

# Disease Control Bulletin

EPIDEMIOLOGY & DISEASE PREVENTION

VERMONT DEPARTMENT OF HEALTH

## Vermont Asthma Action Plan

It has been estimated that in 2001, 31 percent of Vermont adults with asthma had a written management plan, and 14.2 percent of Vermont adults with asthma reported one or more visits to the emergency room or sought urgent care for their asthma.<sup>1</sup> Recently updated guidelines<sup>2</sup> state that self-management education with written management plans has been shown, in adults, to reduce emergency department visits and hospitalizations and to result in improved lung function. Healthy Vermonters 2010,<sup>3</sup> Vermont's blueprint for improving health, contains four asthma-related objectives, which include reducing pediatric asthma hospitalizations, increasing asthma education, increasing the use of written management plans among persons with asthma, and reducing triggers that exacerbate asthma, namely environmental tobacco smoke.

### Vermont Asthma Action Plan developed

To meet the goals set forth by Healthy Vermonters 2010, the Vermont Department of Health in collaboration with other government, non-government, and community organizations, created the Vermont Asthma Action Plan (Figure 1). This document is a written management plan that includes a color-coded system linked to symptom severity; provides information on asthma medications, peak flow meters, and details identifying an asthma attack or episode in progress; and aids in identifying when it is appropriate/necessary to call the doctor. The triplicate nature of the form allows one copy to remain in the patient's medical chart, one copy to be sent home with the patient/family, and a third copy to be kept on file with the child's school nurse when appropriate.

### Pilot programs tested form

Three pilot studies were designed to test the point of origin for the delivery of the Vermont Asthma Action Plan. All pilot-related information reported to the Vermont Department of Health was confidentially transmitted to protect the patient's identity. In the first of these pilots, four physician offices of various sizes and locations across the state were used to test the implementation of the Vermont Asthma Action Plan from pediatric office settings. In the second pilot, seven school nurses from around the state initiated written management plans in a school setting. To obtain additional feedback, 26 other school nurses tested the use of the written management plans, but were not formal members of the pilot. Finally, the third pilot tested the delivery route of written management plans using insurance plans as the point of

Figure 1.

**Vermont Asthma Action Plan** Date \_\_\_\_\_ Initial Update \_\_\_\_\_

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_ DOB: \_\_\_\_\_ Asthma Type: \_\_\_\_\_  
 School Name: \_\_\_\_\_ Exercise Induced \_\_\_\_\_ Moderate Persistent \_\_\_\_\_ Severe Persistent \_\_\_\_\_  
 Provider Name: \_\_\_\_\_ Provider Phone #: \_\_\_\_\_ Mild Intermittent \_\_\_\_\_ Mild Persistent \_\_\_\_\_  
 Parent/Guardian Name: \_\_\_\_\_ Parent/Guardian Phone #: \_\_\_\_\_ Allergies/Triggers: \_\_\_\_\_  
 Emergency Contact: \_\_\_\_\_ Emergency Phone #: \_\_\_\_\_ Cigarette Smoke \_\_\_\_\_ Exercise \_\_\_\_\_ Animals \_\_\_\_\_  
 Colds \_\_\_\_\_ Molds \_\_\_\_\_ Smoke \_\_\_\_\_ Cold air \_\_\_\_\_  
 Grass \_\_\_\_\_ Other \_\_\_\_\_ Dust mites \_\_\_\_\_ Trees \_\_\_\_\_ Weeds \_\_\_\_\_ Stress \_\_\_\_\_

Personal Best Peak Flow (PF) \_\_\_\_\_  
 Flu Vaccine \_\_\_\_\_

**GREEN = GO**  
 You have **all** of these: PF above \_\_\_\_\_  
 Breathing is good  
 No cough or wheeze  
 Sleep through the night  
 Can work and play  
 Medicine: \_\_\_\_\_ How: \_\_\_\_\_ **DAILY MEDICINE:** \_\_\_\_\_  
 Much \_\_\_\_\_ How Often/When: \_\_\_\_\_  
 10-15 MINUTES BEFORE SPORTS OR PLAY, USE: \_\_\_\_\_

**YELLOW = CAUTION**  
 You have **any** of these: PF from \_\_\_\_\_ to \_\_\_\_\_  
 First signs of a cold  
 Cough  
 Mild wheeze  
 Tight Chest  
 Coughing at night  
 Medicine: \_\_\_\_\_ How: \_\_\_\_\_ Much \_\_\_\_\_ How Often/When: \_\_\_\_\_  
 IF NOT BETTER, CALL YOUR HEALTH CARE PROVIDER

**RED = STOP**  
 Your asthma is getting worse fast:  
 Medicine is not helping  
 Breathing is hard and fast  
 Nose opens wide  
 May/might not wheeze or cough  
 Ribs show  
 Can't talk well  
 PF below \_\_\_\_\_  
 Medicine: \_\_\_\_\_ How: \_\_\_\_\_ Much \_\_\_\_\_ How Often/When: \_\_\_\_\_  
**STOP! MEDICAL ALERT: This could be a life-threatening emergency. Get Help. Your symptoms are serious. Call your doctor. You may need to go to the nearest emergency room or call 911.**

I, \_\_\_\_\_ give permission to \_\_\_\_\_ to exchange information and otherwise assist in the asthma management of my child including direct communication with my child's primary care provider and administration of medication as needed \_\_\_\_\_ Date \_\_\_\_\_  
 (parent/guardian name/please print) (school/daycare/homecare name/please print)

The school nurse may administer medications per this action plan: \_\_\_\_\_ Date \_\_\_\_\_  
 (provider signature)

1<sup>st</sup> Page for Provider 2<sup>nd</sup> Page for School/Daycare/Homecare 3<sup>rd</sup> Page for Patient/Parent/Guardian  
 For more copies of this form contact The Vermont Department of Health, PO Box 76, Burlington, VT 05402, 1-800-439-8550.

To obtain copies of the Vermont Asthma Action Plan, contact 1-800-439-8550, and ask to speak with the Asthma Program Coordinator, Norma Wasko.

origin. This pilot used the HEDIS definition<sup>4</sup> of 'persistent asthma' for insurance plans to identify patients and their doctors, resulting in the mailing of an appropriate number of Vermont Asthma Action Plans to these physician offices.

Nearly 70 percent of the physicians in pilot practices responded to a final survey, providing their impressions on their experience in the pilot. Suggestions and comments have been invaluable in providing direction for program activities such as the development of a school nurse manual for asthma.

Responses indicated there was no hesitation from parents to complete the form, and physicians indicated that the form complements asthma education and general health communication with families, as well as with other doctors and health care providers.

Feedback following the completion of the nurse pilot demonstrated general enthusiasm and support for the form, but reported some misunderstandings with parents and doctors concerning which portions of the forms they were each to

complete and eventually return to the school. Additionally, there were requests made for the forms to include an area that indicates permission for the student to carry his/her inhaler on-person in the school, as well as for the school nurse to date and initial receipt of the form in their office. In the final pilot, insurers have sent out the Vermont Asthma Action Plans and will conduct chart audits in the summer of 2003 to examine the percentage of completed management plans in patient charts of those plans originally sent.

### Summary

The most recent National Institutes of Health guidelines hypothesize that written management plans will reduce the occurrence of avoidable hospitalizations and ER visits. As we work toward achieving Healthy Vermonters 2010 goals, statewide efforts to increase the use of Vermont Asthma Action Plans will be monitored. Sources including the Vermont Behavioral Risk Factor Surveillance System and ER data will help us to see whether the presence of written management plans results in the desired benefit of improved quality of life for people in Vermont with asthma.

### References:

<sup>1</sup> 2001 VTBRFSS. *The Vermont Behavioral Risk Factor Surveillance System is a random-digit dialed telephone survey of the non-institutionalized state population aged 18+ years.*

<sup>2</sup> <http://www.nhlbi.nih.gov/guidelines/asthma/asthsumm.htm>

<sup>3</sup> <http://www.healthyvermonters.info/admin/pubs/hv2010/hv2010.shtml>

<sup>4</sup> <http://www.ahcpr.gov/chtoolbx/usemed.htm>

### Tips for using the Vermont Asthma Plan:

#### Advice from Physician Pilot Participants

- n This form does not require use of peak flow readings to be useful in asthma management. Signs and symptoms can be used to designate the individual's green, yellow, red zone conditions.
- n The physician should sign the form and send the second page to the child's school nurse. A list of addresses of Vermont schools is available from the Vermont Health Department. Call 1-800-439-8550 and ask to speak to the Asthma Program Coordinator.
- n This form can be used by preschool and day care providers to manage asthma in preschool children. The form has not been tested on adults although the content is believed applicable to adults as well as children.
- n To ensure that the asthma management form is used as intended:
  - Encourage your colleagues to use the asthma form
  - Identify the person in your office who will be responsible for:
    - stocking the form
    - getting the name and address of the child's school
    - getting the parent's signature on the form
    - seeing that the physician signs the form
    - filing the first page of the form in the chart
    - mailing the second page of the form to the school nurse
    - seeing that the patient has the third page