

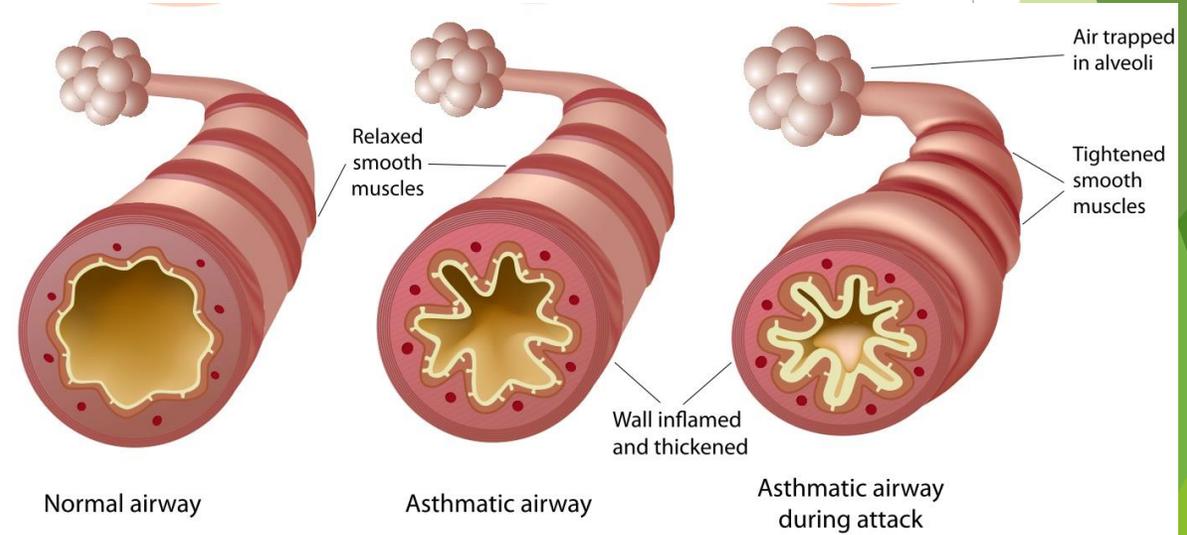
The Effect of Asthma Action Plan Use at Time of Discharge On the Rate of Readmission of Pediatric Asthmatic Patients

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Background

- ▶ Asthma is a chronic lung disease characterized by:
 - ▶ Airway inflammation
 - ▶ Reversible obstruction
 - ▶ Hyper-responsiveness

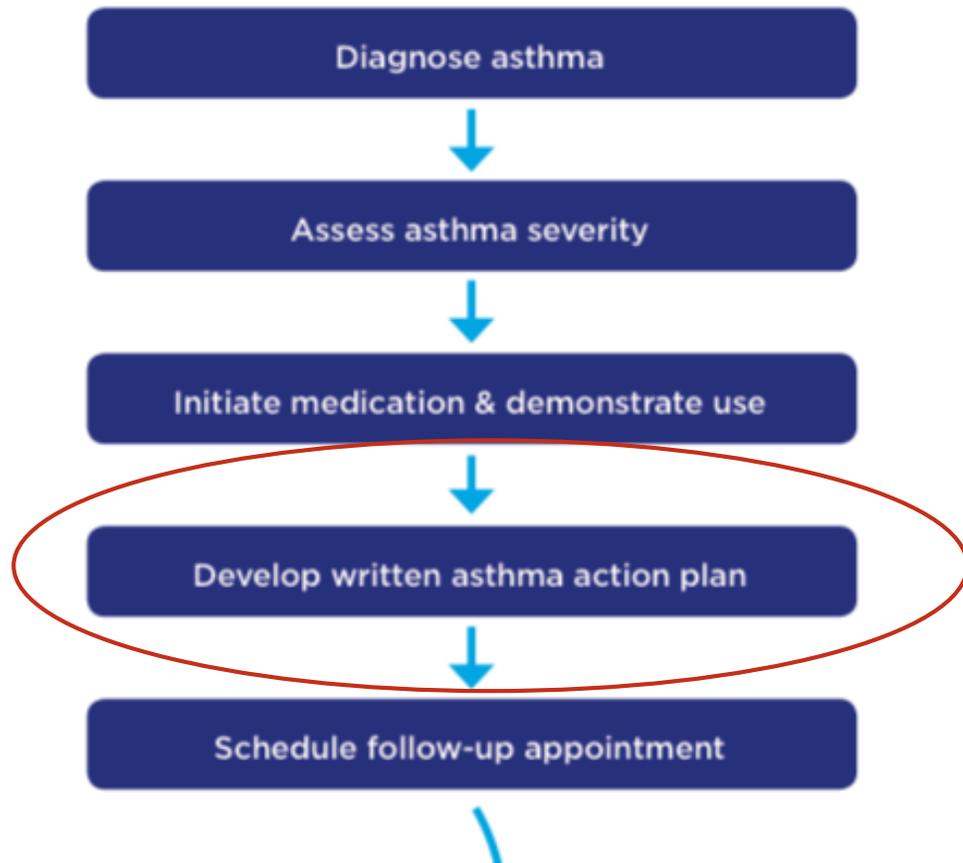


Significance of the Problem

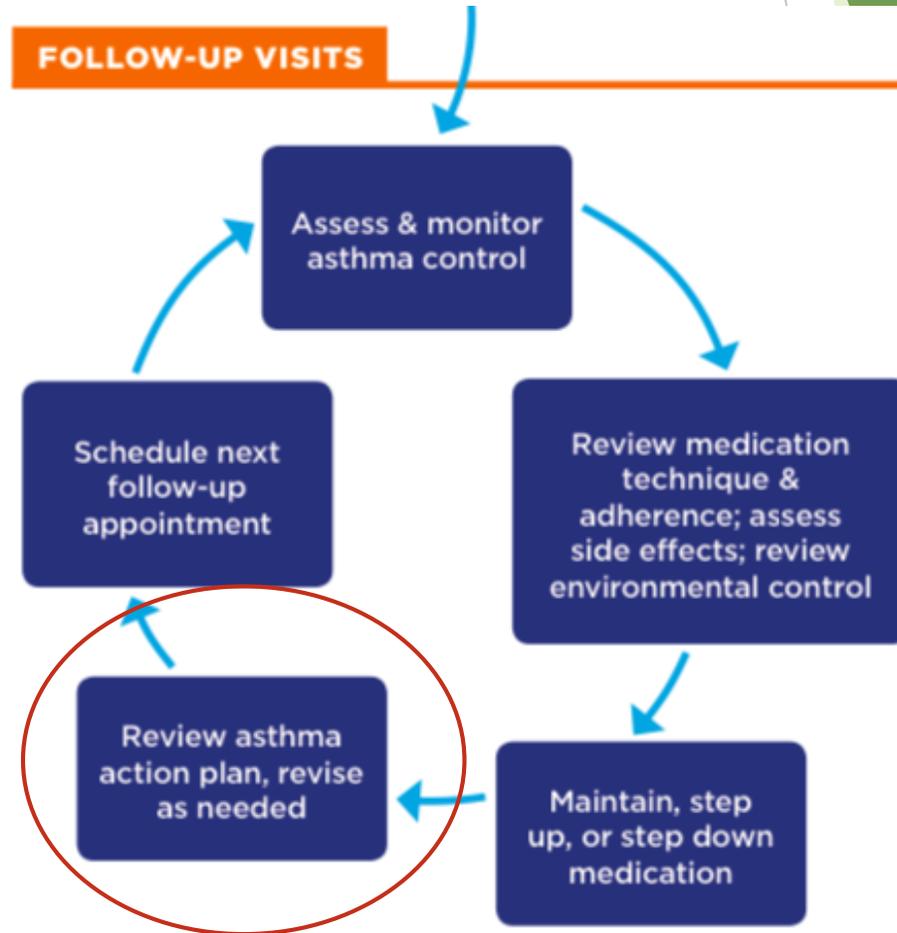
- ▶ Asthma poses a significant threat to morbidity and mortality
- ▶ Increased burden of cost to society, totaling ~\$56 billion
- ▶ Children with asthma miss 2.48 more school days than those without asthma
- ▶ Is the 3rd leading cause of hospital stays in children

Current Recommendations for Treatment and Management of Childhood Asthma

INITIAL VISIT



FOLLOW-UP VISITS



Asthma Action Plan

- ▶ The Joint Commission sets standards for pediatric asthma management with a focus on the education of parents and children on home management and care of asthma.
- ▶ Components necessary for inclusion in an effective asthma action plan:
 - ▶ written
 - ▶ detailed
 - ▶ provide information regarding:
 - ▶ daily medication regimens and trigger avoidance as well as guidance on when to call your healthcare provider or seek help at an emergency room

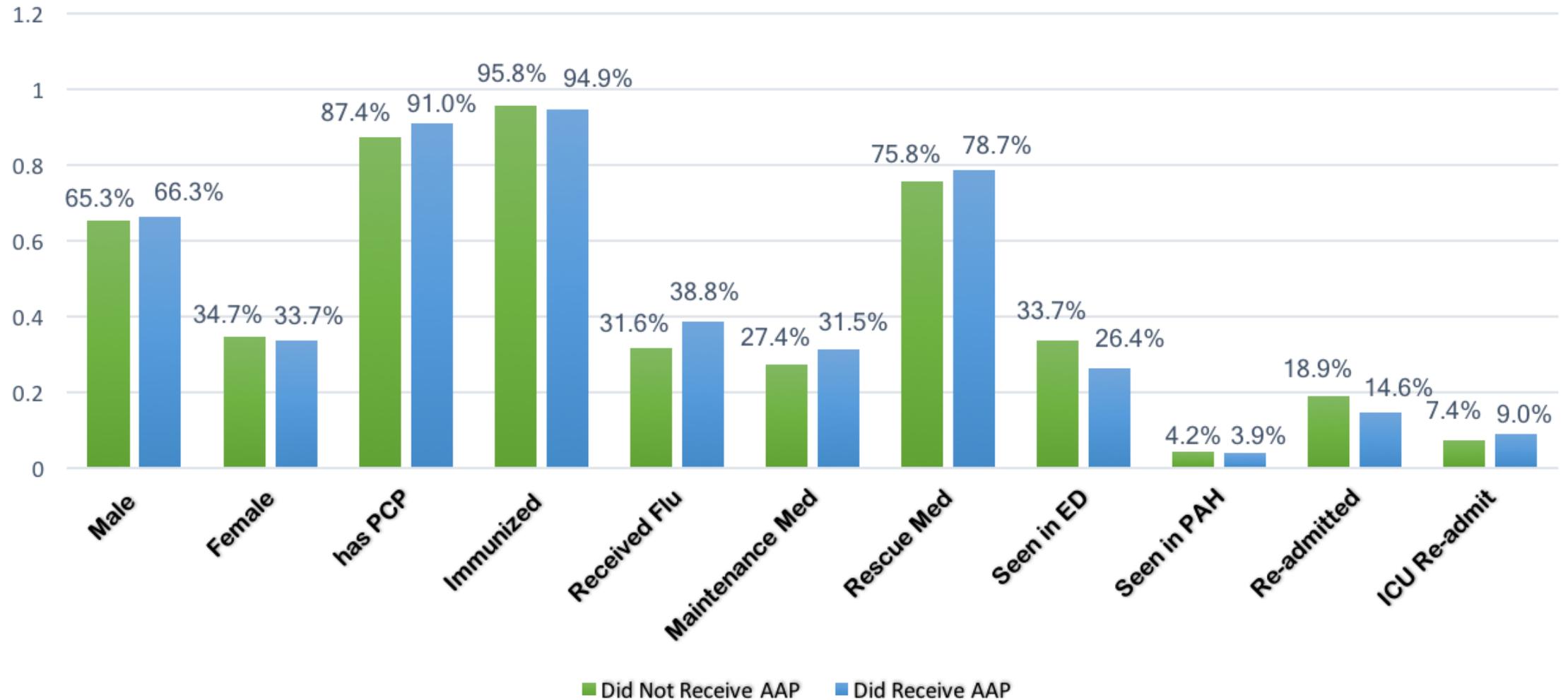
Aim/Methods of Project

- ▶ Retrospective chart review of patients admitted in the year 2014 with a primary diagnosis of asthma
- ▶ Data collected regarding initial review of asthma action plan on discharge, as well as demographic data and readmission data within a year from initial admission
- ▶ By assessing readmission rates for patients who received asthma action plans, inferences could be made regarding efficacy of asthma action plans, and could provide additional data that could improve delivery of plans and improve care for pediatric asthmatic patients

Results of Study

- ▶ N = 273
 - ▶ 178 (65.2%) received asthma action plan upon discharge
- ▶ no statistically significant association between a receipt of action plan and a reduction in readmission rates ($p= 0.35$)
- ▶ multivariable logistic regression model was developed and run which showed that children whose asthma action plan was reviewed with every encounter were 0.37 times less likely to be readmitted within 1 year of the first admission when compared with those whose plan was not reviewed at every encounter

Data Comparison Between Groups Based Upon Receipt of Asthma Action Plan



Implications for Clinical Practice

- ▶ Highlights need for education and review of asthma action plan during every encounter regardless of department or level of services being offered
- ▶ Interestingly, maintenance medications did have a statistically significant correlation with readmission within a year ($p = .04$), however only 30% of this sample were on maintenance medications even though 77.7% were prescribed rescue medications
- ▶ Only 11 (4.0%) patients were seen in pediatric after hours clinic- could reduce burden of cost and allocation of resources if patients educated about using PAH for urgent but non-emergent asthma exacerbations

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