

Supplement Table 2 Association between the grandmother's smoking when pregnant with the mother and asthma development in the grandchild: results from complete case analyses

| Outcome | Exposure | n, total | n, cases | Crude RR(95% CI) | Model 1 adj.RR(95% CI) | Model 2 adj. RR(95% CI) |
|---|-------------------------------------|-----------------|-----------------|-------------------------|-----------------------------------|------------------------------------|
| Asthma at 36 months (N=53,169) | Grandmother smoked during pregnancy | | | 1 | 1 | 1 |
| | No | 34,460 | 1,843 | 1.24 (1.14, 1.35) | 1.14 (1.05, 1.24) | 1.14 (1.05, 1.24) |
| | Yes | 12,104 | 803 | 1.16 (1.03, 1.31) | 1.10 (0.97, 1.24) | 1.09 (0.97, 1.23) |
| | Don't know | 4,933 | 307 | | | |
| Asthma at 7 years (N=25,394) | Grandmother smoked during pregnancy | | | 1 | 1 | 1 |
| | No | 16,301 | 759 | 1.30 (1.15, 1.47) | 1.22 (1.07, 1.38) | 1.23 (1.08, 1.40) |
| | Yes | 5,756 | 348 | 1.22 (1.01, 1.46) | 1.19 (0.99, 1.44) | 1.20 (1.00, 1.45) |
| | Don't know | 2,276 | 129 | | | |
| Use of asthma medications at 7 years based on prescription registry (N=45,607) | Grandmother smoked during pregnancy | | | 1 | 1 | 1 |
| | No | 28,821 | 1,281 | 1.24 (1.13, 1.36) | 1.14 (1.04, 1.26) | 1.14 (1.03, 1.25) |
| | Yes | 11,367 | 627 | 1.14 (1.00, 1.31) | 1.07 (0.92, 1.23) | 1.06 (0.92, 1.23) |
| | Don't know | 4,448 | 226 | | | |

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

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

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 with missing information on the grandmother's smoking status. Furthermore, missing information on asthma status was present 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 was less than 1.5%. The amount of individuals with missing information on one or more covariates in the multivariable analyses was approximately 10%.