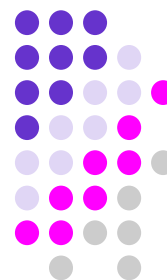


# Iowa Asthma Coalition Newsletter



## Summary of Key Findings on Hospitalization of Adults and Children from the 2004 Asthma in Iowa Surveillance Report

By Joann Muldoon,  
Epidemiologist, IDPH

### Inpatient Hospitalizations: Iowa State Inpatient Database (SID)

Data are presented for inpatient hospitalization records for 1995 through 2004 found in the Iowa State Inpatient Database (SID). The SID contains



selected data elements for each inpatient discharged from an Iowa hospital. Data are collected annually from hospitals by the Iowa Hospital Association, which in turn provides data to the Iowa Department of Public Health.

The SID does not include hospitalizations of lowans who are treated in out-of-state hospitals—an estimated five percent of all hospitalizations from asthma. The SID also lacks information about patient ethnicity, income and education and is missing data on race for more than 20 percent of admissions. For the latter reason, hospitalization rates by race were not computed. Other limitations of the SID are that personal identifiers are lacking for many records making estimates of number of persons hospitalized from asthma in Iowa impossible.

The earlier 2003 Asthma in Iowa surveillance report presented rates of hospitalizations from and with asthma (asthma was the primary or one of nine secondary discharge diagnoses listed). Data are presented only for hospitalizations for which asthma was the primary discharge diagnosis, so that rates are more comparable to other states' and national publications.

### Calculation of Rates Using (SID) data

Denominators for all rates

were derived from U.S. Census Bureau 2000 Census counts and estimates. Most rates are presented as five-year averages for the years 1995-1999 and 2000-2004 in order to increase sample size and improve stability of the rates. If rates are based on numerators with fewer than five hospitalizations during a five year period, rates are masked due to rate instability.

### Summary of Key Findings:

Hospitalization rates of Iowa residents declined by 12 percent overall to 8.1/10,000 population between the two periods 1995-1999 and 2000-2004. There was an average of 2,389 hospitalizations from asthma per year in Iowa during the 2000-2004 period.

If both primary and secondary discharge diagnoses were counted, there would be an estimated 12,000 hospitalizations among lowans per year from or with asthma.

Between 1995 and 2004,

**Continued ►**

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## Summary of Key Findings continued...

females accounted for more than 60 percent of asthma hospitalizations, their counts and rates of asthma exceeded those of men for all age groups older than 17 years.

For children, rates of hospitalization for boys both in the 0 to 4 year-old and 5 to 17 year-old groups exceeded same-age rates in girls. Boys accounted for about 70 percent of hospitalizations from asthma among 0 to 4 year-olds; and, about 60 percent of hospitalizations among 5 to 17 year-olds.

Children ages 0 to 4 years accounted for 16 percent of hospitalizations from asthma during the 2000-2004 period. The rate of hospitalization from asthma for these young children declined statewide by 10 percent between 1995-1999 and 2000-2004 to 21.9/10,000 children.

County asthma hospitalization rates from asthma among 0 to 4 year-olds ranged from more than 50 per 10,000

population (Webster, Marshall and Lee Counties) to none per 10,000 during the 2000-2004 period.

Age-adjusted asthma hospitalization rates from asthma among Iowans older than 65 years declined 9 percent to 11.8/10,000 population from 1995-1999 through 2000-2004. Iowans older than 65 accounted for 22 percent of all hospitalizations from asthma (rate range 2000-2004: 36.1 per 10,000 to none per 10,000 population). Two Iowa counties, Hamilton and Montgomery, had rates of more than 30 per 10,000 during 2000-2004 for the 65 and older population.

5 to 64 year-olds saw their hospitalization rate from asthma decline 19 percent between 1995-1999 and 2000-2004 to 6.3/10,000 population. The rate of hospitalization from asthma for this age-group was one-third that of young children ages 0 to 4 years, and one-half that of the elderly.

Race of patient is missing for 21 percent of asthma inpatient hospitalizations. Among those for whom race is known, 89 percent are Caucasian, 10 percent African-American, and 1 percent other Minority. Based on race data available, it is predicted that rates of hospitalizations from asthma among African-Americans may be two to three times that of Caucasians.

In metropolitan statistical areas (MSAs), 18 percent of hospitalizations from asthma are of Minorities, in non-MSAs, less than 2 percent are of Minorities.

Micropolitan statistical areas (counties with central cities of between 10,000 and 50,000) have slightly higher rates of hospitalization (9.6/10,000) than either MSA (8/10,000) or non-MSAs (7.5/10,000).

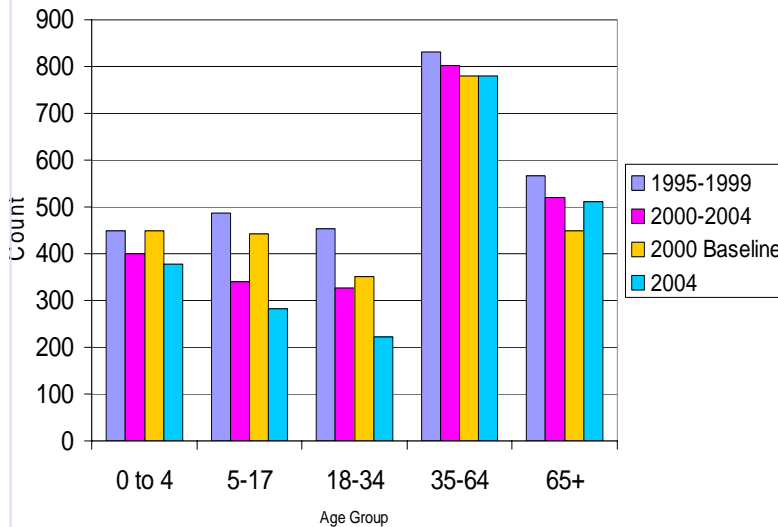
Among MSAs, Waterloo and Davenport have the highest rates of asthma hospitalization.

Among counties, Hamilton, Montgomery, Lee, Webster, Des Moines and Black Hawk rates of hospitalization from asthma were among the top ten in ranking for both the 1995-1999 and 2000-2004 periods.

Polk, Scott, Linn, and Black Hawk Counties, account for more than one-third of all hospitalizations from asthma. In 2000-2004, 15 percent of counties (n=15) with the highest hospitalization counts, were responsible for more than 50 percent of all hospitalizations from asthma.

*For more information on the results of this study, contact Joann Muldoon, Epidemiologist, IDPH at [Jmuldoon@idph.state.ia.us](mailto:Jmuldoon@idph.state.ia.us)*

Hospitalization Rates from/with Asthma by Age and Count 1995-1999 and 2000-2004\*



\*Annualized Rate per 10,000 Population. Denominators for rates are based on 2000 Census counts (for year 2000), and for all other years, intracensal county population estimates published in 2001 and 2005 by the U.S. Bureau of the Census.

# Health Impacts of Open Burning and its Connection to Asthma

Presented by Christine Paulson, Senior Environmental Specialist with the Iowa Department of Natural Resources

Burning residential waste into open air is the issue. How Iowa can and should reduce open trash burning is the challenge.



The cost of landfills, air pollution and incomplete combustion causing air pollution is forgotten and

misunderstood by many people.

For example, incomplete combustion, which is the main source of air pollutants, originates in residential areas from open burning at ground level – not from factories that have smoke stacks.

### Residential trash materials have changed!

No longer primarily paper and cardboard boxes, today's trash contains significantly more plastic and synthetic materials that contain chlorine and other toxins. The evidence on the health risks associated with open burning is growing. Not only is smoke from open burning a known trigger for an asthma attack, if not treated immediately, a severe attack can result in death.

Statistics show there has been a dramatic increase in

asthma in Iowa as well as nationwide. From 1980-2003, the number of children in the U.S. with asthma rose from 3.6% to 5.8%, a 60% increase. Today 20 million people in the U.S. have asthma with 6 million of them being children. Five thousand people die from asthma each year.

### New federal regulations for fine particulate

The environmental protection agency (EPA) finalized its new standards for fine particulate in September 2006. The State of Iowa needs to consider how open burning will impact its ability to implement the new guidelines. Many areas of the state are already close to the standard and one or two areas potentially exceed it.

Particulate matter (PM) is the pollutant of most concern. Microscopic soot particles contain 2.5 microns in size (PM 2.5) are the most harmful type of health-aggravating particulate matter. These are about the thickness of a human red blood cell and they remain airborne for several weeks. Dense concentrations of these PM particulates are visible as smoke or haze.

The impact of exposure to particulate matter on health is serious. It results in an increased need for hospitalization and emergency room visits and

aggravates heart and lung diseases. It is known that asthmatic children who are exposed to high particulate pollution levels are much more likely to develop bronchitis and it causes thousands of premature deaths annually.

Those groups at greatest risk include athletes and active adults, outdoor workers, the elderly, those with respiratory illnesses like asthma or heart disease and children.

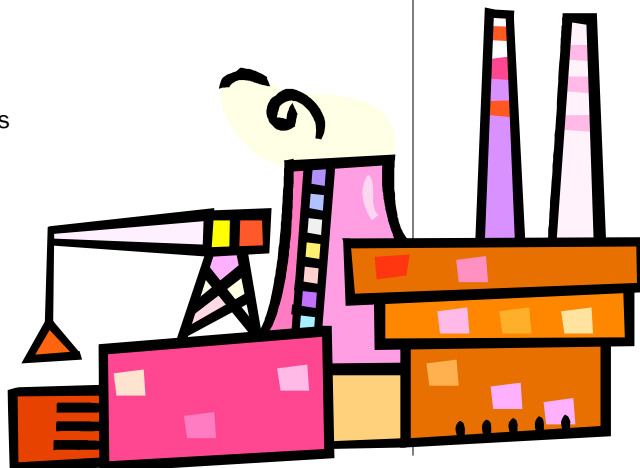
A Trash Burn workgroup has been established by the Iowa DNR and has met four times (October 12 and 23, November 8 and December 6). Iowa Asthma Coalition (IAC) member Andrea Hoffman (IDPH) participates in this work group.

You can visit the workgroup web page at [www.iowacleanair.com](http://www.iowacleanair.com) (click on links for Open Burning or Workgroups) as well as sign up for DNR's "trash burn" e-mail list. Please provide DNR with your comments and all input is welcome. Please email: [Christine.paulson@dnr.state.ia.us](mailto:Christine.paulson@dnr.state.ia.us).



**Paper or plastic? Unlike in the old days of cardboard boxes and paper, today's residential trash contains more materials that release toxins into the air when burned.**

**The main source of air pollutants originates in residential areas from open burning at ground level – not from factories that have smoke stacks.**



**“Asthma has helped me become more aware of the things people do that harm our living conditions on earth.”**

## Learning to Live with Asthma

*By Maggie Matz, Drake University student/IAC Intern*

My name is Maggie and last winter I was diagnosed with asthma after being out of breath for several hours. This past year I have gone to the hospital four times for asthma. It is normally under control but gets triggered by my allergies and stress levels.

Ironically I started a toxicology paper on asthma about two weeks before I was diagnosed. I chose the topic because the only funeral I ever attended was for a child who died of an asthma attack because he couldn't get to a hospital in time.

I know this all sounds

depressing but it is not all that bad. I am learning to live with it. My diagnosis of asthma has helped me become more aware of the things people do that harm our living conditions on earth.

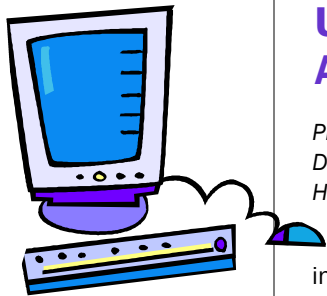
According to a study done by the Center for Disease Control (CDC), between 1980 and 1994, U.S asthma rates have increased 75%. One easy example of how people are harming our air quality is by smoking because it hurts the entire planet due to all the toxins in it.

Another big issue is the method of trash disposal. We are running out of space to put landfills, so many cities are burning their trash which releases toxins into the air

creating even more pollution.

There is already much air pollution with landfills according to George Stillman, Stanaislaus County (MN) Department of Public Works. Putting a landfill in his county would have a long term impact due to increases in air pollutants, dust and source emissions at the site. Those living around the site are low-income families who can't afford to move so they are being exposed to high levels of toxins and waste emissions.

There are many angles to every issue but the bottom line is that asthma has made me realize that as human beings we need to start cleaning our earth. It is the only way people will be able to stay healthy.



**Online tools can assist 'quality of life' assessment in asthma patients**

## Using 'Quality of Life' Outcome Measures for Asthma Patients

*Presented by Simon Geletta, Des Moines University, Public Health Department*

Measuring 'quality of life' in asthma patients is complex. However, there are online tools and data available to the IAC to assist with these assessments that not only concentrate on the physiological aspect of living with asthma, but also measure life quality based on the patient's feelings. Factors measured include a patient's fatigue inventory and a disease specific inventory.

The asthma quality of life questionnaire for adults includes twenty questions, each with five point responses, and maximum of

10 points. The results are divided into sub-scores for patients and are used primarily to monitor individuals, but could be used to monitor groups. Patients complete daily asthma diary cards, recording systems in the morning and in the evening.

It has many versions in standardized forms which takes less time and works well for studies. The asthma questionnaire factors into domains with the higher the cumulative score the better, using color coded response items to help the patient. Questionnaires are mainly dedicated to clinical asthma studies and cannot be used for commercial purposes.

Mr. Geletta expressed interest in partnering with DMU and the IAC to establish a CME/CEU asthma education program for medical professionals using these online assessment tools and questionnaires. Simon Geletta's email address is: [Sgeletta@dmu.edu](mailto:Sgeletta@dmu.edu).

# 1st Annual "Living with Asthma" Poster Contest Winners

The Iowa Asthma Coalition (IAC) co-sponsored a mini "Living with Asthma" poster contest in collaboration with the American Academy of Allergy, Asthma and Immunology (AAAAI) and the American Academy of Pediatrics.

Young Iowans in grades 1-8 were invited to participate in the contest that ran from September 1 to December 29, 2006. The creative and colorful posters expressed how they control their asthma as well as enjoy playing team sports, going to camp and having fun.

First, second and third place prizes were awarded in three categories for individual poster entries in the AAAAI National contest:

First prize - \$500 U.S. savings bond and a \$200 gift certificate.

Second prize - \$250 U.S. savings bond and a \$100 gift certificate.

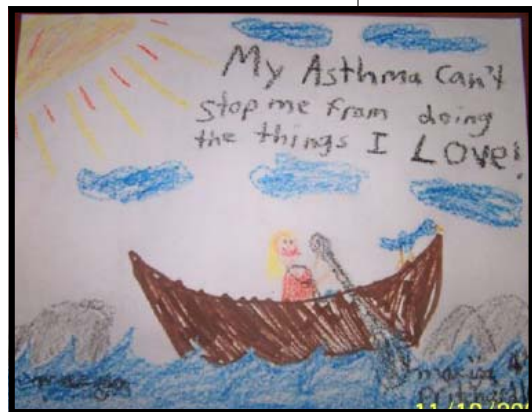
Third prize - \$100 U.S. savings bond and a \$50 gift certificate.

The IAC Iowa winners won: a grand prize of a \$50 Target gift card, various free school supplies, asthma camp scholarships and Barnes & Noble books. The winning IAC Iowa entries went on to compete in the National AAAAI poster contest. The results of that competition are yet to be announced.

Most of the IAC winners participated in the 2006 Asthma Adventure Camp, sponsored by the American Lung Association of Iowa.

You can view all the winning contest entries by visiting [www.idph.state.ia.us/hpcdp/asthma.asp](http://www.idph.state.ia.us/hpcdp/asthma.asp) and [www.idph.state.ia.us/common/pdf/asthma/Asthma State Plan.pdf](http://www.idph.state.ia.us/common/pdf/asthma/Asthma%20State%20Plan.pdf)

The IAC is sponsoring the "Living with Asthma" poster contest again in 2007.



## Asthma and the Occupational Health Nurse Connection

*Submitted by Dawn Voss, RN, BSN, Wellmark BC & BS of Iowa and South Dakota*

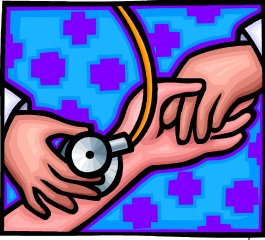
The vision of Occupational Health Nurses and IAC is to help promote a high quality of life for people living with asthma. There is a need for IAC, corporations and occupational health nurses to connect across Iowa in a variety of settings, with a central hub. Some of the barriers that have been

recognized are resources, funding, lack of time and limited venues.

Meetings will continue with IAC, Occupational Health Nurses, IDPH and ALA to proceed with distributing free resources i.e.: Asthma Action Plans, NHLBI asthma diagnosis & management guidelines, EPA environmental asthma triggers checklist (English & Spanish versions available), and to offer free scientifically-based "Young

and Breathless" asthma education training through IDPH.

The next steps also include: development of a hub asthma programming and asthma resource center, with a web-based Power Point and audio format, ½ hour brown bag sessions with occupational nurses in targeted demographic and population pockets that have been identified. Dawn Voss's email address is: [vossd@wellmark.com](mailto:vossd@wellmark.com).



## ALA Asthma Adventure Camp set for July 22-28

*By Lori Younker, Program Manager, American Lung Association of Iowa*

Imagine the inability to participate in sports or summer camp activities. Many asthmatic children are faced with this reality. Through close medical supervision, the Asthma Adventure Camp allows Iowa children with respiratory health issues, a wonderful opportunity to experience supervised hiking,

canoeing, swimming and field games.

The ALA Asthma Adventure Camp is scheduled for July 22-28, 2007. It is an overnight camp for children between the ages of 7 and 14 years old who are diagnosed with asthma or other respiratory disease and are an Iowa resident.

The Asthma Adventure Camp is held at the Des Moines YMCA

Camp, four miles north of Boone, Iowa. With more than 300 acres of wooded land overlooking the Des Moines River, it is the perfect spot for making summer memories.

To request an application call 1-800-788-5864 or visit the ALA website at [www.lungia.org](http://www.lungia.org). Health professionals are encouraged to volunteer at the ALA Asthma Adventure Camp!



## "Educating Caregivers About Asthma" is a Success

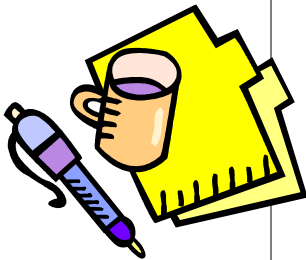
Congratulations to Bev Kaduce, RN, BSN, CCNC and Bonnie Crady, RN, BSN on all of their success and excellent work with the ALA/EPA "Educating Caregivers about Asthma" (ECAA) program, which was recently completed.

The ECAA project impacted over 1,750 children in Polk County. Fifteen families with asthmatic children of childcare-age were recruited to participate in an environmental assessment and asthma education program.

Working in collaboration with IDPH and Visiting Nurses Services, twenty training classes were presented to 244 child care staff, in 16 facilities, including facilities from which families were recruited for in-home assessments. Training topics covered use of asthma emergency action plans in the event of an asthma episode, lung health hazards in the home setting and education regarding the asthmatic child's medication, eliminating asthma episodes requiring emergency room visits, an improved quality of life is demonstrated.

The ECAA program achieved outcomes to further the EPA's Strategic Goal #1 for Clean Air and Global Climate Change through EPA's Objective #1.2 for Healthier Indoor Air by preventing, reducing and eliminating air pollution in Iowa-EPA Region 7.

For a copy of the ALA/EPA Grant Final Report, please contact Lori Younker at 1-800-788-5864.



Happy New Year! The IAC is growing thanks to your participation. We are pleased to publish the first issue of our e-newsletter.

We hope this will be an excellent way to share asthma-related information.

Many thanks to those who contributed content for this issue and to Gaela Wilson for her creative talent in its design.

We plan to publish a newsletter quarterly so please send any articles, events, photos or suggestions to Lori Younker at [lyounker@lungil.org](mailto:lyounker@lungil.org).



### Iowa Asthma Coalition

American Lung Association of Iowa  
5601 Douglas Avenue  
Des Moines, IA 50310  
Phone: 515-309-9507  
Fax: 515-334-9564  
Web: [www.lungia.org](http://www.lungia.org)

## About the IAC

The Iowa Asthma Coalition (IAC) is a partnership of different groups and people who care about the quality of life for people in Iowa with asthma.

Our mission is to:

- Help people in Iowa learn what the signs of an asthma attack are.
- Provide people with Asthma Action Plans.
- Work with people and organizations to lower the amount of asthma triggers.

The IAC will carry out its mission and answer the needs of people in Iowa with asthma through:

#### Education that will:

- Support a standard of care for asthma control in schools and child care settings.
- Help make sure all people with asthma have an Asthma Action Plan.

#### Sharing information that will:

- Raise public awareness of the problems people with asthma live with.
- Cut down asthma triggers.

#### Support that will:

- Offer help to people with asthma.
- Help make communities healthier and shape policy

The Iowa Department of Public Health (IDPH) and the IAC are putting strategies and activities in place from the State's asthma plan: *Asthma in Iowa—the Iowa Plan for Improving the Health of Iowans with Asthma* ([www.idph.state.ia.us/common/pdf/asthma/Asthma\\_State\\_Plan.pdf](http://www.idph.state.ia.us/common/pdf/asthma/Asthma_State_Plan.pdf)).

Iowa Asthma Coalition's Strategic Action Plan for 2007 is in the process of being developed and your suggestions are welcome. Committee chairs are: Education—Dawn Voss, RN; Surveillance—Joann Muldoon; and Environmental—Kjrsten Bobb. The next IAC meeting will be held in late March. Date and ICN sites to be announced. To participate, contact Lori Younker at [lyounker@lungil.org](mailto:lyounker@lungil.org) or by calling 1-800-788-5684.

### For more facts about asthma:

#### Iowa Department of Public Health

[www.idph.state.ia.us/hpcdp/asthma.asp](http://www.idph.state.ia.us/hpcdp/asthma.asp)

#### American Lung Association of Iowa

[www.lungia.org](http://www.lungia.org)

