Body: Background: The data on the prevalence of tobacco smoking and environmental tobacco smoke (ETS) exposure in Portugal is scarce, especially after the 2008 smoking bans. Aims: We aimed to: 1) estimate the prevalence of exposure to ETS at home and of tobacco smoking in Portugal; 2) identify variables associated with smoking or exposure to ETS. Methods: Nationwide, cross-sectional, population-based telephone survey; 6003 individuals participated. ETS exposure at home was defined as exposure to at least one current smoker (CS) at home. A smoker was someone with ≥15 years smoking at least 1 cigarette per day during a year; a CS smoked in the last month. Results: Exposure to ETS at home was reported by 26.6% (95%CI 25.5-27.7). Age <18 years old (OR=1.57; 95%CI[1.17-2.12]), current asthma (OR=1.69; 95%CI[1.16-2.46]), living in households with ≥3 persons (OR=34.31; 95%CI[4.45-264.57]) and presence of at least one men in the household (OR=6.71; 95%CI[4.33-10.40]) were positively associated with ETS exposure. Nineteen percent (95%CI 18.0-20.0) of the Portuguese population is CS and 17.2% (95%CI 16.2-18.2) are ex-smokers; CS prevalence is higher in males than females (26.5% vs. 12.2%, p<0.001). The odds of being an adult CS was higher for male (OR=8.93; 95%CI[6.10-13.09]), the more educated (OR=6.54; 95%CI[3.97-10.77]), those living in households with ≥3 persons (OR=2.21; 95%CI[1.50-3.27]) and those exposed to ETS at home (14.39 [10.14-20.41]).

Conclusion: Exposure to ETS at home in Portugal was higher than previously reported. Children/adolescents and asthma patients had a higher risk of exposure. The prevalence of tobacco smoking was slightly lower than in previous reports.