

Development of an Asthma Clinic at an Outpatient Family Medicine Site

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BACKGROUND

- Asthma is a chronic obstructive pulmonary condition that causes the airways of the lungs to become inflamed and narrow, making it difficult to breathe.
- In 2017, over 6 million children in the U.S. had asthma.¹ In 2014, the active asthma prevalence in Los Angeles (LA) county for all ages was 7.8% of the total population.²
- St. John's Well Child & Family Center (SJ) is an outpatient primary care clinic with 19 sites that serve majority uninsured and/or low-income patients throughout South Central LA.
- Our goal was to develop a specialty clinic to identify risk factors to reduce the amount of asthma exacerbations and ER visits, educate patients about disease and treatment, and improve overall asthma diagnosis and management.

METHODS

Development

- Met with Referrals Dept., IT Dept., Regional Directors, Site Managers, Allergist (Dr. Ekeke)
- Attended SJ Board meeting
- Coordinated communications between providers, management

Feasibility

- Visited various SJ clinic sites for assessment
- Shadowed at Magnolia, Williams, Frayser, Traynham

Data

- Reviewed current asthma literature
- Obtained clinical data from eClinicalWorks EMR
- Inclusion criteria: SJ pts >5 yrs old, seen in the past 3 yrs, diagnosed with asthma (ICD-10)
- Analyzed data via Microsoft Excel & JMP Pro 14.4

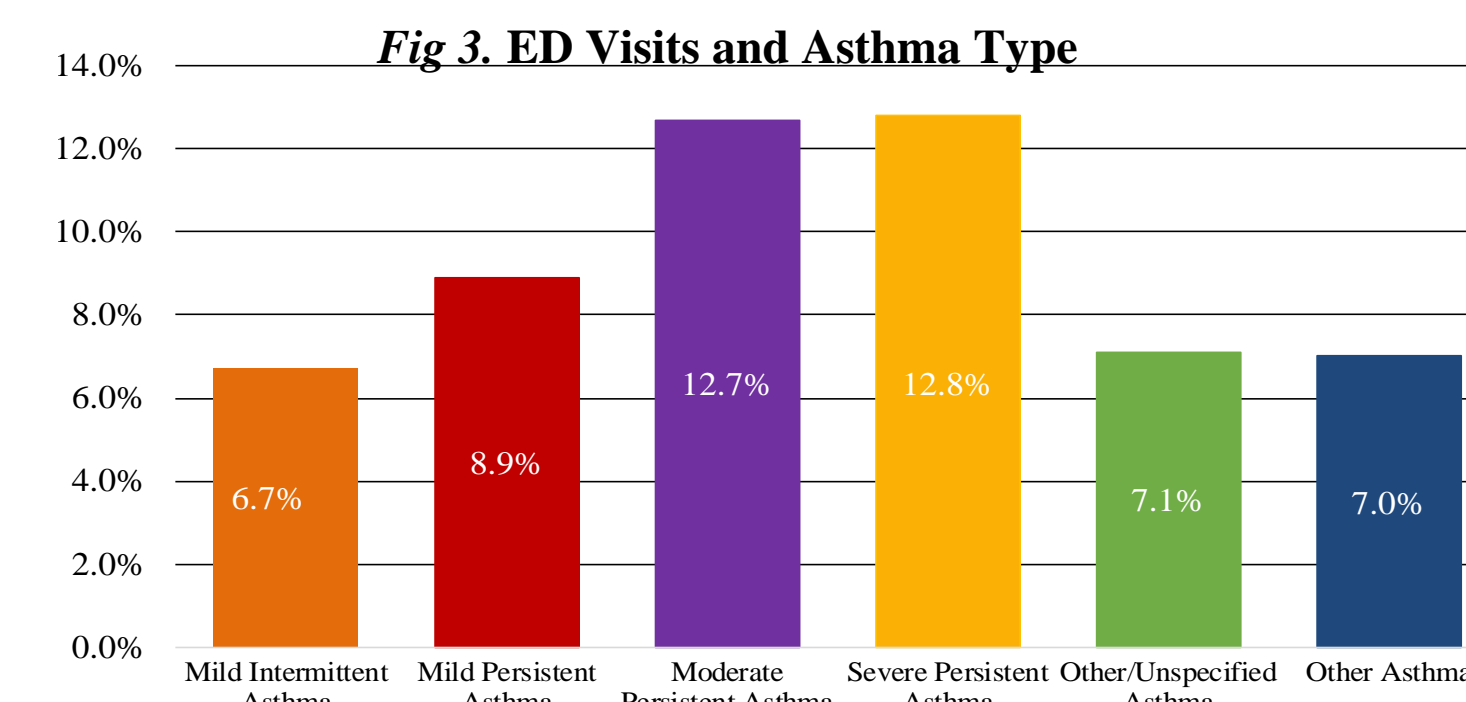
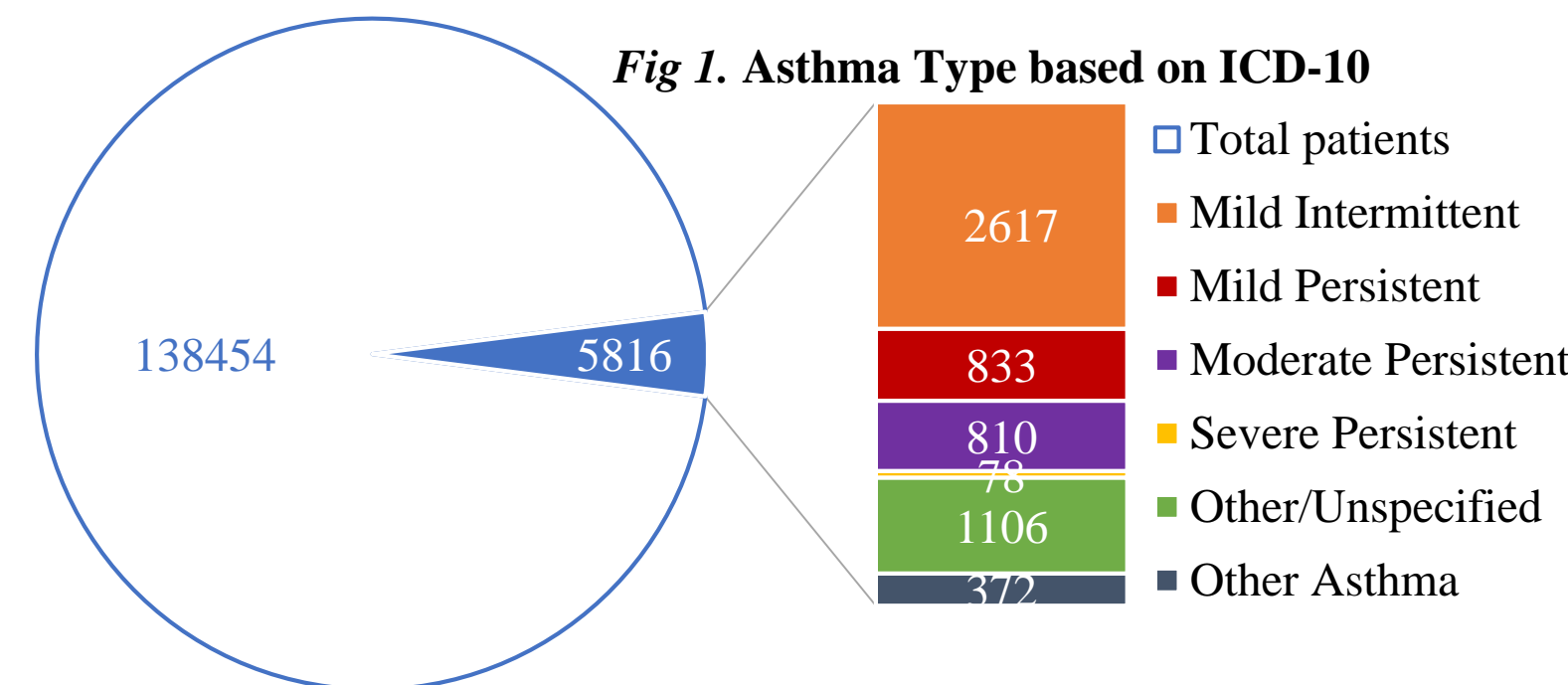
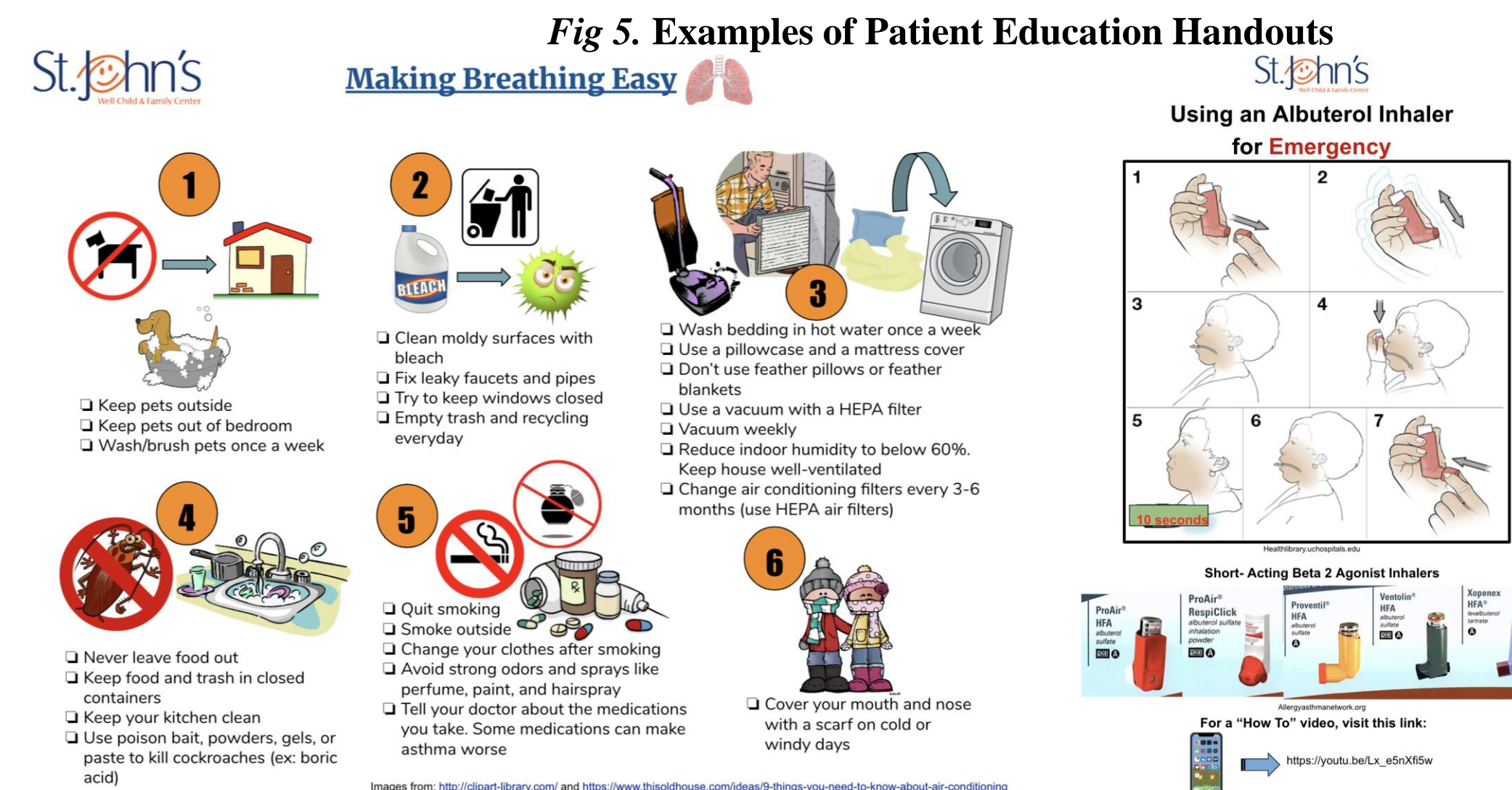


Fig 4. Criteria for Referral to Asthma Specialty Clinic

Any patient who is over the age of 5 and meets 1 or more criteria should be referred to the St. John's Asthma Specialty Clinic:

- Any patient diagnosed with **Severe Persistent** Asthma
- If patient has **Moderate Persistent** Asthma → refer to Step-Up Guidelines **before** referring to Asthma Clinic
- Patients ≥5 y/o classified as **Not Well Controlled** or **Very Poorly Controlled**
- History of 2 or more asthma exacerbations per year requiring Oral Corticosteroid
- ≥1 ER visit or hospitalization within 1 year
- Chronic cough as the only respiratory symptoms for ≥1 month
- Any patient with a food allergy with a history of asthma
- History of asthma exacerbation or angioedema/lip swelling after ingestion of aspirin or other NSAIDs
- Within 2-7 days after a recent asthma exacerbation/hospitalization
- Any diagnostic uncertainty or difficulty confirming asthma diagnosis



RESULTS

Demographics: average age- 28.9 yrs (±19.5), average adult BMI- 32.24 (±8.23), 43% Hispanic women. Since 2016: 4.2% patients (age >5yrs) diagnosed with asthma (1.72% peds), 8% asthma patients visited ED, 9% in 2018, 11% so far in 2019.

Correlations: Age is negatively associated with asthma severity (p<0.001). BMI is positively associated with asthma visits (p<0.001). Asthma severity is positively associated with ED visits (p<0.001).

Deliverables: Referral workflow, age and literacy appropriate patient education, addition of asthma exacerbation clinical score to existing asthma template

CONCLUSION

- Data analysis & clinical shadowing revealed almost 6000 patients with asthma at SJ
- Majority patient charts did not contain the ACT, Asthma template or Asthma Action Plan demonstrating areas of weakness in diagnosis, management, & education of patients.
- We presented data & findings to SJ leadership to help encourage providers to use asthma template & ACT to improve management & diagnosis.
- After examination of the asthma patient population, we provided feedback and deliverables to SJ to aid in the implementation of an asthma specialty clinic.

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