



Prevalence of respiratory symptoms in 11-14 year old children with pets in Maltese homes

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Introduction: The Respira study included standardized respiratory questionnaires and clinical exam of children aged 11-14 years in Malta (n=860).

Aims: To identify associations between prevalence of respiratory symptoms and pet ownership amongst children aged 11-14 years in Malta

Methods: 860 questionnaires were collected from parents and analysed comparing prevalence (univariate) amongst pet owners and non-pet owners.

Results: 58.1 % of children had pets. (Figure 1). Children with pets had a higher prevalence of lifetime wheeze (172/500 vs 101/259 p=0.05), wheeze in the last 12 months (152/500 vs 83/360 p=0.11), rhinitis ever (167/500 vs 97/360 p=0.043) and rhinitis last 12 months (152/500 vs 83/360 p=0.02) when compared to no pet ownership. (Figure 2. Table 1) . In a binary logistic model, after correcting for gender, age, socio-economic status, indoor exposure to smoking, and bronchitis in the first year of life, Cat ownership showed an odds ratio of 1.65 (95% CI 1.02-2.68 p=0.041) for wheeze in the last 12 months OR 1.59(95% CI 1.1-2.31, p=0.014, Rhinitis ever OR 1.46 (95% CI 1.01-2.1, p=0.045), Rhinitis last 12 months OR 1.45 (95% CI 1.0-2.1 p=0.05). CAT ownership did not predict Use of Asthma Medication in the previous 12 months OR 0.092 (95% CI 0.56-1.68 p=0.9). Ownership of pet dogs or pet birds, did not predict any of the 5 respiratory symptoms. (Figures 3-7)

Conclusion: Children with pets had a higher prevalence of respiratory symptoms, however in a multivariate model only cat ownership predicted respiratory symptoms and rhinitis, while ownership of dog and bird ownership was not.

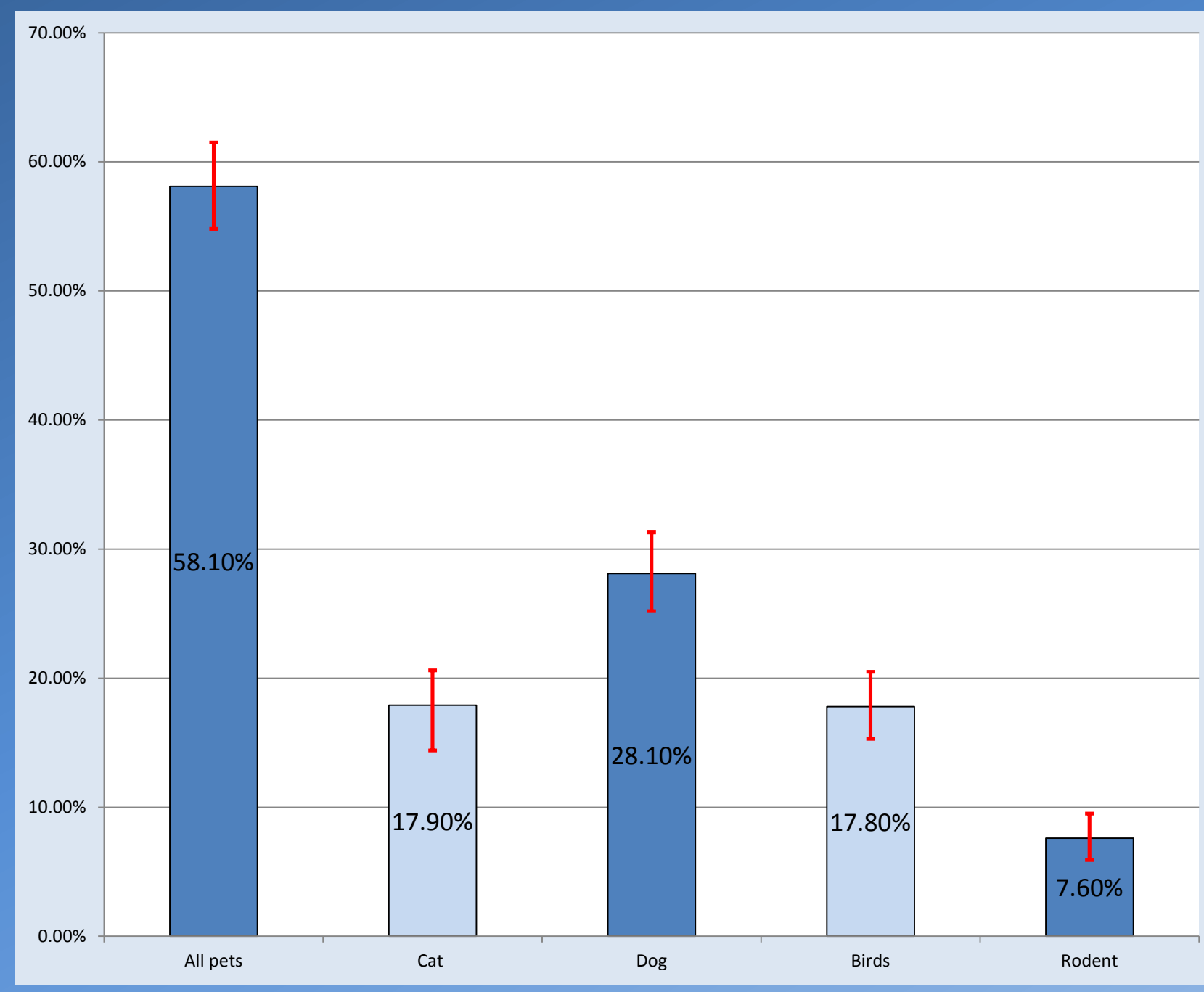


Figure 1. Pet ownership in 11-14 year old children

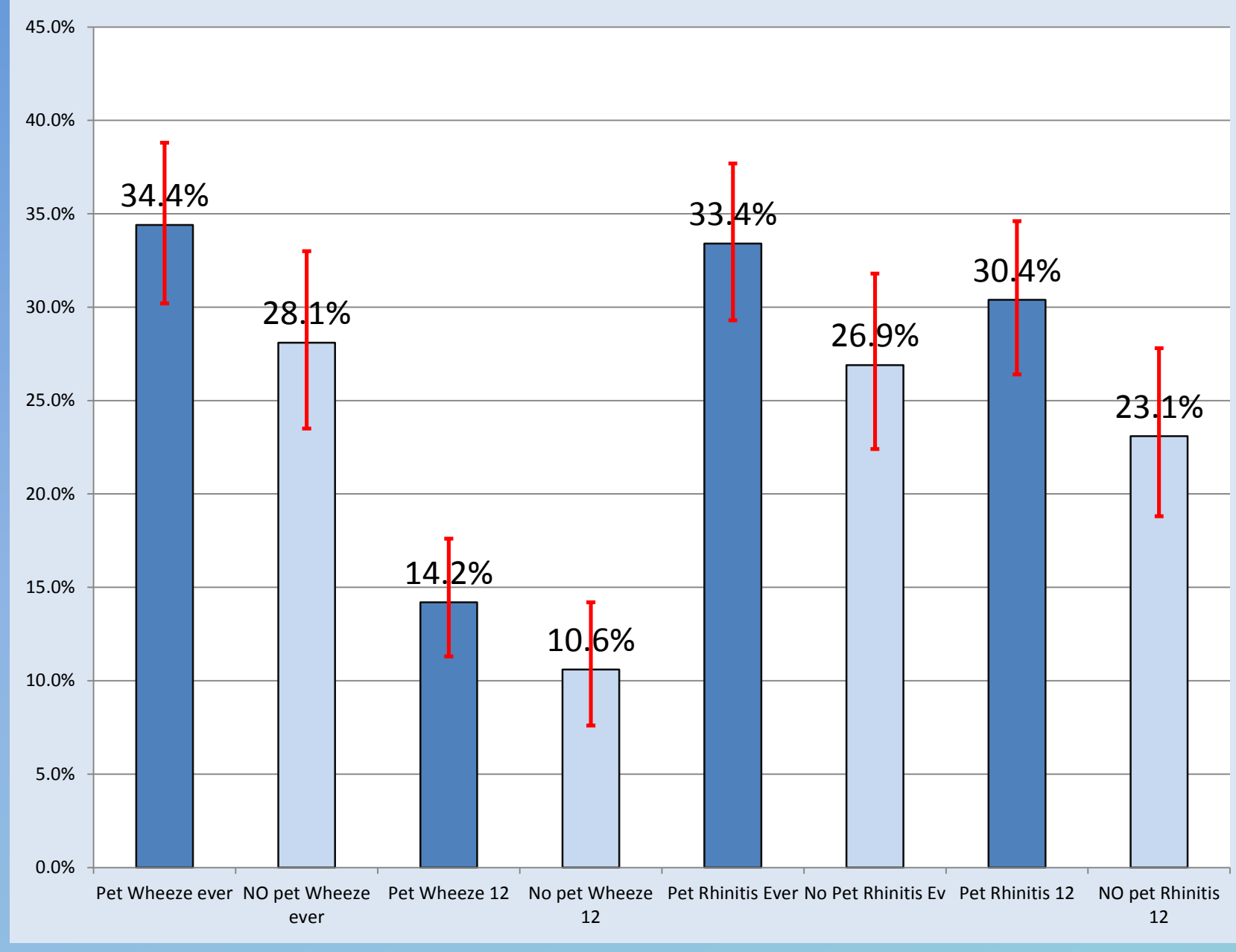


Figure 2. Prevalence of Respiratory symptoms amongst pet and non pet owners

	Pets	No pets	p CHI	p Z	p Fischer
Rhinitis Ever	33.4%	26.9%	0.043	0.04	0.043
Rhinitis 12 months	30.4%	23.1%	0.017	0.015	0.02
Wheeze Ever	34.4%	28.1%	0.049	0.046	0.054
Wheeze 12 months	14.2%	10.6%	0.113	0.105	0.12

Table 1. Statistical tests for univariate analysis

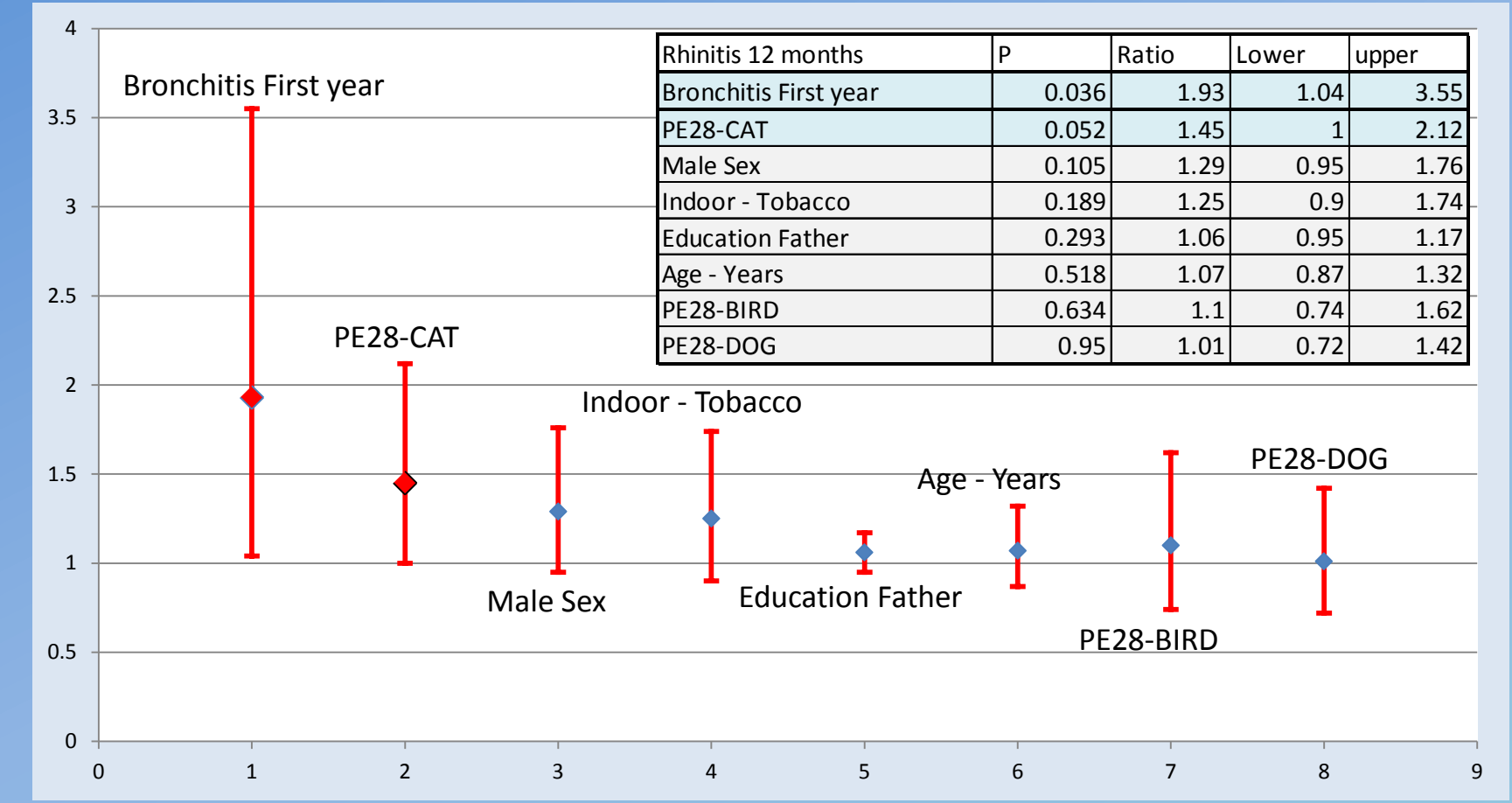


Figure 3. Predictors of Nasal symptoms last 12 months

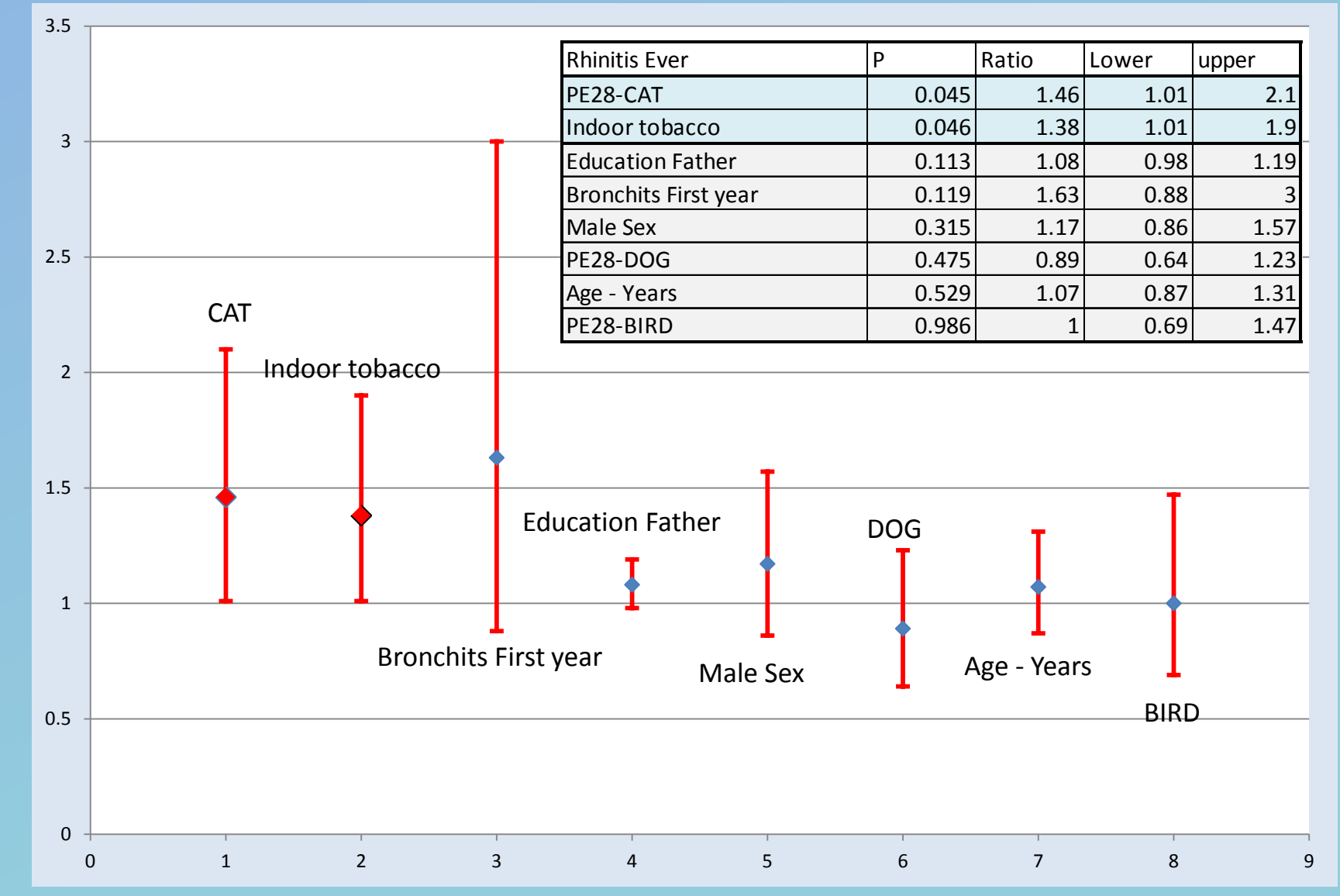


Figure 4. Predictors of Nasal symptoms ever.

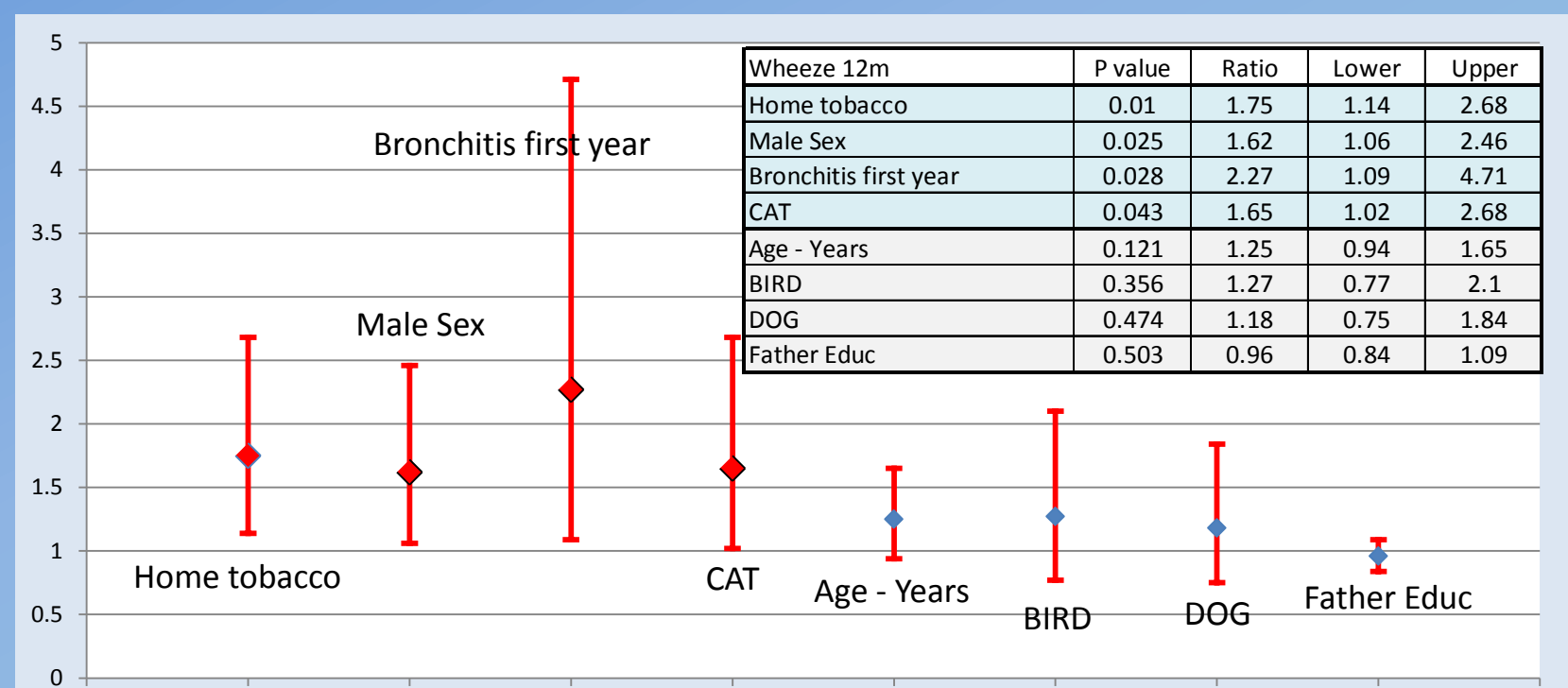


Figure 5 Predictors of Wheeze last 12 months

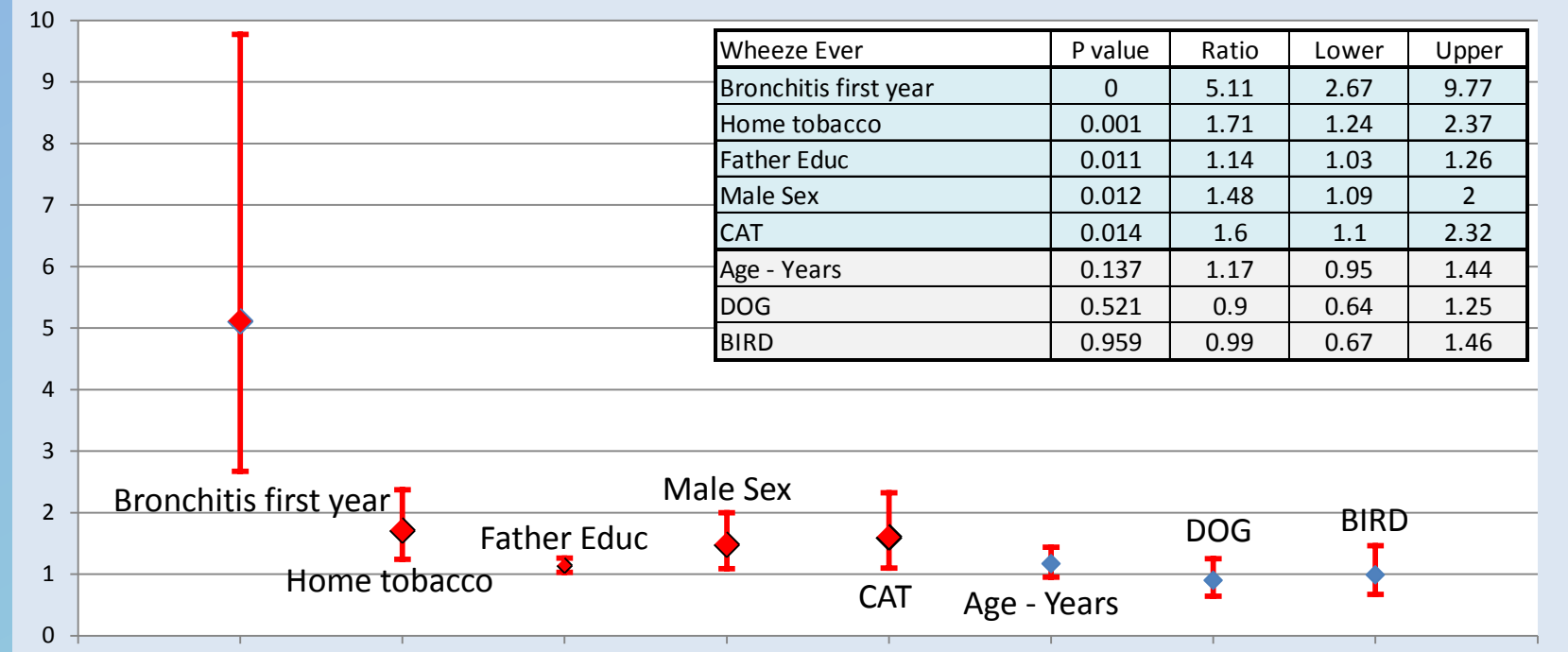


Figure 6. Predictors of Wheeze Ever

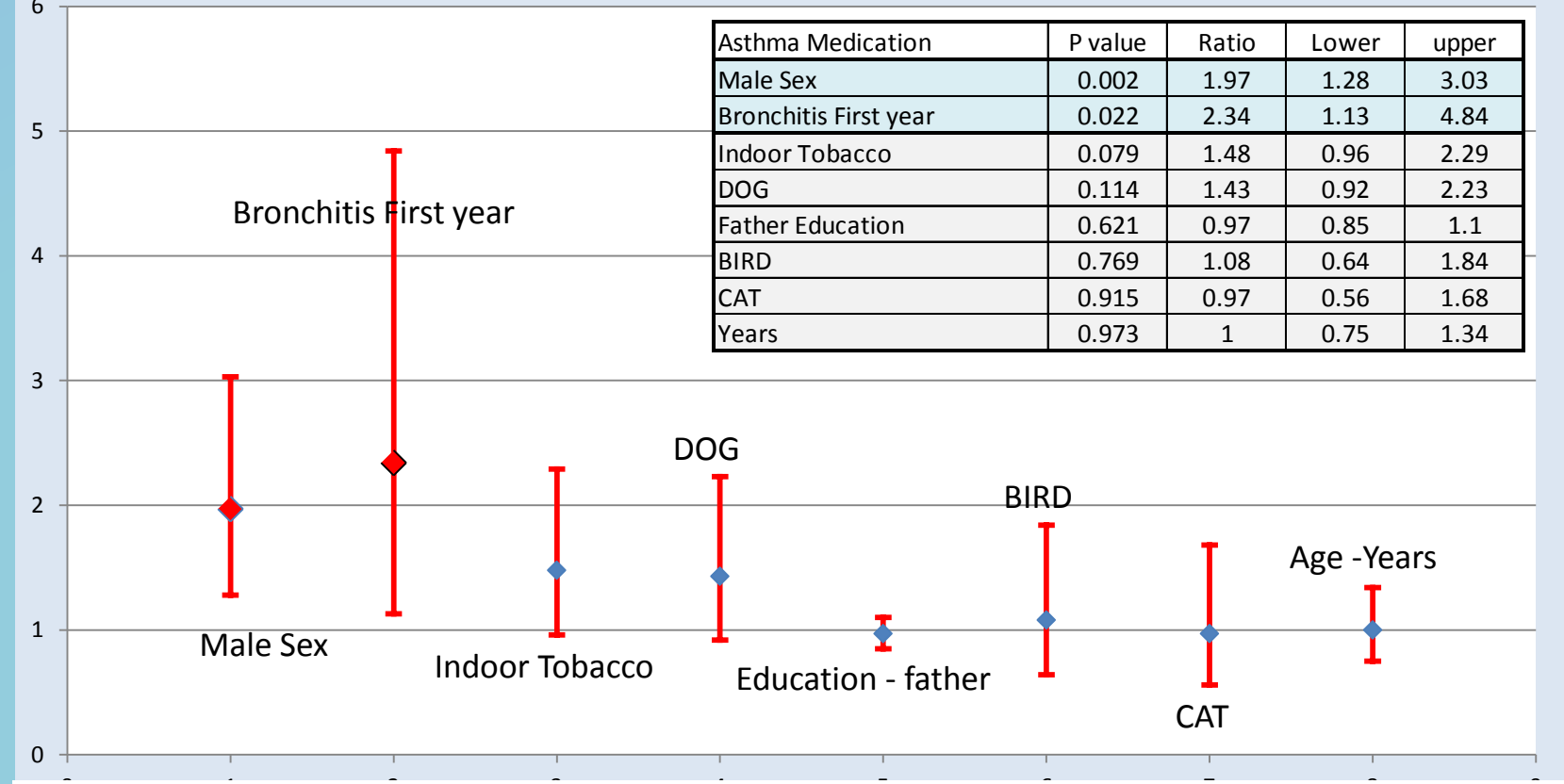


Figure 7. Predictors of Asthma Medication use

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