



Licensed School Nurse/ Public Health Nurse/ Registered Nurse

In the last few decades, asthma has become epidemic. As the most common chronic childhood disease, asthma affects more than six million children in the U.S.¹ Nearly one in 13 school-aged children has asthma.² It causes children to miss school, impacts academic performance and can prevent them from participating in “normal” school and social activities.

Because children spend so much time in school, managing asthma has become an important priority for K-12 schools. According to the CDC document *Strategies for Addressing Asthma Within a Coordinated School Health Program*:

“A healthy student is a student ready to learn. Asthma-friendly schools are those that make the effort to create safe and supportive learning environments for students who have asthma. They have policies and procedures that allow students to successfully manage their asthma. Chances for success are better when the whole school community takes part — school administrators, teachers, staff, students and parents.”

The CDC has identified six strategies for schools and districts to consider when addressing asthma within a coordinated school health program.



These strategies can be effective whether your program is for the entire school district or just one school.

1. Establish management and support systems for asthma-friendly schools.
2. Provide appropriate school health and mental health services for students who have asthma.
3. Provide asthma education and awareness programs for students and school staff.
4. Provide a safe and healthy school environment to reduce asthma triggers.
5. Provide safe, enjoyable physical education and activity opportunities for students with asthma.
6. Coordinate school, family, and community efforts to better manage asthma symptoms and reduce school absences among students with asthma.



While addressing asthma requires the cooperation of the entire school staff, the driving force behind asthma management is the licensed school nurse. More than any other staff member, you're in a position to make a difference for students with asthma.

This section provides facts about "What you need to know" and "What you can do." It includes resources you can access for more information. Though this section is aimed at Licensed School Nurses (LSNs), Public Health Nurses (PHNs), and Registered Nurses (RNs), it is not meant to stand alone. It's a companion piece to the section entitled "All Health Staff." Read that section carefully as it contains topics not covered in "your" section. Taken together, these two sections complement each other with information about the vital role you play in helping to create an asthma-friendly school.

Public Health Nurses (PHNs) are eligible to be Licensed School Nurses (LSNs) and function in that role in schools. Their role is dependent on the specific contract that is negotiated between the Public Health Agency and the school or district. The amount of time that any professional nurse has in a school/district will directly impact the type and intensity of asthma care provided. In a school/district with less professional nurse time, prioritization of the most important aspects is essential.

What LSNs/PHNs/RNs Need to Know

HOW TO DETERMINE A CURRENT ASTHMA SEVERITY LEVEL. DETERMINING A CHILD'S CURRENT ASTHMA SEVERITY LEVEL CAN BE HELPFUL IN:

- Determining whether a student might benefit from starting a daily controller medication or adjusting medication(s)
- Determining whether a student needs to be referred to his/her health care provider or asthma specialist for a detailed assessment and plan of care

Current asthma severity levels can be estimated based on the frequency of daytime and nighttime symptoms, exercise tolerance, and for the purpose of school nurses, peak expiratory flow rate (also known as peak flow or PF). These factors place individuals into four different asthma severity categories:

Severity Classification	Days /w Symptoms	Nights /w Symptoms	Peak Expiratory Flow Rate (Peak Flow)	Peak Expiratory Flow Rate Variability
Severe Persistent (Step 4)	Continual	Frequent	≤ 60%	> 30%
Moderate Persistent (Step 3)	Daily	> 1 /night /week	> 60% - < 80%	> 30%
Mild Persistent (Step 2)	> 2 / week but < 1x/ day	> 2 nights/month	≥ 80%	20-30%
Mild Intermittent (Step 1)	≤ 2 days/ week	≤ 2 / nights/month	≥ 80%	< 20%

Adapted from the Stepwise Approach for Managing Asthma in Adults and Children Older than 5 years of Age, From: National Heart, Lung, and Blood Institute; National Asthma Education and Prevention Program Expert Panel Report Guidelines for the Diagnosis and Management of Asthma – Update on Selected Topics 2002



The Asthma Severity tool can be very helpful. In addition to the above information, it also reviews what type of medication would be appropriate for each level.

At every step you should provide education on self-management and controlling environmental factors (allergens and irritants) that make asthma worse.

THE STEPWISE TREATMENT APPROACH FOR MANAGING ASTHMA IN ADULTS AND CHILDREN OLDER THAN 5 YEARS OF AGE.

Note: For students who have had pulmonary function testing or spirometry—the more accurate forced expiratory volume in one-second (FEV1) value is used instead of peak flow

MILD INTERMITTENT (STEP 1)

NO DAILY CONTROLLER MEDICATION NEEDED.

Severe exacerbations may occur, separated by long periods of normal lung function and no symptoms. (In this case, a course of systemic (oral) corticosteroids is recommended.)

Daytime symptoms less than or equal to 2 days a week and/or nighttime symptoms less than or equal to 2 nights a month. Peak flow (PF) is greater than or equal to 80% of predicted and peak flow variability is less than 20% from morning compared to afternoon.

MILD PERSISTENT (STEP 2)

PREFERRED CONTROLLER TREATMENT: LOW-DOSE INHALED CORTICOSTEROIDS.

Alternative treatment (listed alphabetically): cromolyn, leukotriene modifier, nedocromil, OR sustained release theophylline to serum concentration of 5-15 mcg/mL.

Daytime symptoms greater than 2 days a week but less than 1x per day, and/or nighttime symptoms greater than 2 nights a month; peak expiratory flow (PEF) or forced expiratory volume in one second (FEV1) greater than or equal to 80% of predicted value and peak expiratory flow variability greater than 20 - 30% from morning to afternoon.

MODERATE PERSISTENT (STEP 3)

PREFERRED CONTROLLER TREATMENT: LOW-TO-MEDIUM DOSE INHALED CORTICOSTEROIDS AND LONG ACTING INHALED BETA2-AGONISTS.

Alternative treatment (listed alphabetically)

Increase inhaled corticosteroids within medium-dose range.

-OR-

PREFERRED TREATMENT: increase inhaled corticosteroids within medium-dose range, and add long-acting beta-agonists.

Low to medium dose corticosteroids and either leukotriene modifier or theophylline.

If needed (*particularly in patients with recurring severe exacerbations*)

Alternative treatment (listed alphabetically): increase inhaled corticosteroids in medium-dose range, and add either leukotriene modifier or theophylline.

Daytime symptoms every day and/or nighttime symptoms greater than 1 night a week; peak expiratory flow (PEF) or forced expiratory volume in one second (FEV1) between 60 - 80% of predicted value, and peak expiratory flow variability greater than 30% from morning to afternoon.

SEVERE PERSISTENT (STEP 4)

PREFERRED CONTROLLER TREATMENT: HIGH-DOSE INHALED CORTICOSTEROIDS AND LONG ACTING INHALED BETA2-AGONISTS.

AND if needed, corticosteroid tablets or syrup long-term (2 mg/kg/day, generally do not exceed 60 mg per day). Make repeated attempts to reduce systemic corticosteroids and maintain control with high-dose inhaled corticosteroids.

Refer to an asthma specialist.

Daytime symptoms continually and/or frequent nighttime symptoms; peak expiratory flow (PEF) or forced expiratory volume in one second (FEV1) less than or equal to 60% of predicted value and peak expiratory flow variability greater than 30% from morning to afternoon.

A key role of the LSN/PHN/RN is to encourage a student to see his/her health care provider as soon as possible if the student is in the health office more than 2 times a week, or tells you he/she has nighttime symptoms more than twice a month.

Asthma Medication Review



- Be aware of and follow your school/district medication policy/policies.
- In addition to the information provided in the All Health Staff Section, see more detailed information on the asthma medications handout and the Asthma Medication Review PowerPoint® slide handout in the Resource Section.

Any students with mild, moderate or severe persistent asthma need anti-inflammatory or “controller” medication that they take every day to prevent asthma symptoms from starting.

1 ALL STUDENTS WHO HAVE ANY TYPE OF ASTHMA SHOULD HAVE A SHORT-ACTING BRONCHODILATOR (E.G., ALBUTEROL) OR A “RELIEVER” MEDICATION: 2-4 PUFFS SHORT-ACTING INHALED BETA2 AGONISTS AS NEEDED FOR SYMPTOMS.

- The intensity of treatment for symptoms will depend on the severity of the exacerbation — up to 3 treatments of beta2 agonists at 20-minute intervals or a single nebulizer treatment is appropriate as needed. A course of systemic (oral) steroids may be needed.
- The use of short acting inhaled beta2 agonists on a daily basis, or the increasing use of beta2 agonists, indicates the need to initiate or increase long-term control therapy.

2 STEPPING DOWN OR STEPPING UP DAILY CONTROLLER MEDICATION IS OFTEN NEEDED TO GAIN AND/OR MAINTAIN GOOD ASTHMA CONTROL.

Gain asthma control as quickly as possible: Individuals with asthma may be started on a higher dose of controller medication, and then step down to the least medication necessary to maintain control.

- Step-down: The treatment plan or Asthma Action Plan should be reviewed every 1-6 months and changes made as needed; a gradual stepwise reduction in treatment may be possible.
- Step-up: If control is not maintained, consider step up. First review patient medication technique, adherence, and environmental control.

Some students may need their daily controller therapy stepped up during the fall and spring and stepped down in the winter and summer. Some may need to be stepped up in one or two seasons, but can be stepped down during other seasons. Others may need to be stepped up following a significant virus or trigger exposure that may have caused lung irritation and inflammation. Still others may be able to be stepped down, if their home or other environment improves and triggers are eliminated.

The LSN/PHN/RN should know these guidelines and refer students who have asthma to appropriate asthma health care provider. If there are concerns that asthma medications may need to be initiated, stepped up, or stepped down.

The NIH / NAEPP asthma guidelines (published in 1991, updated in 1997 and 2002) are available online. These are the nationally recognized gold standard for clinical asthma care and education. See the Resource Section for NIH/ NHLBI/ NAEPP asthma guidelines web site information.

Key Features of the Nurse Practice Act and Delegation

(MN School Health Guide, 1996)



Delegation involves granting permission to someone else to perform a task with shared responsibility. It is important to understand these guidelines before delegating to paraprofessionals and non-health staff the care of students with asthma.

The **Minnesota Nurse Practice Act** states that, while a registered nurse may delegate, the nurse must supervise and is responsible for the outcome of that delegation. For example, if a nurse delegates a paraprofessional to give medication, she must train, supervise and monitor the paraprofessional's performance and the child's response. Failure to monitor a child's response to treatment has been the basis for successful malpractice suits against nurses. Inappropriate delegation of tasks by a nurse to a paraprofessional is a basis for disciplinary action against the nurse by the Minnesota State Board of Nursing (M.S. 148.171 to 148.285).

Whether a particular activity is a nursing activity under the Board of Nursing's definition is addressed by M.S. 148.171 - 148.285 (Laws Relating to the Minnesota State Board of Nursing, Nurse Practice Act).

This law states that:

"The practice of professional nursing means the performance for compensation or personal profit of the professional interpersonal service of:

- a) providing a nursing assessment of the actual or potential health needs of individuals, families, or communities;
- b) providing nursing care supportive to or restorative of life by functions such as skilled ministrations of nursing care, supervising and teaching nursing personnel, health teaching and counseling, case finding, and referral to other health resources; and evaluating these actions."

"The practice of professional nursing includes both independent nursing functions and delegated medical functions which may be performed in collaboration with other health team members, or may be delegated by the professional nurse to other nursing personnel. Independent nursing function may also be performed autonomously. The practice of professional nursing requires that level of special education, knowledge, and skill ordinarily expected of an individual who has completed an approved professional nursing education program as described in Section 148.211, Subd. 1."

ACTIVITIES THAT MAY NOT BE DELEGATED

According to the Nurse Practice Act, professional nurses are authorized to delegate nursing functions. However, according to the Act, "Delegating or accepting the delegation of a nursing or a prescribed health care function when the delegation or acceptance could reasonably be expected to result in unsafe or ineffective patient care," is grounds for disciplinary action by the Minnesota Board of Nursing (M.S. 148.261(7)).

Under some circumstances the age or vulnerability of the student makes it inappropriate to delegate to unlicensed staff. The nurse may decide to delegate a task to a paraprofessional when the child is older and can participate in the care, but a younger child may require more teaching or protection to avoid an adverse outcome.



What LSNs/PHNs/RNs Can Do

Suggested Actions

Your access to information, professional expertise, and ability to provide treatment make you the “go-to” person in your school. There are a number of things you can do to better the lives of students in your school who have asthma. Because of time constraints, use your judgment to set priorities when dealing with students with asthma. Some suggestions:

BE ALERT TO STUDENTS WHO MAY HAVE SYMPTOMS OF ASTHMA BUT DO NOT HAVE AN ASTHMA DIAGNOSIS.

Refer them to their health care provider and/or school-based clinic if appropriate/available for further evaluation.

WORK TO OBTAIN ASTHMA ACTION PLANS (AAP) FOR YOUR STUDENTS WITH ASTHMA.

The AAP is an important tool when dealing with students who have asthma. Ideally, each student would have one, but not all do. Focus on students with persistent asthma.

MDH has an online and desktop interactive AAP available at:



<http://www.health.state.mn.us/divs/hpcd/cdee/asthma/>. *Click on Asthma Action Plan.*

There are sample blank AAP's available at the same web site. Request AAP's from the student's Health Care Provider.

HELP CONTROL STUDENTS' ASTHMA USING BEST PRACTICES.

Get the facts

Conduct case finding for asthma by reviewing data from a variety of sources (i.e. Health Problem List, Health forms, Emergency Cards, Medication Consents, Early Childhood Screening forms, Physical Exams, new Pupil Health Records, asthma history from parent, staff or student report, ED/hospital admissions due to asthma.)



Send home and/or mail an asthma questionnaire to parent/guardians of younger students:

1. who are newly identified as having asthma, or
2. about whom you need more information.



Administer an asthma questionnaire to older students:


1. who have asthma on initial visit with asthma symptoms to the school health office,
2. who take medications on a routine basis,
3. who are reported to the health office staff as absent due to asthma, or
4. about whom you need more information.





Review asthma questionnaires and AAPs to determine a student's current level of control and/or severity based on frequency of daytime and nighttime symptoms. Document severity level.

(Adapted from the Healthy Learners Asthma Initiative / Minneapolis Public Schools)



WORK WITH STUDENTS

- Assess symptoms and check peak flow on students with persistent asthma or students experiencing asthma symptoms and/or activity intolerance.
- Determine if medication is needed per AAP or medication order.
-  ■ Perform physical assessments/lung auscultation on students with symptoms of asthma.
- Assess the social, emotional and mental health needs of students with asthma.
- Administer medication according to medication orders/Asthma Action Plan and your district policy.

NOTIFY PARENTS AND HEALTH CARE PROVIDERS AS NEEDED

-  ■ Notify parent/guardians via a written note or form when a student is seen in the health office with asthma symptoms and/or distress. Send home form/note along with the student, or mail/phone information to parent/guardian.
- Phone parent/guardian if a student is seen in the health office 2 or more times a week with asthma symptoms.
-  ■ Notify the health care provider when a student is seen in the health office two or more times a week with asthma symptoms or there are asthma control or management concerns (requires parent / guardian consent).
- Document questionnaires that are sent or completed as well as notifications to parents/guardians or health care providers.

KEEP RECORDS

-  ■ Complete or initiate a record that documents medication administration, asthma assessment items (e.g., lung sounds, peak flow readings, symptoms), education provided, correspondence / communication with parents/guardians and health care providers, and narrative documentation on all students taking asthma medication and/or students who need documentation of peak flow/symptoms or asthma education.
- Document asthma visit on your daily log or other health office visit log, and if pertinent, in the Pupil Health Record. Document that a note/form/phone contact was made with the parent/guardian.
- Review daily log/record asthma visits and any asthma symptom visits weekly. File copies of parent notification notices in the Pupil Health Record.
-  ■ Complete Individualized Health Plan for Asthma and/or Emergency Care Plan for Asthma.

Note: It is often preferable to mail notices to parent/guardians of older students since if sent with student, they often do not reach the parent/guardian. If you are not the person who routinely sees students, and a health assistant or other staff member is delegated to administer medications and provide basic first aid for asthma, direct them to notify parent/guardians when a student presents with asthma symptoms and to communicate this information to you.

SPREAD THE WORD

- Advocate for a healthy and asthma-friendly environment in your school/district.

EFFICIENTLY MANAGE ACUTE EPISODES



- In addition to the information on the asthma and breathing problems/first aid for asthma handout, review the sample *Pathway for Acute Asthma Care for the LSN* (how to manage acute episodes of varying severities). See All Health Staff and Resource Sections.

ESTABLISH A BACK-UP PLAN

- Work with your school principal/administrator to identify back-up staff that you can train to administer asthma medications and provide first aid for asthma when a LSN/PHN/RN is not in the school building. Each building should have more than one individual trained to safely administer medications and provide first aid for asthma.

PROVIDE CARE COORDINATION TO STUDENTS WHO HAVE ASTHMA

- Students with signs indicating poor asthma control may need care coordination.
- Focus on those with poorly controlled moderate to severe persistent asthma first, and if time allows, provide care coordination for students whose asthma is in the mild intermittent/mild persistent severity level.
- Directly communicate with the parent/guardian and the health care provider. Strive to improve communication channels/foster good communication with health care providers, emergency departments, clinics and home visiting resources that your families utilize most often.
- When able, refer students to case management programs that may be offered by the major health insurance plans, area hospitals or home visiting resources.
- Participate in planning and placement teams, and 504 meetings for students who have asthma.

COLLABORATE WITH MEDICAL CONSULTANTS/ADVISORS

- If your district has a medical consultant or advisor, work with him/her to help plan educational and other programs on asthma for your school or district.



PROVIDE ASTHMA EDUCATION TO STUDENTS, STAFF AND FAMILIES



In time-crunched settings, offering 1-5 minute key asthma education messages is a beneficial way to deliver education. This can be done in a variety of ways – on the phone, 1:1, at staff or parent/teacher association meetings, etc. Collaborate with outside agencies that provide asthma education in home and community settings (public health nurses, home visiting/care agencies, home respiratory services, hospitals, clinics, etc.) if available.

SUPPORT THE SOCIAL, EMOTIONAL AND MENTAL HEALTH OF STUDENTS WITH ASTHMA

Promote high self-esteem and help students see their condition as manageable. Help them feel comfortable with having asthma. Be proactive instead of reactive when talking to students who have asthma.

- the student provide information about asthma to others.
- Provide positive feedback for good decisions and increase independence in the plan of care.
- Assess whether student sees him/herself as different from others.
- Assess whether he/she is avoiding taking medications or “toughing it out” during an episode.
- Assess whether he/she is reluctant to take medications at school or go to the health office and if he/she is notifying school personnel about medication needs and/or use if self-administering.
- Determine if he/she is sharing medications with other students.
- Assess whether he/she may be avoiding physical activity out of fear of asthma symptoms rather than the presence of actual symptoms.
- Refer to available in-school or community mental health providers/counselors as needed.

UTILIZE ASTHMA SKILL VALIDATIONS



If you have health assistants or paraprofessionals, consider training them on the use of the various asthma inhalers and gadgets they may need to use.



Enhance Communications

WITH STUDENTS



Be especially attentive to students who are self-carrying their asthma medications. Make an effort to check-in or follow-up with these students.

WITH PARENTS

Establish positive working relationships with parent/guardians of students who have asthma. Share concerns and suggestions regarding medications, asthma action plans, regular well-asthma visits to health care providers, self-carrying of medications, and any special transportation need for students who have asthma.

WITH HEALTH CARE PROVIDERS



Ensure good communication between the school and health care provider by obtaining consents to release/share information through the use of a medical release form. Several of the new Asthma Action Plans have consents included within the form that allow the sharing/releasing of information as well as administering medications at school. Check your district policies for requirements on consents. (See MDH AAP in Resource Section).

There's additional valuable communication information in All Health Staff Section.

To further enhance communication with health care providers and advocate for the optimal asthma control of students, notify students' health care providers when you have concerns that their asthma may be poorly controlled. Parent/guardians may think that having asthma symptoms, difficulty exercising, or difficulty breathing is just part of asthma and may "tune-out" a chronic cough. Students often get so used to "living in the yellow zone" or not being able to breathe to their full potential, that they think it is normal and do not expect anything more. Students may not always tell parents/guardians when they are coughing or having breathing difficulty. Due to these factors, objective LSN/PHN/RNs observations can be extremely helpful for health care providers and families.



Since it may be difficult to easily reach health care providers on the telephone, try notifying them in writing. Again, consent to share/release information must be obtained in order to share this information. In the case of an acute life threatening emergency, it generally is acceptable to share information with emergency medical personnel even without consent.

WITH OTHER SCHOOL AND SCHOOL-BASED STAFF

Share students' asthma diagnosis with other school staff on a "need-to-know" basis only. More importantly, all school staff should be trained to be able to recognize signs of breathing or asthma difficulty in any student and to know what to do to respond to those symptoms (first aid for asthma).



Build a collaborative relationship with the school-based health center or clinic in your school or district, if present. School-based health centers can be another source of care for students with asthma and may be able to act as a resource to nurses and other staff.


Implement a School Asthma Management Program in your school or district

Throughout the process, feel free to contact asthma program staff at MDH who can act as a resource to you via phone or email as needed.

TO-DO CHECKLIST:

- ✓ Talk to and gain the support of your school principal and / or district superintendent.
 - ✓ Talk to and gain support of your Health Services or Nursing Manager/ Supervisor or lead nurse (if applicable).
 - ✓ Make plans to educate groups you will need to educate as part of a coordinated school health effort (PowerPoint® presentations available in training section of manual). Prioritize which groups need training in your setting, and which groups are easily accessible to you.*
 - Administrators/Superintendents/Principals
 - Health Assistants/Aides
 - Administrative Assistants/Secretaries
 - Teachers / Physical Education Teachers/Educational Assistants
 - Coaches
 - Health Teachers
 - Transportation Staff/Bus Drivers
 - Environmental Health and Safety Staff/Engineers/Custodians
 - Nutrition Services Staff
 - Early Childhood Screening Staff
 - Before and After School Childcare Staff
 - School Based Clinic Staff/Community Health Care Providers
 - Parents/Guardians
- * In many settings, the key staff to target initially might be teachers, administrators, and coaches.
- ✓ Determine schedule of when these groups might already meet and ask to be put on the agendas of the various meetings/groups to introduce the program and communicate key messages (e.g., staff meetings, Parent Teacher Association meetings, coaches meetings, administrators meetings, etc.) or make arrangements to meet individually with these staff people/groups.
 - ✓ Conduct trainings.
 - ✓ Arrange for more intensive asthma training of staff that provide health services to students to include:
 - Basic medication training
 - Inhaler, nebulizer and peak flow technique demonstrations and potentially skill validations
 - Information on how to handle acute asthma episodes
 - Information on the bigger picture – long term asthma control and how to prevent episodes before they start
 - Training re: new asthma forms you plan to utilize (e.g., a record for documenting medication administration, peak flow, symptoms, and a written or other means of notifying parents/guardians/health care providers of asthma symptoms at school, etc.)
 - Communication with the LSN/RN/PHN
 - ✓ Mentor key staff on their roles and give positive feedback for improvements / compliance with plan.
 - ✓ Follow-up with appropriate groups and/or individuals to assure implementation and accountability.
 - ✓ Evaluate your progress and adjust plan as needed.

Resources for LSN/PHN/RN

In addition to resources listed in the All Health Staff section, the following resources are located at the end of the manual. The policies, procedures, and forms listed are samples, which you can take and modify to use in your district. The electronic versions of most sample policies, procedures, and forms are provided on CD Rom and/or are downloadable off the MDH website for your convenience. 

- Asthma medications handout
- AAP parent letter
- Instructions for rating current asthma severity using the Parent Asthma / Breathing Trouble Questionnaire and Student Breathing Questionnaire
- Skill Validation Tools
- Asthma Medical Referral / Request
- Individual Health Plan – Asthma
- Emergency Care Plan – Asthma
- Pathway for School Asthma Care for LSNs
- Self-carry parent letter and student agreement
- On CD Rom and website only: Somali, Hmong, Spanish forms

ADDITIONAL LSN/PHN/RN-SPECIFIC RESOURCES:

Environmental Protection Agency: Asthma Triggers

<http://www.epa.gov/asthma/triggers/index.html>

School Nurses of Minnesota (SNOM)

<http://www.minnesotaschoolnurses.org/>

Healthy Learners Asthma Initiative: Minneapolis Public Schools

<http://www.healthylearners.org/>

Connecticut Department of Health: Manual link

http://www.dph.state.ct.us/BCH/eeoh/Asthma/asthma_ed_mat.htm

Available documents (among others):

- Tips for the School Nurse
- School Nurse checklist: Planning for care as school begins
- Asthma Terminology sheet
- Self-medication assessment
- Students with Asthma Tracking Form

National Heart Lung & Blood Institute/ National Institutes of Health Guidelines

<http://www.nhlbi.nih.gov/guidelines/asthma/>

RESOURCES FOR TRAINING SCHOOL STAFF

The Training Section contains PowerPoint® handouts which are available on the manual CD Rom and at the MDH asthma website for easy use/adaptation.

Citations

¹ "Asthma Prevalence, Health Care Use, and Mortality, 2000–2001," National Center for Health Statistics, Centers for Disease Control and Prevention.

² National Center for Health Statistics, National Health Interview Survey, 1999.

PowerPoint® is a registered trademark of Microsoft® Corporation.