

# Asthma in Puerto Rico, 2008 - 2010

Puerto Rico Asthma Project  
Maternal, Child & Adolescent Health Division  
Puerto Rico Department of Health  
Funded by CDC: Grant #: 5U59EH000521-03

August, 2013

# Objectives

- Present asthma prevalence among children by covariates in Puerto Rico
- Present data related to uncontrolled asthma among adults in Puerto Rico

# Asthma

- Asthma is a complex chronic disorder characterized by episodes of airflow obstruction, bronchial hyper-responsiveness, and an underlying inflammation, which are often reversible either spontaneously or with treatment (NAEPP, 2007).
- Represents a load to government, health care systems, caregivers and patients (Masoli, 2004)
- Patients with asthma have impaired quality of life (Ford, 2003)

# Data Source

## Puerto Rico Behavioral Risk Factor Surveillance Survey (BRFSS)

- World largest Random Dial Telephone Survey
- Complex Sampling Survey for extrapolation
- Approximately, 5,000 interviews per year
- Random Child Selection
- Approximately, 990 children living in households per year

# Outcomes

## Health Outcomes

**Child random selection:** How many children less than 18 years of age live in your household?

**Lifetime asthma prevalence:** Has a doctor or other medical professional EVER said that the child has asthma?

**Current asthma prevalence:** Does the child still have asthma?

# Data Source

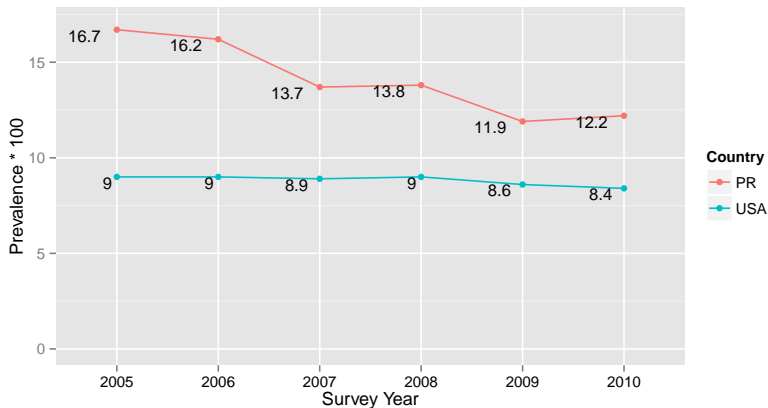
## **BRFSS: Asthma Call-Back**

- Comprehensive asthma health survey in adult with lifetime and current asthma
- 2009 - 2010 data aggregation
- 520 participants with current asthma

# Results

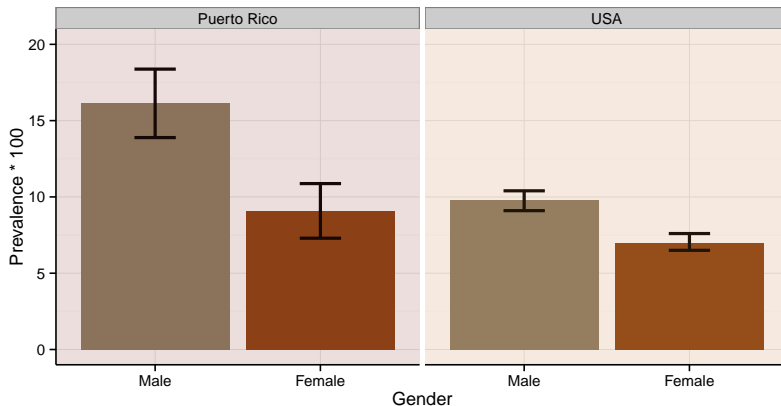
## Childhood Asthma Prevalence

Figure: Current Asthma Prevalence

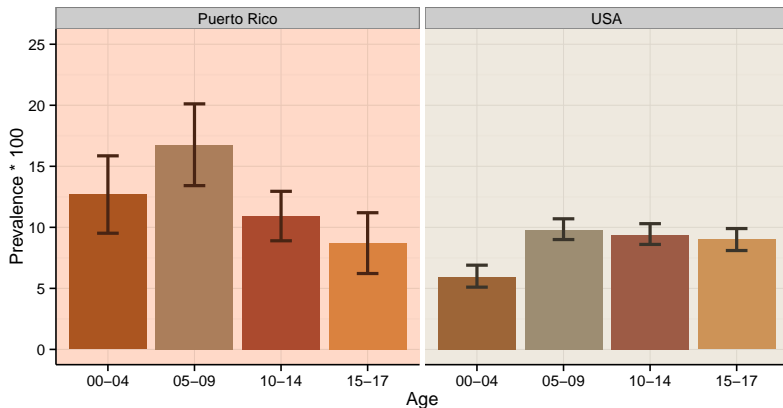




**Figure:** Current Asthma Prevalence among Children by Gender and Country, 2008-2010

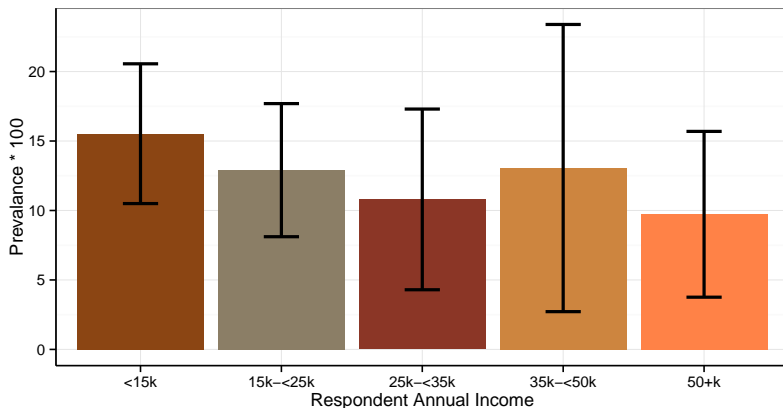


**Figure:** Current Asthma Prevalence Among Children by Age Group, 2008-2010

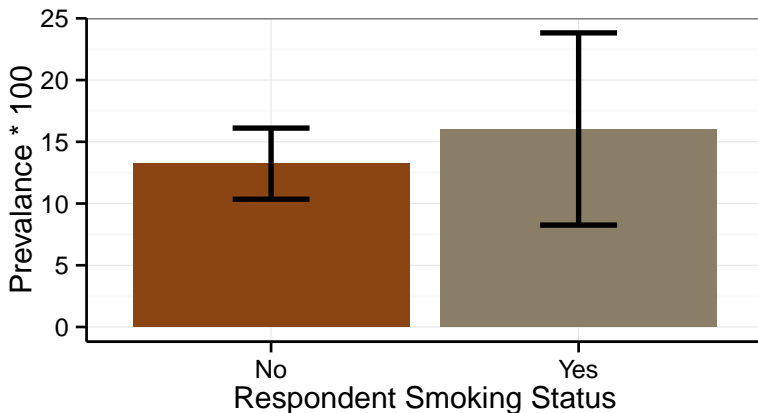


## Current Asthma Prevalence among Children by Respondent Demographic Status

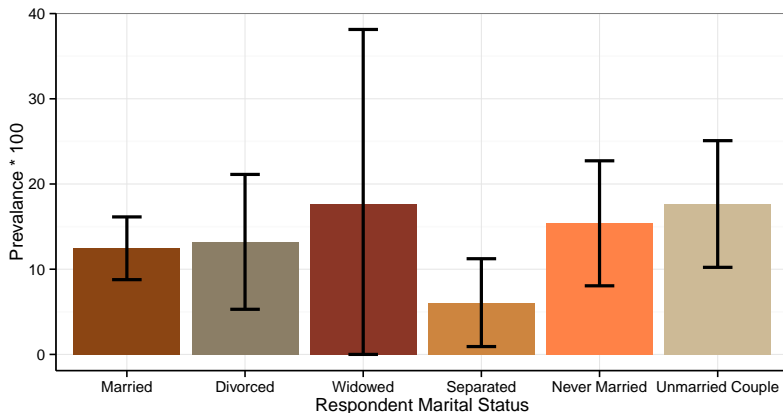
**Figure:** Current Asthma Prevalence Among Children by Respondent Annual Household Income, 2008-2010



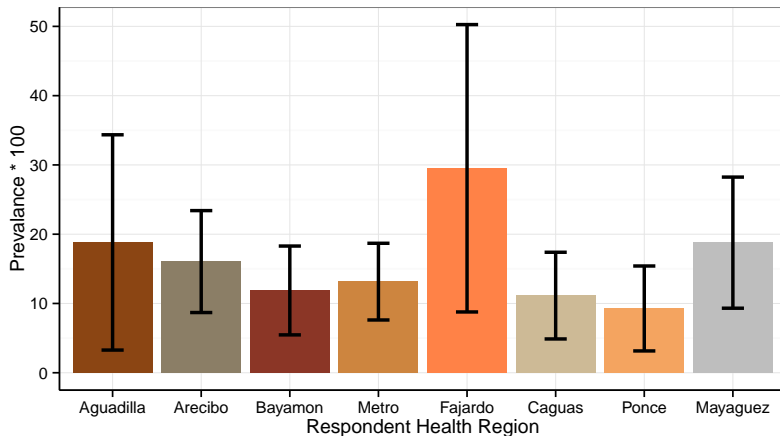
**Figure:** Current Asthma Prevalence Among Children by Respondent Smoking Status, 2008-2010



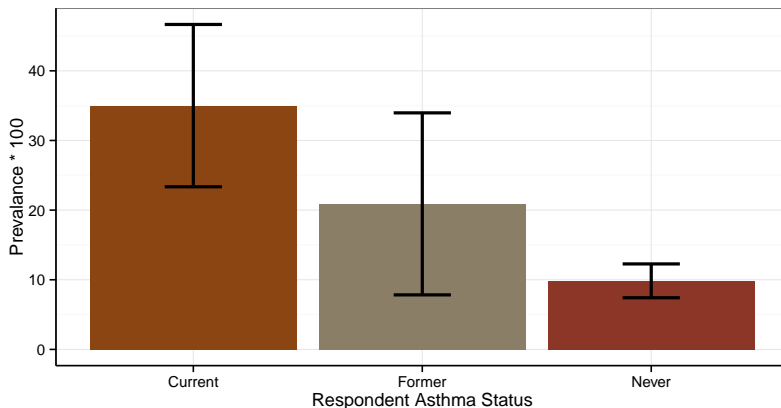
**Figure:** Current Asthma Prevalence Among Children by Respondent Marital Status, 2008-2010



**Figure:** Current Asthma Prevalence Among Children by Health Region, 2008-2010



**Figure:** Current Asthma Prevalence Among Children by Respondent Asthma Status, 2008-2010

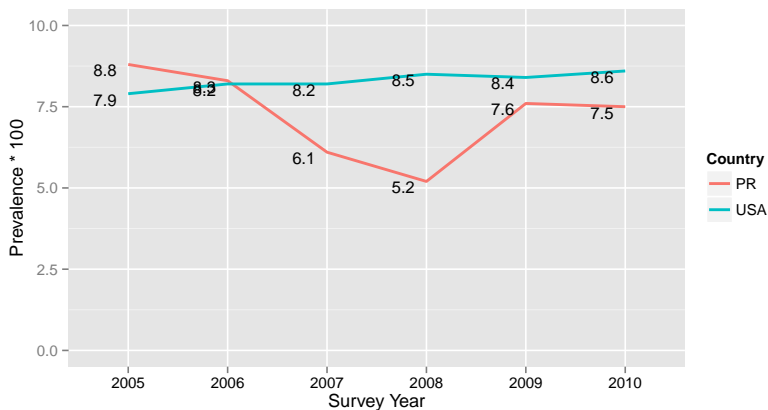




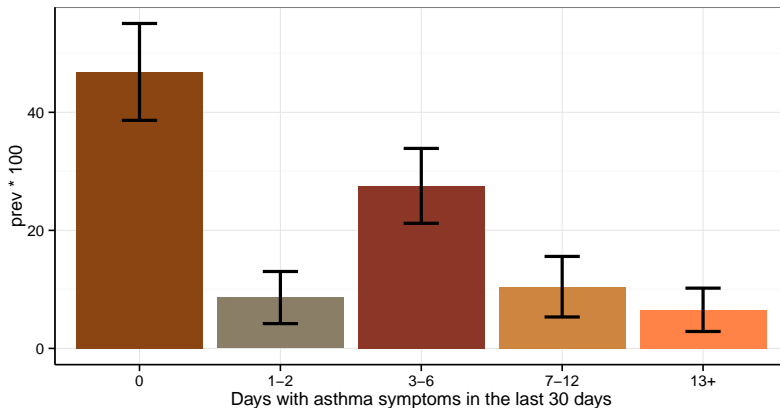
# Uncontrolled Asthma

## History of Asthma (symptoms, episodes, and limitation)

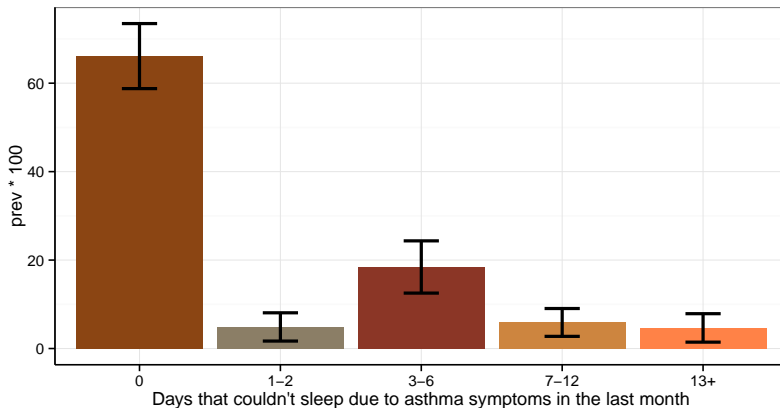
**Figure:** Current Asthma Prevalence Among Adults in PR and USA, 2005 - 2010



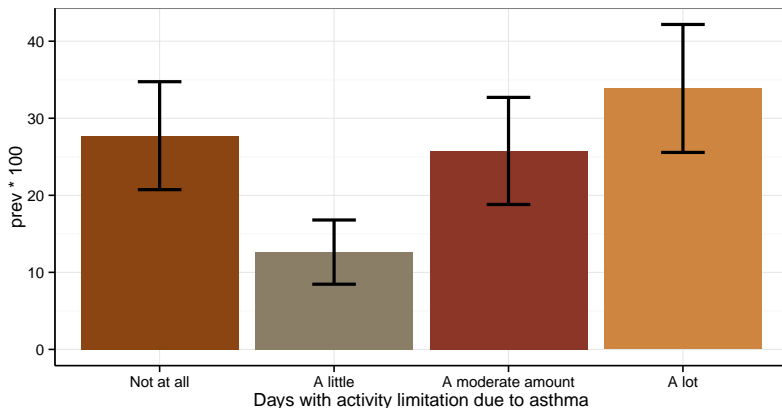
**Figure:** Days with Asthma Symptoms During the Last 30 Days, 2009-2010



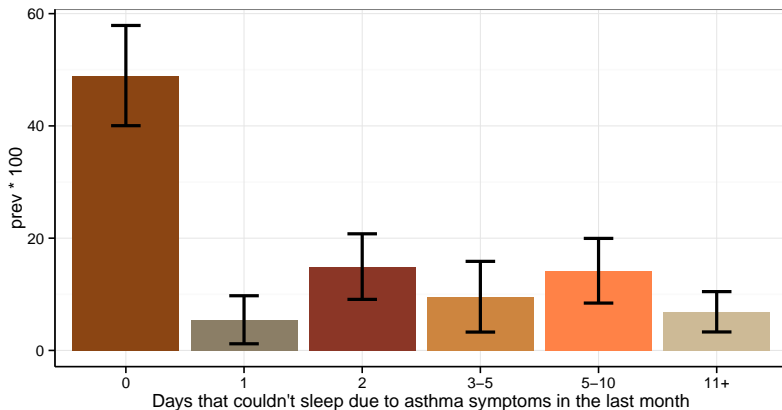
**Figure:** Days with Difficulty to Stay Asleep because of Symptoms of Asthma during the Last 30 Days, 2009-2010



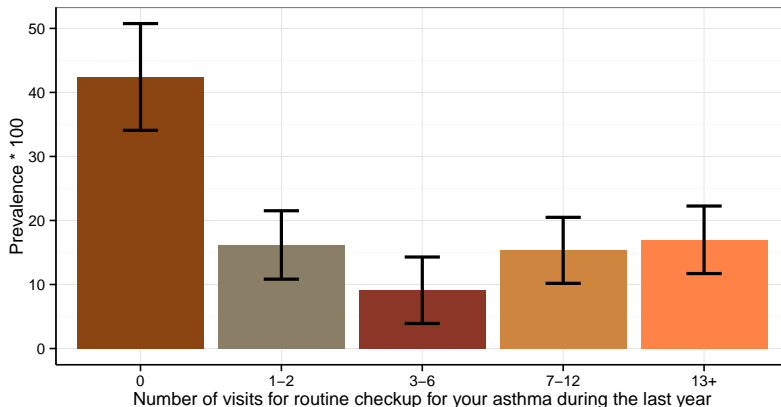
**Figure:** Limitation of Usual Activities Due to Asthma During the Past 12 Months, 2009-2010



**Figure:** Missed Work Days due to Asthma During the Past 12 Month, 2009-2010



**Figure:** Visited a Doctor or other Health Professional for a Routine Checkup for your Asthma, 2009-2010



- An estimated 12 of every 100 Puerto Rican children currently have asthma
- Puerto Rico still has higher current asthma prevalence among children than the USA
- Current asthma prevalence among children seems to be greater in males, and in those 5 to 9 years of age
- Data suggests that certain socio-demographic respondent characteristics are associated to having a child with asthma living in the household
- Approximately, 50% of the adults with asthma have their condition uncontrolled



- Continue with analysis and procedures of health outcomes indicators in children with asthma (ACB and Administrative data)
- Expand discussion surrounding previous research, peer reviews and policy implications
- Disseminate results

## Asthma Group

- Dr. Manuel Vargas
- Dr. José A. Bartolomei-Díaz
- Sra. Wanda Hernández
- Sr. Eliseo Acevedo Díaz

## PR-BRFSS

- Dr. Ruby Serrano
- Sra. Zaida López