The Faces of Asthma

Asthma Education via Public Health Nurse Home Visits

The MDH Asthma Program was awarded a grant in Fall 2011 from the U.S. Department of Housing and Urban Development (HUD) to reduce or eliminate home environmental triggers of asthma for families living in Section 8, multifamily housing. The project is called HUD-RETA (Reducing Environmental Triggers of Asthma).

As part of the grant, we are collaborating with five local public health departments (Anoka County, Dakota County, Ramsey County/City of St. Paul, City of Minneapolis, and the City of Bloomington) and others to target eligible children who have been diagnosed with asthma and live in one of five metropolitan areas with a high prevalence of asthma.

“Faces of Asthma” in this issue features Pat Rigoni (PR), a public health nurse working on the HUD-RETA project in the City of Bloomington. In her article, she shares her observations about lessons learned and the challenges of being a public health nurse doing asthma home visits.

What’s surprised you the most about the asthma home visiting work that you’ve been doing?

PR: A common theme that I see over and over again is the great strides that we make in each visit. Parents are always more concerned about their children than themselves. Lack of insurance coverage is another challenge.

Asthma home visits are a unique way of delivering family/patient care. What is your primary takeaway from your years of experience in being a public health nurse? What do you love about it so much? Share your most unique challenge.

PR: Asthma home visits offer the most successful and effective way to deliver asthma education to the client. Being in the homes, seeing the illness up close, and applying asthma principles is very powerful. The challenges I encounter are the wide range of knowledge and communication skills needed. Do most of your patients have a written asthma action plan? If not, what do you think is the barrier to this?

PR: Approximately 50% of my clients do not have written asthma action plans (AAPs) in the homes that I visit. Clients have concerns about putting the plan in the home, especially when it involves paying for medications. We offer to call their clinic to obtain an AAP for them.

What advice could you offer when mentoring a “new” public health nurse beginning asthma home visits?

PR: The main thing to remember is to keep going! If you do not start out with a perfect approach, you will definitely improve with time and exposure. The key is to stay calm, be patient, be an educator, and try again – you’re not seeking perfection here, just go slowly. Seeing improvement shows that you are doing well.

Asthma Medications Posters Released

The MDH Asthma Program is pleased to announce the Asthma Medications Posters available for download from the MDH Asthma Program website. The posters are designed to assist school health office staff and primary care clinics in prompting patients to identify their inhaled asthma medications.

Save the Date: October 23

Minnesota Asthma Alliance Meeting
Optimizing Asthma Care in Minnesota: What You Can Do
See page 9 for details
**Asthma and Health Care Access**

Encouraging data from the Minnesota Behavioral Risk Factor Surveillance System suggest that Minnesota adults with and without asthma have similar levels of health care coverage. In 2011, 90% of adults with asthma and a statistically equivalent 89% of adults without asthma reported having any kind of health care coverage. Adults with asthma were more likely to report having one or more doctors or other health care providers that they considered to be their primary provider (84% vs. 77%). However, 15% of adults with asthma reported having a time in the previous 12 months when they needed to see a doctor but could not because of cost, compared with 11% of adults without asthma.

<table>
<thead>
<tr>
<th>Current asthma</th>
<th>No asthma</th>
</tr>
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<tbody>
<tr>
<td>Has any kind of health care coverage</td>
<td>90%</td>
</tr>
<tr>
<td>Has one or more primary care providers</td>
<td>84%</td>
</tr>
<tr>
<td>Needed to see doctor in past year but could not due to cost</td>
<td>15%</td>
</tr>
</tbody>
</table>

Source: Minnesota Behavioral Risk Factor Surveillance System, 2011

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**MDH announces release of Asthma in Minnesota’s School-aged Children fact sheet**

MDH Asthma Program staff created a fact sheet summarizing data on youth and children for school nurses and others who work with children with asthma. The fact sheet includes data on prevalence; disparities by race/ethnicity, income level, and location; asthma-related ED and hospitalizations; activity limitations; sports; asthma action plans; and mortality.

You can download the fact sheet at http://www.health.state.mn.us/asthma/school.html

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**New Exercise-induced Bronchoconstriction Guidelines from ATS**

Exercise-induced bronchoconstriction (EIB) is acute airway narrowing that occurs as a result of exercise. EIB occurs in a substantial proportion of patients with asthma, but may also occur in individuals without known asthma.

The American Thoracic Society recently released official clinical practice guidelines for EIB. A strong recommendation was made for using a short-acting b2-agonist before exercise in all patients with EIB. For patients who continue to have symptoms of EIB despite the administration of a short-acting b2-agonist before exercise, strong recommendations were made for a daily inhaled corticosteroid, a daily leukotriene receptor antagonist, or a mast cell stabilizing agent before exercise.

See guidelines at: www.thoracic.org/statements/resources/allergy-asthma/exercise-induced-bronchoconstriction.pdf
Air Quality Index (AQI) Debuts New Look

Checking out air quality in Minnesota just got easier.

The Minnesota Pollution Control Agency recently finished a major upgrade of its Air Quality Index website (AQI) — and just in time for the summer recreation season.

Minnesotans interested in their air quality have always been able to get current conditions for selected cities through the AQI site. Five-day forecasts for the Twin Cities and Rochester have been available, too. But with the site’s new streamlined design, you have an even easier way to get all the information you need.

As an added convenience, access to current air quality information is also available for Android smartphones. Applications for iPhones and Windows phones will be available soon.

The upgraded AQI website also offers estimated air quality conditions for nearly all parts of the state. And new tools allow users to dig deeper into the data using an interactive map, graphs, and daily and monthly data summaries.

The AQI provides real-time information to help you plan your outdoor activities to keep your family healthy by avoiding exposure to poor air quality. Stay informed by signing up to receive air quality forecasts and alerts by email or text through the Enviroflash system. Or if you’re a Twitter user, you can follow “@mpca_aqi.”

So if you or your loved ones are concerned about the air quality when you’re out enjoying a summer day, you can breathe easier using Minnesota’s AQI!

National Allergy Bureau (NAB)

In the NAB Toolbox to the right, you can sign up for emailed pollen counts. Click on Minnesota and then Minneapolis and you’ll see the Minneapolis data, which is collected by the Clinical Research Institute.

To check on Minnesota (Metro area) daily pollen counts go to: Clinical Research Institute http://www.criminnesota.com/pollencount.cfm

New Asthma Data on the MDH Public Health Access Portal

New data on emergency department (ED) visits for asthma are available on the MN Public Health Data Access portal (MN Public Health Data Access). To view these data, see Asthma ED Visits: Facts & Figures. You can also generate custom data tables using the Asthma Data Query.

MN Public Health Data Access is an online query and information system designed to provide public access to Minnesota data about health, the environment, and other risk factors that may impact public health.

Asthma is one of the most common chronic diseases in the United States. It disproportionately affects children, females, African-Americans, and people with low incomes. Managing asthma should reduce the need for an ED visit or hospitalization.

The highest asthma ED visits rates are seen among children under five years old. Among children, asthma ED visit rates are higher for boys than girls, while among adults, rates are higher for women than men.

MN Public Health Data Access is updated and maintained by the MN Environmental Public Health Tracking Program under a cooperative agreement with the Centers for Disease Control and Prevention National Environmental Public Health Tracking Program.
Preliminary Findings from Health Study of Minnesota Taconite Miners

On April 12, 2013, the University of Minnesota released preliminary findings of its five-year study of current and former Minnesota taconite (iron ore) miners. The findings were presented at a community meeting in Mountain Iron, MN, and later posted on the University web site (see link below).

The study was funded by the Minnesota Legislature in 2008 following the release of data from the Minnesota Department of Health demonstrating an increasing rate of mesothelioma – a rare cancer that is almost exclusively associated with asbestos exposure – among former taconite miners. The 4.9 million dollar study was comprised of five components: a case-control study comparing work histories of 80 miners who developed mesothelioma to 315 miners without mesothelioma; a mortality study examining rates of death from specific causes among 44,000 miners compared to the overall population; a respiratory health study of approximately 1,200 miners and 500 spouses of miners using chest X-Rays and pulmonary function (breathing) tests; a study of exposures to dust particles and fibers in currently operating companies; and an assessment of dust and fiber exposures in the community.

Among the preliminary findings were the following:

• Miners who developed mesothelioma worked longer in the mining industry and potentially had greater exposures to longer mineral fibers. However, previous exposure to commercial asbestos - extensively utilized over several decades for insulation and other purposes in the taconite industry – could not be quantified since most facilities had asbestos abatement by the mid-1990s and historical exposure data did not exist. While exposure to commercial asbestos remains a probable cause of most cases, exposure to other mineral fibers may be associated with an increased risk of mesothelioma among miners.

• The mortality study examined the causes of death among 44,000 miners born in 1920 or later. As of the end of 2007, 3,969 miners were deceased. The overall death rate was about 5% higher than the state average. Deaths from non-malignant respiratory disease were not elevated. The lung cancer rate was 20% higher and the heart disease rate 11% higher than average. The largest increase, however, was for mesothelioma which was approximately 3-fold higher than the state average. Since the mortality study did not have data on smoking, obesity, diet, and other individual risk factors for lung cancer and/or heart disease, it was not possible to determine to what extent occupational factors contributed to the excess of those diseases.

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• The respiratory health study utilized chest X-rays to identify dust-related abnormalities within the lung or lining (pleura) around the lung. Among the miners, approximately 5% had lung abnormalities consistent with silica or other dust exposure, while about 17% had pleural abnormalities consistent with asbestos or possibly other mineral fibers. The prevalence of abnormalities among spouses was much lower and similar to the general population, suggesting that neither spouses nor the general population in mining communities is at increased risk of dust-related lung disease.

• The occupational exposure assessment included breathing zone dust measurements among a sample of employees at all the currently operating mining companies. Over 1,000 measurements were made using various methods. Historical data were also obtained when available. These data indicated that current occupational exposures are within established guidelines and that exposures were higher in the past.

• The community exposure assessment found that the air quality in Iron Range communities is safe, meets air quality standards, and has lower particulate levels than air in the Metro area.

University researchers are continuing to analyze and interpret the enormous amount of data collected during this investigation. Additional detailed findings are expected to be released for each of the study components beginning later in the year. The presentation of the preliminary findings, as well as the most recent report to the Minnesota Legislature and other study information, can be found at the following web site: http://taconiteworkers.umn.edu
Bringing Asthma Awareness/Education to Crossroads Elementary School

On May 1, Asthma Program Coordinator, Kelly Raatz, and CDC Public Health Associate, Hannah Rivenburgh, greeted eager elementary school children and their families at Crossroads Elementary in St. Paul during their first organized Health Fair. They spoke with at least 33 families about asthma.

“I noticed that the most successful strategy for engaging attendees was to ask children or adults, ‘Do you know anyone with asthma?’ More often than not, people said yes: themselves, their sibling, their classmate, their neighbor. It really hit home for me that asthma is a pervasive, concerning issue for many,” reflected Hannah. “It really opened conversations about asthma management and control.”

Kelly and Hannah demonstrated inhaler technique, talked with parents about the importance of asthma action plans, handed out anti-smoking magnets and rulers—quite a popular item—and discussed the resources available from Minnesota Department of Health. Kelly was also able to connect with the school nurse and the Physical Education Specialists at Crossroads. She answered questions and provided asthma management resources.

Farewell to Hannah Rivenburgh – CDC Public Health Associate

June is the transition from spring to summer, and it also brings transitions for Hannah Rivenburgh. Over the past two years, Hannah has been a CDC Public Health Associate gaining experience with the MDH’s Sexual Violence & Prevention Program and the MDH Asthma Program.

Patti Wetterling, Hannah’s supervisor in the Sexual Violence & Prevention Program during Year 1, said, “Hannah really immersed herself in sexual violence prevention work during her first year as a PHAP at MDH. Among other things, she put together a valuable Campus Sexual Violence Portal: http://www.health.state.mn.us/injury/topic/svp/campuskit/ that is an extensive collection of great resources for reducing sexual violence on college campuses. Hannah’s Great Spirit and creativity will be missed! Thank you Hannah”

Janet Keysser, her Year 2 supervisor in the Asthma Program, stated, “Hannah provided tremendous assistance, especially in helping produce the asthma newsletter, “Breathing Space” and in developing an asthma fact sheet for school nurses. Most recently she creatively pulled together resources to develop asthma medications posters that show all asthma medications. These are now posted online and being downloaded throughout the country. We’ve been very glad to have her with us!!”

In reflecting over the last two years, Hannah says “The opportunity to work at Minnesota Department of Health has been invaluable. My undergraduate background is not in public health. Rather, it is in environmental studies and media studies, so for me it was fascinating to apply those lenses to public health—while absorbing as much as I can about what public health looks like in action. I am proud of the contributions I made while at Minnesota Department of Health, and have gained knowledge and skills through working with the stellar folks at MDH. Thanks to everyone for sharing your time, energy and talents with me.”

The Public Health Associate Program (PHAP), a training program run by the CDC Office for State, Tribal, Local and Territorial Support (OSTLTS), provides opportunities for promising future public health professionals to gain broad experience in the day-to-day operation of public health programs. PHAP is geared toward recent baccalaureate college graduates (BA/BS) who are beginning a career in public health.

For more information on the Public Health Associate Program, visit the CDC website at http://www.cdc.gov/phap/
Asthma Evaluator receives 2013 Wellstone Public Health Achievement Award

The MDH Asthma Program evaluator, Angeline Carlson, PhD has been awarded the 2013 Paul & Sheila Wellstone Public Health Achievement Award. Dr. Carlson received this award on June 13 at the Annual Minnesota Public Health Association (MPHA) Annual Meeting in Minneapolis. The award honors a person who distinguished him/herself in public health through an outstanding contribution, in promoting and protecting the health of individuals, families and the community.

Excerpts from the award presentation include:

Angie was the 2012-2013 chair of the Leadership Board for the American Lung Association in Minnesota. She is founding principal of Data Intelligence Consultants, a health services research firm located in Eden Prairie, MN. She also serves as an adjunct faculty member in the College of Pharmacy and the School of Public Health at the University of Minnesota. She is an extraordinary mentor to her students and professionals.

She maintains an active research agenda serving clients in the health care industry, health foundations and public service agencies. Her work in health services and outcomes research has an emphasis on population-based evidence of care delivery in order to shape health care policy and patient management strategies. Prior to her work at Data IQ, Angie served as a senior research scientist at the former Diversified Pharmaceutical Services and at United Health Group, working with large administrative databases to provide data support for disease management and health plan policy initiatives.

Angeline (Angie) has demonstrated remarkable leadership, creativity, and guidance over the past six years as the Chair of the MPHA Policy Forum Committee. Through this role, Angie has amplified MPHA’s visibility as a credible, independent and forward-thinking organization. The Policy Forum series has gained national recognition and is being replicated in other states.

Angie is the author of numerous articles related to health care delivery and has presented at national and international scientific, public health and health care meetings.

Angie has made an outstanding contribution to MPHA, and all Minnesotans, by her high quality dedication and service to the field of public health.

The MDH Asthma Program joins MPHA in applauding Angie and extending our thanks and appreciation for her strong commitment and outstanding evaluation assistance to the MDH Asthma Program in addressing the burden of asthma in Minnesota. She has served as the lead evaluator for Minnesota’s asthma program for almost 10 years.

Asthma Awareness Month in May

On May 3, two MDH asthma program partners, Deanna Pepper, CQI Manager at the White Earth Health Center, and Troy King, Environmental Health Specialist for the Bois Forte Environmental Services Department, were special guests on a radio broadcast of Native America Calling entitled “Living with Asthma.”

“Living with Asthma” focused on opening up a talking circle to discuss what asthma means for Native families. The program covered why asthma is a rising concern in Indian Country and how people are coping. Deanna Pepper helped to frame the issue, saying “asthma matters to every individual family because it affects their quality of life, it affects whether they can go out and play basketball or go out for recess, it affects whether they miss a lot of school days, so there’s an effect on every individual child and adult. And for native communities on a broader scale, it raises a lot of questions about why are the asthma rates so high in these communities, what are the underlying factors that are happening with housing, the environment, dietary change, that are possibly contributing to what you might call an epidemic.”

To listen to the podcast, go to http://www.nativeamericacalling.com/nac_past.shtml and scroll down to May 3, 2013: “There’s Something in the Air,” and click the “LISTEN” link.

Native America Calling is a live call-in program linking public radio stations, the Internet, and listeners together in national conversations about issues specific to Native communities. The conversations are designed to improve the quality of life for Native Americans. It is produced by Koahnic Broadcast Corporation, a Native-operated media center in Anchorage, Alaska.
PODCAST:
Fighting Asthma with... a Healthy Diet?

Environmental factors like air pollution, cigarette smoke, and mold are known to trigger asthma attacks, but new research suggests that the quality of your diet can affect your susceptibility to these triggers. We learn why a healthier diet might help reduce asthma attacks in this podcast from Partnerships for Public Environmental Health, part of the National Institute for Environmental Health Sciences.

http://www.niehs.nih.gov/research/supported/dert/spbh/programs/peph/podcasts/asthma/index.cfm

RESEARCH ARTICLES

New Study Finds Pediatricians Will Integrate Environmental Management into Asthma Care

Following a brief, targeted educational intervention, pediatricians reported a significant increase in knowledge about environmental triggers of asthma and a willingness to incorporate exposure history questions and remediation recommendations in their routine practice. These improvements persisted at a 3-6 month follow-up interval compared to baseline levels. The findings were published in Clinical Pediatrics http://cpj.sagepub.com/content/early/2013/03/27/0009922813482752.abstract. The study was conducted by NEEF’s Pediatric Asthma Faculty Champions using a standardized PowerPoint presentation based on NEEF’s Environmental Management of Pediatric Asthma: Guidelines for Health Care Providers

http://www.neefusa.org/health/asthma/
http://www.sciencedaily.com/releases/2013/03/130321205530.htm

Climate Change Linked to More Pollen, Allergies, Asthma

Carbon dioxide, a heat-trapping greenhouse gas emitted by burning coal, gasoline, oil, and other fossil fuel products, is seen in increasing levels in the atmosphere. More carbon dioxide means more plant growth and thus more pollen production. If carbon dioxide emissions continue to increase, allergic conditions will most likely worsen. “There’s clear evidence that pollen season is lengthening and total pollen is increasing,” says George Luber, associate director for climate change at the CDC. “It’s one of the ways climate change is already affecting your community.”

http://www.usatoday.com/story/news/nation/2013/05/30/climate-change-allergies-asthma/2163893/

Study Finds Pain Relievers Do Not Cause Asthma

Some parents have been worried about giving their children pain relievers like ibuprofen and acetaminophen, based on reports that children who take the drugs are more likely to develop asthma. But a new study suggests that the relationship may be little more than a statistical oversight, finding that children suffering from respiratory infections — which often lead to asthma — are simply more likely to be given over-the-counter pain relievers.

http://well.blogs.nytimes.com/2013/05/21/pain-relievers-do-not-cause-asthma-study-finds/?hpw
“The Faces of Asthma” in this issue features Pat Rigoni (PR), a public health nurse working on the HUD-RETA project in the communities of Bloomington, Edina, and Richfield and her personal experiences of providing patient care during an asthma home visit. Pat shared with MDH staff her observations about lessons learned and the challenges of being a public health nurse doing asthma home visits.

What’s surprised you the most about the asthma home visiting work that you’ve been doing?

PR: A common theme that I see when working with my clients is that many perceive asthma as an acute (“attack”) type of condition rather than viewing it as a long-term chronic disease that needs to be managed on a daily basis. Clients are not always receiving adequate asthma education in the clinic and it really shows when asthma action plans (AAPs) are not recognized by clients as important and how to use them for daily self-management. I’ve seen AAPs tossed to the side because of lack of awareness. It is not uncommon to see parents with worse control of their asthma than their children’s. Parents are always more concerned about their children than themselves. Lack of insurance coverage is another challenge.

Asthma home visits are a unique way of delivering family/patient care. What is your primary take away from your years of experience in being a public health nurse? What do you love about it so much? Share your most unique challenge.

PR: Asthma home visits offer the most successful and effective way to deliver asthma education to the client. Being in the client’s home offers one-on-one provider to patient instruction. The average asthma home visit lasts 1.5 hours and about 2-3 hours if a language interpreter is needed. Being in the home provides a level of comfort for the client and family, but also comes with distractions such as cell phones, TV, friends and relatives dropping by, and family pets making their appearances during the visit. Challenges occur when clients don’t want to demonstrate inhaler technique and would rather move on to something else. Inhaler technique is a huge issue as well as lack of holding chambers. The true reward of an asthma home visit comes when you witness family satisfaction with their child’s asthma control – to see the family recognize their efforts over time have resulted in positive outcomes for their child’s health is a great thrill.

Do most of your patients have a written asthma action plan? If not, what do you think is the barrier to this?

PR: Approximately 50% of my clients do not have written asthma action plans (AAPs) in the homes that I visit. Clients don’t understand the significance of having an AAP. We have encouraged behavior change by posting the AAP on the refrigerator for other family members and care givers to see or placing asthma medications in a special labeled plastic box. We offer to call their clinic to obtain an AAP for them.

What advice could you offer when mentoring a “new” public health nurse beginning asthma home visits?

PR: The main thing to remember is that you’re a guest in the client’s home. Tailor recommendations to the family and provide information that is culturally appropriate. Sometimes these home visits can be chaotic and your scheduled visit may not have landed on a day/time that was ideal – the client or family may not seem engaged or receptive. Re-schedule the visit with the family and try again – you’re not seeking perfection here, just go slowly. Seeing improvement shows that you are doing well.

To take the RETA - Home Training, go to www.retahome.org
Calendar of Events

**July 16-17 COPD Educator Course**

**490 Concordia Ave, St Paul, MN** The American Lung Association in Minnesota’s COPD Educator Course provides healthcare professionals with a thorough overview of COPD information. The course will include practical information healthcare providers can use in their work with COPD patients. $175 on or before July 5, $200 after July 5th.


**July 24 Bridges Out of Poverty: Strategies for Professionals and Communities**

Bridges Out of Poverty takes the concepts of hidden rules of economic class and uses them to educate social workers, employers and community organizations about the unique and sometimes hidden obstacles that individuals from poverty face. Cost: $50. Register at [http://www.sph.umn.edu/details/course/11432/](http://www.sph.umn.edu/details/course/11432/)

**August 11-17 National Health Center Week**

In 2013 we are “Celebrating America’s Health Centers: Transforming Health Care in Our Local Communities.” The theme showcases the multitude of ways in which America’s Health Centers are actively changing, improving and innovating the health of their communities. To learn more go to [http://www.healthcenterweek.org/](http://www.healthcenterweek.org/)

**September 20-21 Asthma Educator Institute**

**American Lung Association in Minnesota, 490 Concordia Ave., Saint Paul, MN 55103**

The Asthma Educator Institute is a two-day course to teach health-care professionals how to help asthma patients manage their illness. Many participants go on to take National Asthma Educator Certification Board (NAECB) examination to become certified asthma educators. Register at [http://www.lung.org/associations/states/minnesota/events-programs/mn-asthma-coalition/asthma-trainings-interventions/asthma-educator-institute.html](http://www.lung.org/associations/states/minnesota/events-programs/mn-asthma-coalition/asthma-trainings-interventions/asthma-educator-institute.html)

**September 25-27 Community Health Conference**

**Cragun’s Conference Center, Brainerd, MN** Working Together: Attaining Health Equity in Minnesota Communities. Find more at [http://www.health.state.mn.us/divs/cfh/ophp/system/conference/](http://www.health.state.mn.us/divs/cfh/ophp/system/conference/)

**Save the Date**

**MINNESOTA ASTHMA ALLIANCE MEETING**

**Optimizing Asthma Care in Minnesota: What You Can Do**

Wednesday, October 23, 2013, 9 am to 4 pm

Brookdale Library, 6125 Shingle Creek Parkway, Brooklyn Center, MN 55430

Online registration and a complete agenda will be posted on the MDH Asthma Program website mid-summer. Check back at [www.health.state.mn.us/asthma](http://www.health.state.mn.us/asthma) for Minnesota Asthma Alliance Meeting updates. There is no registration fee (FREE) for this meeting (includes free lunch and refreshments).

Any questions, please contact Kelly Raatz, Asthma Program Coordinator at kelly.raatz@state.mn.us or 651-201-5899.

**Who should attend:** Prescribing clinicians, public health staff, health care providers, school nurses, health plan employees, policy makers, all asthma partners!
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www.health.state.mn.us/asthma/

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Do you have questions about lung health?
Call the American Lung Association HelpLine at: 1-800-548-8252
(Hours 7:00am to 9:00pm Central Time)
Staffed by registered nurses and registered respiratory therapists to answer your lung health questions.

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