### Table S1: Quality Assessment of Included Studies using the NOS tool

| Author/year/country | Overall quality assessment | Representativeness of the exposed cohort | Selection | 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.
| Source                  | Limitations                                                                                                                                                                                                                                                                                                                                 |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Berger K (2019)        | The researchers cannot differentiate atopic and nonatopic cases, some of the probable asthma cases may be nonatopic. The result cannot generalize to other population. The study is based on small sample size                                                                                                                                                                         |
| Buckley JP (2018)      | The researchers assess exposure based on a spot urine sample collected during the third trimester, may cause misclassified exposure. The result lack of information on postnatal exposure. The study did not have adequate sample size. The study lack of clinical confirmation of outcomes. The researchers failed to follow up and this may lead to selection bias. The result cannot generalize to other population. 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. There is limited sample size. The study did not consider the well-known wheezing phenotypic heterogeneity. The single sample contributes to exposure misclassification. 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. Lack of data on prenatal BPA exposure and cross section design may limit conclusion. 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. Lung function assessment, FEV1, which cannot be available for all the children participated in the study, cannot predict future lung function and distinguish the effects of BPA. 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. Confounders influence the generalizability of the results. 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. Unmeasured confounding may affect the results. 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. BPA concentrations is changing over time, the collected sample may cause exposure classification. Parent-report outcomes lead to under or over reported wheeze. The sample is not a random sample. There was differential attrition in the study |
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.