

Supplement Table 4 Association between the grandmother's smoking when pregnant with the mother and asthma development in the grandchild: results from complete case analyses sensitivity analyses

<b>Outcome</b>	<b>Exposure</b>	<b>n, total</b>	<b>n, cases</b>	<b>Crude RR (95% CI)</b>	<b>Model 1 adj.RR (95% CI)</b>	<b>Model 2 adj. RR (95% CI)</b>	<b>Model 3 adj. RR (95% CI)</b>	<b>Model 4 adj. RR (95% CI)</b>
Asthma at 36 months (N=53,169)	Grandmother smoked during pregnancy							
	No	34,460	1,843	1	1	1	1	1
	Yes	12,104	803	1.24 (1.14, 1.34)	1.17 (1.08, 1.27)	1.14 (1.05, 1.24)	1.15 (1.05, 1.24)	1.13 (1.03, 1.24)
	Don't know	4,933	307	1.16 (1.03, 1.30)	1.13 (1.00, 1.27)	1.10 (0.98, 1.24)	1.11 (0.98, 1.24)	1.10 (0.96, 1.26)
Asthma at 7 years (N=25,394)	Grandmother smoked during pregnancy							
	No	16,301	759	1	1	1	1	1
	Yes	5,756	348	1.30 (1.15, 1.48)	1.22 (1.08, 1.39)	1.21 (1.06, 1.37)	1.21 (1.07, 1.37)	1.24 (1.08, 1.43)
	Don't know	2,276	129	1.22 (1.02, 1.46)	1.18 (0.98, 1.41)	1.16 (0.97, 1.39)	1.17 (0.97, 1.40)	1.23 (1.01, 1.50)
Use of asthma medications at 7 years based on prescription registry (N=45,607)	Grandmother smoked during pregnancy							
	No	28,821	1,281	1	1	1	1	1
	Yes	11,367	627	1.24 (1.13, 1.37)	1.17 (1.06, 1.29)	1.15 (1.04, 1.26)	1.14 (1.03, 1.25)	1.13 (1.03, 1.25)
	Don't know	4,448	226	1.14 (0.99, 1.31)	1.09 (0.95, 1.26)	1.07 (0.93, 1.23)	1.07 (0.93, 1.22)	1.07 (0.93, 1.23)

Model 1 adjusted for maternal age, maternal parity, maternal education, maternal salary and maternal pre-pregnancy BMI.

Model 2 adjusted for maternal age, maternal parity, maternal education, maternal salary, maternal pre-pregnancy BMI and maternal asthma.

Model 3 adjusted for maternal age, maternal parity, maternal education, maternal salary, maternal pre-pregnancy BMI and maternal asthma and maternal smoking during pregnancy and the first 6 months of the child's life.

Model 3 adjusted for maternal age, maternal parity, maternal education, maternal salary, maternal pre-pregnancy BMI and maternal asthma, maternal smoking during pregnancy and the first 6 months of the child's life, paternal asthma and paternal smoking during pregnancy and the first 6 months of the child's life. This sensitivity analysis was conducted among children with information from the paternal follow-up

questionnaire: 42,664 for current asthma at 36 months, 20,463 for current asthma at 7 years and 37,321 for dispensed asthma medications at 7 years in the prescription registry.

Multiple imputation of missing covariate information by chained equations conducted for all measures of association presented. There were a total of 1,069 children in the analysis of asthma at 36 months, 535 children in the analysis of asthma at 7 years and 971 children in the analysis of use of asthma medication for whom we imputed missing information on the grandmother's smoking status. Furthermore, missing information on asthma status was imputed for 610 children with regard to current asthma at 36 months and 540 children with regard to current asthma at 7 years. For all other covariates, the amount of missing information that was imputed was less than 1.5%.

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Model 1 adjusted for maternal age, maternal parity, maternal education, maternal salary and maternal pre-pregnancy BMI

Model 2 adjusted for maternal age, maternal parity, maternal education, maternal salary, maternal pre-pregnancy BMI and maternal asthma

Model 3 adjusted for maternal age, maternal parity, maternal education, maternal salary, maternal pre-pregnancy BMI and maternal asthma and maternal smoking during pregnancy and the first 6 months of the child's life

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Multiple imputation of all missing covariate information conducted using chained equations