



Predictors of Headache in Urban and Rural setting from Respiratory Questionnaires in children aged 10 to 15

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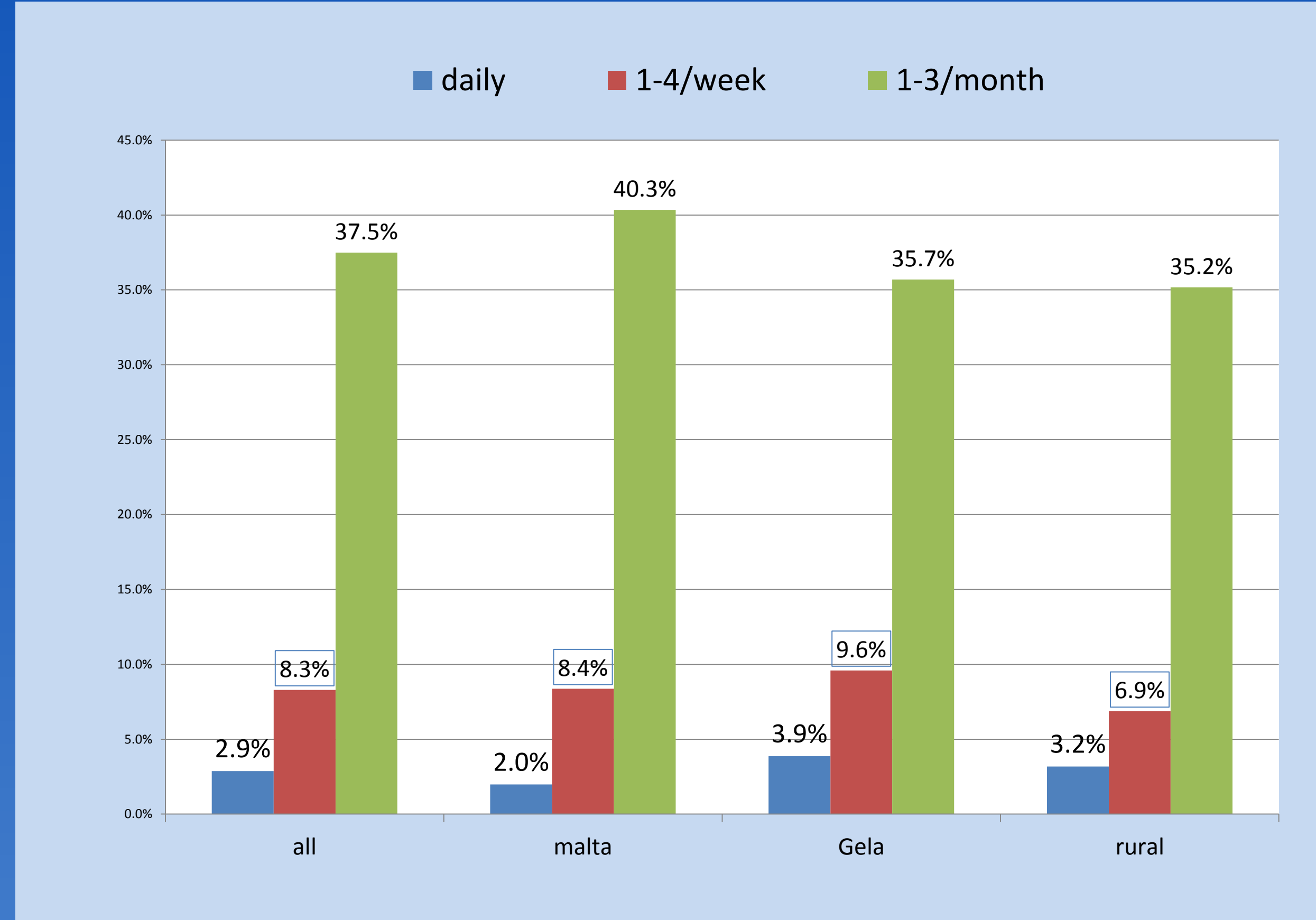
Intro: Headache is a very common complaint detected in children by respiratory questionnaires.

Aim: To determine possible respiratory predictors of headache in children aged 10-15 using a binary regression model.

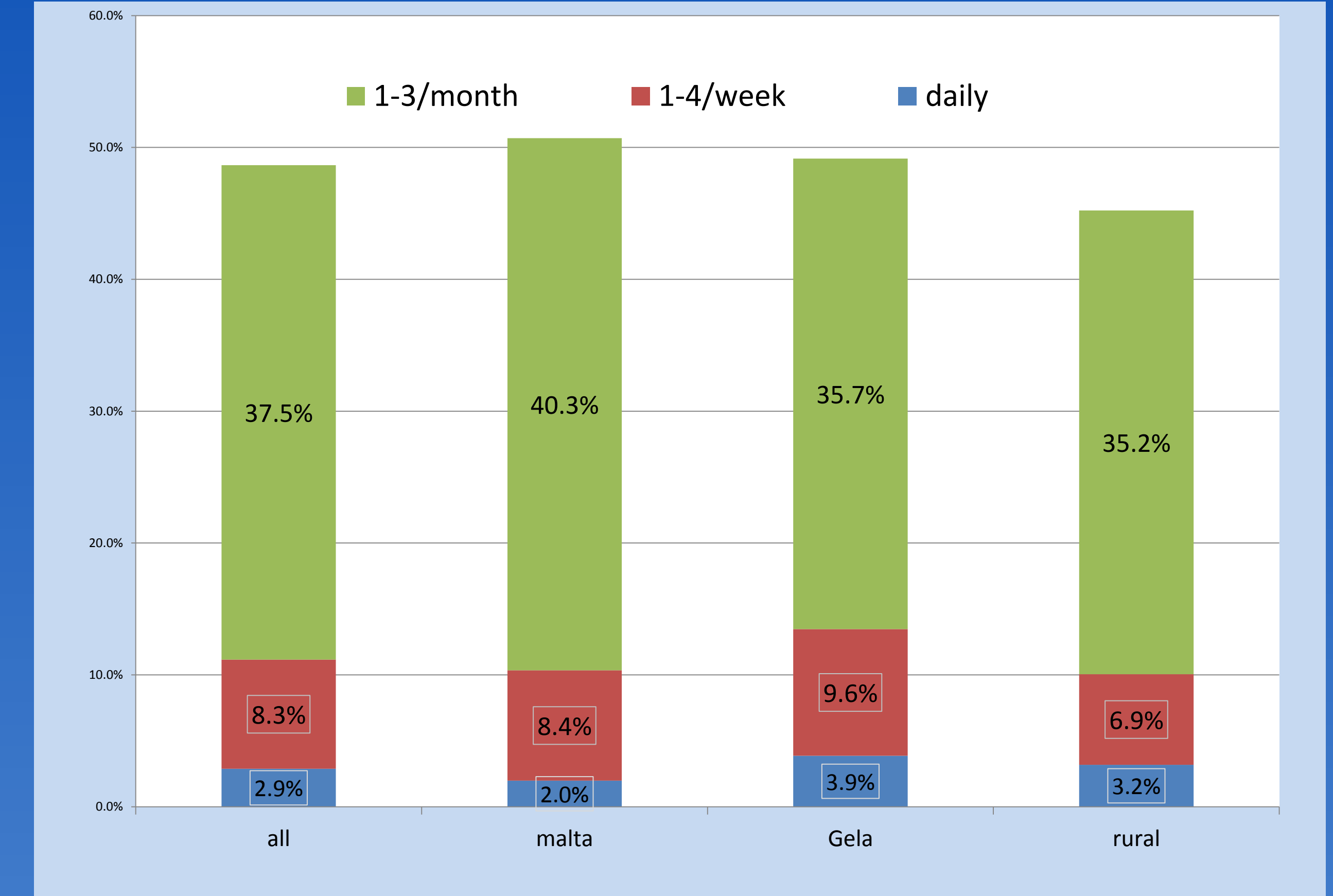
Method: In the RESPIRA study questionnaires were collected from parents of 2051 children aged 10-15, Malta n=860, Gela=594, and rural south Sicily n=597. The question was "During the past three months, has your child had any of the following symptoms? Headache."

Results: 889(48.6%, CI 46.5-50.8) complained of headache, 2.9% daily, 8.3% often, 37.5% sometimes. Binary logistic model predictors were: Nasal symptoms in the last 12 months OR 1.35(95%CI 1.03-1.75, p=0.031), Eye symptoms 12m, 1.63(1.15-2.32, p=0.005), Asthma Medication 12m OR 1.48(1.03-2.14, p=0.036), Nocturnal cough 12m 1.46(1.17-1.8, p=0.001), Male Gender 0.66 (0.55-0.79, p=0.001), Age in years 1.23(1.12-1.35, p=0.001), Dampness or mould in bedroom 1.32(1.01-1.71, p=0.038), quantity of cigarettes smoked in the house on a scale of 0-6, 1.09(1.02-1.17, p=0.016). Other possible predictors, were: Respiratory Infection 1st year of life 1.24(0.99-1.54, p=0.06), diagnosed rhinitis 1.27(0.99-1.63, p=0.06), cat ownership 0.76(0.55-1.05, p=0.09), living close to traffic 1-3, 1.01(1.0-1.02, p=0.09). Living in Malta (p=0.67) or Gela (p=0.64), parent education level (p=0.51) were not significant predictors.

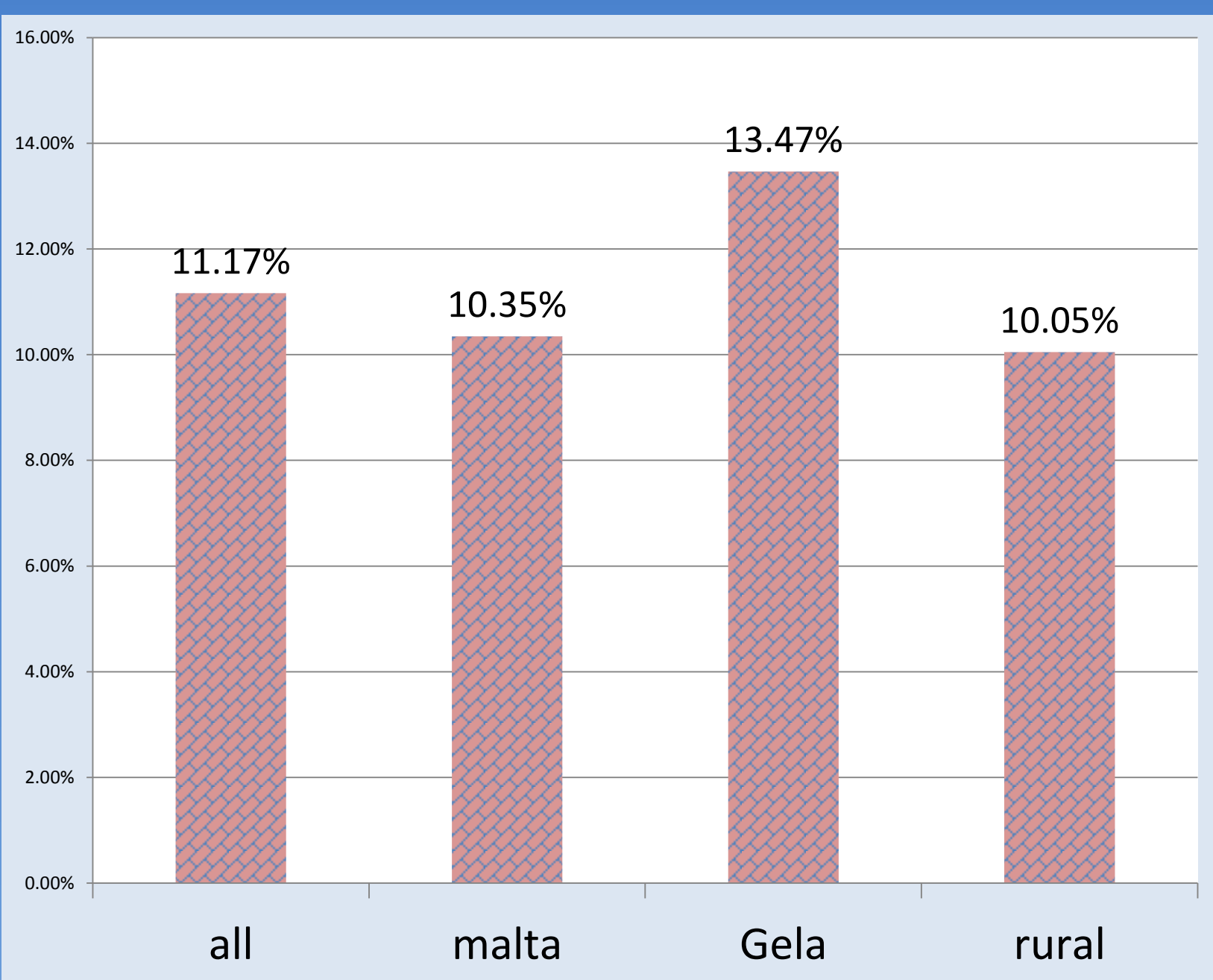
Conclusion: Age, female gender, nasal and eye symptoms, asthma medication, dampness or mould in bedroom and passive smoking at home were the main predictors of headache in 10-15 year old children.



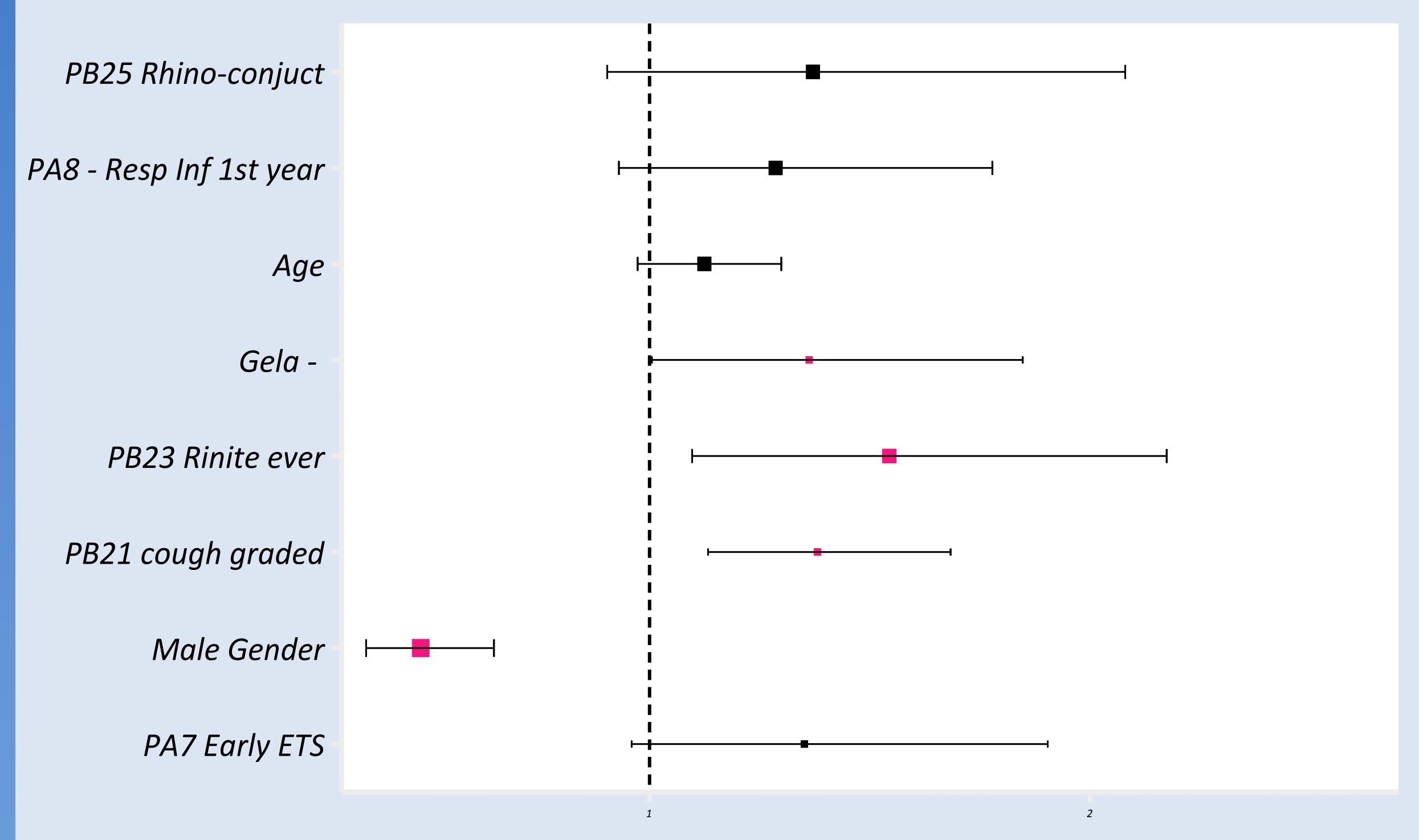
Prevalence rate of Headache by frequency



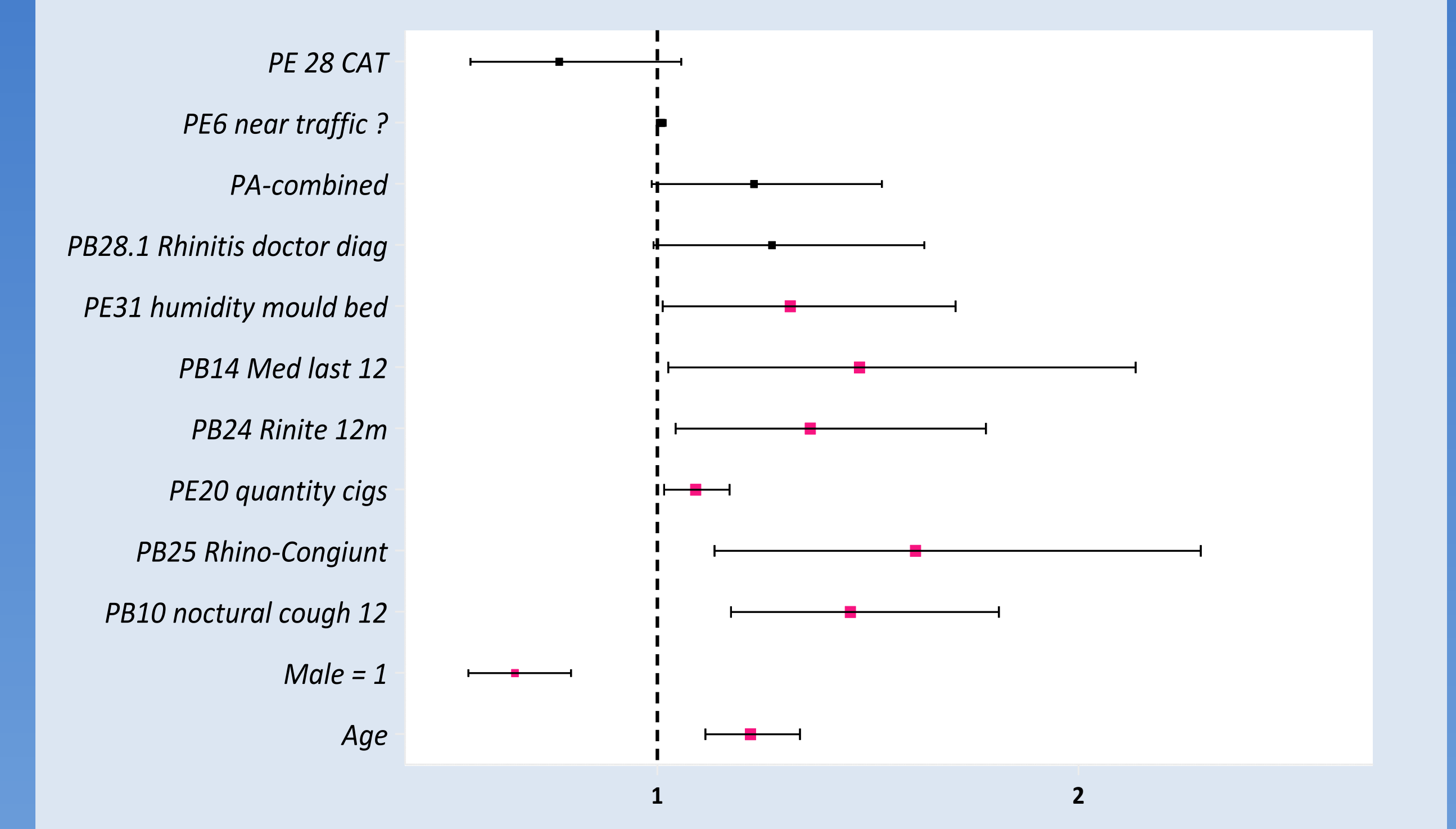
Prevalence rate of any Headache



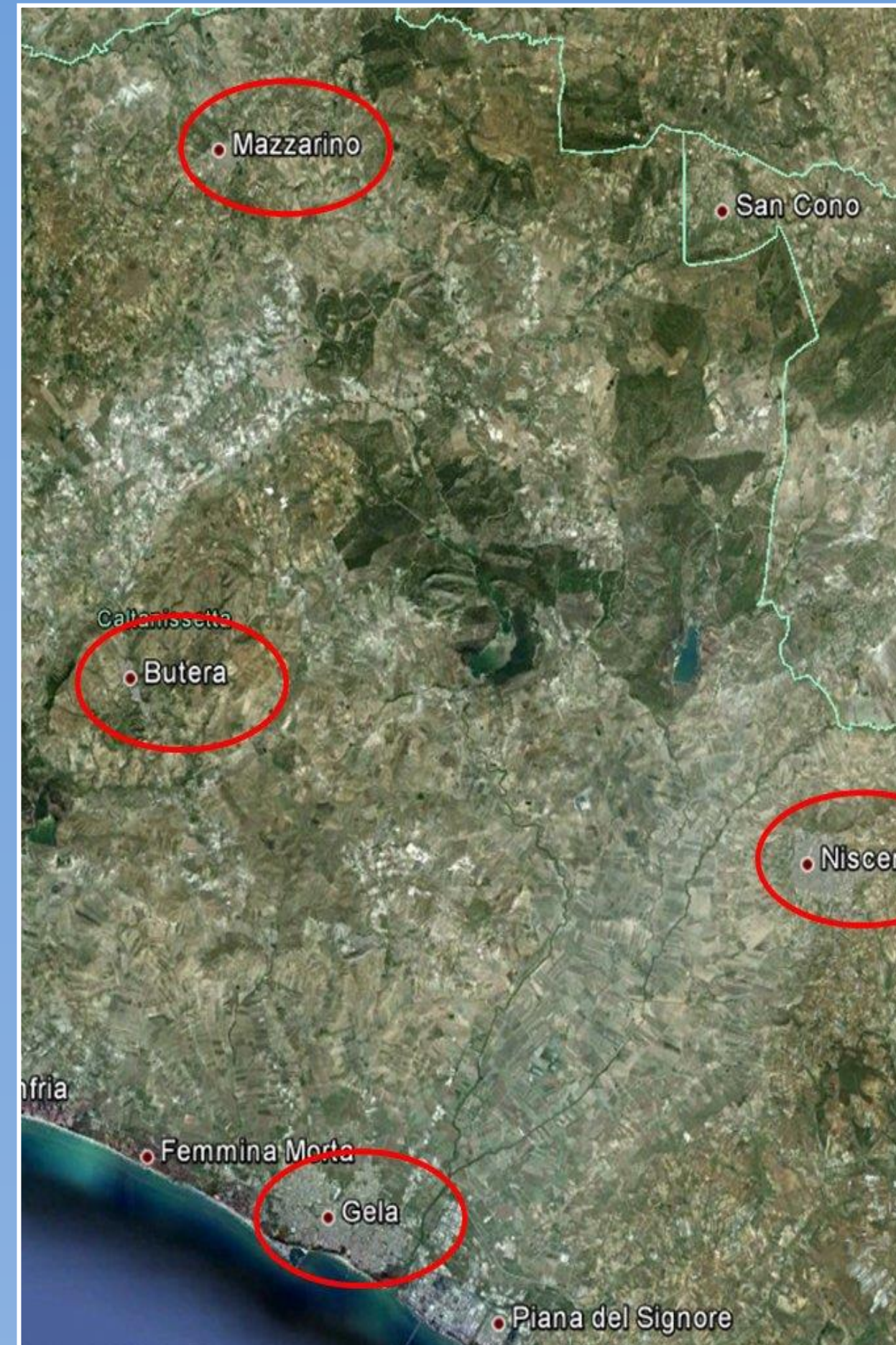
Prevalence rate of frequent Headache



Predictors of frequent Headache



Predictors of any Headache



Key points

1. No Urban rural difference noted
2. Male gender protected against headache
3. Rhinitis symptoms predicted headache
4. Cough predicted headache.
5. Moulds and humidity in the bedroom were independent predictors of headache
5. Passive smoking predicted headache.
6. Use of Asthma Medicine predicted headache but not frequent headache
7. Possible effect of living close to busy traffic.
8. Possible effect of respiratory infection in the first year of life
9. Parent education not a risk factor.

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