

# Vermont Asthma Program

Helping Vermonters

Breathe Easier

October 2015

## Greetings from the Vermont Asthma Program!

This month's newsletter is focused on asthma in schools and school aged children. It is brought to you by the Vermont Department of Health's new Asthma Program Manager, Quentin Reynolds.

## Meet the new Vermont Asthma Program Manager and the Newsletter Team:

### Quentin:

My name is Quentin Reynolds and I am the new Asthma Program manager for the Vermont Department of Health (VDH). I attended Kalamazoo College for my Bachelor degree and received an MPH focused on Environmental Health from Boston University.

Before starting at VDH, I was employed as an Implementation Coordinator at the High Value Healthcare Collaborative. There I worked on quality improvement projects such as improving care for patients with sepsis at health care systems throughout the country.

### Anya:

My name is Anya Cutler and I am the new intern for the Asthma Program. I graduated with a B.A. in Biology from Skidmore College and spent two years after graduation studying Aspirin Exacerbated Respiratory Disease at Harvard Medical School. I am a current M.S. student in Plant and Soil Science at UVM and will be starting an MPH program next fall.

### Fred:

My name is Fred Knight and I do administrative work for several chronic disease programs at VDH. I help to support the Asthma Program by organizing and distributing this newsletter with Quentin and Anya.

## Vermont Asthma Program Newsletter: Back to School Edition

### Back-To-School Asthma Risks

In 2010, 14% of children under 18 years old had been diagnosed with asthma at some point in their life time.<sup>1</sup> Studies have shown that asthma exacerbations and hospitalizations peak approximately 17 days after Labor Day as a result of high levels of outdoor allergens in late summer, environmental allergens in the schools, and increased exposure to viral and bacterial pathogens from peers.<sup>2</sup> Environmental allergens in schools include dust mites, cockroaches, mice, mold, and pet dander. Irritants include chalk dust and aerosols.<sup>2</sup>

## Upcoming Events

### Asthma Advisory Panel Meeting

January 2016

Contact

[Quentin Reynolds](#)

with questions.

## Free Continuing Education Credits!

### Tobacco Cessation: Helping Providers Work with Patients to Quit (Webinar)

Presented by Dr. Amy Lukowski, Clinical Director at National Jewish Health, this webinar provides the essentials of smoking cessation for patients who use tobacco.

The Vermont Department of Health and National Jewish Health are pleased to offer this free CME/CNE educational activity for health care providers throughout Vermont.

Instructions for receiving credit are provided in this link.

## Did you know?

In Vermont, those with asthma smoke at a higher rate (24%) compared to those without asthma (17%).

Vermonters with severe persistent asthma have a significantly higher prevalence of smoking compared to those with mild intermittent and moderate asthma.

No significant differences in smoking prevalence by type of inhaler used were observed.

## Asthma, Sleep, and School Functioning in Urban Children

Dr. Koinis Mitchell and the Project NAPS Study Group collected data on allergic rhinitis and asthma symptoms, sleep quality, and academic performance in urban children of African-American, Latino, and white backgrounds. The results showed that children with poorly managed asthma experienced poor sleep quality, struggled to stay awake, and were reported to be more careless with school work than children with well-controlled asthma. The study suggests that school-based interventions to improve asthma management can help with academic performance and overall quality of life in asthmatic children.<sup>3</sup> The Asthma Program supports the Envision walk through intervention to improve schools' indoor air quality.

### EPA's Five Key Components of a School Environmental Health Program

The EPA has identified five components that can help to mitigate environmental risk factors in school and improve students' asthma outcomes. The specific steps that the school community can take to achieve each component are outlined [here](#).

#### **1. Practice Effective Cleaning and Maintenance**

Regular cleaning reduces indoor air pollutants and irritants that can trigger asthma exacerbations. Green cleaning products that have low or no volatile organic compounds, neutral pH levels, no known carcinogens, and are biodegradable help to avoid respiratory irritation and increases the lifespan of school facilities.

#### **2. Prevent Mold and Moisture**

Damp infrastructure promotes the growth of mold and can attract rodents, cockroaches, and mites, all of which are potent allergens. Regular maintenance limiting water-logged areas can prevent costly repairs on school infrastructure.

#### **3. Reduce Chemical and Environmental Contaminant Hazards**

Children are significantly more vulnerable than adults to adverse reactions to chemical contaminants because of their developing bodies. Environmental pollution should be limited by ensuring clean drinking water and banning idling and smoking on school grounds.

#### **4. Ensure good ventilation**

Proper ventilation minimizes airborne mold and pathogens, carbon monoxide poisoning, and radon and vapor intrusion.

#### **5. Prevent Pests and Reduce Pesticide Exposure**

Integrated Pest Management (IPM) uses biological interactions and the life cycles of pests to manage pests without using toxic pesticides, and at a lower cost.

<sup>1</sup> The Burden of Asthma in Vermont 2013. *Vermont Department of Health*.

<sup>2</sup> Robert Reinhardt, MD. "Survive the September Asthma Epidemic"

<sup>3</sup> Mitchell, DK et al. (2013) "Asthma, Sleep, and School Functioning in Urban Children" *Am J Respir Crit Care Med* 187: A4202

## Vermont Department of Health - Partnership Highlight:

Over the past year, the Vermont Asthma program coordinated with MCH, the state school nurse consultant, and school health liaisons to devise standardized questions to measure asthma prevalence at the school level. This effort resulted in the inclusion of two standardized asthma questions from the Behavioral Risk Factors Surveillance System (BRFSS) survey in the annual school nurse survey. The VAP continues to work closely with MCH, the state school nurse consultant, and school liaisons to determine how to best support school nurses in managing asthma within their schools.

## Asthma and Information Technology -

See [Asthma Control issue brief](#)  
for citations and more  
information.

## Fact Sheets

[Asthma Control issue brief](#)

[Smoking Then and Now](#)

[Secondhand Smoking](#)

[Women and Smoking](#)

[Smoking and Reproduction](#)

[MAPLE Plan for Controlling  
Asthma](#)

[Managing Air Quality in the  
School Environment](#)

[Healthy Cleaning and Asthma-  
Safer Schools](#)

[Asthma Triggers in the  
Classroom](#)

## Publications

[Asthma Data Pages](#)

[Vermont State Asthma Plan](#)

[The Burden of Asthma in  
Vermont](#)

[Healthy Vermonters 2020](#)

## Quick Links

[VDH Asthma Program](#)

[Controlling Asthma](#)

[Tools for Managing Asthma](#)

[Asthma Surveillance](#)

[Resources & Information](#)

[Envision Program](#)

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## Accessible Tools for Asthma Management:

AsthmaMD: Application for iPhone/iPad (release for Android devices coming soon)

- Parents and children can log asthma attacks, keep up with medications, contribute to asthma research, and send reports to physicians
- Developed by medical doctor and researcher Sam Pejham, UCSF Medical School Clinical Faculty and Director of Tri-Valley Pediatrics

Asthma Buddy: Application for Android devices and iPhone/iPad

- Parents can record medication schedules, maintain up to five Asthma Action Plans, review first aid for asthma instructions, and access information on best-choice product options for asthmatics
- Lacks the ability to display graphs of recorded peak flow and other measures, but is already available for Android users

Zyrtec ® Allergycast ®: Application for iPhone/iPad and Android devices

- Provides access to local Pollen and Weather reports, all-in-one
- Sends notifications to your mobile device when the pollen count in your area is high

Lungropolis: An online, interactive game to teach children about their asthma

- Provided by the American Lung Association
- Teaches children:
  - Asthma Basics
  - How to recognize and respond to warning signs
  - What triggers are and why it's important to avoid them

## Asthma in the News - September 2015

### Sea Otter Mishka Diagnosed with Asthma

Posted on September 17, 2015 by Seattle Aquarium

"One-year-old Mishka, who joined us just this past January, has asthma - and is the first sea otter to be diagnosed with the disease.

Asthma makes it difficult to breathe by causing spaces in the lungs to become narrower than usual, which allows less oxygen to enter the lungs. Many believe asthma is a condition that affects only humans, but any animal with lungs can have it - cats and horses are two land animals that commonly get asthma. Mishka began having trouble breathing when smoke from the Eastern Washington wildfires moved into the Puget Sound area last month. Our staff veterinarian, Dr. Lesanna Lahner, made the diagnosis of asthma based on Mishka's clinical signs of having difficulty breathing, blood work, radiographs, and actually listening to her chest just like an M.D. would listen a child's lungs to help diagnose asthma."

Follow [this link](#) to read the full article, and view videos of Mishka the otter learning to use an inhaler.

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**Khurshid Guru 'MacGyvers' A Nebulizer For A Toddler Having An Asthma Attack On An Air Canada Flight**

"When it comes to saving lives on a transatlantic flight, sometimes you have to get creative.

Dr. Khurshid Guru, director of Robotic Surgery at the Roswell Park Cancer Institute, was travelling from Spain to the U.S. on an Air Canada flight when he learned there was a toddler on board having an asthma attack...

...Guru became a medical MacGyver mid-flight. The doctor jury-rigged a nebulizer - a device used to deliver asthma medication to younger patients with asthma or those who have difficulty using a normal inhaler - equipped with a plastic water bottle, a cup, some tape and an oxygen tank."

*Follow [this link](#) to read the full article, see the device, and view a brief slideshow titled "What to do if someone is having an asthma attack."*

## Please keep in touch!

Let us know if you have any questions -- or if there is an asthma-related issue you would like to know more about.

Take care,

**Quentin**

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