

11<sup>th</sup> International Conference on**ALLERGY, ASTHMA & CLINICAL IMMUNOLOGY**

September 07-08, 2017 | Edinburgh, Scotland

**Hikmet J Jamil**

Michigan State University, USA

**Two year follow-up with asthmatic vulnerable population on seasonal variations of asthma attack at Dearborn, Michigan, USA**

**Background:** In US asthma prevalence increase from 3.1% in 1980 to 10.9% in 2014, in which Michigan have over one million asthma people. Asthma causes people to miss school, work days, 1.8 million people visit emergency room and 439,000 people admit to hospital. Its total cost is \$60 billion. Although, we do not know the exact etiology for asthma, it is still able to be managed with proper prevention and treatment. Asthma prevalence among Arab in the Detroit region range from 12-15% which is higher than the general population. However, asthma prevalence varies between countries and between people living in different places within the same country.

**Objective:** The study aims assessing the following questions:

1. Do the self-reported risk factors of asthma among the same asthmatic people change in two consequence years?
2. Do the risk factors of asthma change between summer and winter ?
3. Do the Lung Function Tests (LFT) of the same asthmatic people change in two consequence years?

**Methods:** Sixty-eight asthmatic participants were involved in two years of study. Participants criteria were: Physician diagnosed asthma, live within two-mile from "air particles monitoring station", age 55+ years, both sexes, accept to participate volunteer. A structured check-list was used by research assistant to assess the house environment at each site visits. Different Tests of significant were used to tests the objective questions.

**Results:** 68 asthmatic participants (36.8% male) were interviewed and its LFT were done four times in two years (Y1 & Y2). A significant change (Y1 to Y2) toward employment status and health insurance was observed. There was no significant difference in the home evaluation, between the two-years. There was significant difference in the environmental chemical agents that participants exposed by seasons in two-year while for total air pollution was only for the first year. The study identifies different predictor risk factors (e.g. 12 triggers, indoor air quality, years living at home, outdoor pollution) through using linear regression on different dependent variables by season for two years. Testing FEV1, FEV/FVC and FEF25-75 showed no different between the two summer or winter but significant different exist between summer and winter in year but not for FVC. Several linear regression tests were applied on different LFT to predict risk factors, some were similar in summer and winter (age, total triggers, years living at home) and some different (e.g. in summer: gender, smoke tobacco, indoor air quality; while in winter: live close to exposure places, asthma chest symptoms). There were significant differences in reporting self-rated health (SRH) and self-rated respiratory health (SRRH) between two summer and two winter.

**Conclusion:** There were no real changes in the risk factors between the two years, but there was a significant difference between summer and winter that caused attack of asthma. Also, there was no significant difference in the LFT between the two-years, but the difference persists between summer and winter. SRRH may be an early indicator of worsening SRH – an indicator of future morbidity risks.

**Biography**

Hikmet J Jamil received his Medical Degree from Baghdad University. He holds several Postgraduate degrees from England. In 1979, he joined Baghdad University, then in 1998, he joined Wayne State University and in 2015 joined Michigan State University. He has published 20 books and 191 field research articles. He is one of the founders of "The International Society of Iraqi Scientists" in 2000 and "The AlNahrain International Society of Iraqi Scientists" in 2017. He was elected in 2002 as President of International Society of Iraqi Scientists until 2015. He received the Best Teacher Award from Wayne State University in 2006, 2010 and in 2013.

Hikmet.Jamil@hc.msu.edu