

Breathe IN Breathe OUT



Asthma In Indiana

Spring/Summer 2008

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Special Topic

Asthma Disparities in Indiana

Asthma is a common chronic disease, affecting more than half a million Hoosiers. In March, the Second Edition of *The Burden of Asthma in Indiana* [Burden Report] was released. The report analyzed data primarily from 2005, including data from the Behavioral Risk Factor Surveillance System [BRFSS], as well as data on hospitalization and emergency department discharges and mortality. Below is a summary of some of the key findings in Indiana.

- **In 2005, an estimated**
 - 380,000 adults (8.2%) currently have asthma
 - 140,000 children (8.4%) currently have asthma
- **In 2005, asthma accounted for**
 - 8,302 hospitalizations
 - 24,320 emergency department visits
 - 85 deaths

Data in the report showed that asthma disproportionately affects females, young children, certain minorities and the poor with higher prevalence rates, hospitalizations, emergency

department visits [ED], and death. Several factors that may contribute to these disparities include environmental exposures, genetic differences, lack of patient education and poverty. The information below is a summary of Indiana asthma disparities data presented in the Burden Report.

Asthma Prevalence by Demographic Group

	Asthma Prevalence
Adult Total	8.2%
Children Total	8.4%
Adult Females	10.3%
Adult Males	6.0%
Adult Blacks	9.2%
Adult Whites	8.2%

Blacks

In 2005 while approximately 8.2% of whites and 9.2% of blacks (not a statistically significant difference) currently have asthma, the hospitalization rate for blacks was almost three times higher than the rate for whites (27.6 per 10,000 vs. 10.6 per 10,000). Similarly, the ED rate for blacks was more than three times higher

than the rate for whites (94.7 per 10,000 vs. 28.3 per 10,000). Also, of the 85 deaths due to asthma in 2005, blacks had a rate of 55 per million while whites had a rate of only 9.8 per million.

Women

Among children in Indiana, the prevalence of asthma between males and females is similar. However in 2005, by adulthood, women had a current asthma prevalence of 10.3% while men had a current prevalence of only 6%. In 2005, females also had higher rates of hospitalization (16.4 per 10,000 vs. 9.4 per 10,000) and higher ED rates (43.9 per 10,000 vs. 34.3 per 10,000) compared to males. Additionally, the asthma mortality rate for females in 2005 was twice as high as males (16.4 per million vs. 8.1 per million).

Children

The overall prevalence of current asthma among children (8.4% in 2005) is very similar to the prevalence among adults (8.2% in 2005). However, in 2005 young children had the highest ED rates compared to all other age groups with children four and younger having a rate of 81.5 per 10,000 and children five to nine having a rate of 59.3 per 10,000. Similarly, children four and younger had the third highest hospitalization rate (25.1 per 10,000) in 2005. This was only exceeded by the 75 to 84 and 85 and older age groups (28.1 per 10,000 and 26.3 per 10,000 respectively). There is however no significant difference in hospitalization rates when comparing all children ages 0-17 to all

2005 Hospitalization and ED Rates by Age

Age Range	Hospitalization per 10,000	ED visits per 10,000
0-4	25.1	81.5
5-9	12.2	59.3
10-14	7.4	43.3
15-19	4.4	43.9
20-24	4.1	50
25-34	6.5	46.9
35-44	10.7	39.2
45-54	15.5	26.6
55-64	17.7	17.4
65-74	22.2	15.2
75-84	28.1	13.6
85+	26.3	9.6

adults ages 18 and older. Male children and black children age 14 and under experienced even higher hospitalization and ED rates compared to females and whites of the same age group in 2005.

Low Income

Adults with an annual household income less than \$15,000 per year were more likely to report currently having asthma (14.3% prevalence) than higher income groups (5.2% to 8.8% prevalence).

Discussion

For public health professionals and health care providers, this means that people in these demographic groups are using the health care system for asthma treatment more often. Special care should be taken to help these populations understand asthma control. This may include tailoring interventions and educational materials to these groups and further investigating the cause of these disparities. By working to eliminate these disparities, we can decrease the burden of asthma in Indiana and improve the quality of life of Hoosiers. All people with asthma deserve to lead active, healthy lives.

2005 Hospitalization and ED Rates by Demographic Group

	Hospitalization per 10,000	ED visits per 10,000
Adult Total	13.3	32.2
Children Total	13.2	58.5
Female Total	16.4	43.9
Male Total	9.4	34.3
Black Total	27.6	94.7
White Total	10.6	28.3

2005 Mortality by Demographic Group

	2005 Mortality per 1,000,000
Adult Total	16.5*
Children Total	3.5*
Female Total	16.4
Male Total	8.1
Black Total	55
White Total	9.8

* Rates for 1999-2005, numbers too small to report 2005 only.

Data and Surveillance

Asthma Control Among Indiana Adults

Maintaining asthma control is one of the primary goals of asthma treatment. By maintaining control of asthma, patients can prevent asthma attacks, trips to the emergency room and hospitalizations. The National Heart Lung and Blood Institute's Expert Panel Report 3: *Guidelines for the Diagnosis and Management of Asthma* [Expert Panel] provides measures to assess asthma control. These measures are very similar to those in Indiana's Behavioral Risk Factor Surveillance System [BRFSS] and the two can be compared to estimate asthma control in Indiana.

Asthma Control Measures

Four measures of asthma control are frequency of asthma symptoms, frequency of nighttime awakenings from asthma, interference with normal activity and use of a quick-relief inhaler. Each of these measures sets standards which classify patients as "well controlled", "not well controlled", or "very poorly controlled".

- Approximately 63% of Hoosier adults with current asthma had *symptoms less than or equal to two times per week*. The Expert Panel classifies "well controlled" for this measure as *symptoms less than or equal to two days per week*.
- Approximately 68% of Hoosier adults with current asthma who had symptoms within the last 30 days reported *difficulty staying asleep due to asthma less than or equal to two days per month*. The Expert Panel classifies "well controlled" for this measure as *nighttime awakenings less than or equal to two times per month*.
- Approximately 73% of Hoosier adults with current asthma had no interference with normal activity which is considered "well controlled".
- The Expert Panel classifies *using a quick relief inhaler less than or equal to two days per week* as "well controlled". Approximately 51% of Hoosier adults with current asthma have not used an inhaler in the past month and meet this standard. An

additional 32.8% reported *using a quick relief inhaler between one and 14 times in the past 30 days*. A portion of these adults are "well controlled", but due to restrictions on how the data were collected it cannot be determined how many are "well controlled" and how many are "not well controlled".

Health Behaviors Contributing to Asthma Control

There are recommendations for people with asthma on other health issues that may impact asthma control. For example:

- The Expert Panel recommends that all patients with asthma be advised not to smoke and not to be exposed to environmental tobacco smoke. Approximately 32% of Hoosier adults with current asthma are also current smokers.
- The Expert Panel recommends that treating obesity may improve asthma management. Approximately 69% of Hoosier adults with current asthma are also overweight or obese.
- The Centers for Disease Control and Prevention Advisory Committee on Immunization Practices recommends influenza vaccination (flu shot) for people with asthma as they are at increased risk of influenza-related complications (<http://www.cdc.gov/vaccines/pubs/ACIP-list.htm>). Approximately 40% of Hoosier adults with current asthma received a flu shot in the past year.

Adults not meeting these recommendations may have greater difficulty controlling their asthma or may experience more severe complications.

These data measures are an important step to understanding asthma control among Hoosiers. They indicate many adults do not have their asthma under control and are not fully engaging in recommended health behaviors. More research is needed to determine if these adults understand what it means to be properly controlled, are aware of asthma-related recommendations or have the resources or skills to make the necessary behavior changes.

Around the State

Allen County Head Start Collaboration

The Allen County Asthma Coalition [ACAC] in cooperation with Anthem has begun work with the Community Action of Northeast Indiana [CANI] Head Start program. A total of 505 children were screened and educated for asthma and environmental tobacco smoke. These children were located in four different sites in the area. Classroom environmental evaluation and teacher education were completed at two of the locations. Home visits for the children with asthma and their families started in mid-February. With each home visit, the Head Start child will receive a pillowcase and mattress encasement compliments of the ACAC.

Asthma 500 Contest

The Indiana State Department of Health is launching the first *Asthma 500 Contest* for Asthma Awareness Month. The contest has a racing theme to coincide with the Indianapolis 500. Children ages 5 to 14 can complete an asthma education activity before April 30th for entry into the contest. Winners will be randomly selected on May 1st. Prizes include: autographed merchandise from Chip Ganassi Racing Team drivers Dan Wheldon, Scott Dixon and Reed Sorenson; Indy 500 qualifying day tickets; free menu items at Chili's, and more! Entry forms and activities can be downloaded from www.statehealth.in.gov/programs/asthma or can be requested by calling 317-233-1325.

South Shore Clean Cities

One goal of South Shore Clean Cities is to improve air quality by promoting idle reduction. The non-profit corporation has helped to retrofit 35 school bus engines and electrify truck stops to improve air quality in Northern Indiana. The group has also launched the Smartidle program (print, radio, and website campaign) to inform truck drivers and diesel engine operators about the costs of idling, and a new grant will help promote idling reduction to the general public. For more information about vehicle idling and South Shore Clean Cities, visit www.smartidle.com or www.southshorecleancities.org.

InJAC Update

Do You Know?

By Kathy Such

1. How much is the InJAC annual membership fee?
a. \$100 b. \$10
c. No fee d. \$10 lifetime membership
2. How many workgroups does InJAC have?
a. 10 b. 5
c. 7 d. 6
3. How many people are members of InJAC?
a. 119 b. 74
c. 187 d. 218
4. How many members attended the December 2007 quarterly meeting?
a. 87 b. 25
c. 61 d. 15
5. Who is the president of InJAC?
a. Dr. Phil b. Dr. Rosenman
c. Dr. Leickly d. Dr. Busk
6. How many people in Indiana currently have asthma?
a. 687,000 b. 315,000
c. 125,000 d. 520,000
7. When is the next InJAC meeting?
a. May 16th b. June 19th
c. July 23rd d. August 10th

InJAC's mission is to reduce the burden of asthma among the 520,000 people in Indiana with current asthma and their family, friends, and caregivers. There is no annual membership fee for InJAC! We have five different workgroups and 119 members. Only 25 members showed up at the December 2007 meeting. Please become more involved and attend your workgroup and quarterly InJAC meetings. InJAC made great progress on our State Plan's goals and objectives this past year. We need your continued involvement to keep going. Workgroup Chairs and Co-chairs: I challenge you to set your next meeting and get the ball rolling again. Many workgroups have not met for months. Please invite others that share our mission to join InJAC and/or bring them to the next meeting. Together, we **can** reduce the burden of asthma in Indiana!

Upcoming Events

April 12: American Lung Association Annual Gala
Hawthorns Golf & Country Club, Fishers
Contact: 317-819-1181 x226 or lzuercher@lungin.org
www.inhale08.org

Asthma Educator Institute

April 16-17: Evansville

April 30-May 1: Fort Wayne

Contact: Brett Aschliman, (260) 415-9294 or
baschliman@lungin.org

May 1-2: EPA National Asthma Forum

Washington, D.C.

Register online at <http://www.epaasthmaforum.com/RegistrationIntro.aspx>

Questions: info@epaasthmaforum.com

May 5: Not On Tobacco (NOT) Facilitator Training

Anthem Community Resource Center, Indianapolis
Contact: Brett Aschliman, (260) 415-9294 or
baschliman@lungin.org

InJAC Update Answers: 1.C 2.B 3.A 4.B 5.C
6.D 7.B

**May 6, 2008 is World Asthma Day and
May is Asthma Awareness Month!**

May 5-7: Asthma Awareness Day Capitol Hill and Advocacy Conference

Washington, D.C.

Registration and conference information at http://www.aanma.org/cityhall/ch_breathingmatters.htm

May 30: Lungs in Motion (Rally and Asthma Walk)

White River State Park, Indianapolis

6:00 p.m. Rally, followed by walk and celebration

Register at <http://www.mrsnv.com/evt/home.jsp?id=1777>

InJAC Quarterly Meetings

ISDH, 8th Floor Conference Room

June 19: 1:30 p.m. – 4:00 p.m.

September 17: 9:00 a.m. – 11:30 a.m.

Contact: Kathy Such, (317) 819-1181 x221 or
ksuch@lungin.org

Asthma Alliance of Indianapolis

June 15: Bowling Tournament

Sept. 19: Golf Tournament

Visit www.asthmaindy.org for more information.

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Breathe In, Breathe Out: Asthma in Indiana is a semi-annual newsletter published by the Indiana State Department of Health Asthma Program in conjunction with the Indiana Joint Asthma Coalition (InJAC). The purpose of this newsletter is to provide timely information on asthma to those interested in addressing the asthma burden in Indiana.

This newsletter is supported by Grant/Cooperative Agreement #U59/CCU525032 from the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

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