## Supplementary

**Table S1** Quality Assessment of Included Studies using the NOS tool[#]

| Author/year/country | Overall quality assessment | Selection | | | | Comparability | Outcome | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Representativeness of the exposed cohort | Selection of the non-exposed cohort | Ascertainment of exposure | Demonstration that outcome of interest was not present at start of study | Comparability of cohorts on the basis of the design or analysis | Assessment of outcome | Follow-up was long enough for outcomes to occur | Adequacy of follow-up of cohorts |
| Berger K/2019/USA | 8 | * | * | * | * | * | — | * | * |
| Buckley JP/2018/USA | 8 | * | * | * | * | * | — | * | * |
| Vernet C/2017/France | 8 | * | * | * | * | * | — | * | * |
| Wang IJ/2016/China | 8 | * | * | * | * | * | — | * | * |
| Gascon M/2015/Spain | 8 | * | * | * | * | * | — | * | * |
| Spanier AJ/2014/USA | 8 | * | * | * | * | * | — | * | * |
| Kim KN/2014/Korea | 8 | * | * | * | * | * | — | * | * |
| Donohue KM/2013/USA | 9 | * | * | * | * | * | * | * | * |
| Spanier AJ/2012/USA | 8 | * | * | * | * | * | — | * | * |

[#], the New Castle-Ottawa Scale for cohort studies. The score ranges from 0 to 9.


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**Table S2** Limitations of included studies

| Source | limitations |
|---|---|
| Berger K (2019) | The researchers cannot differentiate atopic and nonatopic cases, some of the probable asthma cases may be nonatopic.<br>The result cannot generalize to other population.<br>The study is based on small sample size |
| Buckley JP (2018) | The researchers assess exposure based on a spot urine samplecollected during the third trimester, may cause misclassified exposure.<br>The result lack of information on postnatal exposure. The study did not have adequate sample size.<br>The study lack of clinical confirmation of outcomes.<br>The researchers failed to follow up and this may lead to selection bias. The result cannot generalize to other population.<br>Sample BPA level may not represent recent exposure |
| Vernet C (2017) | The researchers were unable to differentiate bronchiolitis and bronchitis occurrences. The result cannot generalize to girls.<br>There is limited sample size.<br>The study did not consider the well-known wheezing phenotypic heterogeneity. The single sample contributes to exposure misclassification.<br>There is no information on postnatal exposures |
| Wang IJ (2016) | The exposure based on a spot urine sample collected during the third trimester, may cause misclassified exposure .<br>Lack of data on prenatal BPA exposure and cross section design may limit conclusion.<br>There is potential selection bias |
| Gascon M (2015) | The researchers failed to follow up |
| Spanier AJ (2014) | A spot urine sample may cause misclassified exposure.<br>Lung function assessment, FEV1, which cannot be available for all the children participated in the study ,cannot predict future<br>lung function and distinguish the effects of BPA.<br>The children who can provide FEV1 result have poorer lung function than children's as reference sample. Parent-report outcomes lead to under or over reported wheeze.<br>Confounders influence the generalizability of the results.<br>Samples recruited in the study were limited to English speaking families. Concurrent exposure may affect results |
| Kim KN (2014) | The study is on the basis of small sample size. The result cannot be generalized. |
| Donohue KM (2013) | The exposure based on a spot urine sample collected during the third trimester, may cause misclassified exposure.<br>Unmeasured confounding may affect the results.<br>There is wheeze outcome misclassification because of miss data. The researchers did not use bronchial provocation testing |
| Spanier AJ (2012) | The study cannot place the three maternal measurements and the three creatinine concentrations in the same analysis.<br>BPA concentrations is changing over time, the collected sample may cause exposure classification.<br>Parent-report outcomes lead to under or over reported wheeze. The sample is not a random sample.<br>There was differential attrition in the study |


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**Table S3** Publication bias of each subgroup using Stata SE12.0

| Subgroup | Included datas | Begg's test | Egger's test |
|---|---|---|---|
| Prenatal BPA-asthma | 5 | 1 | 0.793 |
| Prenatal BPA-wheeze | 5 | 0.592 | 0.528 |
| Prenatal BPA-gestation | 2 | 1 | 0.517 |
| Postnatal BPA-asthma | 3 | 0.133 | 0.056 |
| Postnatal BPA-wheeze | 3 | 0.806 | 0.317 |

All studies were without publication bias (P>0.05).

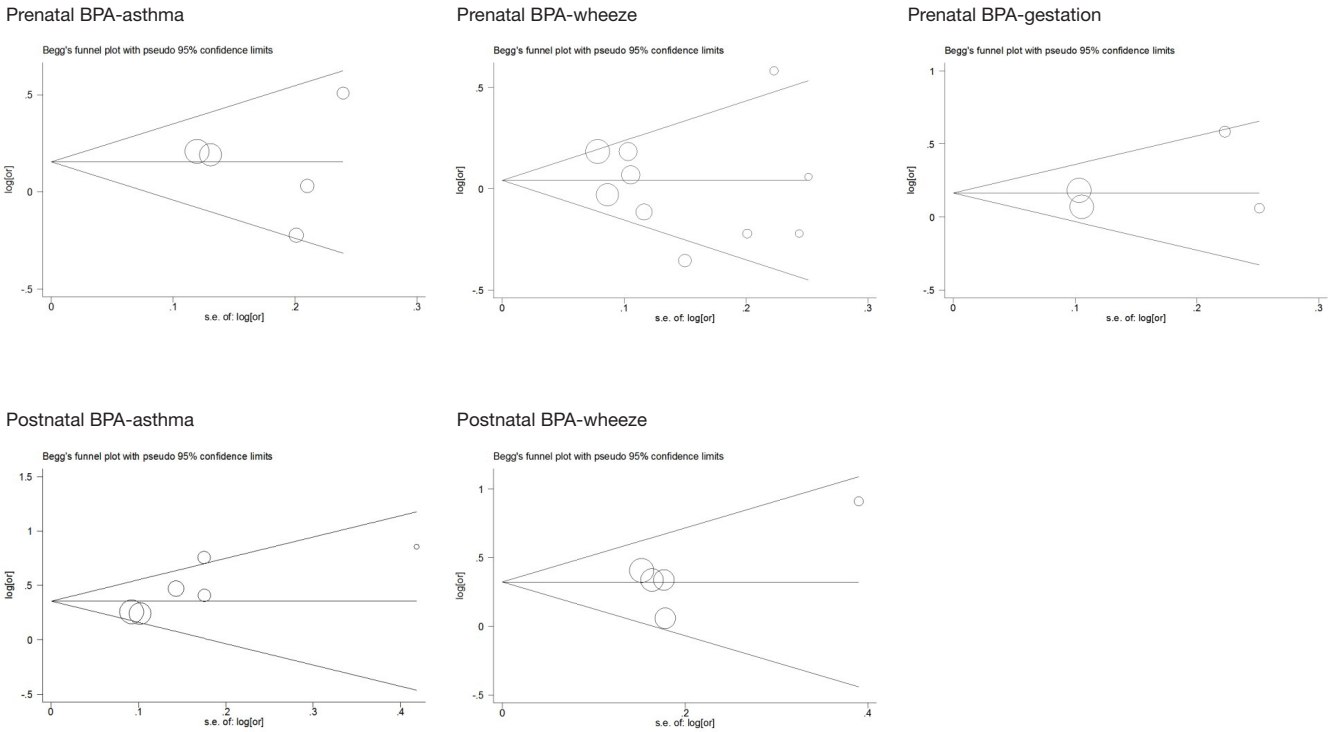


**Figure S1** Begg's test of each included studies in all meta-analysis.


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