**Table 1: Study characteristics**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author,**  **Year,**  **County** | **Study,**  **study type** | **N cases include in our IPD** | **Children’s age in years**  **(mean ± SD)** | **Continuous assessment of number of cigarettes** | **Assessment of paternal smoking** | **Potential mediators** | | **Potential confounder variables assessed** | | | | **Study quality (assessed with NIH toola** |
|  |  |  |  |  |  | **SGA/LGA** | **Pre-term** | **Breastfeeding** | **Maternal BMI after pregnancy** | **Maternal BMI before pregnancy** | **Maternal education** |  |
| **Møller,**  **2014**  Denmark | Danish National Birth Cohort,  prospective study | 44544 | 7.0 **±** 0.3 | yes | yes | yes, defined in study population, as <10th respectively >90th percentile adjusted for gestational age and gender | yes | yes (≥1month) | yes | yes | yes, combination of education and occupation (low, medium, high)b | fair |
| **Bettiol,**  **2010**  Brazil | Ribeirão Preto birth cohort,  prospective study | 723 | 10.6 **±** 0.3 | yes | yes | yes, based on the Williams curve (Williams et al., 1982) | yes | yes (≥1month) | no | no | yes, at least 9-10 years school (assessed in categories) | good |
| **Da Silva,**  **2010**  Brazil | São Luís birth cohort | 672 | 8.2 **±** 0.3 | yes | yes | yes, based on the Williams curve (Williams et al., 1982) | yes | yes (≥1month) | yes | no | yes, at least 9-10 years school (assessed in categories) | good |
| **Gilman,**  **2008**  United States | Collaborative Perinatal Project (CPP),  prospective study | 12516 | Ca. 7 | yes | no | yes, based on United States percentiles  (Talge, 2014) | yes | no | yes | no | yes, at least 10 years school | good |
| **Grzeskowiak,**  **2015**  Australia | Women’s and Children’s Health Network,  prospective study | 6877 | 4.7 **±** 0.3 | yes | no | yes, calculated with generic birth weight centile calculator from gestation.net | yes | yes (any breastfeeding yes/no) | yes | no | no | good |
| **Howe,**  **2012**  United Kingdom | ALPAC,  prospective study | 9127 | 15 **±** 3.6 | yes | yes | yes, based on British percentiles (Cole 1998) | yes | yes (≥1month) | yes | yes | yes, at least A level | good |
| **Boerschmann,**  **2010**  Germany | German GDM offspring study,  prospective study | 492 | 13.5 **±** 4.6 | yes | yes | yes, based on German percentiles (Voigt, 1996) | yes | yes (Fully breastfed ≥3 months) | yes | no | no | fair, because of limited external validity |
| **Jones,**  **1999**  Australia | “live births in Tasmania”,  prospective study | 390 | ca. 8 | no, categorical assessment “null”  “1-10”,  “11-20”,  “21-40”,  “>40” (cig. per day) | no | Yes, based on Australian percentiles (Dobbins 2012) | yes | yes (≥1month) | yes | yes | yes, completed high school | fair, because of limited external validity |
| **Koshy,**  **2010**  United Kingdom | “15 primary schools in Merseyside”,  retrospective study | 1829 | 7.9 **±** 1.9 | yes | yes | only sga, IUGR computed | yes | yes (any breastfeeding yes/no) | no | no | yes, secondary education and above | fair |
| **Oken,**  **2005**  United Statesc | Project Viva,  prospective study | 970 | 7.9 **±** 0.8 | no, categorical assessment “Never smoker”, “<1”, “1-4”, “5-14”, “15-24”, “≥25” (cig. per day) | no | yes, based on US percentiles (Oken, 2003) | yes | yes (≥1month) | yes | yes | yes, completed high school | good |
| **Syme,**  **2010**  Canada | Saguenay Youth Study (SYS),  retrospective cohort study of prenatal exposure to maternal cigarette smoking | 478 | 13.7 **±** 1.2 | yes | yes | yes, based on US percentiles  (Talge, 2014) | yes | yes (total duration in months) | yes | yes | yes, completed high school | good |
| **Sharma,**  **2008**  United States | Prevention’s Pregnancy Nutrition Surveillance System (PNSS),  prospective study | 71270 | 3.8 **±** 0.5 | yes | no | yes, based on United States percentiles  (Talge, 2014) | yes | yes (any breastfeeding yes/no) | yes | yes | yes, ≥12 years school | good |
| **Thiering,**  **2011**  Germany | GINI LISA,  prospective study | 6323 | 13.0 **±** 3.9 | yes | no | yes, using German percentiles (Voigt, 1996) | yes | yes (≥1 month exclusively breastfed) | yes | yes | yes, ≥10 years school | good |
| **Prabhu,**  **2010**  United Kingdom | SEATON,  prospective study | 841 | 7.7 **±** 2.7 | yes | yes | yes, using British percentiles (Cole 1998) | yes | yes, (breastfeeding at 4th month after birth) | no | yes | yes (age at leaving education at least 16) | good |
| **Widerøe,**  **2003**  Norway | Trondheim and Bergen (Norway), and Uppsala (Sweden),  prospective study | 515 | 5.3 **±** 0.2 | yes | no | yes, defined in study population, as <10th respectively >90th percentile adjusted for sex, parity | yes | yes (≥1.5 months) | yes | no | yes, at least 9 years school + 1-2 years further education | good |
| **Von Kries,**  **2002**  Germany | “six Bavarian communities”,  retrospective study | 5594 | 6.2 **±** 0.4 | no, categorical assessment “no cigarettes”, “1-10”, “11-20”, “>20” (cig. per day) | no | yes, using German percentiles (Voigt, 1996) | yes | yes (≥1 months fully breastfed) | no | yes | yes, at least >9 years school | fair |

a Detailed quality assessment in online supplement Table S1

b Socio-occupational status based on the current or most recent job within 6 months, or, if the woman was attending school, on the type of education. Women in training were categorized according to the type of education they headed for. The category “high” included women in management jobs or in jobs requiring higher education (generally more than 4 years beyond high school). Office workers, service workers, skilled manual workers, and women in the military constituted the “middle” category. The “low” category included unskilled workers and unemployed women. Women with no connection to the labour market (not in training, not disability-retired, not house wife, not on public support) were also categorized in the “low” category.

c the most recent outcome data (mid-childhood) assessed in that study was used (not included in that publication)