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Title: Prevalence of self reported physician diagnosed asthma, chronic obstructive pulmonary disease (COPD) and asthma-COPD overlap syndrome

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Body: The joint distribution of asthma and COPD has not been well described in the general population. We studied the prevalence of self-reported physician-diagnoses of asthma, COPD and asthma/COPD overlap syndrome in the general population. In the Gene-Environment Interactions in Respiratory Diseases study, a postal screening questionnaire, which included questions on physician diagnosed asthma and COPD and respiratory symptoms, was administered in 4 Italian cities to random samples of subjects aged 20-44 (n=9739), 45-64 (n=3480) and 65-84 years (n=1975). The prevalence of diagnosed asthma decreased with age while that of COPD with or without asthma showed an opposite pattern (p<.001). However, the overall prevalence of either asthma or COPD or both was almost constant in the 20-44 and 45-64 age groups: 12.9 vs 12.6% (see table)

Prevalences*of Asthma and COPD

Age	Asthma only	Asthma-COPD overlap synd.	COPD only	Asthma or COPD
20-44	8.1(7.4-8.9)	1.4(1.1-1.8)	3.2(2.8-3.7)	12.9(12.0-13.9)
45-64	4.9(4.0-5.9)	1.9(1.4-2.6)	5.6(4.7-6.7)	12.6(11.2-14.1)
65-84	2.9(2.0-4.3)	3.5(2.4-5.0)	13.0(10.9-15.4)	20.1(17.5-22.9)

*% with 95%CI; adjusted for season, response rate, type of interview.

Subjects with both asthma and COPD had the highest prevalence of respiratory symptoms ($p < .001$) and had more frequent hospitalizations in the previous 3 months ($p < .001$). The risk of reporting a diagnosis of asthma only was significantly higher in young and highly educated people ($p = .002$) while the opposite occurred for COPD with or without asthma ($p < .001$). Subjects with both the diagnoses of asthma and COPD represent a relevant clinical population with more severe and frequent exacerbations.