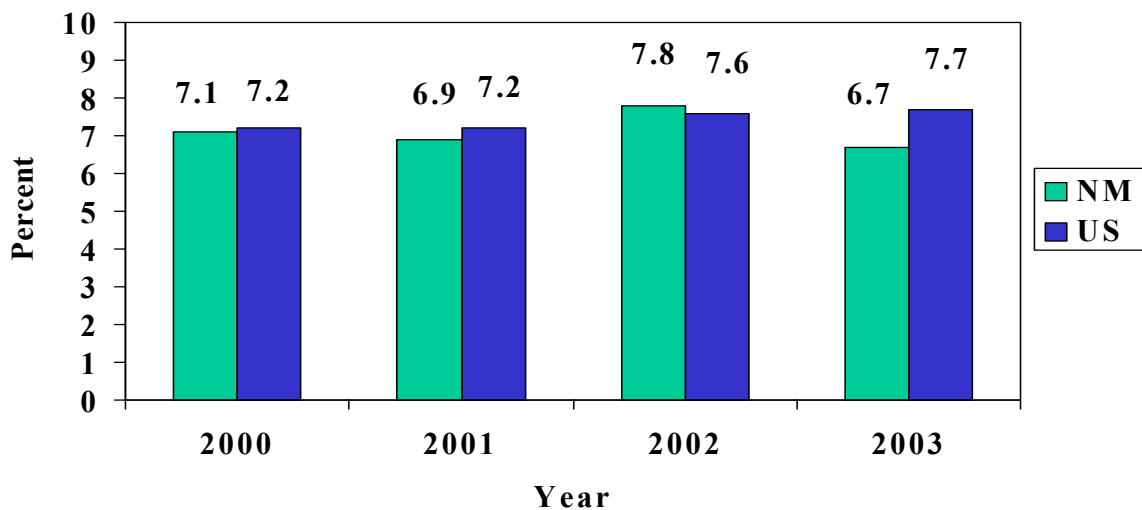
P.O. Box 26110, Santa Fe, NM 87502

Toll-Free Reporting Number:  
1-800-432-4404

24-Hour Emergency Number:  
(505) 827-0006 or (505) 984-7044  
[www.health.state.nm.us](http://www.health.state.nm.us)

Presorted  
Standard  
US Postage  
**PAID # 390**  
Santa Fe, NM

**Figure. Current Adults Asthma Prevalence  
NM and US, 2000-2003**



Source: NM BRFSS 2000 - 2003