

Breaking the Paradox: Comparing Food Allergy Prevalence Among Latino Sub-Groups in the United States

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Introduction

- Food Allergy is common and prevalence is increasing in the United States.¹⁻²
- Health disparities in outcomes exist in food allergy.³⁻⁷
- Black children have increased risk for food allergy and fatal anaphylaxis.
- Less is known about Latinos and disparities in food allergy.
- Asthma prevalence is increased in Latino children of Puerto Rican descent compared to Mexican descent.⁸
- “Hispanic Paradox”

Methods

- A cross-sectional survey was administered in 2015-2016 to a nationally-representative sample of 51,817 households.
- Self-reported food allergies were considered “convincing” if they reported reactions to specific allergens consistent with an IgE-mediated reaction.
- Stringent symptom criteria were developed with FA experts to identify respondents with “convincing” FA from those with similar conditions (i.e. food intolerance or oral allergy syndrome).
- Surveys asked all respondents to self-identify as Hispanic/Latino, and country of origin. Participants were able to write-in country of origin and/or ancestry.

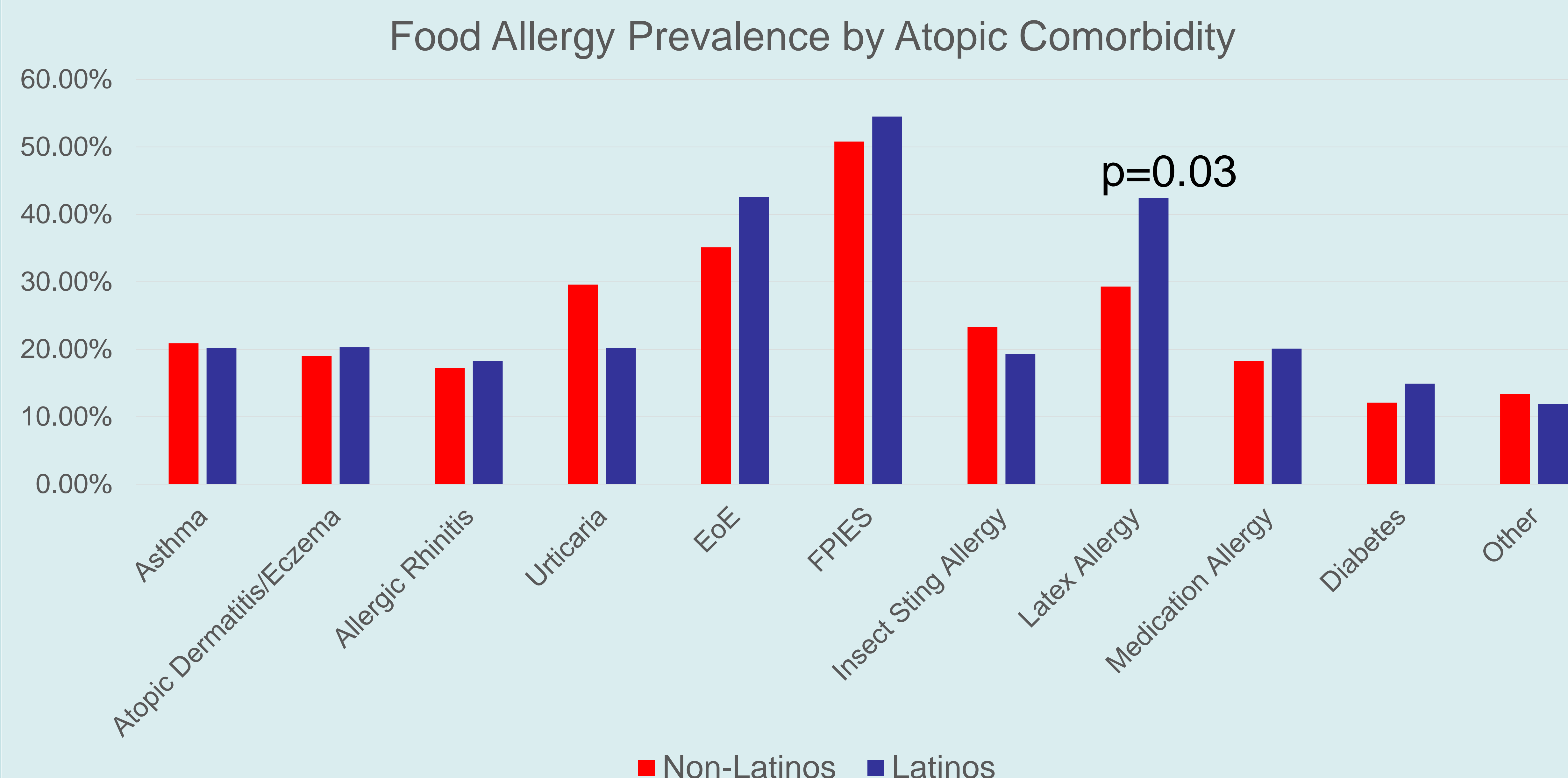
Results

- Population weighted sample of children (n=38,408) and adults (n=40,443).
- 17.4% self-identified as Hispanic or Latino.
- Food allergy was more common in Latino girls (p<0.001), no difference seen in the adult population
- No difference seen in food allergy prevalence based on country of origin

Food Allergy Outcomes by Food Allergens Among Hispanic/Latinos, % (95% CI)				
Food Allergens	1+ severe reactions to specific allergen	Epinephrine Prescription	Any Confirmatory Lab Testing	Prevalence per Allergen
All Allergens (n=1368)	51.3 (47.0-55.5)	30.4 (27.1-34.1)*	49.9 (45.6-54.2)	10.6 (9.7-11.5)
Peanut (n=398)	64.7 (56.9-71.7)	62.6 (55.1-69.5)	79.0 (72.7-84.1)	2.4 (2.1-2.8)***
Milk (n=289)	39.3 (29.8-49.7)	27.9 (20.4-34.9)	46.4 (36.8-56.2)	2.5 (2.0-3.0)**
Shellfish (n=366)	56.7 (48.8-64.2)	33.3 (26.6-40.7)	48.0 (40.7-55.4)	2.8 (2.4-3.3)
Tree nut (n=209)	50.8 (40.9-60.6)*	57.2 (46.8-67.0)	65.2 (54.4-74.6)	1.4 (1.2-1.7)
Egg (n=135)	43.8 (29.0-59.8)	37.6 (25.8-51.2)	54.5 (38.5-69.6)	1.1 (0.8-1.5)*
Fin Fish (n=139)	58.1 (46.1-69.2)	40.4 (29.3-52.5)	42.7 (31.8-54.5)	1.2 (1.0-1.6)***
Wheat (n=84)	37.1 (24.8-51.3)	31.3 (20.1-45.1)	40.3 (27.5-54.5)	0.7 (0.5-0.9)
Soy (n=97)	43.5 (30.8-57.2)	44.0 (31.3-57.5)	42.9 (30.3-56.4)	0.8 (0.6-1.1)**
Sesame (n=46)	33.3 (17.2-54.7)	62.4 (42.1-79.1)	52.4 (33.6-70.5)	0.3 (0.2-0.5)*
Vegetable (n=45)	23.9 (8.5-49.0)	24.3 (9.4-49.8)	27.9 (12.0-52.3)	0.4 (0.3-0.8)

NOTE: ***= p<0.001, **= p<0.01, *=p<0.05 (vs. Non-Hispanic)

- 45.4% (95%CI: 41.2-49.6) of Latinos with food allergy reported having multiple food allergies.
- Lifetime asthma prevalence for Puerto Ricans was 15.9% (6.6-33.7) vs. 9.3% (6.2-13.7) in those with Mexican ancestry.
- Convincing Food Allergy was less likely to be seen in Puerto Rican 4.0% (1.9-8.5) vs Mexican ancestry 10.3% (6.9-15.1).



Conclusion

- Our findings suggest that the “Hispanic Paradox” seen in asthma does not extend to food allergy
- No evidence in this cohort for differences in food allergy severity or eliciting foods between Latinos and non-Latino Whites.
- Confirmatory work must be done on larger samples to better understand food allergy in Latino subgroups
- Epinephrine prescriptions are necessary for all individuals with systemic reactions to food allergy and should be prioritized
- Food allergy diagnosis in all populations is paramount

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