

Asthma Task Force Meeting  
June 7, 2016  
7:30am - 9:00am



**Welcome, Andrea Jensen**

**Asthma Home Visitation Program – Andrea Jensen and Tiffany Brinton**

- Approximately 35 participants are currently enrolled in the program
- Referrals come from a wide variety of settings/organizations including: health fairs, hospitals, pediatric and family practice clinics, American Lung Association Open Airways for Schools Program, Kids on the Move, Green and Healthy Homes Initiative Salt Lake, and WIC
- Wide range of ages served: 2 to 66 years
- Services provided in English and Spanish

**Utah Asthma Community Health Worker Training- Brittany Guerra**

The Utah Asthma Community Health Worker (CHW) Training successfully piloted on May 18<sup>th</sup> and May 25<sup>th</sup>. The Task Force Asthma CHW workgroup has been meeting monthly since March 2015 to review and evaluate existing CHW training programs and develop the Utah asthma-specific CHW training. The Utah Asthma CHW Training was adopted from the Massachusetts Department of Public Health and modified to fit the needs of CHWs working in Utah. The Utah Asthma Program is working closely with the Utah CHW Advisory Board and their Workforce Development workgroup to support the development of the state CHW core competency training. The training follows the Asthma National Guidelines in a Utah specific setting. The training is designed for a smaller group of participants (10-12) and utilizes discussion promoting training techniques and hands-on application, including role plays and case study discussions.

The training covered asthma basics, asthma medication and devices, monitoring and control, asthma triggers and remediation, and motivational interviewing. The training had 12 participants representing 11 different organizations that have paid and volunteer CHWs on staff across Utah. The location of the training was at the Utah State Library for the Blind and Disabled. Morning refreshments and lunch was provided to the participants through donations by AstraZeneca and at no cost to the Utah Department of Health Asthma Program.

**Air Quality and Health Summit – AJ Patha**

The Air Quality and Health Summit took place on June 13<sup>th</sup> and was designed to generate discussion on Utah Recess Guidance (URG) levels and update the URG based on stakeholder feedback. The Utah Asthma Program conducted an evaluation of the URG to help prepare for and guide the Air Quality and Health Summit. The evaluation purposes were: 1) To determine if stakeholders agree on the current PM 2.5 levels, 2) Understand the perspective of school districts, parents, school nurses, and local health departments, and 3) Reach an understanding of PM 2.5 levels among stakeholders.

As part of the evaluation, population-specific surveys were sent to elementary schools, parents, school nurses, local health departments, and middle/high schools. Key findings from the surveys included:

- Parent survey
  - About 70% have a school-aged child
  - About 60% were familiar with the URG
  - About 44% support their child's school using other recess guidance tools aside from the URG
  - Suggestions from parents included reducing levels, providing more education to parents on the URG, and Making sure the URG was implemented properly by schools.
- Middle/high school survey
  - About 65% were favorable to trying new recommendations
  - About 84% wanted winter season recommendations
- Elementary school survey
  - About 60% of respondents were principals
  - 85% are familiar with URG and 81% use URG
  - 82% reported that the principal makes the decision on who stays indoors
  - 45% use other recess guidance tools
  - 84% agreed or strongly agreed that the URG is useful
  - 29% agreed or strongly agreed that teacher and school needs (i.e. breaks, prep-time, staff meetings) affect the use of the URG
  - 36% agreed or strongly agreed that sensitive students (i.e. those with respiratory or health issues) appear to feel bad when they cannot go out and play during recess
- School nurse survey
  - 50% wanted ozone recommendations
  - 72% were familiar with the URG
  - 50% said that students are kept indoors about the right amount of time according to URG
  - 86% supported the URG
  - 76% agreed or strongly agreed that the URG keeps students healthy

Contact AJ Patha at [spatha@utah.gov](mailto:spatha@utah.gov) for additional information on the evaluation.

### **Asthma and Dust Mite Research– James Johnston**

James Johnston is a professor at Brigham Young University. He presented on a study on dust mites. Data for the study were collected in 2014 and the findings published in early 2016.

#### **Background information**

- Adult mites primary food source is shed human or pet skin scales. Their fecal pellets contain digestive enzymes which are potent human allergens and easily inhaled when disturbed
- Regions where dust mites are usually not found in homes include arid or semi-arid climates and high elevations
- Mites water balance is maintained through uptake of water vapor from the atmosphere
  - $RH \geq 65\%$  is required to prevent desiccation
  - Mite colonies cannot survive when RH is below approximately 50% for long periods (months to years)

- Dust mite allergens
  - Der p 1 and Der f 1 are glycoproteins that are potent human allergens
  - Over ½ of allergic patients and up to 80% of children with asthma are sensitized to Der p 1
  - Exposure to mite allergens in early childhood increases the risk of developing asthma
  - The higher the level of exposure during the first year of life, the earlier asthma symptoms show up
  - Mite allergens are strong asthma triggers in sensitized individuals
  - Risk of developing asthma is 5 times greater for highly exposed (>10 µg/g) individuals compared to those with lower exposures.
- Role of evaporative cooling
  - Ellingson et al. (1995) found RH in Colorado homes with evaporative coolers was 16% higher on average in summer months compared to homes with no air conditioning
  - Studies in Colorado and southeastern Australia found that homes with evaporative coolers were significantly more likely to test positive for Der p 1 and Der f 1.
  - Prasad et al. (2009) found that children living in homes with evaporative coolers in Reno, NV were more likely to show skin reactivity to mite allergens.

#### Purpose of this study

- Evaluate levels of Der p 1 and Der f 1 in single family homes in Utah County
- Compare allergen levels in homes with evaporative coolers to those using central air conditioning
- Use a continuous RH monitoring strategy to evaluate temporal fluctuations in indoor RH

#### Methods

- Study homes (N = 46)
  - At least 5 years old
  - Located in Utah County
  - Homes with humidifiers, vaporizers, or significant prior water damage were excluded
- Dust samples and RH collected during two seasons (2014)
  - Winter/spring (January – April) & Summer (August – September)
- Dust collection from: homeowner's mattress, floor adjacent to mattress, upholstered furniture in main living area, floor adjacent to upholstered furniture
- Samples analyzed for Der p 1 and Der f 1
- Housing questionnaire including: Age of home, square footage, number of residents, age of mattress/furniture/carpet, occupant density (#people/1000 sq feet), questions about mattress and furniture being moved to Utah

#### Study results

- Der p 1 and Der f 1 detected at low levels during both seasons
- Overall, at least one positive sample was found in 25.0% of homes
- 25/292 (8.6%) samples were positive for both allergens
  - Der p 1 (n = 19 positive samples), 0.108 µg/g dust

- Der f 1 (n = 6 positive samples), 0.369 µg/g dust
- Only one sample from one home had allergen levels greater than 2µg/g dust

#### Conclusions

- Type of air conditioning can significantly alter the indoor environment
- Mite allergen levels in this study were below the level considered to be clinically significant
- There was a positive association between age of home and mite allergen levels
- Type of air conditioning was not a significant factor associated with mite allergens in this study
- Moisture excursions at or above 75% RH occurred for only a few minutes per day in evaporative cooler homes

A similar study was conducted during the summer of 2015, but the results have not yet been published. This study also looked at dust mite allergen presence in Utah County homes, but focused on lower income homes (study homes were recruited through a local WIC office). The findings from this study found a higher presence of dust mites. Contact James at [james\\_johnston@byu.edu](mailto:james_johnston@byu.edu) for additional information.

#### **Task Force Collaboration – Open Forum**

- Over the course of the next year, changes will be made to formalize the structure of the Utah Asthma Task Force. This may include creating bylaws and positions. Contact Nichole Shepard for additional information [nshepard@utah.gov](mailto:nshepard@utah.gov)
- Green and Healthy Homes Initiative Salt Lake is working with The University of Utah Health Plans on the next stage of their Pay for Success project. Contact Randy Jepperson for additional information [RJJepperson@slco.org](mailto:RJJepperson@slco.org)

#### **Announcements**

Utah Asthma Task Force Meeting  
Tuesday, October 4, 2016  
7:30 – 9:00 a.m.