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Title: Decrease in respiratory symptoms in the Danish furniture industry is associated to a decline in wood dust exposure – Results from two cross sectional studies 5 years apart

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Body: Objective: To investigate associations between wood dust exp. and resp. symptoms in two studies 5 years apart from the same area. Methods: 2,032 woodworkers from 54 plants in study 1 and 1,889 woodworkers from 52 plants in study 2 returned a questionnaire on resp. symptoms, employment and smoking habits. Assessment of wood dust exp. was based on job exposure matrices including factory size, task and personal dust measurements (2,217 in study 1 and 1,355 in study 2). Results: The median (range) of inhalable dust conc. was 0.8 (0.4-1.6)mg/m^3 in study 1 and 0.6 (0.3-1.1)mg/m^3 in study 2. The prev. of selfrep. asthma was higher, but the prev. of resp. symptoms were lower in study 2 vs. study 1.

Prevalence and unadjusted OR of respiratory symptoms

	Prevalence % (n)		OR (95% CI)
	Study 1	Study 2	
Ever asthma	6.2 (120)	8.2 (149)	1.35 (1.10-1.69)
Wheeze ever	20.2 (399)	17.8 (328)	0.85 (0.73-0.99)
Daily Coughing	32.8 (637)	27.9 (507)	0.79 (0.69-0.90)
Chronic Bronchitis	9.5 (166)	7.5 (125)	0.78 (0.62-0.97)
Any Nose symptom	48.8 (956)	42.8 (788)	0.78 (0.70-0.88)

In adj. logistic regression analyses wood dust exposure explained the difference in symptom prevalence between study 1 and study 2, but no effect was found for selfrep. asthma. No influence of sex, smoking and age was seen.

Conclusion: An association between respiratory symptoms and wood dust exposure was confirmed.